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INTRODUCTION

In many countries throughout the world, extra-legal, arbitrary and summary executions take place undocumented and undetected. These executions include:

(a) political assassinations;

(b) deaths resulting from torture or ill-treatment in prison or detention;

(c) death resulting from enforced "disappearances";

(d) deaths resulting from the excessive use of force by law-enforcement personnel;

(e) executions without due process; and

(f) acts of genocide. The failure to detect and disclose these executions to the international community is a major obstacle to the rendering of justice for past executions and the prevention of future executions. This Manual is the result of several years of analysis, research and drafting undertaken because of extra-legal, arbitrary and summary executions throughout the world. Its purpose is to supplement the "Principles on the effective prevention and investigation of extra-legal, arbitrary and summary executions", adopted by the Economic and Social Council in its resolution 1989/65 of 24 May 1989, on the recommendation of the Committee on Crime Prevention and Control, at its tenth session, held in Vienna, from 5 to 16 February 1990.

Concurrent to the elaboration of the Principles, there was concerted action by non-governmental organizations to provide additional guidance in the area of effective prevention and investigation of extra-legal, arbitrary and summary executions, by offering technical advice on the meaningful implementation of the Principles.

The preparation of this Manual was greatly facilitated by the Minnesota Lawyers International Human Rights Committee. At its initiative, an international group of experts...
in forensic science, lawyers, human rights experts and others volunteered their time and expertise to assist in the preparation of the draft Principles and to provide appropriate follow-up for their implementation, the contents of which constitute the major part of the Manual.

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**I. INTERNATIONAL HUMAN RIGHTS STANDARDS**

A number of international standards outlaw arbitrary deprivation of life The Universal Declaration of Human Rights, adopted by the General Assembly in its resolution 217 A (III) of 10 December 1948, states that "everyone has the right to life, liberty, and security of person". The International Covenant on Civil and Political Rights, adopted by the General Assembly in its resolution 2200 A (XXI) of 16 December 1966, which was promulgated in 1966 and has been ratified by 87 States, provides in article 6, that "no one shall be arbitrarily deprived of his life". Prohibitions of extra-legal, arbitrary and summary executions are also found in the following instruments: the American Convention on Human Rights, article 4(l): "No one shall be arbitrarily deprived of his life"; the African Charter on Human and Peoples' Rights, article 4: "Every human being
shall be entitled to respect for his life and the integrity of his person. No one may be arbitrarily deprived of this right"; and the European Convention for the Protection of Human Rights and Fundamental Freedoms, article 2(l): "No one shall be deprived of his life intentionally save in the execution of a sentence of a court following his conviction of a crime for which this penalty is provided by laws".

The international organs and bodies that have been active in implementing the right to be free from arbitrary deprivation of life include the General Assembly, the Economic and Social Council, the Committee on Crime Prevention and Control, the Commission on Human Rights and its Special Rapporteur on summary or arbitrary executions, the Sub-Commission on Prevention of Discrimination and Protection of Minorities, the Human Rights Committee and the International Labour Organisation; the Inter-American Commission on Human Rights; the African Commission on Human and People's Rights; and the European Commission on Human Rights. Significant action taken by these international bodies to prevent extra-legal, arbitrary and summary executions are discussed below. back to the top

A. United Nations
   1. General Assembly

The General Assembly of the United Nations, by its resolution 35/172 of 15 December 1980, adopted for the first time a specific resolution on arbitrary or summary executions in which, concerned at the occurrence of the executions that are widely regarded as being politically motivated, Member States concerned were urged to respect as a minimum standard the content of the relevant provisions of the International Covenant on Civil and Politic Rights so as to guarantee the most careful legal procedures and the greatest possible safeguards. In resolution 36/22 of 9 November 1981, the General Assembly, bearing in mind the results of the Sixth United Nations Congress on the Prevention of Crime and the Treatment of Offenders (see section A.7, below), condemned the practice of summary executions and arbitrary execution and invited all Member States, specialized agencies, regional, interregional organizations and relevant non-governmental organizations to answer the Secretary-General's request for their views and observations concerning the problem of arbitrary executions and summary executions to be reported to the Committee on Crime Prevention and Control at its seventh session in 1982 section A.6, below). In resolutions 37/182 of 17 December 1982, 38/96 of 16 December 1983, 39/110 of 14 December 1984 and 40/143 of 13 December 1985 the Assembly charted a course of action aimed at strengthening the United Nations position against summary or arbitrary executions.

On 4 December 1986, the General Assembly adopted resolution 41/144, strongly condemning the large number of summary or arbitrary executions that continued to take place in various parts of the world. The Assembly also endorsed the conclusion of the Special Rapporteur on Summary or Arbitrary Executions, appointed by the Economic and Social Council in 1982, that it was necessary to develop international standards designed to ensure that investigations were conducted in all cases of suspicious death including provisions for an adequate autopsy (E/CN.4/1986/21).
In its resolution 42/141 of 7 December 1987, the Assembly took an additional step towards encouraging the drafting of international standards by inviting the Special Rapporteur to continue to receive information from appropriate United Nations bodies and other international organizations, to examine the elements to be included in such standards and to report to the Commission on Human Rights on progress made in that respect. The Assembly, therefore, not only recognized that a gap existed in international protection against arbitrary or summary executions, but also stimulated its subsidiary bodies to take an active interest in filling that gap. In doing so, the Assembly has been instrumental in advancing the process of promulgating such new standards. In its resolution 43/151 of 8 December 1988, the Assembly invited Governments, international organizations and non-governmental organizations to support the efforts made in United Nations forums towards the adoption of international standards for the proper investigation of all deaths in suspicious circumstances, including provision for adequate autopsy. Further, the Assembly endorsed the elements proposed by the Special Rapporteur for inclusion in such international standards. Keeping that in mind, the Assembly, by resolution 44/162 of 15 December 1989 endorsed the Principles adopted by the Economic and Social Council and, in resolution 44/159 of the same date, encouraged Governments, international organizations and nongovernmental organizations to organize training programmes and support projects with a view to training or educating law enforcement officials in human rights issues connected to their work and appealed to the international community to support endeavours to that end.

In parallel to this work, the Assembly adopted by resolution 39/46, annex, of 10 December 1984, the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, which became effective on 26 June 1987. In its preamble, the Convention referred to the Declaration on the Protection of All Persons from being Subjected to Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, adopted by the Assembly in resolution 3452 (M), annex, of 9 December 1975, on the recommendation of the Fifth United Nations Congress on the Prevention of Crime and the Treatment of Offenders.

That Convention not only specifies that the States Parties will outlaw torture in their national legislation, but also notes explicitly that no order from a superior or exceptional circumstance may be invoked as a justification of torture. The Convention also introduces two new elements of particular significance to efforts by the United Nations to combat torture. The first is that, henceforth a torturer may be prosecuted wherever he is to be found in the territory of any State Party to the Convention, since the Convention specifies that persons alleged to have committed acts of torture may be tried in any State Party or that they may be extradited so that they may be tried in the State Party where they committed their crimes. The second new element is that the Convention contains a provision that allows for an international inquiry if there is reliable information indicating that torture is being systematically practised in the territory of a State Party to the Convention. Such an inquiry may include a visit to the State Party concerned, with its agreement.
The States Parties to the Convention also pledge to take effective legislative, administrative, judicial or other measures to prevent acts of torture in any territory under their jurisdiction. No exceptional circumstances whatsoever, whether a state of war, internal political instability or any other public emergency, may be invoked as a justification of torture.

Under the Convention, no State Party may expel, return or extradite a person to another State where there are substantial grounds for believing that he would be in danger of being subjected to torture.

The States Parties agree to afford one another the greatest measure of assistance in connection with criminal proceedings brought forward in respect of acts of torture, and to ensure that education and information regarding the prohibition against torture are fully included in the training of law enforcement personnel, civil or military, medical personnel, public officials and other persons who may be involved in the custody, interrogation or treatment of any individual subjected to any form of arrest, detention or imprisonment.

The States Parties also undertake to ensure in their legal systems that the victims of acts of torture obtain redress and have an enforceable right fair and adequate compensation, including the means for as full a rehabilitation as possible.

2. Economic and Social Council

The Economic and Social Council of the United Nations has repeatedly addressed the question of arbitrary or summary executions. For example, the Council has continuously and consistently appealed to Governments, regional intergovernmental organizations and non-governmental organizations to take effective action to combat and eliminate summary or arbitrary executions, including extra-legal executions. The Council has also encouraged and endorced a number of initiatives to be taken by the human rights and criminal justice bodies of the United Nations, which are described below, aimed at eliminate that alarming and deplorable practice.

3. Commission on Human Rights

Sub-Commission on Prevention of Discrimination and Protection of Minorities the Commission of Human Rights

In 1987 the Working Group on Detention annexed to its report (E/CN.4/Sub.2/1987/15) to the Sub-Commission on Prevention of Discrimination and Protection of Minorities of the Commission on Human Rights an explanatory paper on the elaboration of norms guaranteeing an impartial investigation into arbitrary execution or suspicious violent death, in particular during detention. Creating norms for autopsy procedures was noted as
being particularly useful in determining whether or not a death was suspicious. That report contained also draft standards for the investigation of arbitrary execution submitted by the International Commission of Jurists.

In its report for 1988 (E/CNA/1989/3 - E/CN.4/Sub.2/1988/45), the Sub-Commission by decision 1988/109 requested the Secretary-General to provide with a document describing the work being done in other international forum on international standards for adequate investigations into all cases of suspicious deaths in detention as well as adequate autopsy.

