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ETHICS IN FORENSIC ANTHROPOLOGY: THE EVALUATION OF THE FORENSIC ANTHROPOLOGIST AS AN EXPERT WITNESS

by

Brent D. Benzing

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Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
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Brent D. Benzing

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ETHICS IN FORENSIC ANTHROPOLOGY: THE EVALUATION OF THE FORENSIC ANTHROPOLOGIST AS AN EXPERT WITNESS

Brent D. Benzing, M.A.

Western Michigan University, 1999

Within the last two decades technological advancement has enabled the forensic sciences to become much more highly complex and has provided the legal system with a specialized means of interpreting scientific evidence. In this regard, the forensic anthropologist has seen an increasing amount of time spent as an expert witness in judicial proceedings. However, expert courtroom testimony requires that a scientific witness be knowledgeable, accredited, and ethical in his representation of the discipline. This thesis studies the state of ethics among Diplomates in the American Board of Forensic Anthropology.

A survey was designed and sent to Diplomates of the A.B.F.A. to uncover both individual, as well as disciplinary standards, as they relate to ethical issues and the level of ethical dialogue among forensic anthropologists. The survey and subsequent research has illustrated that forensic anthropologists generally lack formal education and experience concerning applied ethics and ethical issues. In addition, the field is lacking individual motivation and the critical dialogue needed to both provide guidelines for dealing with ethical issues, and to keep the courts abreast of the capabilities of forensic anthropology.

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CHAPTER I

INTRODUCTION

On 25 February, 1983, eleven-year old Jeanine Nicarico was abducted from her home in Naperville, Illinois. A few days later her body was found, sexually assaulted and brutally murdered, along the Prairie Path in neighboring Dupage County. An emotional outcry from the surrounding community to find and prosecute the person or persons responsible was immediate, and incredible pressure was leveled towards local law enforcement. Amidst this pressure the Dupage County Sheriff's Department, acting on a tip, arrested a local man named Stephen Buckley. Although there was scant physical evidence, a boot print left on the Nicarico's door that the perpetrator presumably left when breaking into the house, became a pivotal piece of evidence. Buckley denied any involvement or knowledge of the crime, and even before being taken into custody he voluntarily turned over his own boots to law enforcement officials for forensic testing.

The Dupage County prosecution team employed forensic anthropologist Dr. Louise Robbins, who subsequently matched the boots of Buckley with that of the print left upon the Nicarico's door. Interestingly, Robbins' claim came in direct contrast to three previous opinions offered by forensic experts who were initially employed by the prosecution. These included the head of the identification section for the Dupage County Crime Lab, an identification expert from the Illinois

Department of Law Enforcement Crime Lab, and an identification expert from the Kansas Bureau of Identification Crime Lab. The latter three experts, specifically trained to evaluate and analyze evidence like that in question, all failed to definitively match Buckley's boots to that of the print left at the crime scene. In addition, subsequent evidence came to light that further appeared to exonerate Buckley. First, witnesses reported seeing a man leaving the initial crime scene around the time the abduction occurred whose likeness was quite dissimilar to that of Buckley. Secondly, the police informant who initially fingered Buckley and gave law enforcement their "tip" was known to be mentally incompetent, an alcoholic, and a drug abuser. Not only was his testimony unreliable, he was later found to have been compensated for his "cooperation." Finally, and what should have been most detrimental to the prosecution's case, was the arrest of a man named Brian Dugan who had been charged with several sexual assaults and the rape and murder of a seven-year old girl in neighboring Kane County. Although largely ignored by the Dupage prosecution, the circumstances surrounding Dugan's cases matched closely with that of the Nicarico murder. If that wasn't enough, Dugan actually confessed to both the murder of Nicarico and another female shortly after being taken into custody. However, Dr. Robbins' testimony, evidently based upon her expertise in physical anthropology, provided the "smoking gun" with which the Dupage prosecution continued to hold Mr. Buckley accountable for the Nicarico murder (see Buckley v. Fitzsimmons, 1994). Even in light of solid evidence to the contrary, Mr. Buckley was faced with the real possibility of being convicted of a crime he did not commit.

