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Criminal Mutilation of the Human Body in Sweden—A Thirty-Year Medico-Legal and Forensic Psychiatric Study

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ABSTRACT: During the 30-year period 1961–1990, a total of 22 deaths with criminal mutilation/dismemberment of the human body were registered in Sweden. The mutilations occurred in time clusters, mostly during the summer and winter periods, and increased during the three decades, with incidence rates of 0.05, 0.1, and 0.125 per million inhabitants and year, respectively. Mutilation was noted 6.6 times more often in large urban areas than in the rest of Sweden. Defensive mutilation, in order to get rid of the corpse or make its identity more difficult, was noted in ten instances, aggressive mutilation following outrageous overkilling in four, offensive mutilation (lust murder) in seven, and necromanic mutilation in one instance. In the last-mentioned case the cause of death was natural, while all deaths in the first three groups were homicidal, or homicide was strongly suspected.

All perpetrators were males, in six instances assisted by other persons. In more than half of the cases the perpetrator's occupation was associated with application of anatomical knowledge, e.g., butcher, physician, veterinary assistant, or hunter. The perpetrators of the defensive and aggressive mutilations were mostly disorganized, i.e., alcoholics or drug users with previous psychiatric contacts and criminal histories, while the lust murderers were mostly organized, with a history of violent crimes (including the ''serial killing'' type), drug abuse and mental disorders with anxiety and schizophrenia, in that order to a diminishing degree. There were differences in mode of mutilation, depending on whether the mutilation was carried out by a layman, a butcher, or a physician. In only one case was the perpetrator convicted for the mutilation act itself; in the remaining instances the manslaughter, as a more serious crime, assimilated the mutilation. When the mutilation made it impossible to establish the cause of death, the perpetrators, despite strong circumstantial evidence indicating murder, were acquitted.

KEYWORDS: forensic science, forensic pathology, forensic psychiatry, mutilation, Sweden, victims, perpetrators

Mutilation of the human body is an ubiquitous phenomenon documented from ancient times. Ritual mutilation of humans connected with religious sacrifice is extremely rare in primitive cultures, but is more common within higher forms of religion and has occurred among all Indo-European people on a certain cultural level (1). In the time of the Roman Empire, mutilation was practiced, for example, by Octavius Caesar Augustus, adopted son of the great Julius Caesar. When he had conquered Perusia, he executed large numbers of the enemy and offered their bodies as sacrifices on the altar that had been built to the honor of Julius Caesar (2). Hamlet (Amleth), prince of Denmark, on whom Shakespeare based his play, killed his uncle's (the king's) spy, Shakespeare's Polonius, and is said to have got rid of the body by cutting it into pieces and throwing them to the pigs (3). In 1792, the King of Sweden, Gustaf III, was assassinated by Captain Johan Jacob Anckarström (4). Anckarström was executed by decapitation and at the same time his right hand was chopped off. The body was then dismembered and the head and right hand were placed on a stake in a public place as a warning to evildoers.

There are numerous modern studies, mostly detailed case reports, supplying evidence of one of the darkest traits that can occur in the human being (2,5–23), while surveys covering acts of mutilation in a whole country over a long period of time are more sparse (24–29).

During the past decades considerable research has been undertaken, especially in the U.S., in attempts to elucidate the patterns and underlying motives of serial and sex-related murders which seldom include mutilation of the victim, as well as the personal characteristics of the perpetrators and their victims (5,24–66).

The overall aim of the present study was to survey the ''state of the art'' of criminal mutilation of the human body in Sweden, a country with a low crime rate—0.5 murders per 100,000 inhabitants in 1961 and 1.2 in 1990 (67).

Specific purposes of this study were to analyze the characteristics of the victims, the causes of death, the methods used, i.e., the *modus operandi* of the mutilation in relation to the occupation of the perpetrator, the relation between victims and perpetrators, and the behavior pattern and criminal activities of the perpetrators.

Cases and Methods

This study is based on all cases in which mutilation was recorded at death investigations in Sweden during the 30 years between 1961 and 1990.

Definitions

The term ''mutilation'' is used here in accordance with the definition given in Dorland's *Illustrated Medical Dictionary* (68), namely as ''the act of depriving an individual of a limb, member, or other important part of the body; or deprival of an organ; or severe disfigurement.'' Mutilation covers the term ''dismemberment'' that according to the same source denotes ''amputation of

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a limb or a portion of it.'' Cases where deprival of only single minor parts of the body, such as a finger, the nose, or an ear, was carried out with the purpose of revenge, leaving ''fingerprints'' to send a message, or blackmail, and where minor parts of the skin or other tissues were cut off as a result of slashing cuts within violent killing, were not included in this study.

''Necrophilia,'' according to the same source, denotes ''sexual attraction to or sexual contact with a dead body.'' The sexual feature is not obvious, however, in every particular case at the police and medico-legal investigations, and therefore the term ''necromania'' (pathological preoccupation with dead bodies) is also used in order to avoid an automatic connection of intricate activities on dead bodies with sexual attraction, as the only explanation.

Classification

The cases were classified into four types (groups), mainly according to Püschel and Koops (25), with regard to the primary motives that were considered to underlie the mutilation:

Type I. Defensive Mutilation—Where the motive is to get rid of the body and/or to make its identification more difficult. This type is also denoted as dismemberment.

Type II. Aggressive Mutilation—Where the act of killing is brought about by a state of outrage, and is followed by mutilation of the body, which may involve the face and the genital organs.

Type III. Offensive Mutilation (Lust Murders, Necrosadistic Murders)—Motivated by (a) a necrophilic urge to kill and to carry out sexual activities with a dead body, with prior or subsequent mutilation; or (b) a sexual sadistic need to carry out sexual activities or intercourse while inflicting pain or injuries, or killing, and where the mutilation may be initiated in a living person and continued after the killing, or may be commenced after the killing.

Type IV. Necromanic Mutilation—Carried out on a dead body. This is sometimes seen in regular necrophilia, as defined above, or with a purpose of using some body part(s) as a trophy, symbol or fetish.

Mutilation may cover the cause of death; it may be either a side effect or one of the motives. In mutilations of types II and III, both getting rid of the body and making its identification more difficult are a consequence of the mutilation rather than a motive.

The two subdivisions of type III are characterized by mutilation of particular parts of the body with sexual association, such as the nipples, breasts, external and internal genitalia, rectum, abdominal wall, or viscera (25,37,41,69–71). The classification implies that a victim of an offensive mutilation might have been conscious or unconscious (IIIb), or already killed (IIIa) at the time of the mutilation. This type of mutilation may include cannibalism.

Types III and IV have been changed as compared with necrophilic mutilation in the Püschel and Koops classification (25), so as to emphasize the distinction between a murder associated with mutilation, motivated by a need to perform necrophilic, i.e., sexual acts, or to appease cannibalistic needs, and mutilation of the body of a non-murdered person, motivated by other needs or feelings.

Sources

Sources of information were obtained from police and through experts involved in crime investigations. Information was collected from 1984 to the completion of the study in 1997. The police records were supplemented with autopsy protocols and other medical journals, as well as with reports of the proceedings and verdicts from courts.

Information about the perpetrators was obtained from police and forensic psychiatric records. Information on crimes that occurred before and after the index crime was obtained from the criminal register of the Swedish National Police Board. This register, however, has some limitations. Deceased persons and persons over 80 years of age are deleted from the register. Persons who have not undergone forensic psychiatric investigation and who have not been sentenced for any further crime remain for ten years in the register after the crime. Individuals who have undergone forensic psychiatric investigation and have been sentenced for the crime remain in the register until they die.

This study was approved by the Ethics Committee of Huddinge University Hospital (Dno. 95-120).

Results

During the 30 years between 1961 and 1990, altogether 22 deaths in which mutilation occurred were registered in Sweden. In ten cases the mutilation was classified as defensive dismemberment (type I), in four as aggressive mutilation (type II), and in seven as offensive mutilation (type III). In only one case was the mutilation necromanic (type IV). The occurrences of mutilation over the studied period, and their types, are shown in Fig. 1, from which it is evident that the mutilations occurred in time clusters, and that they increased in number during the three studied decades from four to eight and ten cases, incidence rates of 0.05, 0.1, and 0.125 per million inhabitants and year, respectively. A total of 16 mutilations took place in the three largest urban areas—nine in Stockholm (1,300,000 inhabitants), four in Gothenburg (600,000) and three in Malmø (400,000)—compared with six in the rest of Sweden (5,700,000); i.e., mutilation was noted 6.6 times more often in large urban areas than in the rest of the country.