In 1989, the Sub-Commission considered a report of the Secretary-General (E/CN.4/Sub.2/1989/25) summarizing the activities of various United Nations bodies concerning international standards for investigating suspicious deaths, including adequate autopsy.

Two Special Rapporteurs have been appointed at the request of the Commission on Human Rights.

**Special Rapporteur on summary or arbitrary executions**

In March 1982, the Economic and Social Council by its resolution 1982/35 of 7 May 1982 authorized a Special Rapporteur to study the questions related to summary or arbitrary executions. The Special Rapporteur, Mr. Amos Wako of Kenya, was appointed in 1982 at the request of the Commission on Human Rights, and immediately began the task of collecting information from around the world on summary or arbitrary executions. He has since prepared eight annual reports addressing a wide range of issues concerning summary or arbitrary executions and informing the Commission of his activities, including urgent appeals to Governments.

In 1986, the Special Rapporteur included in his report (E/CN.4/1986/21) to the Commission on Human Rights, consideration of the measures to be taken when a death occurs in custody.

"One of the ways in which Governments can show that they want this abhorrent phenomenon of arbitrary or summary executions eliminated is by investigating, holding inquests, prosecuting and punishing those found guilty. There is therefore a need to develop international standards designed to ensure that investigations are conducted into all cases of suspicious death and in particular those at the hands of the law enforcement agencies in all situations. Such standards should include adequate autopsy. A death in any type of custody should be regarded as prima facie a summary or arbitrary execution, and appropriate investigation should immediately be made to confirm or rebut the presumption. The results of investigations should be made public (para. 209)."

Referring to the Principles adopted by the Economic and Social Council in its resolution 1989/65 of 24 May 1989, the Special Rapporteur stated that "his position with regard to
the implementation of his mandate is strongly supported by this resolution”. He will now refer to the Principles in his annual examination of alleged incidents of summary or arbitrary executions. The Special Rapporteur stated further that "any Government's practice that fails to reach the standards set out in the Principles may be regarded as an indication of the Government's responsibility, even if no government officials are found to be directly involved in the acts". He recommended that Governments review national laws and regulations, as well as the practice of judicial and law enforcement authorities, with a view to securing effective implementation of the standards set by Council resolution 1989/65.

This report focused on "the absence of investigation, prosecution and/or punishment in cases of death in suspicious circumstances" (E/CN.4/1986/21). The Special Rapporteur noted that Governments were extremely reluctant to investigate deaths where military or law enforcement agencies were involved. Often, in those cases, as noted by other writers, autopsies or inquest proceedings either did not take place or crucial information, such as evidence of torture, was omitted.

In response to the Special Rapporteur's report of 1987 (E/CN.4/1987/20), the Commission on Human Rights welcomed his recommendation that Governments should review the machinery for investigation of deaths under suspicious circumstances in order to secure an impartial, independent investigation on such deaths, including an adequate autopsy. The Commission also welcomed the Special Rapporteur's recommendation that international organizations should make a concerted effort to draft international standards designed to ensure proper investigation by appropriate authorities into all cases of suspicious death, including provisions for adequate autopsy.

In his 1988 report (E/CN.4/1988122) to the Commission, the Special Rapporteur devoted an entire section to a discussion on the importance of standards for proper investigation into all cases of suspicious deaths. In particular, he outlined seven elements that should be included as a minimum in such standards: promptness, impartiality, thoroughness, protection, representation of the family of the victim, publication of the findings and an independent commission of inquiry. The Commission endorsed these recommendations.

By its resolution 1989/64 of 8 March 1989, the Commission took note with appreciation of the subsequent report of the Special Rapporteur (E/CN.4/1989/25 and again welcomed his recommendations with a view to eliminating summary or arbitrary executions. Following that with a further report (E/CN.4/1990/22), the Special Rapporteur reviewed new developments in summary or arbitrary executions. He took note of a particularly alarming trend, which was rapidly spreading, of death threats directed, in particular, against persons who played key roles in defending human rights and achieving social and criminal justice. At the same time, however, he noted considerable achievements made by the General Assembly and the Economic and Social Council in areas directly or indirectly related to his mandate.
Special Rapporteur on torture

The Commission on Human Rights decided, in its resolution 1985/33, to appoint a Special Rapporteur to examine questions relevant to torture, requesting him to seek and receive credible and reliable information on such question! and to respond to that information without delay. This decision was subsequently approved by the Council in its decision 1985/144 of 30 May 1985.

The mandate of the Special Rapporteur on questions relevant to torture requests him to report to the Commission, which is composed of government representatives, on the phenomenon of torture in general. To this end, he establishes contact with Governments and asks them for information on the legislative and administrative measures taken to prevent torture and to remedy its consequences whenever it occurs.

The Special Rapporteur is also expected to respond effectively to the credible and reliable information that comes before him. This provision of the Special Rapporteur's mandate has led to the urgent action procedure, which considerably increases the effectiveness of his activities.

The Special Rapporteur's task extends to all States Members of the United Nations and to all States with observer status. He corresponds with Governments, requesting them to inform him of the measures they have taken or plan to take to prevent or combat torture. He also receives requests for urgent action, which he brings to the attention of the Governments concerned in order to ensure protection of the individual's right to physical and mental integrity. In addition, he holds consultations with government representatives who wish to meet with him and, in accordance with his mandate, makes consultation visits to some parts of the world.

For his future activities, the Special Rapporteur recommended to the Commission on Human Rights that:

Detention incommunicado should be declared illegal; Any person who is arrested should be brought without delay before a competent judge, who should rule immediately on the lawfulness of his arrest and authorize him to see a lawyer; Any person arrested should undergo a medical examination; Any detainee who dies should be autopsied in the presence of a representative of his family; External experts should regularly inspect places of detention.

4. Human Rights Committee

The Human Rights Committee, established under the International Covenant on Civil and Political Rights, article 28, has created a body of jurisprudence in individual cases of arbitrary executions in custody, particularly in connection with the implementation of the
relevant provisions of the Optional Protocol to that Convention. In the case of Eduardo Bleier, for example, the Committee considered the allegations by Bleier's mother and wife that he had been held incommunicado and tortured to death by the Uruguayan military. 4/The Committee refused to accept the Uruguayan Government's denial at face value. Instead, upon receiving evidence from fellow prisoners who had witnessed Bleier's torture, the Committee concluded that he had been tortured in violation of article 7 of the International Covenant on Civil and Political Rights, and that there were serious reasons to believe that the Uruguayan authorities had killed Bleier in violation of article 6 of the International Covenant. The Committee urged the Uruguayan Government to bring to justice any persons responsible for Bleier's death, disappearance and ill-treatment, and to pay compensation to his family for his death.

A further example was that, in April 1985, the Human Rights Committee found the arbitrary executions of 15 opponents to the military ruler of Suriname in December 1982 to constitute an intentional violation of article 6(1) of the Covenant. The Committee urged the Government to take effective steps to investigate the executions, to bring the responsible persons to justice, to pay compensation to the families and to ensure future protection of the right to life.

5. Committee against Torture

The implementation of the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment is monitored by the Committee against Torture, which consists of 10 experts of high moral standing and recognized competence in the field of human rights. Under article 19 of the Convention, the States parties submit to the Committee, through the Secretary General of the United Nations, reports on the measures they have taken under the Convention. Each report is considered by the Committee, which may make general comments and include such information in its annual report to the States parties and to the General Assembly.

Under article 20 of the Convention, if the Committee receives reliable information which appears to it to contain well-founded indications that torture is being systematically practised in the territory of a State Party, the Committee invites that State Party to cooperate in the examination of the information and to this end to submit observations with regard to the information concerned. The Committee may, if it decides that this is warranted, designate one or more of its members to make a confidential inquiry and to report to the Committee urgently. In agreement with that State Party, such an inquiry may include a visit to its territory.

After examining the findings of its member or members submitted to it, the Committee transmits these findings to the State Party concerned together with any comments or suggestions which seem appropriate in view of the situation.

All the proceedings of the Committee under article 20 are confidential and, at all stages.
of the proceedings, the co-operation of the State Party is sought. After such proceedings have been completed, the Committee may, after consultations with the State Party concerned, decide to include a summary account of the results of the proceedings in its annual report to the other States Parties and to the General Assembly.

6. **Committee on Crime Prevention and Control**

The General Assembly in its resolution 35/172 of 15 December 1980 requested the Secretary-General to report to the Committee on Crime Prevention and Control at its seventh session, held at Vienna, from 15 to 24 March 1982, on the question of arbitrary or summary executions. By resolution 36/22 of 9 November 1981, the Assembly requested the Committee to examine that question with a view to making recommendations. Having reviewed the report submitted by the Secretary-General (E/AC.57/1982/4 and Corr.1 and Add.1), the Committee recommended to the Economic and Social Council the adoption of a resolution on arbitrary or summary executions.

The Council, in its resolution 1983/24 of 26 May 1983, strongly condemned and deplored the brutal practice of summary executions and decided that the Committee should further study the question of death penalties that do not meet the acknowledged minimum legal guarantees and safeguards, as contained in the International Covenant on Civil and Political Rights and other international instruments.

The Committee at its eighth session, held at Vienna, from 21 to 30 March 1984, elaborated a number of safeguards guaranteeing protection of the rights of those facing the death penalty. The Council adopted the safeguards recommended by the Committee in resolution 1984/50, annex, of 25 May 1984.