The above case is not especially peculiar. In fact, many similar cases are probably enacted everyday within American courtrooms. There is one aspect of this case, however, which makes its analysis of paramount concern for the anthropological community. Although the case against Buckley was largely the result of an incredibly incompetent police investigation, the breach of ethics that should be of interest to the forensic science community involved the so-called "expert" testimony of a forensic anthropologist. In fact, the sole piece of "evidence" which became the prosecutor's number one weapon and that ultimately enabled law enforcement officials to detain Mr. Buckley, was based upon the expert opinion of Dr. Robbins. The anthropologist in question chose to employ unqualified and largely unproven scientific methodology in a court of law.

Forensic anthropology is the application of biological, or physical anthropology to the law. Physical anthropology seeks to understand the significance of human variation and change throughout time, and in so doing, must often rely on fossilized evidence to explain evolutionary relationships (Jolly & Plog, 1986). Since bones are almost exclusively the only material fossilized, physical anthropology is inextricably interwoven with skeletal biology. Although forensic anthropology is broadening its research and applied scopes (as Snow, 1982, has urged), it must remain tied to the human skeletal system, at least on some basic level, to be called forensic *anthropology*. Numerous researchers have undertaken studies involving attempts to identify individuals based solely upon foot or shoe/boot print evidence (Laskowski & Kyle, 1988) and many physical anthropologists accept that there is a

relation between foot size and stature (Giles & Vallandigham, 1991). However, there have been no clear results which enable researchers to consistently identify an individual, to the exclusion of the rest of the population, based solely upon foot or shoe/boot print evidence. The testimony of a court accepted scientist can carry with it incredible influence, as was true of Dr. Robbins in the Buckley case. The court chose to accept Dr. Robbins as a forensic expert based upon her scientific "expertise" in the area of footprint analysis, although this type of procedure was not and still is not a generally accepted practice within forensic anthropology.

According to Galloway, Birkby, Kahana, and Fulginiti (1990) and others (Bass & Driscoll 1983; Reichs 1998; Wienker & Rhine 1989), the caseload of forensic anthropologists has increased drastically within the past two decades. Vast advances in forensic technology have made the acceptance and use of scientifically specialized fields more prominent in American courts. Many recent sensationalized court cases, such as those of Jeffrey Dahmer and Orenthal James Simpson, have illustrated this point all too well. Those specialized technological advances ensure that forensic anthropology will continue to see a drastic increase in the employment of its practitioners as "expert witnesses" within courtroom proceedings (Moenssens, Inbau, & Starrs, 1995). Although many analyses done by forensic anthropologists are subsumed in the reports of forensic pathologists (Moenssens et al., 1995), the judicial system is becoming more familiar with anthropologists as forensic experts.

Forensic anthropology defined "is applied osteology and the application of techniques of skeletal analysis within the legal context" (Galloway & Simmons

1997:796). In this way, science then becomes banded to the judicial process, and is relegated to operate within its confines. The legal system often functions under standards different than those familiarly held in academia or science (Reid, 1980). As forensic anthropologists continue to become forces in the judicial system, they need to be well aware of not only the scientific ethics within everyday academia, but also be aware of courtroom ethics and the ramifications of their testimony. When the question of an individual's guilt or innocence is at hand, or the degree of liability of certain businesses or companies as in such cases as mass disasters, a forensic anthropologist must be cognizant of the role of a forensic expert. The convergence of the scientific and legal fields within the courtroom may pose areas unfamiliar to the anthropologist, and therefore may become ethical liabilities to the discipline.

Additionally, the adversary system has shown itself to have problems in dealing with scientific issues within the legal arena. Judges and lawyers do not have the specialized education to deal with, or even understand, complex scientific issues as they arise within the court. For most of this decade America's courts used what became known as the *Frye* rule to admit or deny scientific evidence within courtroom proceedings. *Frye v. United States* was a 1923 court case which questioned whether evidentiary techniques were "generally accepted" within their respective scientific fields. However, more recent inquires have shown that the *Frye* rule is often unsuited for dealing with new and increasingly complex scientific procedures. Although the Supreme Court recently adopted a new standard for admitting scientific evidence in court (see *Daubert v. Merrell Dow Pharmaceuticals*, 1983), it still remains the duty

of the forensic expert and of the profession to regulate and practice their discipline appropriately.