The vast majority of the cases occurred either during the dark winter period of the year (November–February) or during the light summer period (June–August). August, with its seven mutilations, was the month with the largest number of cases, of which five were defensive—half of the total of ten defensive mutilations (Fig. 2).

Tables 1–4 give details of the mutilation cases, presenting the personal characteristics of the victims, the mutual relationship between the victims and the perpetrators, the causes of death, and toxicological findings. The tables also show the forensic psychiatric diagnoses, according to DSM-IV, the verdicts, and the perpetrators' history of criminal activities. The victims and perpetrators are indicated by Roman and Arabic numerals, denoting the type of mutilation and the serial number, respectively. In cases with more than one perpetrator these are numbered with Arabic numerals.

From Fig. 3 it is evident that the manner in which the mutilations were carried out varied considerably, but there were no essential differences in the modes of mutilation between some victims of defensive, offensive, and necromanic mutilation (I:2, III:1, and IV:1). Allocation into different groups was based on other findings. The nine victims of defensive mutilation were all decapitated, but the number of fragments was 3 to 15 (median 6.3). Three out of

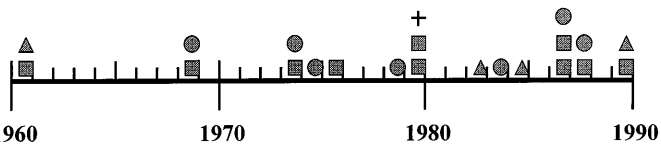

FIG. 1—*Occurrence and types of mutilations in Sweden 1961–1990.* ■ *Defensive,* △ *aggressive,* ○ *offensive, and* + *necromanic mutilation.*

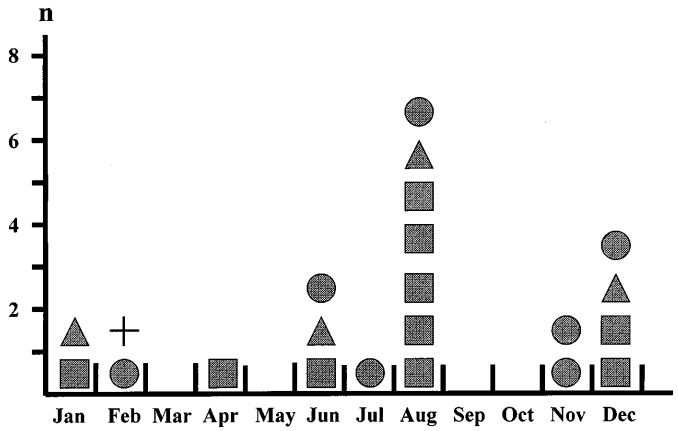

FIG. 2—*Seasonal distribution of mutilations, by type.* ■ *Defensive,* △ *aggressive,* ○ *offensive, and* + *necromanic mutilation.*

four victims of aggressive mutilation were decapitated, and the number of fragments was either small or three-figured (II:3). Of the six victims of offensive mutilation that could be reviewed, three were eviscerated to a varying extent, and two of these were also flayed. The number of dismembered body parts in this group was 3 to 15 (median 9.2); four of the six were decapitated. The victim of necromanic mutilation was also decapitated. In five of 17 decapitations the head was not found.

Type I. Defensive Mutilation (Dismemberment)

Forensic Aspects

The victims were 36- to 68-years-old (median 45 years). Six were males, aged 36- to 68-years (median 48 years). Females were younger, 37- to 45-years-old (median 40 years). The causes of death could be determined at autopsy in eight of the ten cases and were manual strangulation in four cases (in two preceded by knife stabs and blunt injuries), a single knife stab in two cases, and blunt injury to the head and a cut throat in one case each. In nine of these ten cases the perpetrators were identified. All were males, aged 20 to 51 years (median 37 years). The offender was assisted in the homicide in one case, in the mutilation in two cases, and when disposing of the body parts in three cases.

The homicide motives were family disagreement in five cases, financial reasons in two, sexual sadism in one case and a quarrel when drinking in another case. Four of the nine offenders committed suicide, 1 month and 1, 2, and 12 years after the event. In five instances the murder and the dismemberment were performed in the perpetrator's apartment (or medical practice) and in four cases in the victim's apartment; in one case the location was unknown. Bathtubs were used for mutilation in three of the cases and kitchens in two, but in four cases the actual place was not established. In four cases the body parts were dumped in the sea, in one case in a forest and in one case the parts were burned in stoves. In four cases the body parts were found in the apartment or in a closely located garbage container.

Psychiatric Aspects

Among these ten cases of dismemberment we have no information about three of the perpetrators. One is unknown and the other two killed themselves within two years after the crime (I:2, I:5). Five of the other seven perpetrators had a history of psychiatric care. Five of the perpetrators had a history of drug abuse, and four of these were under the influence of drugs at the time of the crime. Two of the murders were committed ''within the family'' (I:5 and I:9). Four out of seven psychiatrically examined perpetrators had a family history of drug abuse or psychiatric disease. Five of them had a previous history of violent crimes. None of these seven perpetrators suffered from a major psychiatric disorder; two of them had definite or suspected organic brain damage (I:6 and I:8), and two suffered from posttraumatic stress disorder (I:3 and I:9); three suffered from personality disorders (I:1, I:4, I:7).

Type II. Aggressive Mutilation

Forensic Aspects

Four victims were included in this group. Three of them were males, aged 22 to 54 years (median 36 years), and one was a female child, aged 3 years. Three perpetrators were males, aged 30 to 41 years (median 32 years), while in case II:3 there were several perpetrators—one of them a woman. The common pattern in these cases was the presence of multiple injuries, indicating a prompt action, as well as of defense injuries. Symbolic cuts in the face or mutilation of particular body parts, such as the ears, nose, lips, or genitalia in various combinations were noted in all cases except for the child.

The outrage was related to a homosexual conflict with the victim in one case, an unpaid debt in one case, and jealousy in one case. In the last case (II:4) there was also cultural collision, resulting in outrageous overkilling of the wife and daughter by the foreign-born, unemployed family father. He was the only perpetrator of the aggressive mutilations who committed suicide.

Victim II:3 was the most severely mutilated in this series. His murder and mutilation were accomplished on behalf of a Middle East totalitarian regime, as a planned political revenge. The perpetrators left Sweden before the mutilated body parts were found. The large number of irregularly cut body fragments and injuries to the nose, lips, and penis indicated a state of outrage in the perpetrators, a group of political fanatics.

In three instances of type II the murder and the mutilation were performed in the apartment and the body parts were left at the scene. In case II:3, the corpse was mutilated in the victim's bathroom and the body parts were packed in suitcases and dumped in a forest.

Psychiatric Aspects

Reliable information about the psychiatric condition was obtained for only two of the four perpetrators. They both had a history of previous psychiatric care and drug abuse, and they were both psychotic and under the influence of drugs when they committed the crimes. They both had a previous history of violent crimes. Both had at some time been given a diagnosis of schizophrenia.

Type III. Offensive Mutilation (Lust, Murders, Necrosadistic Murders)

Forensic Aspects

Seven victims belong to this group—five females, aged 23 to 48 years (median 34 years) and two males, 15 and 23-years-old. The eight perpetrators of the seven offensive mutilations were males, 26 to 45-years-old (median 32 years).