The Council, in its resolution 1986/110 of 21 May 1986, section VI, requested that the Secretary-General should submit a report on extra-legal, arbitrary and summary executions to the Committee on Crime Prevention and Control at its tenth session in 1988, held at Vienna, from 22 to 31 August 1988. The Secretary-General submitted a report entitled "Extra-legal, arbitrary and summary executions and measures for their prevention and investigation" (E/AC.57/1988/5). On the basis of discussion at the Committee, including statements made by non-governmental organizations, the Committee recommend to the Council the adoption of a draft containing the Principles on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions. The Committee has been entrusted with the function of periodically reviewing the implementation of these Principles.

7. **United Nations congresses on the prevention of crime and the treatment of offenders**

In 1980, the Sixth United Nations Congress on the Prevention of Crime and the Treatment of Offenders in its Caracas Declaration stressed, inter alia, that "criminal
policy and the administration of justice should be based on principles that will guarantee the equality of everyone before the law without any discrimination, as well as the effective right of defence and the existence of judicial organs that are equal to the task of providing speedy and fair justice and of ensuring greater security and protection of the rights and freedoms of all people". In resolution 5 on extra-legal executions, the Congress called upon all Governments to take effective measures to prevent extra-legal executions and urged all organs of the United Nations dealing with questions of crime prevention and human rights to take all possible action to bring such acts to an end.

In 1985, the Seventh United Nations Congress also adopted a resolution on extra-legal, arbitrary and summary executions calling upon all Governments to take urgent and incisive action to investigate such acts, wherever they may occur, to punish those found guilty and to take all other measures necessary to prevent those practices.

B. International Labour Organisation

The Committee on Freedom of Association of the Governing Body of the International Labour Organisation (ILO) reviews complaints alleging the executions of trade unionists around the world. Regarding the deaths of Rudolf Vierra, Mark Pearlman, and Michael Hammer in El Salvador, the ILO Committee requested that the Government of El Salvador transmit the results of the judicial inquiry underway and pursue actively its investigations into these murders.

C. Regional organizations

1. Inter-American Commission on Human Rights

The Inter-American Commission on Human Rights has taken an approach similar to the Human Rights Committee of the United Nations in cases involving arbitrary executions. For example, in Case No. 7481 of 8 March 1982, regarding executions by a military regiment in Bolivia in 1980, the Inter-American Commission found violations of common article 3 of the Geneva Conventions, which had been ratified by the Bolivian Government. The Commission recommended, among other remedies, that the Bolivian Government "order a fuller and impartial investigation to determine responsibility for the excess and abuses"

In two landmark decisions, the Inter-American Court of Human Rights found the Government of Honduras in violation of articles 4 (right to life); 5 (right to humane treatment); and 7 (right to personal liberty) of the American Convention on Human Rights. The Court in the Velasquez Rodriguez Case and the Godinez Cruz Case, ruled that in cases of "disappearances" the duty [on the part of the Government of Honduras] to investigate facts of this type continues as long as there is uncertainty about the fate of the person disappeared and ordered Honduras to pay damages to the families of the victims. Furthermore, the Inter-American Court adopted measures, taken in response to the assassination of two important witnesses, insisting upon the protection of witnesses
appearing as part of the investigation.

2. **African Commission on Human and People's Rights**

The recently established African Commission on Human and People's Right a subsidiary body of the Organization of African Unity, has not yet considered any cases involving the arbitrary deprivation of life. The Commission's mandate stems from the African Charter of Human and People's Rights, which provides inter alia that the Commission may enter into written communication with a State Party of the Charter when it is alleged by another State party that the former has violated the provisions of the Charter.

3. **European Commission on Human Rights**

The European Commission on Human Rights has reviewed fewer cases involving the right to life than the Inter-American Commission. In one case, Cyprus v. Turkey, the European Commission considered whether the Turkish army had engaged in mass executions of civilians at the time of the invasion of Cyprus. The Commission found sufficient eyewitnesses and second-hand testimony from refugees to conclude that there were "strong indications of executions committed on a substantial scale". The Committee of Ministers took note of the Commission's report and urged talks between the Greek and Turkish communities on Cyprus, but took no further action on the matter.

II. THE ELABORATION OF INTERNATIONAL STANDARDS FOR EFFECTIVE PREVENTION OF EXTRA-LEGAL, ARBITRARY AND SUMMARY EXECUTIONS

The need for an international scientific protocol for the investigation of deaths has been recognized for several years. In 1979, the Danish Medical Group of Amnesty International expressed a desire for established international rules for the completion of death certificates. In 1984, J. L. Thomsen observed that forensic medicine was being practised in different ways, and that common guidelines and definitions would facilitate communications.

Non-governmental organizations emphasized the need for developing and adopting international standards as a practical outcome of their missions to countries where extra-legal, arbitrary and summary executions were alleged to take place. For example, an Amnesty International mission to one country found in 1983 that the procedures of the authorities for recording and investigating violent deaths were totally inadequate for determining the causes of more than 40,000 deaths that had occurred between 1979 and 1984, or for identifying the parties responsible. The procedures were even inadequate to determine the precise number of these deaths.

Similarly, a delegation from the American Association for the Advancement of Science sent to another country to assist in the identification of thousands of persons abducted or
killed between 1976 and 1983 concluded that the identification of the remains was beyond the capabilities of local institutions, and recommended the establishment of a national investigative centre with well-trained forensic scientists and a director with independent investigative powers. The delegation, however, was optimistic that even the identification of the remains of a small number of the "disappeared" and a determination of the causes of their deaths could be a significant deterrent if those responsible for the deaths could be identified and brought to justice.

Even when Governments order inquests, investigators often find it difficult to ascertain the facts surrounding arbitrary executions. Eyewitness accounts may be hard to obtain because witnesses fear reprisals or because the only witnesses were those conducting executions themselves. Assassins often conceal their crimes by making their victims "disappear". As a result, bodies of victims are usually found months or years later, buried in shallow, unmarked graves. Disposal in this manner often complicates identification of the body and determination of the cause and manner of death. In some cases, the natural decomposition of the body's soft tissue erases evidence of trauma such as bruising, stab wounds or gunpowder burns. In others, the perpetrators deliberately mutilate the person, either before or after death, in an attempt to thwart identification or to intimidate others.

Most countries have a system for investigating the cause of death in cases with unusual or suspicious circumstances. Such a procedure provides some reassurance that unexplained deaths do not remain unexplained and that the perpetrator is tried by a competent court established by law. In some countries, however, these procedures have broken down or have been abused, particularly where the death may have been caused by the police, the army or other government agents. In these cases, a thorough and independent investigation is rarely done. Evidence that could be used to prosecute the offender is ignored or covered up, and those involved in the executions go unpunished.

To address the need for developing uniform standards, the international community began to formulate a set of principles and medicolegal standards for the investigation and prevention of extra-legal, arbitrary and summary executions. That work, which dates back to the beginning of the 1980s, made considerable advances with the preparation of the Principles on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions recommended by the Committee on Crime Prevention and Control at its tenth session in Vienna in 1988. The Principles set forth in annex 1 were adopted by the Economic and Social Council in its resolution 1989/165, annex, of 24 May 1989 and endorsed by the General Assembly in its resolution 44/162 of 15 December 1989.

It is hoped that observance of the provisions of the Principles will lead to a decrease of extra-legal, arbitrary and summary executions in two ways. First, use of the adopted procedures during death investigations should produce the evidence necessary for increased detection and disclosure of other executions. The persons responsible for such executions can then be held accountable through judicial or political sanctions. Secondly, adoption of the standards will also provide international observers with guidelines to evaluate investigations of suspicious deaths. Non-compliance with the standards can be
publicized and pressure brought against non-complying Governments, especially where extra-legal, arbitrary and summary executions are believed to have occurred. If a Government refuses to establish impartial inquest procedures in such cases, it might be inferred that the Government is hiding such executions. The fear of condemnation by the international community may encourage government compliance with the inquest standards, which, in turn, should reduce extralegal, arbitrary and summary executions.

An additional benefit of compliance with these standards is that a Government suspected of involvement in an extra-legal, arbitrary and summary execution would have an opportunity of satisfying the international community, as well as its own people, that it was not responsible for the death of a particular person or persons. A Government's compliance with these standards, regardless of the outcome of an inquiry, may increase confidence in the rule of law, including the commitment of Governments to human rights.

III. MODEL PROTOCOL FOR A LEGAL INVESTIGATION OF EXTRA-LEGAL, ARBITRARY AND SUMMARY EXECUTIONS("MINNESOTA PROTOCOL")

A. Introduction

Suspected extra-legal, arbitrary and summary executions can be investigated under established national or local laws and can lead to criminal proceedings. In some cases, however, investigative procedures may be inadequate because of the lack of resources and expertise or because the agency assigned to conduct the investigation may be partial. Hence, such criminal proceedings are less likely to be brought to a successful outcome.

The following comments may enable those conducting investigations and other parties, as appropriate, to obtain some in-depth guidance for conducting investigations. Such guidance in a general way, has been set out in the Principles on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions (see annex I, below, paragraphs 9-17). The guidelines set forth in this proposed model protocol for a legal investigation of extra-legal, arbitrary and summary executions are not binding. Instead, the model protocol is meant to be illustrative of methods for carrying out the standards enumerated in the Principles.

By definition, this model protocol cannot be exhaustive as the variety of legal and political arrangements escapes its application. Also, investigative techniques vary from country to country and these cannot be standardized in the form of internationally adopted principles. Consequently, additional comments may be relevant for the practical implementation of the Principles.

Sections B and C of this model protocol contain guidelines for the investigation of all violent, sudden, unexpected or suspicious deaths, including suspected extra-legal,
arbitrary and summary executions. These guidelines apply to investigations conducted by law enforcement personnel and by members of an independent commission of inquiry.