With the latter points in mind, and as the introductory case seems to indicate, an analysis of courtroom ethics of forensic anthropology and forensic anthropologists is immediately required. Recent seminars, symposia, and academic meetings indicate a new interest in ethics specifically, and how forensic anthropologists operate as scientists. But the continuation of issues such as testifying outside of one's own area of expertise, or becoming a "hired gun" or forensic "prostitute" within the judicial system linger to plague forensic anthropology as a discipline, and the forensic sciences as a whole. In light of the continuing question of ethics in forensic anthropology, this thesis is an attempt to uncover and illuminate the current state of ethics within the discipline, as it relates to the anthropologist as an expert witness in the courtroom.

To set the stage for an analysis of ethics within forensic anthropology, one must first define the term "ethics" and specifically state what it entails. Wading through the quagmire of ethical meaning can be a laborious task, to say the least. This thesis will ignore issues such as theoretical differences between ethics and morality, or the inter-relatedness of the two. Instead, the use of a simplistic definition of professional ethics will suffice to define ethics as appropriate for this research. On this premise "ethics" defined is a group mentality, or a "group morality" (Schroeder 1976:748): a shared set of ideas about what constitutes right and wrong, good and bad. In this case, the forensic sciences and specifically forensic anthropology as a

whole determine "good" science from "bad" science. Although some have questioned whether "good" science is the same as a "good" scientist (Nordby, 1997), for the purposes of this thesis, a bad scientist will be defined as one who fails to meet the standards set forth by the American Academy of Forensic Sciences (A.A.F.S.) Code of Ethics and Conduct. Since the American Board of Forensic Anthropology (A.B.F.A.) has no published code of ethics for its members (Frank T. Saul, personal communication, July 1998) the A.A.F.S. Code of Ethics and Conduct (see Appendix A) must serve as a basis for ethical analysis in forensic anthropology.

With ethics defined, its history within the forensic sciences also provides material with which to analyze and evaluate current ethical practice. Since the A.A.F.S. is the most prominent organization in the forensic community, it therefore sets the standards by which the forensic sciences and its practitioners operate (Reichs, 1998). In this regard, uncovering the history of ethics within the organization will provide valuable clues pertaining to general views of ethics, the formation of professional ethical standards, as well as individual circumstances within each subsidiary discipline of the A.A.F.S. Although the history of ethics in the forensic sciences will only be briefly discussed, its analysis and inclusion in this thesis is essential for providing new and fundamentally better avenues of ethical practice in today's everchanging technological climate.

Since forensic anthropology is the marriage of biological anthropology to the law, one must also evaluate the standards of the legal arena in which the forensic anthropologist acts as an expert witness. It may often be that the forensic

anthropologist is not completely familiar with the adversary system, and in this regard, may be pressured into areas or situations that are not appropriate for the scientific expert. Even if the forensic anthropologist is savvy to the judicial system, pressure from either the prosecution or defense can make it difficult to remain impartial and unbiased (Garrison, 1991). As forensic anthropology is called upon with increasing frequency to provide expert witness testimony, its practitioners need to be fully aware of judicial discourse and the workings of the adversary system. A forensic anthropologist must also understand his or her role as *amicus curiae*, or more literally, a friend of the court. Those who often work with only the defense or the prosecution, "hired guns" (Galloway et al., 1990) are increasing the risks of breaching ethical boundaries. This distinction should force the expert witness out of a role in determining guilt or innocence; such a role is more appropriately the purpose of the court.

Perhaps the greatest way to justify the endeavor to uncover ethical conduct of forensic anthropologists in the courtroom is best illustrated by providing case examples where the forensic anthropologist has blatantly failed as a representative of the discipline. Although there are many examples of unethical testimony or conduct by experts from other similar disciplines (forensic pathology for instance), less publicized examples from forensic anthropology can be just as flagrant and irresponsible. Besides the introductory case, two different Appellate court cases from Illinois illustrate the further unethical testimony of the forensic anthropologist. In one case, *People v. Hebel*, a well-known anthropologist was accepted as a court appointed

expert witness for the prosecution in the analysis of photographic evidence containing a human hand. The defendant had been charged with criminal sexual conduct and had been found to possess pornographic pictures of children. One particular picture documented the molestation of a young girl and included the hand of a male adult. The anthropologist testified that numerous points of similarity between the photograph and the defendant's hand indicated that they were likely the same. Nowhere in forensic anthropology is the analysis of such photographs seen as a common or generally accepted practice. The court however, accepted the testimony of this "expert" based on his knowledge of forensic anthropology. Although the anthropologist in question likely meant no conscious misconduct, the testimony given was outside his area of expertise, and was therefore a breach of professional ethics.