Four of the crimes were necrophilic (subdivision IIIa): Victim

TABLE 1—*Type I. Defensive Mutilation.*

Victim		Perpetrator		
No., date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
I:1 April 1961 Stockholm	Male, 68 yr, dentist. Possible dementia. Numerous blows on the head with a thick stick in an unknown manner. The victim's body was dismembered and burned in stoves and the ashes were flushed down the toilet.	Male, 51 yr, banking jurist. The victim was his client. Murder in order to conceal embezzlement. Was naked while cutting the body in order not to get blood on his clothes.	a. No psychiatry, no drugs. b. Schizoid personality disorder (301.20) Dementia NOS (294.8). c. No psychiatric care.	a. N.r.* b. Life imprisonment with hard labor for embezzlement, fraud, and murder. c. N.r.
I:2 Aug 1969 Gothenburg	Female, 37 yr, prostitute. Manual strangulation.	1. Male, 32 yr, physician. Prostitute customer, not acquainted with the victim. Sexual sadomasochistic activity. Suicide by intoxication 2 years later. 2. Male, physician. Assisted with transport of the body parts.	1a. N.r. b. N.r. c. Alcohol and tablet abuse. 2. No official records available.	1a. N.r. b. Not clarified. c. N.r. 2. Not prosecuted.
I:3 Aug 1974 Malmö	Female, 38 yr, kitchenmaid. Immigrant from Poland. Blunt violence on the head, manual strangulation, and stabbing with a knife.	Male, 47 yr, butcher. Spouse. Worked as a soldier and as a policeman in Poland, came to Sweden as a sailor 1958. Killed wife after quarrel. Died of disease 1986.	a. Prisoner of war, witnessed torture and people being killed during the second world war. Alcoholic. Anxiety and depression with suicidal thoughts, no psychiatric care. b. Posttraumatic stress syndrome (309.81) and obsessive compulsive personality disorder (301.4). Probably confused at the time of the crime, possibly psychotic. c. Placed in security hospital. Released after 7 years.	a. Robbery, fraud, forgery of documents. Released from prison shortly before the murder. b. Assault and causing the death of another person. Psychiatric care. c. After 2 years while on leave from the hospital he robbed and killed two elderly persons by cutting their throats.
I:4 Aug 1976 Örebro	Male, 56 yr, unemployed. Blows on the head with a bottle, and manual strangulation. A minor slit on the penis. Self-defense injuries. 3.4 mg/ml alcohol in the blood. The head was taken to a post office robbery to frighten the employees.	Male, 28 yr, unemployed mineworker. Drinking mate. The victim owed him a large amount of money. Several suicide attempts. Suicide 12 yr later by overdose of heroin.	a. Father alcoholic. Stole and drank as a teenager, went to borstal several times. Central stimulants from the age of 20, contacts with psychiatry because of depression, drugs and suicidal attempts. Hallucinosis and paranoid appearance while on drugs. b. Personality disorder NOS (301.9) and drug dependence (alcohol, amphetamine and morphine—303.90, 304.40, 304.00). c. Psychiatric care three times because of drug addiction.	a. Between 1968 and 1976 sentenced to psychiatric care 12 times for financial crimes and assault. Manslaughter 1975. b. Assault and causing of death of another person, while on leave. Again psychiatric care. c. N.r.

*N.r. = Not recorded.

TABLE 1—*Continued.*

Victim		Perpetrator		
No., date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
I:5 Jan 1980 Stockholm	Female, 44 yr, civil servant. Manual strangulation.	1. Male, 20 yr, unemployed. The victim's son. Revenge for eviction. Suicide by gunshot one month later.	1a. N.r. b. No legal measure.	1a. N.r. b. Not clarified. c. N.r.
		2. Assisted at mutilation and transportation by a friend, an amateur hunter.	2. No legal measure.	2. Not prosecuted.
I:6 Aug 1980 Gothenburg	Male, 36 yr, laborer. Knife stab in the chest. Self-defense injuries. 1.0 mg/ml alcohol in the blood.	Male, 37 yr, sailor and railway worker. Killed a drinking-mate under influence of alcohol.	a. Father alcoholic. Stole and drank from the age of 14. Car accident 1978, alone in the car, unconscious for 2 weeks, damage to frontal lobes and liver. Kills 2 years after the car accident.	a. Sentenced 11 times for financial crimes, traffic crimes and assault.
			b. Delirium due to brain damage (293.0) and alcohol dependence (303.90).	b. Manslaughter. Psychiatric care. Released after 5 years.
			c. Dementia and demotional disorder due to frontal lobe damage.	c. Convicted three times for financial crimes.
I:7 Aug 1987 Tranaås	Female, 41 yr, unemployed. Alcoholic. Knife stabs in the back, into the right lung. Self-defense injuries. Traces of diazepam in the blood.	Male, 48 yr. sailor, cook, pedicurist, butcher. Spouse. Sick-listed for 7 years. Several suicide attempts.	a. Father alcoholic. Alcohol and anxiolytic drugs with delirium at the age of 23. Several contacts with psychiatry because of drugs, anxiety, paranoid and violent reactions, and suicidal acts.	a. Convicted 12 times for financial crimes, illegal threat, fraudulent conduct and molesting.
			b. Killed his wife under influence of alcohol and psychosis. Borderline personality disorder (301.83) and drug dependence (303.90, 304.80).	b. Assault and manslaughter. Psychiatric care, released after five years.
			c. Drug addiction, antisocial and anancastic personality disorder.	c. Financial crime.
I:8 Dec 1987 Gothenburg	Male, 45 yr, unemployed. Cut throat. Numerous vital bruises. Postmortem burns. 3.5 mg/ml ethanol and low concentration of carbamazepine in the blood.	1. Male, 38 yr, laborer. Killed a drinking mate, friend of the niece. Committed suicide by cut throat one year later.	1a. Alcohol and criminality among his parents and brothers. Alcohol and crimes as a teenager, sent to borstal. Drugs from the age of 20, central stimulants and LSD, delirium and violent behavior. Antisocial personality disorder and alcohol dependence as background for arsonism 7 years before the murder.	1a. Convicted 14 times for financial crimes, violent crimes, illegal threat and damage.

* N.r. = Not recorded.

TABLE 1—*Continued.*

Victim		Perpetrator		
No., date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
			b. At the killing he was on drugs, showing a picture of paranoid psychosis. Extremely dangerous under the influence of drugs, alcohol dependence (303.90), alcohol- induced psychotic disorder with hallucination (291.3), personality disorder NOS (301.9), and specific phobia (300.29).	b. Manslaughter. Eight years in prison.
			c. N.r.	c. N.r.
		2. Female, 36 yr, prostitute. Assisted in killing and dismemberment.	2a. Alcohol and criminality in the family. Meningitis at the age of one year. Drugs before the age of 10, later amphetamine, heroin and LSD but no alcohol. Sent to borstal. Three years before the crime diagnosed personality change due to brain damage (310.1), poly-substance dependence (304.80) and schizophrenia. Psychiatric care 11 times before the crime.	2a. Convicted 18 times for financial crimes, violent crimes, illegal threat and damage.
			b. Under the influence of drugs when she helped her uncle.	b. Assault. Prison for one year, no psychiatric care.
			c. No psychiatric care.	c. Convicted twice for financial crimes.
		3. A third person helped with transportation of the body.	3. Not known.	3. Not prosecuted.
I:9	Male, 36 yr, unemployed.	Male, 33 yr, brother-in-law.	a. No history of drugs or psychiatry.	a. N.r.
Jan 1988 Gothenburg	Immigrant from Iran. Maltreated his wife, the perpetrator's sister. Craniocerebral injuries, about ten blows with a hammer.	Immigrant from Iran. Veterinary technician. Psychiatric attendant. Killing in self-defense.	b. Had a cold and fever when he was visited by his sister's husband. Killed in panic after he had been cut with a chisel. Reported himself to the police 3 days later; depression, anxiety and suicidal thoughts after the crime. Acute stress syndrome (308.3).	b. Serious assault, causing of another's death, violation of the grave. One year in prison.
			c. No psychiatric care.	c. N.r.
I:10 Dec 1990 Stockholm	Male, 45 yr, jurist. Unknown cause of death. 2.1 mg/mL alcohol in the blood.	Unknown.	Unknown	Unknown.

III:1 was first killed by numerous blows to the head and then mutilated. The body parts were eaten or used as an object for sexual intercourse (the spared distal part of the trunk). Victim III:3 was strangled, used for sexual intercourse and mutilated. Victim III:4 was handcuffed, drowned in a bathtub, mutilated, and subjected to cannibalism. Victim III:7 was killed by a cut throat and then flayed and ''dissected.''

The findings of vital bruises and superficial stabs and cuts, and also hematomas in the vicinity of the mutilation injuries, in victim III:2, as well as the perpetrators's confession to anal intercourse with victim III:6 under ether anesthesia, indicated sexual sadistic behavior in these cases (type IIIb).