Section D provides guidelines for establishing a special independent commission of inquiry. These guidelines are based on the experiences of several countries that have established independent commissions to investigate alleged arbitrary executions.

Several considerations should be taken into account when a Government decides to establish an independent commission of inquiry. First, persons subject to an inquiry should be guaranteed the minimum procedural safeguards protected by international law* at all stages of the investigation. Secondly, investigators should have the support of adequate technical and administrative personnel, as well as access to objective, impartial legal advice to ensure that the investigation will produce admissible evidence for later criminal proceedings. Thirdly, investigators should receive the full scope of the Government's resources and powers. Finally, investigators should have the power to seek help from the international community of experts in law, medicine and forensic sciences.

----NOTE *: In particular, all persons must be guaranteed the due process rights set forth in article 14 of the International Covenant on Civil and Political Rights.

The fundamental principles of any viable investigation into the causes of death are competence, thoroughness, promptness and impartiality of the investigation, which flow from paragraphs 9 and 11 of the Principles. These elements can be adapted to any legal system and should guide all investigations of alleged extra-legal, arbitrary and summary executions.

B. Purposes of an inquiry

As set out in paragraph 9 of the Principles, the broad purpose of an inquiry is to discover the truth about the events leading to the suspicious death of a victim. To fulfil this purpose, those conducting the inquiry shall, at a minimum, seek:

(a) To identify the victim;

(b) To recover and preserve evidentiary material related to the death to aid in any potential prosecution of those responsible;

(c) To identify possible witnesses and obtain statements from them concerning the death;

(d) To determine the cause, manner, location and time of death, as well as any pattern or practice that may have brought about the death;

(e) To distinguish between natural death, accidental death, suicide and homicide;
(f) To identify and apprehend the person(s) involved in the death;

(g) To bring the suspected perpetrator(s) before a competent court established by law.

C. Procedures of an inquiry

One of the most important aspects of a thorough and impartial investigation of an extralegal, arbitrary and summary execution is the collection and analysis of evidence. It is essential to recover and preserve physical evidence, and to interview potential witnesses so that the circumstances surrounding a suspicious death can be clarified.

1. Processing of the crime scene

Law enforcement personnel and other non-medical investigators should co-ordinate their efforts in processing the scene with those of medical personnel. Persons conducting an investigation should have access to the scene where the body was discovered and to the scene where the death may have occurred:

(a) The area around the body should be closed off. Only investigator and their staff should be allowed entry into the area;

(b) Colour photographs of the victim should be taken as these, in comparison with black and white photographs, may reveal in more detail the nature and circumstances of the victim's death;

(c) Photographs should be taken of the scene (interior and exterior) of any other physical evidence;

(d) A record should be made of the body position and condition of the clothing;

(e) The following factors may be helpful in estimating the time of death:

   (i) Temperature of the body (warm, cool, cold);

   (ii) Location and degree of fixation of lividity;

   (iii) Rigidity of the body;

   (iv) Stage of its decomposition;

   (f) Examination of the scene for blood should take place. Any samples of blood,
hair, fibres and threads should be collected and preserved;

(g) If the victim appears to have been sexually assaulted, this fact should be recorded;

(h) A record should be made of any vehicles found in the area;

(i) Castings should be made and preserved of pry marks, tyre or shoe impressions, or any other impressions of an evidentiary nature;

(j) Any evidence of weapons, such as guns, projectiles, bullets and cartridge cases, should be taken and preserved. When applicable, tests for gunshot residue and trace metal detection should be performed;

(k) Any fingerprints should be located, developed, lifted and preserved;

(l) A sketch of the crime scene to scale should be made showing all relevant details of the crime, such as the location of weapons, furniture, vehicles, surrounding terrain, including the position, height and width of items, and their relationship to each other;

(m) A record of the identity of all persons at the scene should be made, including complete names, addresses and telephone numbers;

(n) Information should be obtained from scene witnesses, including those who last saw the decedent alive, when, where and under what circumstances;

(o) Any relevant papers, records or documents should be saved for evidentiary use and handwriting analysis.

2. **Processing of the evidence**

(a) The body must be identified by reliable witnesses and other objective methods;

(b) A report should be made detailing any observations at the scene, actions of investigators and disposition of all evidence recovered;

(c) Property forms listing all evidence should be completed;

(d) Evidence must be properly collected, handled, packaged, labelled and placed in safekeeping to prevent contamination and loss of evidence.
3. Avenues to investigation

(a) What evidence is there, if any, that the death was premeditated and intentional, rather than accidental? Is there any evidence of torture?

(b) What weapon or means was used and in what manner?

(c) How many persons were involved in the death?

(d) What other crime, if any, and the exact details thereof, was committed during or associated with the death?

(e) What was the relationship between the suspected perpetrator(s) and the victim prior to the death?

(f) Was the victim a member of any political, religious, ethnic or social group(s), and could this have been a motive for the death?

4. Personal testimony

(a) Investigators should identify and interview all potential witnesses to the crime, including:

(i) Suspects;

(ii) Relatives and friends of the victim;

(iii) Persons who knew the victim;

(iv) Individuals residing or located in the area of the crime;

(v) Persons who knew or had knowledge of the suspects;

(vi) Persons who may have observed either the crime, the scene, the victim or the suspects in the week prior to the execution;

(vii) Persons having knowledge of possible motives;

(b) Interviews should take place as soon as possible and should be written and/or taped. All tapes should be transcribed and maintained;
D. Commission of inquiry

In cases where government involvement is suspected, an objective and impartial investigation may not be possible unless a special commission of inquiry is established. A commission of inquiry may also be necessary where the expertise of the investigators is called into question. This section sets out factors that give rise to a presumption of government complicity, partiality or insufficient expertise on the part of those conducting the investigation. Any one of these presumptions should trigger the creation of a special commission of inquiry. It then sets out procedures that can be used as a model for the creation and function of commissions of inquiry. The procedures were derived from the experience of major inquiries that have been mounted to investigate executions or similarly grievous cases of human rights violations.

Establishing a commission of inquiry entails defining the scope of the inquiry, appointing commission members and staff, determining the type of proceedings to be followed and selecting procedures governing those proceedings, and authorizing the commission to report on its findings and make recommendations. Each of these areas will be covered separately.

1. Factors triggering a special investigation

Factors that support a belief that the Government was involved in the execution, and that should trigger the creation of a special impartial investigation commission include:

(a) Where the political views, religious or ethnic affiliation, or social status of the victim give rise to a suspicion of government involvement or complicity in the death because of any one or combination of the following factors:

   (i) Where the victim was last seen alive in police custody or detention;

   (ii) Where the modus operandi is recognizably attributable to government-sponsored death squads;

   (iii) Where persons in the Government or associated with the Government have attempted to obstruct or delay the investigation of the execution;

   (iv) Where the physical or testimonial evidence essential to the investigation becomes unavailable.
(b) As set out in paragraph 11 of the Principles, an independent commission of inquiry or similar procedure should also be established where a routine investigation is inadequate for the following reasons:

(i) The lack of expertise; or

(ii) The lack of impartiality; or

(iii) The importance of the matter; or

(iv) The apparent existence of a pattern of abuse; or

(v) Complaints from the family of the victim about the above inadequacies or other substantial reasons.

2. **Defining the scope of the inquiry**

Governments and organizations establishing commissions of inquiry need to define the scope of the inquiry by including terms of reference in their authorization. Defining the commission's terms of reference can greatly increase its success by giving legitimacy to the proceedings, assisting commission members in reaching a consensus on the scope of inquiry and providing a measure by which the commission's final report can be judged. Recommendations for defining terms of reference are as follows:

(a) They should be neutrally framed so that they do not suggest a predetermined outcome. To be neutral, terms of reference must not limit investigations in areas that might uncover government responsibility for extra-legal, arbitrary and summary executions;

(b) They should state precisely which events and issues are to be investigated and addressed in the commission's final report;

(c) They should provide flexibility in the scope of inquiry to ensure that thorough investigation by the commission is not hampered by overly restrictive or overly broad terms of reference. The necessary flexibility may be accomplished, for example by permitting the commission to amend its terms of reference as necessary. It is important, however, that the commission keep the public informed of any amendments to its charge.

3. **Power of the commission**

The principles set out in a general manner the powers of the commission. More
specifically such a commission would need the following:

(a) To have the authority to obtain all information necessary to the inquiry, for example, for determining the cause, manner and time of death, including the authority to compel testimony under legal sanction, to order the production of documents including government and medical records, and to protect witnesses, families of the victim and other sources;

(b) To have the authority to issue a public report;

(c) To have the authority to prevent the burial or other disposal of the body until an adequate postmortem examination has been performed;

(d) To have the authority to conduct on-site visits, both at the scene where the body was discovered and at the scene where the death may have occurred;

(e) To have the authority to receive evidence from witnesses and organizations located outside the country.

4. Membership qualifications

Commission members should be chosen for their recognized impartiality, competence and independence as individuals:

**Impartiality.** Commission members should not be closely associated with any individual, government entity, political party or other organization potentially implicated in the execution or disappearance, or an organization or group associated with the victim, as this may damage the commission's credibility.

**Competence.** Commission members must be capable of evaluating and weighing evidence, and exercising sound judgement. If possible, commissions of inquiry should include individuals with expertise in law, medicine, forensic science and other specialized fields, as appropriate.