In similar fashion, another well-known anthropologist committed the same mistake in *People v. Columbo*. In this highly publicized case, a young woman named Patricia Columbo murdered her family with the help of her middle-aged lover. An important piece of evidence involved distinctive glove prints on the rear trunk of the victim's family car, which the prosecution contended came from Columbo's codefendant and lover, Frank DeLuca. The glove print was missing the index finger, as was the defendant DeLuca. The forensic anthropologist here testified that the glove print indeed came from an individual with a hand missing the index finger. Although other telling evidence indicated both Columbo and DeLuca were most likely guilty, the testimony of the anthropologist was unethical in that handprint research is not a generally accepted "expertise" within forensic anthropology. In this regard, the court

appointed forensic expert testified outside of his area of expertise, making claims based on information that is not accepted in the discipline as normal practice.

Although the above cases are poignant examples of ethical dilemmas faced by forensic anthropologists in the courtroom, it is still difficult to paint a true picture of the state of ethics within the discipline based only upon documented court cases. In fact, the number of cases available for analysis remain few. To gauge the true state of ethics in forensic anthropology, evidence must come from within the discipline. For this reason, a survey was sent to all the board certified members of the American Board of Forensic Anthropology. The surveys were an attempt to illuminate ethics based on a personal and academic level. The aforementioned survey posed questions such as the level of ones own ethical instruction, the familiarity with the ethical process in forensic anthropology specifically, and in the A.A.F.S., as well as the question of awareness of current ethical problems facing forensic anthropologists. The results of these surveys have provided a valuable foundation with which to begin an analysis of ethical structuring within the discipline.

Historically, ethics has been an area often-neglected in forensic anthropology. Although somewhat of a new discipline in terms of its increasing use in the forensic science arena, forensic anthropology has seemingly been delinquent in dealing with its own ethical problems. Although this thesis is not an attempt to "fix" the problem, it has however provided the impetus with which to mobilize the community of forensic anthropology into reevaluating the long neglected issue of ethics.

CHAPTER II

A BRIEF HISTORY OF ETHICS IN THE AMERICAN ACADEMY OF FORENSIC SCIENCES

The topic of ethics has historically been an area of concern to scientists and scholars from all walks of life. A review of the ethics section in any substantial research institution or public library illustrates the voluminous writings which researchers have devoted to the topic. In fact, as technology increases, and as such changes the surrounding world, ethics, values, and social mores will continue to be a contested area of human life. For example, recent advances in medicine have enabled doctors to clone certain mammals, provide previously infertile women with multiple offspring, and transplant organs from human donors to needy recipients. All the latter mentioned advances however, come with a price. Those very advances frequently become areas of scientific, political, or social debate by challenging previously held notions of what it means to do "right" or "wrong." The forensic sciences are no different. The rapid expansion of technology and the paving of ways unattainable by previous scientific methodology leave this burgeoning discipline no stranger to ethical dilemma. Forensic anthropology and its practitioners, acting within the realm of forensic science, are subject to the ethical code of the professional scientist. In spite of the fact that this unwritten code is often based on personal morality, it is relatively straightforward and its primary canons have changed little in the last century. However, the circumstances within which it interacts vary widely. At the source of those changing circumstances is not only advancing technology, but also the ever-developing and complex legal arena. Although forensic anthropology has seen its share of technological specialization, the topic of science as it relates to ethics has been relatively ignored. It has been written that more knowledge has become available in the last fifty years than in the previous five thousand. Perhaps in the excitement generated by increasing scientific know-how, researchers have failed to incorporate ethical considerations in their professional work. As an actor in this scientific revolution, the forensic anthropologist must no more neglect issues of ethics and instead give them due concern. To do this however, a clear picture of ethical practice must be presented.

To begin this endeavor, ethics must be precisely defined. Although already mentioned in the first chapter, a reiteration defining ethics is appropriate considering that the topic can often be highly theoretical and difficult to standardize in terms of application to different dilemmas. For the purpose of this thesis, ethics must be defined in relation to the code of conduct that governs a professional group. Conduct is judged as being "right" if it fits within the tenets, written or unwritten, describing the moral principles of the profession (Kultgen, 1988). Being, or doing "wrong" is simply acting or practicing outside of the guidelines set forth by the implicitly agreed upon professional standards of the forensic sciences. In this way, professional conduct is judged differently from a scientist's private or public life actions or choices. As Schroeder (1976) describes it, ethics are simply group morality. In this way, the ethical basis of the group consists of an implicitly agreed upon set of shared moral

standards. By such a definition, the analysis of one's ethical conduct can be gauged by comparing that conduct to the broader disciplinary standards. In the process of standardizing ethical practice, uncovering the history of ethics within the forensic sciences not only helps in defining ethical conduct, but also allows the researcher to identify trends in ethical norms throughout time. The historical foundations of ethical action within the forensic sciences has provided telling clues when uncovering individual ethical practice and comparing it to the disciplines current standards.