Victim III:5 could not be allocated to a subdivision of type III, because of the absence of essential body parts and the putrefaction of the remains. The same circumstances made it impossible to determine the cause of death. However, the medical examiner concluded—on the basis that the victim was a prostitute, and that the mutilation showed an offensive pattern (cf Fig. 4) that she must

TABLE 2—*Type II. Aggressive mutilation motivated by state of outrage.*

Victim		Perpetrator		
No., Date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
II:1 Dec 1961 Malmö	Male, 54 yr, baker. Alcoholic. Homosexual. Blows to the head causing fractures and brain contusions. Numerous stabs. Strangulation. Low blood phenobarbitone and alcohol concentration.	Male, 34 yr, farmworker, sailor. Drinking mate. Was temporarily staying in victim's apartment. Killed him in state of delusion.	a. Mother suffered from depression. Episodes of exhibitionism by exposing himself to small girls, mostly under the influence of alcohol. Treated for syphilis. Himself not homosexual. Intellectually subnormal and immature. b. Found psychotic in the street after the murder. Schizophrenia (295.90). c. N.r.	a. A few sentences for exhibitionism or street fighting under the influence of alcohol. Prison or psychiatric care. b. Manslaughter. Psychiatric care. c. N.r.
II:2 Aug 1983 Luleå	Male, 22 yr, unemployed. Sniffer. Alcoholic. About ten blows to the head with an axe. Both ears cut off. Incomplete removal of the left forearm.	Male, 33 yr, unemployed graphic artist. Drinking and sniffing mate. Perpetrator and victim had previously been patients at the same psychiatric hospital. Quarrel about unpaid debts.	a. Contusion of the brain at age of 11 years, street fighting and glue sniffing, later also alcohol. Aggressive under the influence of glue and alcohol, contact with psychiatry. b. Killed under the influence of glue. Stayed in the apartment with the body for 6 days. Psychotic syndrome with hallucinations as a result of glue sniffing (292.12), and reactive psychosis (298.8). c. Psychiatric care on 8 occasions during 3 years after his release from hospital. Diagnosed drug psychosis and schizophrenia.	a. Convicted three times for property crimes and arbitrary proceedings. b. Murder. Psychiatric care, released after 3 years. c. Convicted twice for property and financial crimes and damage.
II:3 Jan 1985 Stockholm	Male, 33 yr, refugee from the Middle East. Sharp and blunt force injuries. Flayed, eviscerated and cut into more than 100 pieces. Vital mutilation of the face by cutting off the nose, upper lip and left ear. Cut in penis. Self-defense injuries.	Several males and one female, not closely identified countrymen. Political motive.	a. N.r. b. N.r. c. N.r.	a. N.r. b. Not prosecuted. c. N.r.
II:4 June 1990 Stockholm	Female, 3 yr Numerous cuts, stabs and bruises. Self-defense injuries.	Male, 30 yr. Immigrant from Canary Islands, unemployed, married to a Swedish woman. Killed her and their daughter when the wife came home late after a staff party. Suicide by numerous chest stabs, cuts on forearms and cut throat immediately after the murders.	a. N.r.	a. N.r.

have been murdered on some way. The circumstantial evidence nindicated that the plastic bags containing body parts had been placed out at most one day after the victim's disappearance and that she had been treated in a sexually sadistic manner. This opinion was accepted by the district court, but was questioned by the Medico-legal Council of the Swedish Board of Social Welfare, whose experts considered that the inability to establish an exact cause of death also left the possibilities open for accidental, suicidal or natural death, besides homicide. The suspects—two physicians, one of them a fellow in forensic medicine—were, however, found guilty of mutilation.

Sexual intercourse after the killing was proven, or confessed, in cases III:1 and III:4, and during the killing in III:2 and III:6. Cannabalism was confessed in cases III:1 (to the police, but not

TABLE 3—*Type III. Offensive mutilations motivated by necrophilic or sexual-sadistic behavior.*

Victim		Perpetrator		
No., date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
IIIa:1 Aug 1969 Karlstad	Female, 23 yr, waitress. Pregnant. Craniocerebral injuries produced with fists and axe. Self-defense injuries.	Male, 28 yr, paper-mill worker. Collector of cars. Fiancé. Urge to carry out necrophilic act in combination with cannibalism.	a. Sleeping problems treated with nitrazepam. One year before the crime he threw knives at his girl friend outdoors in the forest.	a. N.r.
			b. No drugs in connection with the crime. Sadistic pornography in the flat. Fetishistic interest in long fingernails. After cutting the body he had a sandwich and visited the victim's parents. Schizoid personality disorder (301.20), tendency to depression.	b. Manslaughter. Psychiatric care, released after 3 years.
			c. N.r.	c. N.r.
IIIb:2 Feb 1975 Stockholm	Female, 48 yr, prostitute. Ligature strangulation. Numerous vital and postmortem bruises, stabs and cuts. Removal of the right nipple and external genitalia.	Male, 39 yr, sailor. Prostitute customer. Sexual sadism. Under the influence of alcohol he visited the victim in order to confirm his heterosexual competence, became angry after failing. Reported himself to the police one year later, after his second murder.	a. Tyrannical father with alcohol problems. No alcohol abuse. Homosexual contacts as a teenager, heterosexually married, lived for some time with a female prostitute in South America.	a. Served some time in a military prison in the United States, reason unknown.
			b. Homosexual genital fixation without sadistic or criminal identification, immature. Sexual disorder NOS (302.9), generalized anxiety disorder (300.02) and alcohol abuse (305.00).	b. Homicide. Psychiatric care for almost 3 years.
			c. Alcohol abuse.	c. 1976 he strangled a prostitute and tried to have sexual intercourse with the body. Bite marks on the breast. 1979 traffic crime.
IIIa:3 Nov 1976 Piteá	Male, 15 yr, student. His remains were found 19 years after the murder. Probably manual strangulation followed by sexual intercourse. Removal of limbs and genitals, details unknown. The perpetrator took one hand and genital organs with him.	1. Male, 26 yr. Earlier theological student, worked in a bingo hall and in a kiosk. Sexual sadism.	1a. Three brothers suffering from psychiatric problems, including alcohol abuse and paranoia. One brother sentenced to psychiatric care for a sex crime. Contact with psychiatry since childhood because of bed wetting and because of sexual contacts with younger boys. Claimed that he was sexually abused as a boy by his father. Alcohol and benzodiazepines since he was a teenager. Amphetamine now and then. Homosexual assaults. Suicidal thoughts and suicidal acts. Diagnosed sadistic pedophilia and pathologically immature personality.	1a. Since 1969 sentenced for assault, molesting, sexual relations with children, sexually immoral behavior, damage, arson, attempted manslaughter, narcotic crime, property crime, illegal possession of weapon.
			b. The index crime was committed while on leave from hospital.	b. Homicide. Psychiatric care.

TABLE 3—*Continued*

Victim		Perpetrator		
No., date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
			b. The index crime was committed while on leave from hospital. c. Released from hospital one year after the index crime (nothing was known at that time about it). Fourteen years after the index crime the perpetrator committed armed robbery together with a young man with whom he lived and had a homosexual sadomasochistic relationship. Borderline personality disorder (301.839, impulse-control disorder NOS (312.30) and sexual sadism (302.84). Normal testosterone level, low MAO activity.	b. Homicide. Psychiatric care. c. 1984 stabbed to death two tourists under a state of delusion, sentenced to continuous stay in a forensic-psychiatric clinic. 1997 sentenced to continuous stay in a forensic psychiatric clinic because of the murder of a tourist 1988. He has now confessed to 15 murders.
		2. Male, 51 yr. Unemployed married pedophile, committed suicide 9 months later. Was present at the index crime.	2. N.r.	2a. N.r. b. Not disclosed. c. N.r.
IIIa:4 Nov 1979 Malmö	Female, 29 yr, schizophrenic on leave from a mental hospital. Handcuffed and drowned in a bathtub. Evisceration. Scalping and removal of the teeth. Flaying. Removal of muscle mass.	Male, 30 yr, university student. Fiancé Special interest in anatomy. Acting out of necrosadistic fantasies.	a. Psychotic disorders on his mother's side. Contact with child psychiatry because of aggressiveness. No drugs. Showed psychotic symptoms as a teenager, interested in ''dead'' cultures. Isolated, with tendency to paranoid reactions and aggressiveness.	a. N.r.
			b. Admits that he is incompetent to have normal sexual intercourse. The police found a woman's wig, woman's clothes and a leather whip in his apartment. During the examination the perpetrator dresses in female clothes. Admits that he has eaten about ten meals of parts from the mutilated body. Schizophrenia (295.90).	b. Homicide. Psychiatric care.
			c. Wrote threatening letter to a female. The letter contained fantasies about the first murder. Threatened three other women with pictures of tombs with their names.	c. N.r.
IIIa or b:5 indeterminable June 1984 Stockholm	Female, 28 yr, prostitute. Heroin addict. Unknown cause of death. Removal of both breasts, the abdominal wall and viscera, external and internal genitalia, psoas muscles and parts of the muscle tissue from both thighs. 1.3 mg alcohol and 0.03 and 0.05 μg morphine/g muscle tissue.	1. Male, 30 yr, Fellow in forensic medicine. Prostitute customer, and consumer of snuff movies.	1. His wife died by hanging 2 years before the crime. The police investigation indicated suicide. No psychiatry, no drugs. Suicide attempt(?) with methadone overdose one year after the crime.	1a. N.r. b. Murder charge dismissed. Found guilty of dismemberment. Deprived of his medical license. c. N.r.