**Independence.** Members of the commission should have a reputation in their community for honesty and fairness.

5. Number of commissioners

The Principles do not contain a provision on the number of members of the commission, but it would not be unreasonable to note that objectivity of the investigation and commission's findings may, among other things, depend on whether it has three or more members rather than one or two. Investigations into extra-legal, arbitrary and summary
executions should, in general, not be conducted by a single commissioner. A single, isolated commissioner will generally be limited in the depth of investigation he or she can conduct alone. In addition, a single commissioner will have to make controversial and important decisions without debate, and will be particularly vulnerable to governmental and other outside pressure.

6. **Choosing a commission counsel**

Commissions of inquiry should have impartial, expert counsel. Where the commission is investigating allegations of governmental misconduct, it would be advisable to appoint counsel outside the Ministry of Justice. The chief counsel to the commission should be insulated from political influence, as through civil service tenure, or status as a wholly independent member of the bar.

7. **Choosing expert advisors**

The investigation will often require expert advisors. Technical expertise in such areas as pathology, forensic science and ballistics should be available to the commission.

8. **Choosing investigators**

To conduct a completely impartial and thorough investigation, the commission will almost always need its own investigators to pursue leads and to develop evidence. The credibility of an inquiry will be significantly enhanced to the extent that the commission can rely on its own investigators.

9. **Protection of witnesses**

(a) The Government shall protect complainants, witnesses, those conducting the investigation, and their families from violence, threats of violence or any other form of intimidation;

(b) If the commission concludes that there is a reasonable fear of persecution, harassment, or harm to any witness or prospective witness, the commission may find it advisable:

   (i) To hear the evidence in camera;

   (ii) To keep the identity of the informant or witness confidential;

   (iii) To use only such evidence as will not present a risk of identifying the witness;
10. **Proceedings**

It follows from general principles of criminal procedure that hearings should be conducted in public, unless in camera proceedings are necessary to protect the safety of a witness. In camera proceedings should be recorded and the closed, unpublished record kept in a known location.

Occasionally, complete secrecy may be required to encourage testimony, and the commission will want to hear witnesses privately, informally and without recording testimony.

11. **Notice of inquiry**

Wide notice of the establishment of a commission and the subject of the inquiry should be given. The notice should also include an invitation to submit relevant information and/or written statements to the commission, and instructions to persons wishing to testify. Notice can be disseminated through newspapers, magazines, radio, television, leaflets and posters.

12. **Receipt of evidence**

Power to compel evidence. As emphasized in Principle 10 (see annex I), commissions of inquiry should have the power to compel testimony and production of documents: in this context, Principle 10 refers to "the authority to oblige officials" allegedly involved in extra-legal, arbitrary and summary executions. Practically, this authority may involve the power to impose fines or sentences if the Government or individuals refuse to comply.

Use of witness statements. Commissions of inquiry should invite persons to testify or submit written statements as a first step in gathering evidence Written statements may become an important source of evidence if their author become afraid to testify, cannot travel to proceedings, or are otherwise unavailable.

Use of evidence from other proceedings. Commissions of inquiry should review other proceedings that could provide relevant information. For example the commission should obtain the findings from an inquest into cause of death conducted by a coroner or medical examiner. Such inquests generally rely on postmortem or autopsy examinations. A commission of inquiry should review the inquest and the results of the autopsy presented to the inquest to determine if they were conducted thoroughly and impartially. If the inquest and autopsy were so conducted, the coroner's findings are entitled to be given great weight.
13. **Rights of parties**

As mentioned in Principle 16, families of the deceased and their legal representatives shall be informed of, and have access to, any hearing and to all information relevant to the investigation, and shall be entitled to present evidence. This particular emphasis on the role of the family as a party to the proceedings implies the specially important role the family's interests play in the conduct of the investigation. However, all other interested parties should also have the opportunity at being heard. As mentioned in Principle 10, the investigative body shall be entitled to issue summons to witnesses, including the officials allegedly involved and to demand the production of evidence. All these witnesses should be permitted legal counsel if they are likely to be harmed by the inquiry, for example, when their testimony could expose them to criminal charges or civil liability. Witnesses may not be compelled to testify against themselves regarding matter unrelated to the scope of inquiry.

There should be an opportunity for the effective questioning of witnesses by the commission. Parties to the inquiry should be allowed to submit written questions to the commission.

14. **Evaluation of evidence**

The commission shall assess all information and evidence it receives to determine its relevance, veracity, reliability and probity. The commission should evaluate oral testimony based upon the demeanour and overall credibility of the witness. Corroboration of evidence from several sources will increase the probative value of such evidence. The reliability of hearsay evidence from several sources will increase the probative value of such evidence. The reliability of hearsay evidence must be considered carefully before the commission should accept it as fact. Testimony not tested by cross-examination must also be viewed with caution. In camera testimony preserved in a closed record or not recorded at all is often not subjected to cross-examination and therefore may be given less weight.

15. **The report of the commission**

As stated in Principle 17, the commission should issue a public report within a reasonable period of time. It may be added that where the commission is not unanimous in its findings, the minority commissioner(s) should file a dissenting opinion.

From the practical experience gathered, commission of inquiry reports should contain the following information:

(a) The scope of inquiry and terms of reference;
(b) The procedures and methods of evaluating evidence;

(c) A list of all witnesses who have testified, except for those whose identities are withheld for protection and who have testified in camera, and exhibits received in evidence;

(d) The time and place of each sitting (this might be annexed to the report);

(e) The background to the inquiry such as relevant social, political and economic conditions;

(f) The specific events that occurred and the evidence upon which such findings are based;

(g) The law upon which the commission relied;

(h) The commission's conclusions based upon applicable law and findings of fact;

(i) Recommendations based upon the findings of the commission.

16. Response of the Government

The Government should either reply publicly to the commission's report or should indicate what steps it intends to take in response to the report.

IV. MODEL AUTOPSY PROTOCOL

A. Introduction

Difficult or sensitive cases should ideally be the responsibility of an objective, experienced, well-equipped and well-trained prosector (the person performing the autopsy and preparing the written report) who is separate from any potentially involved political organization or entity. Unfortunately, this ideal is often unattainable. This proposed model autopsy protocol includes a comprehensive checklist of the steps in a basic forensic postmortem examination that should be followed to the extent possible given the resources available. Use of this autopsy protocol will permit early and final resolution of potentially controversial cases and will thwart the speculation and innuendo that are fueled by unanswered, partially answered or poorly answered questions in the investigation of an apparently suspicious death.

This model autopsy protocol is intended to have several applications and may be of value to the following categories of individuals:
(a) Experienced forensic pathologists may follow this model autopsy protocol to ensure a systematic examination and to facilitate meaningful positive or negative criticism by later observers. While -trained pathologists may justifiably abridge certain aspects of the postmortem examination or written descriptions of their findings in routine cases, abridged examinations or reports are never appropriate in potentially controversial cases. Rather, a systematic and comprehensive examination and report are required to prevent the omission or loss of important details;

(b) General pathologists or other physicians who have not been trained in forensic pathology but are familiar with basic postmortem examination techniques may supplement their customary autopsy procedures with this model autopsy protocol. It may also alert them to situations in which they should seek consultation, as written material cannot replace the knowledge gained through experience;

(c) Independent consultants whose expertise has been requested in observing, performing or reviewing an autopsy may cite this model autopsy protocol and its proposed minimum criteria as a basis for their actions or opinions;

(d) Governmental authorities, international political organizations, law enforcement agencies, families or friends of decedents, or representatives of potential defendants charged with responsibility for a death may use this model autopsy protocol to establish appropriate procedures for the postmortem examination prior to its performance;

(e) Historians, journalists, attorneys, judges, other physicians and representatives of the public may also use this model autopsy protocol as a benchmark for evaluating an autopsy and its findings;

(f) Governments or individuals who are attempting either to establish or upgrade their medicolegal system for investigating deaths may use this model autopsy protocol as a guideline, representing the procedures and goals to be incorporated into an ideal medicolegal system.

While performing any medicolegal death investigation, the prossector should collect information that will establish the identity of the deceased, the time and place of death, the cause of death, and the manner or mode of death (homicide, suicide, accident or natural).

It is of the utmost importance that an autopsy performed following a controversial death be thorough in scope. The documentation and recording of the autopsy findings should be equally thorough so as to permit meaningful use of the autopsy results (see annex II). It is important to have as few omissions or discrepancies as possible, as proponents of different interpretations of a case may take advantage of any perceived shortcomings in
the investigation. An autopsy performed in a controversial death should meet certain minimum criteria if the autopsy report is to be proffered as meaningful or conclusive by the prosector, the autopsy's sponsoring agency or governmental unit, or anyone else attempting to make use of such an autopsy's findings or conclusions.

This model autopsy protocol is designed to be used in diverse situations. Resources such as autopsy rooms, X-ray equipment or adequately trained personnel are not available everywhere. Forensic pathologists must operate under widely divergent political systems. In addition, social and religious customs vary widely throughout the world; an autopsy is an expected and routine procedure in some areas, while it is abhorred in others. A prosector, therefore, may not always be able to follow all of the steps in this protocol when performing autopsies. Variation from this protocol may be inevitable or even preferable in some cases. It is suggested, however, that any major deviations, with the supporting reasons, should be noted.

It is important that the body should be made available to the prosector for a minimum of 12 hours in order to assure an adequate and unhurried examination. Unrealistic limits or conditions are occasionally placed upon the prosector with respect to the length of time permitted for the examination or the circumstances under which an examination is allowed. When conditions are imposed, the prosector should be able to refuse to perform a compromised examination and should prepare a report explaining this position. Such a refusal should not be interpreted as indicating that an examination was unnecessary or inappropriate. If the prosector decides to proceed with the examination notwithstanding difficult conditions or circumstances, he or she should include in the autopsy report an explanation of the limitations or impediments.