The American Academy of Forensic Sciences (A.A.F.S.) and its subsidiary disciplines became the undisputed force within the forensic community during the latter half of the 1940's. In fact, the A.A.F.S. was begun in 1948 as a focused foundation to provide both the judicial system and science the professional means with which to interact (Field, 1998). The growing advances in science and technology were recognized as assets to the legal arena. The utilization of these advances enabled the judicial system further avenues to fight crime. New techniques gave once silent evidence the ability to speak loudly and with force. The creation of the A.A.F.S. provided a professional community where a wide array of forensic experts could share knowledge, expertise, and experience. It also became the foundation with which the discipline's standards were created and maintained. In turn, this then led to the conglomeration of different scientific spheres and fostered the further specialization of the forensic sciences as a whole.

The 1950's were really the formative years for the A.A.F.S. Its initial sections included experts from the fields of pathology, psychiatry, toxicology, immunology,

jurisprudence, police science, and questioned documents. With these sections firmly in place, the A.A.F.S. turned its focus to pressing matters regarding the growth and maintenance of the organization. Six committees were created to deal with different formative aspects within the Academy: one of those being to "develop a code of ethics" (Field, 1998:25). It had become clear by 1945 that science and scientific research were not ethically neutral (Reagan, 1971). The technological, and expanding scientific revolution of the twentieth century brought about much social change and in so doing, led to questions of professional ethics within the sciences and society in general. It was during this period that the field of bioethics saw increasing promi-nence (Shannon & Digiacomo, 1979) and further questions arose about the profes-sionalization of the sciences to include ethical boundaries. Although more forensic scientists were aware of ethical issues, it was still largely a topic that sat slowly sim-mering on the back burner. More pressing issues which often govern the formation of professional organizations, such as maintaining a budget, forming an infra-structure, and developing group protocol took precedence.

The A.A.F.S. failed to develop a professional code of ethics during the 1950's, and although a code was proposed in 1963, the Executive Committee turned it down at that year's spring meeting (Field, 1998). Like the previous decade, the 1960's saw further problems develop within the Academy. Divisions grew between the younger scientists and the older members of the organization (Field, 1998). These differences revolved around managerial issues and questioning of the formative tenets upheld by the older, founding members. It is no surprise that the Academy's internal structure

climate produced by the war in Vietnam and further domestic troubles. Although the A.A.F.S. continued to grow in membership, topics like ethics took a backseat to more relevant issues such as funding and the maintenance of the discipline's infrastructure. Little can be documented about ethical consideration in the forensic sciences during this period. In fact, few papers published within the Academy's journal dealt with the topic specifically. In spite of the fact that the uses of the forensic scientist in the adversary system were expanding, common sense laws and personal morality provided the mainstays for regulating ethical behavior. According to Schroeder (1976), although this "code" was not expressly written, it was something informally agreed upon. It must be mentioned that some sections within the A.A.F.S. did operate under formalized ethical codes. For instance, the pathology section fell subject to the American Medical Association's code of ethics. But the Academy had yet to develop a specific code designed to encompass all of its members and sections.

The 1970's ushered in a new era to the Academy's growing structure and membership. Great change occurred in its "orientation.... and in the administration of its affairs" (Field, 1998:51). Within these changes, new efforts were devoted to ethical issues. According to one forensic scientist, the United States was a "land of mistrust" with wariness directed towards the government as well as state and local police agencies (Joling, 1976a:743). This mistrust resulted from the generally poor operation, improper techniques used, and misinformation generated by the above mentioned organizations in dealing with social, civil, and criminal matters. Public

confidence in the government and legal profession had been shaken by incidents such as the Watergate scandal. Considering the high level of public skepticism, even the American Bar Association began to question the ethical conduct of its members within the legal realm. In fact, the above factors led to higher accreditation standards involving ethical tests and surveys (Parke, 1986). The forensic sciences also felt the stab of this public mistrust, which forced scientists to recognize ethical dilemmas within the discipline. According to the 1976-77 president of the Academy, R.J. Joling (1976a:744):