TABLE 3—*Continued*

Victim		Perpetrator		
No., Date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
		2. Male, 35 yr, general practitioner, Prostitute customer. Motives and share of the perpetrators in the event not ascertained at court. The perpetrators photographed various phases of the mutilation.	2. N.r.	2. Same as 1.
IIIb:6 Dec 1987 Stockholm	Male, 23 yr, rock musician. Manual strangulation in combination with cutting of the throat under ether anesthesia. Anal intercourse. Scalping and enucleation of both eyes. Removal of the teeth, jaw and genitalia.	Male 45 yr. Manager of the victim. Acting out of sexual-sadistic needs.	a. Studied psychology and sexology, worked at a home for boys. Use of alcohol and sedatives, contact with psychiatry because of anxiety and drugs. Seven years before the index crime he tried to have sexual intercourse with another man after he had made him unconscious with ether. Contact with prostitute boys.	a. Convicted nine times for: Deceit, traffic crime, robbery, illegal compulsion, sexual relations with children. Released after two years; the index crime was committed after his release.
			b. Paranoid schizophrenia (295.30), homosexual, narcissistic and extremely dangerous.	b. Homicide. Psychiatric care.
			c. Ten years after the crime still under psychiatric care.	c. N.r.
IIIa:7 July 1988 Lindesberg	Female, 41 yr. Numerous bruises, cuts and stabs, broken arms, probably cut throat. Flayed and eviscerated, including both eyes. Removal of the nose, lips and external and internal genital organs. 1.0 mg/mL alcohol and low concentration of diazepam in the blood.	Male, 41 yr. Sheet-metal worker and telecommunications expert. Together with the victim, earlier patient at the same psychiatric hospital. Former spouse. Alcoholic.	a. Contact with psychiatry since he was a teenager. Depression, anxiety, obsessions including thoughts about raping and cutting women. Suicidal attempts. Abuse of alcohol and benzodiazepines with aggressiveness under the influence of drugs.	a. Convicted four times. Sexually immoral behavior, property crime, rape. Assault.
			b. Turned himself over to the police. Personality disorder NOS (301.9) and alcohol dependence (303.90).	b. Homicide. Psychiatric care.
			c. Still under psychiatric care 6 years after the crime.	c. N.r.

to the psychiatrist) and III:4, and was suspected, but not determined conclusively, in two cases. Suspicion was based in case III:5 on the absence of both iliopsoas muscles and of parts of the muscles from both thighs, a pattern strikingly similar to a case of mutilation associated with cannibalism' reported one year earlier in France (72). In case III:6 some allusions were made by the perpetrator to the absence of the male victim's external genitalia.

One accomplice (III:3-2) but none of the perpetrators of the offensive mutilations committed suicide during the 8 to 27 year period between the mutilation and the time of completion of this study.

The mutilations were carried out in the perpetrator's apartment in five cases, at the perpetrator's workplace in one case, and out doors in one case. On two occasions parts of the body were dumped and some parts were found at the scene of the murder. In one case they were packed in plastic sacks and placed relatively near to the scene of mutilation (III:5). In four cases the body parts were dumped in the sea or in the forest.

Psychiatric Aspects

Four of the perpetrators in group III had previously been in contact with psychiatry (III:3, III:4, III:6, III:7). Two of them were psychotic at the crime (III:4, III:7) and three had a family history of mental disease (III:2, III:3, III:4). Four of the eight perpetrators had a history of drug abuse (III:2, III:3, III:6, III:7) and two of

TABLE 4—*Type IV. Necromanic mutilation.*

Victim		Perpetrator		
No., Date, Locality	Sex, Age, Occupation. Cause of Death and Other Findings	Sex, Age, Occupation. Relation to Victim. Motives, History	Psychiatric History	Legal History
			a. before; b. upon mutilation; c. after crime (and punishment)	
IV:1 Feb 1979 Stockholm	Female, 85 yr, retired. Died of myocardial infarction in hospital. Embalmed and buried. Decapitation and cutting off of both hands and the little toes by sawing at the graveyard after opening of the grave. The removed body parts were found in the perpetrator's house.	Male, 63 yr, worked as sailor and car-driver. The victim's son. Motive: to take body parts as fetishes. He used to walk about with his mother's head in a plastic bag.	a. Born in Russia shortly before the revolution. The family lived near to a graveyard, where he witnessed executions and mutilations of bodies. He witnessed victims digging their own graves before execution. Came to Sweden with his mother at school-age; psychiatric problems as a child and teenager, with thoughts about death, corpses, graves and violence, and problems with nervousness and stuttering. Afraid of the police. His mother took him to psychiatrists because of his lack of interest in women. No drug problems. In the beginning of the forties, after 2 years of friendship he murdered a waitress and shot himself in the chest. Schizophrenia (295.90). Described as psychoinfantile.	a. 1941 homicide. Sentenced to psychiatric care.
			b. No forensic psychiatric examination, taken in for psychiatric care for a period of 38 days. ''Personality disorder.''	b. Not prosecuted.
			c. No information about psychiatric care after the crime (still alive 14 years after the crime).	c. N.r.

them committed the crime under the influence of drugs (III:2, III:7). Four of the perpetrators had a history of violent crimes (III:2, III:3, III:6, III:7). Two of the violent men suffered from schizophrenia (III:4, III:6) and another two had personality disorders (III:1 and III:7).

Type IV. Necromanic Mutilation

Only one case was allocated to this particular group (Table 4). An old woman was the only one in this series who died naturally. She was thereafter dismembered by her son.

Occupation of the Perpetrators in Relation to the Mutilation Method

Disarticulation with simple, continuous cuts around joints without injuries to the cartilage, no avoidable organ injuries and cuts, and dissection following the anatomical structures were regarded as indications of anatomical knowledge. The evaluation of the autopsy records was not possible in two cases. In 12 of the cases the mutilation was performed roughly in all details, with severe joint, bone and organ injuries (4/10 dismemberments, 3/4 aggressive mutilations and 5/7 offensive mutilations), and thus there was nothing to indicate anatomical knowledge. The occupations of the perpetrators of the inconclusive and nonanatomical mutilations were nonspecific. Besides their actual occupation, several of the perpetrators had previously been working in fields or had an interest in activities associated with human or animal bodies (cf Tables 1–4). Six of them had been sailors, which occupation seems to be the most common among the perpetrators in this series.

In two cases the mode of mutilation indicated knowledge of anatomy. One of these perpetrators (I:3) was a butcher and the other (I:9) a veterinary assistant. Both carried out mutilation of type I.

In four cases the autopsy findings were ambiguous. In case I:5 the offender, a young man with no occupation, ran into difficulties with the dismemberment and called for the help of a friend, an amateur hunter (Fig. 4). In a case of extremely aggressive mutilation (II:3), besides signs of chopping and destruction some fine disarticulations were also noted. The police suspected a physician.

In cases I:2 and III:5 the mutilation was carried out by physicians. In case I:2 the right femur was chopped, while the left femur was divided at the level of the lesser trochanter, the remaining joints being disarticulated without any injuries on the cartilage surface. In victim III:5 a correct anatomical disarticulation of the right knee joint was in disaccord with the finding that the left femur had been chopped by chisel cuts through its massive distal epiphysis (Fig. 5*a*) and that chisel cuts had been made through the solid middle part of both clavicles. The left femur had been removed below the hip joint by stabbing with a knife and cutting along the intertrochanteric line, the same line where an orthopedic surgeon performs amputation (Fig. 5*b*). The breasts had been removed and the glands and pectoral muscles had been left uninjured; an axillary tip was noted on one of the breasts that was found, giving the impression of mastectomy performed by a surgeon. Finally, the abdominal and pelvic viscera had been removed together with the retroperitoneal organs, with the diaphragmatic valves left intact, which was reminiscent of an autopsy technique rather than of evisceration of slaughter-cattle. Before the perpetrators were disclosed, the mixture of expert and rough chopping