Certain steps in this model autopsy protocol have been emphasized by the use of boldface type. These represent the most essential elements of the protocol.

**B. Proposed model autopsy protocol**

1. **Scene investigation**

The prosector(s) and medical investigators should have the right of access to the scene where the body is found. The medical personnel should be notified immediately to assure that no alteration of the body has occurred. If access to the scene was denied, if the body was altered or if information was withheld, this should be stated in the prosector's report.

A system for co-ordination between the medical and non-medical investigators (e.g. law enforcement agencies) should be established. This should address such issues as how the prosector will be notified and who will be in charge of the scene. Obtaining certain types of evidence is often the role of the non-medical investigators, but the medical investigators who have access to the body at the scene of death should perform the following steps:

(a) Photograph the body as it is found and after it has been moved;
(b) Record the body position and condition, including body warmth or coolness, lividity and rigidity;

(c) Protect the deceased's hands, e.g. with paper bags;

(d) Note the ambient temperature. In cases where the time of death is an issue, rectal temperature should be recorded and any insects present should be collected for forensic entomological study. Which procedure is applicable will depend on the length of the apparent postmortem interval;

(e) Examine the scene for blood, as this may be useful in identifying suspects;

(f) Record the identities of all persons at the scene;

(g) Obtain information from scene witnesses, including those who last saw the decedent alive, and when, where and under what circumstances. Interview any emergency medical personnel who may have had contact with the body;

(h) Obtain identification of the body and other pertinent information from friends or relatives. Obtain the deceased's medical history from his or her physician(s) and hospital charts, including any previous surgery, alcohol or drug use, suicide attempts and habits;

(i) Place the body in a body pouch or its equivalent. Save this pouch after the body has been removed from it;

(j) Store the body in a secure refrigerated location so that tampering with the body and its evidence cannot occur;

(k) Make sure that projectiles, guns, knives and other weapons are available for examination by the responsible medical personnel;

(l) If the decedent was hospitalized prior to death, obtain admission or blood specimens and any X-rays, and review and summarize hospital records;

(m) Before beginning the autopsy, become familiar with the types of torture or violence that are prevalent in that country or locale (see annex II).

2. **Autopsy**

The following Protocol should be followed during the autopsy:
(a) Record the date, starting and finishing times, and place of the autopsy (a complex autopsy may take as long as an entire working day);

(b) Record the name(s) of the prosector(s), the participating assistant(s), and all other persons present during the autopsy, including the medical and/or scientific degrees and professional, political or administrative affiliations(s) of each. Each person's role in the autopsy should be indicated, and one person should be designated as the principal prosector who will have the authority to direct the performance of the autopsy. Observers and other team members are subject to direction by, and should not interfere with, the principal prosector. The time(s) during the autopsy when each person is present should be included. The use of a "sign-in" sheet is recommended;

(c) Adequate photographs are crucial for thorough documentation of autopsy findings:

(i) Photographs should be in colour (transparency or negative/ print), in focus, adequately illuminated, and taken by a professional or good quality camera. Each photograph should contain a ruled reference scale, an identifying case name or number, and a sample of standard grey. A description of the camera (including the lens "f-number" and focal length), film and the lighting system must be included in the autopsy report. If more than one camera is utilized, the identifying information should be recorded for each. Photographs should also include information indicating which camera took each picture, if more than one camera is used. The identity of the person taking the photographs should be recorded;

(ii) Serial photographs reflecting the course of the external examination must be included. Photograph the body prior to and following undressing, washing or cleaning and shaving;

(iii) Supplement close-up photographs with distant and/or immediate range photographs to permit orientation and identification of the close-up photographs;

(iv) Photographs should be comprehensive in scope and must confirm the presence of all demonstrable signs of injury or disease commented upon in the autopsy report;

(v) Identifying facial features should be portrayed (after washing or cleaning the body), with photographs of a full frontal aspect of the face, and right and left profiles of the face with hair in normal position and with hair retracted, if necessary, to reveal the ears;
(d) Radiograph the body before it is removed from its pouch or wrappings. X-rays should be repeated both before and after undressing the body. Fluoroscopy may also be performed. Photograph all X-ray films;

(i) Obtain dental X-rays, even if identification has been established in other ways;

(ii) Document any skeletal system injury by X-ray. Skeletal X-rays may also record anatomic defects or surgical procedures. Check especially for fractures of the fingers, toes and other bones in the hands and feet. Skeletal X-rays may also aid in the identification of the deceased, by detecting identifying characteristics, estimating age and height, and determining sex and race. Frontal sinus films should also be taken, as these can be particularly useful for identification purposes;

(iii) Take X-rays in gunshot cases to aid in locating the projectile(s). Recover, photograph and save any projectile or major projectile fragment that is seen on an X-ray. Other radio-opaque objects (pacemakers, artificial joints or valves, knife fragments etc.) documented with X-rays should also be removed, photographed and saved;

(iv) Skeletal X-rays are essential in children to assist in determining age and developmental status;

(e) Before the clothing is removed, examine the body and the clothing. Photograph the clothed body. Record any jewellery present;

(f) The clothing should be carefully removed over a clean sheet or body pouch. Let the clothing dry if it is bloody or wet. Describe the clothing that is removed and label it in a permanent fashion. Either place the clothes in the custody of a responsible person or keep them, as they may be useful as evidence or for identification;

(g) The external examination, focusing on a search for external evidence of injury is, in most cases, the most important portion of the autopsy;

(i) Photograph all surfaces - 100 per cent of the body area. Take good quality, well-focused, colour photographs with adequate illumination;

(ii) Describe and document the means used to make the identification. Examine the body and record the deceased's apparent age, length, weight, sex, head hair style and length, nutritional status, muscular development and colour of skin, eyes and hair (head, facial and body);
(iii) In children, measure also the head circumference, crown-rump length and crown-heel length;

(iv) Record the degree, location and fixation of rigor and livor mortis;

(v) Note body warmth or coolness and state of preservation; note any decomposition changes, such as skin slippage. Evaluate the general condition of the body and note adipocere formation, maggots, eggs or anything else that suggests the time or place of death;

(vi) With all injuries, record the size, shape, pattern, location (related to obvious anatomic landmarks), colour, course, direction, depth and structure involved. Attempt to distinguish injuries resulting from therapeutic measures from those unrelated to medical treatment. In the description of projectile wounds, note the presence or absence of soot, gunpowder, or singeing. If gunshot residue is present, document it photographically and save it for analysis. Attempt to determine whether the gunshot wound is an entry or exit wound. If an entry wound is present and no exit wound is seen, the projectile must be found and saved or accounted for. Excise wound tract tissue samples for microscopic examination. Tape together the edges of knife wounds to assess the blade size and characteristics;

(vii) Photograph all injuries, taking two colour pictures of each, labelled with the autopsy identification number on a scale that is oriented parallel or perpendicular to the injury. Shave hair where necessary to clarify an injury, and take photographs before and after shaving. Save all hair removed from the site of the injury. Take photographs before and after washing the site of any injury. Wash the body only after any blood or material that may have come from an assailant has been collected and saved;

(viii) Examine the skin. Note and photograph any scars, areas of keloid formation, tattoos, prominent moles, areas of increased or decreased pigmentation, and anything distinctive or unique such as birthmarks. Note any bruises and incise them for delineation of their extent. Excise them for microscopic examination. The head and genital area should be checked with special care. Note any injection sites or puncture wounds and excise them to use for toxicological evaluation. Note any abrasions and excise them; microscopic sections may be useful for attempting to date the time of injury. Note any bite marks; these should be photographed to record the dental pattern, swabbed for saliva testing (before the body is washed) and excised for microscopic examination. Bite marks should also be analysed by a forensic
odontologist, if possible. Note any burn marks and attempt to determine the cause (burning rubber, a cigarette, electricity, a blowtorch, acid, hot oil etc.). Excise any suspicious areas for microscopic examination, as it may be possible to distinguish microscopically between burns caused by electricity and those caused by heat;

(ix) Identify and label any foreign object that is recovered, including its relation to specific injuries. Do not scratch the sides or tip of any projectiles. Photograph each projectile and large projectile fragment with an identifying label, and then place each in a sealed, padded and labelled container in order to maintain the chain of custody;

(x) Collect a blood specimen of at least 50 cc from a subclavian or femoral vessel;

(xi) Examine the head and external scalp, bearing in mind that injuries way be hidden by the hair. Shave hair where necessary. Check for fleas and lice, as these way indicate unsanitary conditions prior to death. Note any alopecia as this may be caused by malnutrition, heavy metals (e.g. thallium), drugs or traction. Pull, do not cut, 20 representative head hairs and save them, as hair may also be useful for detecting some drugs and poisons;

(xii) Examine the teeth and note their condition. Record any that are absent, loose or damaged, and record all dental work (restorations, fillings etc.), using a dental identification system to identify each tooth. Check the gums for periodontal disease. Photograph dentures, if any, and save them if the decedent's identity is unknown. Remove the mandible and maxilla if necessary for identification. Check the inside of the mouth and note any evidence of trauma, injection sites, needle marks or biting of the lips, cheeks or tongue. Note any articles or substances in the mouth. In cases of suspected sexual assault, save oral fluid or get a swab for spermatozoa and acid phosphatase evaluation. (Swabs taken at the tooth-gum junction and samples from between the teeth provide the best specimens for identifying spermatozoa.) Also take swabs from the oral cavity for seminal fluid typing. Dry the swabs quickly with cool, blown air if possible, and preserve them in clean plain paper envelopes. If rigor mortis prevents an adequate examination, the masseter muscles may be cut to permit better exposure;

(xiii) Examine the face and note if it is cyanotic or if petechiae are present;
a. Examine the eyes and view the conjunctiva of both the globes and the eyelids. Note any petechiae in the upper or lower eyelids. Note any scleral icterus. Save contact lenses, if any are present. Collect at least 1 ml of vitreous humor from each eye.

b. Examine the nose and ears and note any evidence of trauma, hemorrhage or other abnormalities. Examine the tympanic membranes;

(xiv) Examine the neck externally on all aspects and note any contusions, abrasions or petechia. Describe and document injury patterns to differentiate manual, ligature and hanging strangulation. Examine the neck at the conclusion of the autopsy, when the blood has drained out of the area and the tissues are dry;

(xv) Examine all surfaces of the extremities: arms, forearms, wrists, hands, legs and feet, and note any "defence" wounds. Dissect and describe any injuries. Note any bruises about the wrists or ankles that may suggest restraints such as handcuffs or suspension. Examine the medial and lateral surfaces of the fingers, the anterior forearms and the backs of the knees for bruises;

(xvi) Note any broken or missing fingernails. Note any gunpowder residue on the hands, document photographically and save it for analysis. Take fingerprints in all cases. If the decedent's identity is unknown and fingerprints cannot be obtained, remove the "glove" of the skin, if present. Save the fingers if no other means of obtaining fingerprints is possible. Save finger nail clippings and any under-nail tissue (nail scrapings). Examine the fingernail and toenail beds for evidence of object having been pushed beneath the nails. Nails can be removed, dissecting the lateral margins and proximal base, and then the undersurface of the nails can be inspected. If this is done, the hands must be photographed before and after the nails are removed. Carefully examine the soles of the feet, noting any evidence of beating. Incise the soles to delineate the extent of any injuries. Examine the palms and knees, looking especially for glass shards or lacerations;

(xvii) Examine the external genitalia and note the presence of any foreign material or semen. Note the size, location and number of any abrasions or contusions. Note any injury to the inner thighs or perianal area. Look for peri-anal burns;

(xviii) In cases of suspected sexual assault, examine all potentially
involved orifices. A speculum should be used to examine the vaginal walls. Collect foreign hair by combing the pubic hair. Pull and save at least 20 of the deceased's own pubic hairs, including roots. Aspirate fluid from the vagina and/or rest, for acid phosphatase, blood group and spermatozoa evaluation. Take swabs from the same areas for seminal fluid typing. Dry the swabs quickly with cool, blown air if possible, and preserve them in clean plain paper envelopes;

(xix) The length of the back, the buttocks and extremities including wrists and ankles must be systematically incised to look for deep injuries. The shoulders, elbows, hips and knee joints must also be incised to look for ligamentous injury;

(h) The internal examination for internal evidence of injury should clarify and augment the external examination;

(i) Be systematic in the internal examination. Perform the examination either by body regions or by systems, including the cardiovascular, respiratory, biliary, gastrointestinal, reticuloendothelial, genitourinary, endocrine, musculoskeletal, and central nervous systems. Record the weight, size, shape, colour and consistency of each organ, and note any neoplasia, inflammation, anomalies, haemorrhage, ischemia, infarcts, surgical procedures or injuries. Take sections of normal and any abnormal areas of each organ for microscopic examination. Take samples of any fractured bones for radiographic and microscopic estimation of the age of the fracture;

(ii) Examine the chest. Note any abnormalities of the breasts. Record any rib fractures, noting whether cardiopulmonary resuscitation was attempted. Before opening, check for pneumothoraces. Record the thickness of subcutaneous fat. Immediately after opening the chest, evaluate the pleural cavities and the pericardial sac for the presence of blood or other fluid, and describe and quantify any fluid present. Save any fluid present until foreign objects are accounted for. Note the presence of air embolism, characterized by frothy blood within the right atrium and right ventricle. Trace any injuries before removing the organs. If blood is not available at other sites, collect a sample directly from the heart. Examine the heart, noting degree and location of coronary artery disease or other abnormalities. Examine the lungs, noting any abnormalities;

(iii) Examine the abdomen and record the amount of subcutaneous fat. Retain 50 grams of adipose tissue for toxicological evaluation. Note the interrelationships of the organs. Trace any injuries before removing the organs. Note any fluid or blood present in the peritoneal cavity,
and save it until foreign objects are accounted for. Save all urine and bile for toxicologic examination;

(iv) Remove, examine and record the quantitative information on the liver, spleen, pancreas, kidneys and adrenal glands. Save at least 150 grams each of kidney and liver for toxicological evaluation. Remove the gastrointestinal tract and examine the contents. Note any food present and its degree of digestion. Save the contents of the stomach. If a more detailed toxicological evaluation is desired, the contents of other regions of the gastrointestinal tract may be saved. Examine the rectum and anus for burns, lacerations or other injuries. Locate and retain any foreign bodies present. Examine the aorta, inferior vena cava and iliac vessels;

(v) Examine the organs in the pelvis, including ovaries, fallopian tubes, uterus, vagina, testes, prostate gland, seminal vesicles, urethra and urinary bladder. Trace any injuries before removing the organs. Remove these organs carefully so as not to injure them artifactually. Note any evidence of previous or current pregnancy, miscarriage or delivery. Save any foreign objects within the cervix, uterus, vagina, urethra or rectum;

(vi) Palpate the head and examine the external and internal surfaces of the scalp, noting any trauma or haemorrhage. Note any skull fractures. Remove the calvarium carefully and note epidural and subdural haematomas. Quantify, date and save any haematomas that are present. Remove the dura to examine the internal surface of the skull for fractures. Remove the brain and note any abnormalities. Dissect and describe any injuries. Cerebral cortical atrophy, whether focal or generalized, should be specifically commented upon;

(vii) Evaluate the cerebral vessels. Save at least 150 grams of cerebral tissue for toxicological evaluation. Submerge the brain in fixative prior to examination, if this is indicated;

(viii) Examine the neck after the heart and brain have been removed and the neck vessels have been drained. Remove the neck organs, taking care not to fracture the hyoid bone. Dissect and describe any injuries. Check the mucosa of the larynx, pyriform sinuses and esophagus, and note any petechiae, edema or burns caused by corrosive substances. Note any articles or substances within the lumina of these structures. Examine the thyroid gland. Separate and examine the parathyroid glands, they are readily identifiable;

(ix) Dissect the neck muscles, noting any haemorrhage. Remove all organs, including the tongue. Dissect the muscles from the bones and
note any fractures of the hyoid bone or thyroid or cricoid cartilages;

(x) Examine the cervical, thoracic and lumbar spine. Examine the vertebrae from their anterior aspects and note any fractures, dislocations, compressions or haemorrhages. Examine the vertebral bodies. Cerebrospinal fluid may be obtained if additional toxicological evaluation is indicated;

(xi) In cases in which spinal injury is suspected, dissect and describe the spinal cord. Examine the cervical spine anteriorly and note any haemorrhage in the paravertebral muscles. The posterior approach is best for evaluating high cervical injuries. Open the spinal canal and remove the spinal cord. Make transverse sections every 0.5 cm and note any abnormalities;

(i) After the autopsy has been completed, record which specimens have been saved. Label all specimens with the name of the deceased, the autopsy identification number, the date and time of collection, the name of the prosector and the contents. Carefully preserve all evidence and record the chain of custody with appropriate release forms;

(i) Perform appropriate toxicologic tests and retain portions of the tested samples to permit retesting;

a. Tissues: 150 grams of liver and kidney should be saved routinely. Brain, hair and adipose tissue may be saved for additional studies in cases where drugs, poisons or other toxic substances are suspected;b. Fluids: 50 cc (if possible) of blood (spin and save serum in all or some of the tubes), all available urine, vitreous humor and stomach contents should be saved routinely. Bile, regional gastrointestinal tract contents and cerebrospinal fluid should be saved in cases where drugs, poisons or toxic substances are suspected. Oral, vaginal and rectal fluid should be saved in cases of suspected sexual assault;

(ii) Representative samples of all major organs, including areas of normal and any abnormal tissue, should be processed histologically and stained with hematoxylin and eosin (and other stains as indicated). The slides, wet tissue and paraffin blocks should be kept indefinitely;

(iii) Evidence that must be saved includes:

a. All foreign objects, including projectiles, projectile fragments, pellets, knives and fibres. Projectiles must be subjected to ballistic analysis;
b. All clothes and personal effects of the deceased, worn by or in the possession of the deceased at the time of death;

c. Fingernails and under nail scrapings;

d. Hair, foreign and pubic, in cases of suspected sexual assault. Head hair, in cases where the place of death or location of the body prior to its discovery may be an issue;

(j) After the autopsy, all unretained organs should be replaced in the body, and the body should be well embalmed to facilitate a second autopsy in case one is desired at some future point;

(k) The written autopsy report should address those items that are emphasized in boldface type in the protocol. At the end of the autopsy report should be a summary of the findings and the cause of death. This should include the prosector's comments attributing any injuries to external trauma, therapeutic efforts, postmortem change, or other causes. A full report should be given to the appropriate authorities and to the deceased's family.