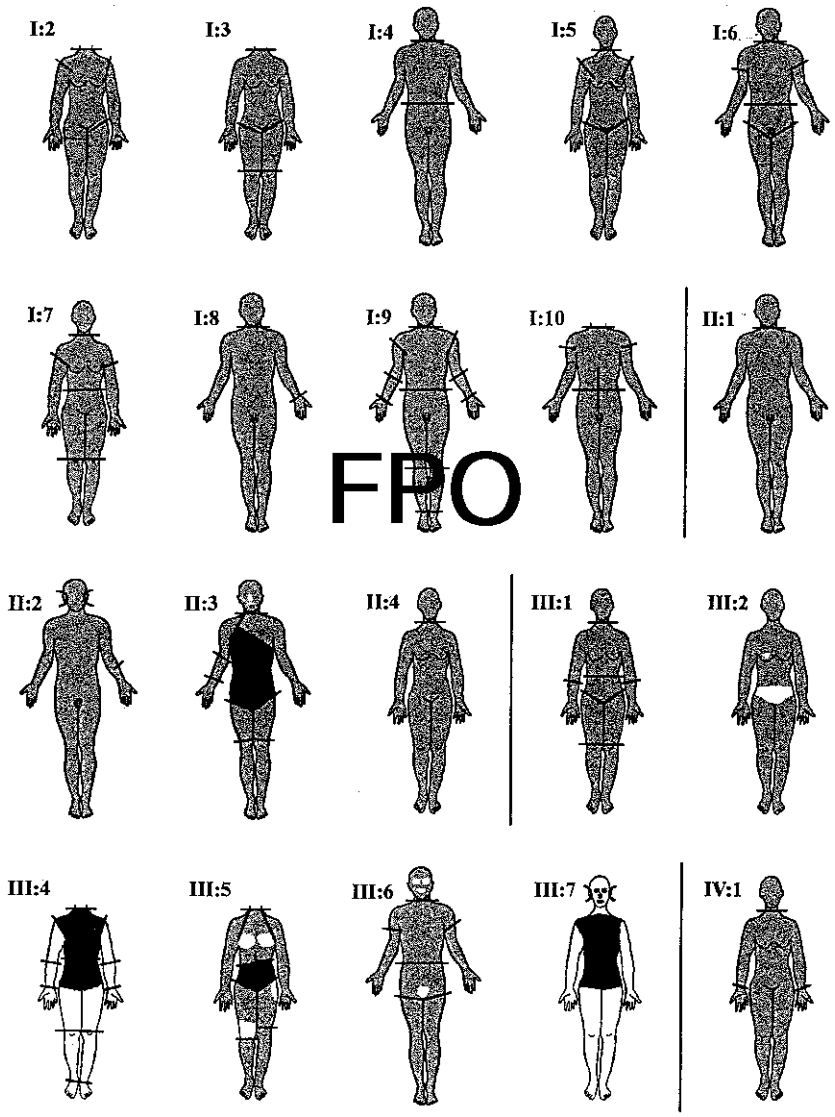

FIG. 3—*Schematic presentation of mode of mutilation. The bodies of victims II:1 and III:3 were burned or decomposed and therefore the mode of mutilation cannot be presented. Lines denote dismemberment, black areas evisceration and white areas flaying, removal of breasts and external genitalia, and mutilation of the face or enucleation of the eyes (in III:7, black). Body parts that were not found are not illustrated.*

techniques was interpreted as indicating either two perpetrators—one physician and one layman—or only one, a physician, who it was thought might have tried to draw the attention of the future autopsy pathologist away from the mutilation details indicating that the perpetrator had knowledge of anatomy, general and orthopedic surgery and autopsy techniques.

Legal Aspects

Of the at least 28 suspects involved in the mutilations of 22 persons, 16 were convicted of the index crime. Of these, 12 were sentenced to forensic psychiatric care, one (I:1) was sentenced to life imprisonment with hard labor (this sanction was abrogated in 1965), and three were sentenced to imprisonment (I:8a, I:8b, and I:9). All four perpetrators sentenced to penal servitude/imprisonment had performed the same type of mutilation (type I). It was difficult to draw any conclusions as to whether the mutilation act had led to more severe sanctions. In six of 22 mutilations no one was convicted, either because the perpetrators were not disclosed or because they committed suicide. The perpetrator of the necromanic mutilation (IV:1) was not prosecuted. Six persons had assisted at the murders or mutilations or in getting rid of the bodies. Only two of them were prosecuted, and one was sentenced (I:8-2).

Six perpetrators were convicted of murder, five of manslaughter, and two of aggravated assault and causing another's death. The remaining two prosecuted perpetrators were convicted of aggravated assault. In case I:4, in spite of the medical examiner's opinion (cf Table 1), the court considered it not proven that the victim had died as a result of strangulation. In case I:8-2 an accomplice hit the victim on the head with a hammer, whereafter the perpetrator killed the victim by cutting his throat and mutilated the body. They removed the body together.

Recidivism

One perpetrator (I:3) was convicted of murder of two persons after the index crime. In the same group one person (I:4) had been found guilty of manslaughter earlier in his life. In group III one perpetrator (III:2) was convicted of murder and one of three murders (III:3a) after the index crime. The latter had previously been convicted of attempted manslaughter.

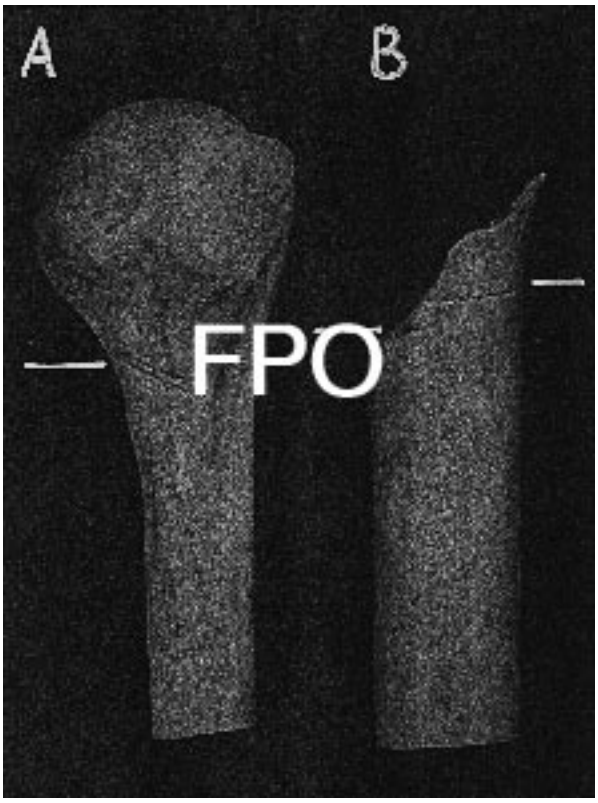

FIG. 4—*Victim I:5. Anterior aspect of the proximal portion of the left humerus (A) and left femur (B). The humerus was exarticulated, but also showed traces of a weak saw-blade (bars). The joint cartilage was free of injuries. The femur also shows traces of sawing (bars), but was broken through its weakest part, the intertrochanteric line.*

Out of all 28 involved suspects, only one (I:9) was convicted at the same time of aggravated assault and causing another's death and of violation of the grave.[4] In case IV:1 the perpetrator had dug up the mortal remains of his mother, on which he had carried out the mutilation. He was transferred to psychiatric care; no legal measures were performed.

The trial concerning case III:5 took place four years after the mutilation of the victim. For this reason the two suspected physicians could neither be charged nor tried for violation of the grave, because of a legal time limit for that particular crime. They were charged with murder, however, but were acquitted, as the district court found that there was not sufficient evidence to establish the cause of death and thereby confirm that murder had taken place. The court emphasized, however, that the two doctors were considered to be guilty of the mutilation.

Discussion

Mutilation of the human body during peacetime has become increasingly common in the past few decades all over the world (24,27,28,40,41,60,70,74,75). In the Federal Republic of Germany, Gerchow (26) reported from his study an average of 6 to 7 mutilation murders every year during a ten-year period in the sixties and seventies, i.e., about 0.1 cases per million inhabitants and year, which is similar to the 0.05 to 0.125 cases per million inhabitants and year found in our investigation during the three decades 1961–1990. There was a higher proportion of offensive mutilations in our study, 7 of 22 mutilations, compared with that in the study by Gerchow, who reported 15 cases of offensive and 64 of defensive mutilations in the Federal Republic of Germany, Austria, and Switzerland. In accordance with the report by Gerchow, we have not found any case of mutilation and disposal of an incidentally found non-murdered body or of a body of someone who had incidentally died in the presence of the suspect, in order to prevent suspicion of guilt. In Gerchow's study this was occasionally claimed, but was refuted.

There was a clear association between mutilations and the seasons of the year. Mutilation was most common during winter and summer. Defensive mutilations were more common in August, and were mostly carried out under the influence of alcohol. August is the month for crayfish parties in Sweden—a type of party with a particularly high consumption of alcohol—which might possibly explain the increased number of cases during that month. Seasonal variations of violent crimes, i.e., sexual offenses and aggravated assaults, have been observed, with a peak in July–August in the northern hemisphere and a peak in December–February in the southern hemisphere (76). Notably that mutilations occurred in time clusters. It is our impression that the focus on such crimes in most media may stimulate potential mutilators. The mutilations were more common in large towns, a finding in accordance with reports from the U.S. (24,27,41,70).

Four of nine disclosed perpetrators of the defensive mutilations committed suicide (I:2, I:4, I:5, I:8); one perpetrator (I:7) made several attempts at suicide and another one (I:3) suffered from depression with suicidal thoughts before the mutilation. The perpetrators of the offensive type (group III) were younger than those in group I. There have been no suicides in group III, a group in which we have at least one serial killer (III:3-1), which is not surprising, since necrosadistic murderers are not depressive. The crimes may represent compensatory mechanisms in the struggle for survival, which help them to get into psychological balance (28).

In four cases the cause of death could not be determined. In case I:1 a man confessed that he had killed the victim with blows on the head, and in case III:3 a man admitted that he had strangled the victim in the presence of his male friend, and he also stated that this caused sexual arousal of his friend, with ejaculation. In case I:10 no cause of death could be established, as the head was missing. In case III:5 the perpetrators probably deliberately made it impossible for the cause of death to be established. In case I:4 the court decided, despite the testimony of the forensic pathologist that death was caused by strangulation, that it might have been due to alcohol intoxication. Only in case IV:1 was the cause of death natural, and nobody questioned it.

It is our experience that the disposal of body parts has the same aim, irrespective of the motive underlying the mutilation of the body, which is not in agreement with the old concept that perpetrators of sexual-sadistic mutilations make it easy to discover the dismembered body parts. In defensive dismemberment, the body parts are often found within the perpetrator's comfort zone—as was the case in five out of ten cases in this series. The killing is usually performed without any planning and the offender suddenly finds himself with a body in his home. He is confronted with the task of getting rid of a body by performing dismemberment without any mental or practical preparations. This behavior pattern is also

[4]Violation of the grave. Criminal code of Sweden, chapter 16, paragraph 10:

Any person who without authorization moves, damages, or disrespectfully treats the body or ashes of a deceased person, opens a grave, or otherwise does damage or mischief to a coffin, urn, grave or any other object in the resting-place of the dead, or to a tomb, memorial stone or other grave marker, will be fined or sentenced to imprisonment for a maximum period of two years for the crime of violation of the grave (73).

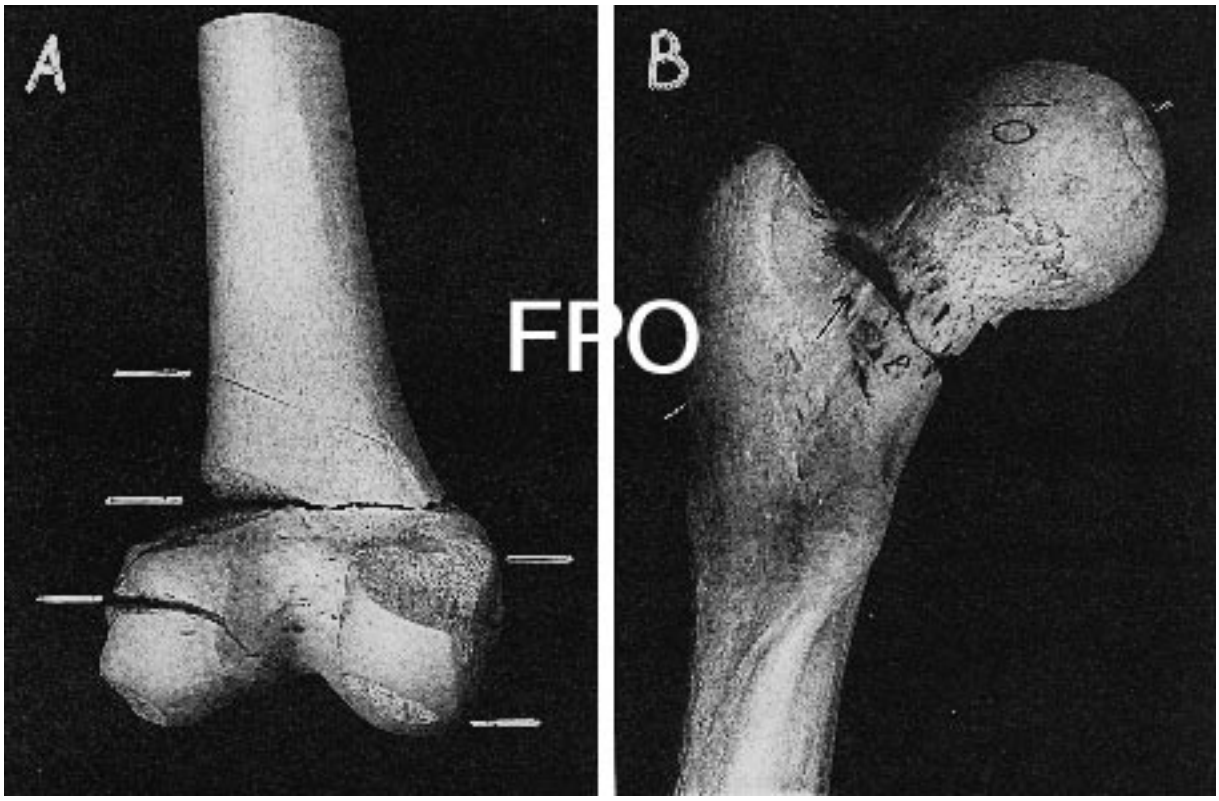

FIG. 5—*Victim III:5. Posterior aspect of the distal (A) and proximal (B) portions of the left femur. At dismemberment the distal portion was chopped by numerous chisel cuts (bars). The proximal portion was divided by a stab and cut parallel with and close to the intertrochanteric line, using a strong, one-edged knife (arrow).*

reflected in the transportation and dumping of the parts of the body or in the dead body being left at the scene of the crime.

Defensive dismemberments seem to have been performed mostly by disorganized murderers and were not planned, except in case I:1, where the perpetrator showed extremely purposeful traits in the planning of the crime. Most of the perpetrators in group I had been under psychiatric care, and most of them had experiences with alcohol and drugs. This is of particular interest in a society with increasing drug problems and with more individuals with mental problems ''in the streets'' because of the closing of psychiatric hospitals. Two of the perpetrators in group I (I:3, I:8) were psychotic when they committed their crimes; one had posttraumatic stress disorder and the other one toxic psychosis.

In aggressive mutilations the perpetrators were either relatives or friends of the victims, or they had knowledge of each other. The mutilations were the continuation of an overkilling. Mutilations of this type have been reported in cases where the perpetrator and the victim have been closely related, e.g., in homosexual relationships between men and in executions with a political or fanatic religious background, or where the motive for the killing was jealousy or revenge (41). In case II:3 where the motive was political revenge, there were elements of aggressive sexuality, as shown by attacks on the victim's genitalia, but the crime must be regarded as an organized, planned murder. The remaining three murders were committed by disorganized killers. Psychotic perpetrators with schizophrenia or affective disorders, in which conditions violence can be expected, were among those in group II.

An offensive mutilation, in our series, was usually performed by an organized murderer, who had carefully planned the mutilation as an important part of his crime. The locality where the organized murderer performs the mutilation is a place well suited for this purpose, somewhere where he is able to act out his sadistic fantasies undisturbed. It is probable that the perpetrator has killed before or is a serial killer and that the case is a result of escalating repetitive compulsive violence (24,25,41,60–66,74,75,78–80). In our study this was later proven in cases III:2 and III:3 and strongly suspected in another case, i.e., in three of seven cases.

That offensive mutilation, sexual sadism, and serial killing are closely associated is evident from studies in recent years (36,38,41,60–62,79–80). The more intelligent and manipulative the offender, the more intense the enactment of violent sadistic fantasies when he tortures his victims, and the greater the sexual arousal during this control and degradation of his victims, which calls for careful planning of the crime. Making the victim defenseless by blunt trauma, handcuffing, anesthesia, alcohol, drugs, or asphyxiation is a method of torture (36,62,81,82). It may be associated with sexual sadism, as it enables the perpetrator to exert greater control and power over the victim. In the present study asphyxiation was performed in at least four of seven cases. The offender may leave his signature, e.g., in the form of bite marks, or penetration of the victim by foreign objects (regressive necrophilia), by recording of the crime, e.g., photographing the victim, or by the way the victim is concealed, the posing or staging of the body or the removal of body parts or personal items belonging to the victim as fetishes (19,37,38,60,70,79).