V. MODEL PROTOCOL FOR DISINTERMENT AND ANALYSIS OF SKELETAL REMAINS

A. Introduction

This proposed model protocol for the disinterment and analysis of skeletal remains includes a comprehensive checklist of the steps in a basic forensic examination. The objectives of an anthropological investigation are the same as those of a medicolegal investigation of a recently deceased person. The anthropologist must collect information that will establish the identity of the deceased, the time and place of death, the cause of death and the manner or mode of death (homicide, suicide, accident or natural). The approach of the anthropologist differs, however, because of the nature of the material to be examined. Typically, a prosector is required to examine a body, whereas an anthropologist is required to examine a skeleton. The prosector focuses on information obtained from soft tissues, whereas the anthropologist focuses on information from hard tissues. Since decomposition is a continuous process, the work of both specialists can overlap. An anthropologist may examine a fresh body when bone is exposed or when bone trauma is a factor. An experienced prosector may be required when mummified tissues are present. In some circumstances, use of both this protocol and the model autopsy protocol may be necessary to yield the maximum information. The degree of decomposition of the body will dictate the type of investigation and, therefore, the protocol(s) to be followed.

The questions addressed by the anthropologist differ from those pursued in a typical
autopsy. The anthropological investigation invests more time and attention to basic questions such as the following:

(a) Are the remains human?

(b) Do they represent a single individual or several?

(c) What was the decedent's sex, race, stature, body weight, handedness and physique?

(d) Are there any skeletal traits or anomalies that could serve to positively identify the decedent?

The time, cause and manner of death are also addressed by the anthropologist, but the margin of error is usually greater than that which can be achieved by an autopsy shortly after death.

This model protocol may be of use in many diverse situations. Its application may be affected, however, by poor conditions, inadequate financial resources or lack of time. Variation from the protocol may be inevitable or even preferable in some cases. It is suggested, however, that any major deviations, with the supporting reasons, should be noted in the final report.

B. Proposed model skeletal analysis protocol

1. Scene investigation

A burial recovery should be handled with the same exacting care given to a crime-scene search. Efforts should be co-ordinated between the principal investigator and the consulting physical anthropologist or archaeologist. Human remains are frequently exhumed by law enforcement officers or cemetery workers unskilled in the techniques of forensic anthropology. Valuable information may be lost in this manner and false information is sometimes [----- Page 35 of original-----] generated. Disinterment by untrained persons should be prohibited. The consulting anthropologist should be present to conduct or supervise the disinterment. Specific problems and procedures accompany the excavation of each type of burial. The amount of information obtained from the excavation depends on knowledge of the burial situation and judgement based on experience. The final report should include a rationale for the excavation procedure.

The following procedure should be followed during disinterment:

(a) Record the date, location, starting and finishing times of the disinterment, and the names of all workers;
(b) Record the information in narrative form, supplemented by sketches and photographs;

(c) Photograph the work area from the same perspective before work begins and after it ends every day to document any disturbance not related to the official procedure;

(d) In some cases, it is necessary to first locate the grave within a given area. There are numerous methods of locating graves, depending on the age of the grave:

(i) An experienced archaeologist may recognize clues such as changes in surface contour and variation in local vegetation;

(ii) A metal probe can be used to locate the less compact soil characteristics of grave fill;

(iii) The area to be explored can be cleared and the top soil scraped away with a flat shovel. Graves appear darker than the surrounding ground because the darker topsoil has mixed with the lighter subsoil in the grave fill. Sometimes a light spraying of the surface with water may enhance a grave's outline;

(e) Classify the burial as follows:

(i) Individual or commingled. A grave may contain the remains of one person buried alone, or it may contain the commingled remains of two or more persons buried either at the same time or over a period of time;

(ii) Isolated or adjacent. An isolated grave is separate from other graves and can be excavated without concern about encroaching upon another grave. Adjacent graves, such as in a crowded cemetery, require a different excavation technique because the wall of one grave is also the wall of another grave;

(iii) Primary or secondary. A primary grave is the grave in which the deceased is first placed. If the remains are then removed and reburied, the grave is considered to be secondary;

(iv) Undisturbed or disturbed. An undisturbed burial is unchanged (except by natural processes) since the time of primary burial. A disturbed burial is one that has been altered by human intervention after the time of primary burial. All secondary burials are considered
to be disturbed; archaeological methods can be used to detect a disturbance in a primary burial;

(f) Assign an unambiguous number to the burial. If an adequate numbering system is not already in effect, the anthropologist should devise a system;

(g) Establish a datum point, then block and map the burial site using an appropriate-sized grid and standard archaeological techniques. In some cases, it may be adequate simply to measure the depth of the grave from the surface to the skull and from the surface to the feet. Associated material can then be recorded in terms of their position relative to the skeleton;

(h) Remove the overburden of earth, screening the dirt for associated materials. Record the level (depth) and relative co-ordinates of any such findings. The type of burial, especially whether primary or secondary, influences the care and attention that needs to be given to this step. Associated materials located at a secondary burial site are unlikely to reveal the circumstances of the primary burial but may provide information on events that have occurred after that burial;

(i) Search for items such as bullets or jewelry, for which a metal detector can be useful, particularly in the levels immediately above and below the level of the remains;

(j) Circumscribe the body, when the level of the burial is located, and, when possible, open the burial pit to a minimum of 30 cm on all sides of the body;

(k) Pedestal the burial by digging on all sides to the lowest level of the body (approximately 30 cm). Also pedestal any associated artifacts;

(l) Expose the remains with the use of a soft brush or whisk broom. Do not use a brush on fabric, as it may destroy fibre evidence. Examine the soil found around the skull for hair. Place this soil in a bag for laboratory study. Patience is invaluable at this time. The remains may be fragile, and interrelationships of elements are important and may be easily disrupted. Damage can seriously reduce the amount of information available for analysis;

(m) Photograph and map the remains in situ. All photographs should include an identification number, the date, a scale and an indication of magnetic north;

(i) First photograph the entire burial, then focus on significant details so that their relation to the whole can be easily visualized;

(ii) Anything that seems unusual or remarkable should be
photographed at close range. Careful attention should be given to evidence of trauma or pathological change, either recent or healed;

(iii) Photograph and map all associated materials (clothes, hair, coffin, artifacts, bullets, casings etc.). The map should include a rough sketch of the skeleton as well as any associated materials;

(n) Before displacing anything, measure the individual:

(i) Measure the total length of the remains and record the terminal points of the measurement, e.g. apex to plantar surface of calcaneus (note: This is not a stature measurement);

(ii) If the skeleton is so fragile that it may break when lifted, measure as much as possible before removing it from the ground;

(o) Remove all elements and place them in bags or boxes, taking care to avoid damage. Number, date and initial every container;

(p) Excavate and screen the level of soil immediately under the burial. A level of "sterile" (artifact-free) soil should be located before ceasing excavation and beginning to backfill.

2. Laboratory analysis of skeletal remains

The following protocol should be followed during the laboratory analysis of the skeletal remains:

(a) Record the date, location, starting and finishing times of the skeletal analysis, and the names of all workers;

(b) Radiograph all skeletal elements before any further cleaning:

(i) Obtain bite-wing, apical and panoramic dental X-rays, if possible;

(ii) The entire skeleton should be X-rayed. Special attention should be directed to fractures, developmental anomalies and the effects of surgical procedures. Frontal sinus films should be included for identification purposes;

(c) Retain some bones in their original state; two lumbar vertebrae should be adequate. Rinse the rest of the bones clean but do not soak or scrub them. Allow the bones to dry;
(d) Lay out the entire skeleton in a systematic way:

(i) Distinguish left from right;

(ii) Inventory every bone and record on a skeletal chart;

(iii) Inventory the teeth and record on a dental chart. Note broken, carious, restored and missing teeth;

(iv) Photograph the entire skeleton in one frame. All photographs should contain an identification number and scale;

(e) If more than one individual is to be analysed, and especially if there is any chance that comparisons will be made between individuals, number every element with indelible ink before any other work is begun;

(f) Record the condition of the remains, e.g. fully intact and solid, eroding and friable, charred or cremated;

(g) Preliminary identification:

(i) Determine age, sex, race and stature;

(ii) Record the reasons for each conclusion (e.g. sex identity based on skull and femoral head);

(iii) Photograph all evidence supporting these conclusions;

(h) Individual identification:

(i) Search for evidence of handedness, pathological change, trauma and developmental anomalies;

(ii) Record the reasons for each conclusion;

(iii) Photograph all evidence supporting these conclusions;

(i) Attempt to distinguish injuries resulting from therapeutic measures from those unrelated to medical treatment. Photograph all injuries:

(i) Examine the hyoid bone for cracks or breaks;
(ii) Examine the thyroid cartilage for damage;

(iii) Each bone should be examined for evidence of contact with metal. The superior or inferior edges of the ribs require particular scrutiny. A dissecting microscope is useful;

(j) If the remains are to be reburied before obtaining an identification, retain the following samples for further analysis:

(i) A mid-shaft cross-section from either femur, 2 cm or more in height;

(ii) A mid-shaft cross-section from either fibula, 2 cm or more in height;

(iii) A 4-cm section from the sternal end of a rib (sixth, if possible);

(iv) A tooth (preferably a mandibular incisor) that was vital at the time of death;

(v) Several molar teeth for possible later deoxyribonucleic acid fingerprinting for identification;

(vi) A cast of the skull for possible facial reconstruction;

(vii) Record what samples have been saved, and label all samples with the identification number, date and name of the person who removed the sample.

3. **Final report**

The following steps should be taken in the preparation of a final report:

(a) Prepare a full report of all procedures and results;

(b) Include a short summary of the conclusions;

(c) Sign and date the report.

4. **Repository for evidence**

In cases where the body cannot be identified, the exhumed remains or other evidence should be preserved for a reasonable time. A repository should be established to hold the
bodies for 5-10 years in case they can be identified at a later time.

Notes