Mutilation often is the culmination of a criminal career (60). Many of the murderers in group III had committed criminal acts before the mutilation, such as rape, arson, assault, battery, and cruelty to animals. In this group we found that half of the perpetrators had a history of psychiatric contacts, mostly because of anxiety, drug abuse, and violent crimes. These results underline the

great importance of analyzing the occurrence of sadistic sexuality within the large group of psychiatric patients with anxiety, drug problems and tendencies to violence. It is also of special interest to note that two of the perpetrators in group III were diagnosed as having schizophrenia. According to the organized and disorganized dichotomy devised by the FBI's Behavioral Science Unit of criminal offender typologies, the organized perpetrator is psychopathic and the disorganized perpetrator is psychotic (41). Thus, the presence of two schizophrenic perpetrators and also potential serial killers in group III (III:4, III:6), who carefully planned their murders in fantasy, is worthy of note.

Sadistic murders are not seldom combined with cannibalism and vampirism (24–28,38,41,59,61,74,75,89–91). In our study there were five cases (III:1, III:3, III:4, III:5, and III:6) in which the perpetrators confessed to cannibalism or in which this was indicated by the manner of cutting and slashing, absence of body parts, and findings indicating consumption of these parts.

The fundamental psychological mechanisms underlying these murders are considered to be aggressive projection of hostile feelings and sexual desires onto the victims. Perpetrators in necrosadistic murders with offensive mutilation of the victim usually come from very isolated and deprived backgrounds and they show indications of hidden or unconsciously repressed hostility against parental figures (5,21,30,31,47,60,89,91–94). This is especially evident in offenders who are loners, as in case III:3 and in the Jeffrey Dahmer case (86,88), where ambivalent feelings about the offender's own homosexual tendencies resulted in attraction and anticipated rejection, which in episodes of rage exploded into malign destruction (sexual sadism).

Some mechanisms behind this behavior, besides feelings of inferiority and revenge, are insufficient sexual identification due to disturbances in the preoedipal phase and resulting in outbursts of destructive, aggressive sexual behavior—instead of gratification from outlets of constructive behavior (31). By manipulation and dehumanization of the victim, the perpetrator gets a feeling of power (omnipotence), dominance and control, which compensates for his sense of inferiority and represents a mechanism in his own struggle for survival (5,60,77,92). Through a rich sadistic fantasy life the perpetrator is able to escape from the real world and find a place in which he can express hostile emotions toward other human beings. He feels that he has no control of the real world, in contrast to his fantasy world (60).

Sadistic fantasies usually develop during social isolation in persons occupied with masturbation and pornography, and there is an early fixation on sex, violence, and death (5,47,60,63,66,83,93). These fantasies of murder develop early in the life of the murderer (5,10,30,31,47,60,63,66,84,86–88,94). The violent fantasies and later murder(s) which preoccupy the perpetrator are compensatory mechanisms in his own struggle for survival, which means ''kill or get killed'' (5,32,77,94).

Necromanic mutilation was noted in only one case. This was not a murder but ''solely'' a necromanic act directed towards a buried mother by her elderly son who wanted to have parts of his mother at home for fetishes. This man was considered to be disorganized and did not make any attempt to conceal his activity. The motive may have been love or hatred towards his mother, with hidden sexual inclinations.

Necrophilia

True necrophilia, i.e., sexual attraction to the dead, is a very rare perversion (95,96). Necrophilia can be classified as either sexual or nonsexual (95). It may be described as a desire to have sexual intercourse or any other sexual contact with a corpse and to handle, be near to or gaze at corpses, and particularly to mutilate them and own them. The perpetrator is afraid of being abandoned by his victim and the most common motive for necrophilia is ''possession of an unresisting and unrejecting partner.'' In this way he can take fetishes in the form of body parts and photographs of his victim, whom he says he loves (91,97).

As previously mentioned, the participants in necrophilic acts come mainly from deprived backgrounds and show unconsciously repressed hostility toward their parents, associated with sadistic wishes, and it is suggested that there are connections between necrophilia, lust murder, sexual bondage and autoeroticism with sexual asphyxia (36,63,66,81,98–101). Necrophilia may appear as the climax of multiple and perverse acts as a consequence of conscious or unconscious death wishes. Brittain has described two practitioners of autoerotic sexual asphyxia who committed sadistic murders, and another one who fantasized about lust murder (82), and it has been suggested that there is a psychodynamic interaction between erotic self-hanging (lust suicide) and necrophilia (lust murder) (8,63,66,81,83,100–103).

Removal of the Head

In our series, the head was the most often removed body part. There may be various reasons for removal or destruction, or both, of the head:

1. to prevent identification of the victim or the perpetrator or both;
2. to make it difficult to determine the cause of death;
3. to have it as a trophy or a fetish;
4. as an act of depersonalization, which is often seen when the murderer is disorganized and has a close relation to his victim, or in offensive mutilation in a general act of dehumanization;
5. to be eaten in a cannibalistic, vampiristic and satanistic ritual; and
6. for later use as a masturbation object. That has been described in some cases of serial murder in the U.S., e.g., one of the two ''Sunset Strip Killers,'' Douglas Daniel Clark (77).

We concluded that decapitation in group I was mainly performed in order to prevent identification, in group II it was performed in order to depersonalize the victim, and in group III in order to dehumanize the victim.

Estimation of the time taken for the mutilation is difficult. According to Gerchow, two to three hours up to several hours seems reasonable for a vigorous man, and, to accomplish the mutilation within this period, resolution, will power and planning are needed. This length of time may, however, mostly concern defensive dismemberment, performed by a disorganized layman. In cases of aggressive mutilation the time taken for mutilation will probably be much shorter, from a matter of minutes up to about an hour, and in cases of offensive mutilation the time will reasonably be increased to a number of hours, which would give the perpetrator greater sexual arousal (38,79).

The investigation of bones that have been in contact with tools at the dismemberment was of particular value. Besides helping to identify the tool used, these bones can give information about the perpetrator's skill and occupation. Figures 4 and 5 illustrate brutal force leading to fractures, lack of knowledge, knowledge of anatomy and of orthopedic techniques, and also efforts to hide such

knowledge. Obviously it is possible to dissimulate knowledge in anatomy, but it is hardly possible to simulate it. According to professional slaughterhouse workers, there is a difference between ''warm'' and ''cold'' bones when cutting up animals. The former are easier to ''work with,'' and it is possible to cut and even stab them. Bone stabs (cf Fig. 5*b*) therefore indicate a prompt action close to the time of death. Disarticulation, for example, can also be performed much more easily and rapidly close to death. In case III:6 the perpetrator had his victim under ether anesthesia for at least two hours before he began to strangle him, cut his throat and immediately mutilate him alive with a knife and an electric saw.

When surveying the occupation of the perpetrator it is not surprising to find among the perpetrators of 22 mutilations two butchers, at least three medical doctors, one student with interest in anatomy, one hunter, and one veterinary assistant. In more than half of the cases there was a connection between the perpetrator's occupation and the method of mutilation and choice of instrument. The perpetrators choose their occupation because of their primary interest in the human body (97,102). We were surprised that as many as six of a total of 20 perpetrators (I:10 and II:3 excluded) had had experiences as a sailor. At present no explanation for this overrepresentation can be hypothesized.

Legal Aspects

In legal terms mutilation of a dead body in Sweden comes under the offense ''violation of the grave'' (75). The requisite ''without authorization'' refers to anyone who without valid permission or the support of the law or other statute treats the body or ashes of a deceased person, a grave, etc. in the above-mentioned way. This provision has its origin in the penal code of 1864 and has the purpose of satisfying a general interest in seeing that deceased persons are treated with respect and deference.

The fact that only one perpetrator was convicted of violation of the grave could be explained by a competition for sentence between the crimes: According to a legal principle the milder offense, i.e., violation of the grave, is assimilated by the more serious crime. This means that the perpetrator is sentenced for murder, and is not sentenced for the mutilation.

In 1993 a change was made in Sweden in this section of the criminal code (violation of the grave). The maximal sentence of six months' imprisonment was increased to two years. The reason for this, according to the legislator, was partly the problems associated with transplantations and partly the mutilation in case III:5 that had drawn much attention. One consequence of this change in the law was that the period of limitation for the crime was increased from two to five years (104–108).

Since the mutilation and the postmortem changes negatively influence the verification of the cause of death, the violation of the grave may remain the only reason for prosecution in a case of dismemberment. After the completion of our study it has been shown to be the consequence of the opinion of the Swedish Medico-legal Council (cf case III:5) that the lack of information on the cause of death at the postmortem investigation of a mutilated body leaves possibilities open for a verdict of accidental, suicidal, or natural death. Thus, if the fatal lesions are deliberately eliminated in connection with postmortem mutilation, the ideal of achieving the perfect murder will be fulfilled.

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