I have had the privilege of reviewing testimony of document examiners and would-be document examiners more closely reflecting objectives of graphologists; of pathologists, both those who are certified as forensic pathologists and those who would have judges, jurors, and legal counselors believe them to be competent in forensic pathology; criminalists who have demonstrated their individual competency and those whose biases, prejudices, and subjective conclusions have reduced the discipline to an exceptionally low degree of art with but very little attendant science; and the activities of self-proclaimed advocates of the law holding themselves out to be competent trial lawyers while at the same time demonstrating their miserable mishandling of cases by improper utilization of the forensic sciences within the courtroom.

The unrest of the 1960s has given way to the mistrust of the 1970s!

The above statement indicates that ethical issues were, in fact, exceedingly visible during the 1970's. History has shown that ethics had previously been a secondary issue to more pressing concerns within the Academy. In the wake of the 1960's however, with growing public concern over the operation of professional organizations, ethics was a topic that could no longer be dealt with so casually. In this regard, furthering the professionalization of the forensic sciences to reinstate public trust in the scientific, adversarial, and legal arenas provided the impetus to formalize a

binding code of ethics for the Academy. In 1976 the A.A.F.S. polled its members, finding that ninety-one percent of the respondents agreed that a code of ethics encompassing all members and sections was needed (Harper Mills, 1986). At the 1976 mid-year meeting the Executive Committee debated and subsequently enacted the passage of the Academy's first binding code of ethics (Field, 1998). Subsequently, an *ad hoc* ethics committee was also formed to hear and rule on complaints of ethical misconduct among A.A.F.S. members.

In addition, the uses of the forensic sciences in the legal arena created new situations that were often previously unknown by the forensic expert. For example, the use of customary pathology often greatly differs from that of forensic pathology due to the latter's plait with the legal system. Therefore, "forensic pathology often poses problems not encountered in ordinary hospital pathology" (Coe, 1980:367). The forensic pathologist not only has to practice his or her discipline, but also has to present the results of their analysis in an environment removed from science. It is well known that science and law are upheld by two different standards (Reid, 1980). These standards often view ethical issues from different fronts, and in so doing, can create confusion for the forensic expert. In regard to the forensic anthropologist, Galloway et al. (1990) state that these ethical dilemmas and conflicts are likely to increase as the field grows and duties expand. This fact became increasingly evident in the 1970's as more and more papers specifically concerning the effectiveness of expert testimony were published. The formation of a sanctioned code of ethics illustrated the recognition by the Academy of ethical dilemmas occurring in the forensic

sciences. But one can further judge the knowledge of and interest in ethical circumstances by looking at the published papers within the Academy's journal. Interest, questions, and advice on ethical situations came from varied sections. Many dealt with the efficacy of the expert witness (Byrd & Stults, 1976; Kogan, 1978), in roles such as the policeman (Joling, 1976b), or even the arson investigator (Kantrowitz, 1981). Yet others dealt with more specific areas such as the professionalization of latent print examiners (Cowger, 1979) or the field of questioned documents (Galbraith, 1980). One thing was clear by the close of the decade, the Academy recognized the need for the regulation of its membership by an established code of ethics. Although the A.A.F.S. had always retained a very high level of professionalism in regard to its membership (Field, 1998), the substantial growth in the number of its practitioners required a look at individual ethical conduct. The complexity of technological innovation increasingly introduced new and sometimes unforeseen situations to the forensic scientist, especially within America's courts. In its third decade of existence, the Academy had become successful in building and maintaining its infrastructure, and although monetary problems were still present, more time was devoted to non-organizational issues.

The 1980's and 90's saw the further growth of the Academy as the premier forensic institution in the United States. By surviving the 1970's, the A.A.F.S. had proven the efficacy of its foundations in unifying a very diversified community, and subsequently was able to devote more time to the changing needs of forensic science and the surrounding society (Field, 1998). During this period, the focus of the

Academy began to encompass the future of the discipline, as well as maintaining the professionalism historically enjoyed by its membership. Also, forensic scientists recognized the importance of technological innovation upon scientific protocol. Historically at least, the issue of ethics had played a catch-up game to the rapidly changing and arresting excitement of scientific advancement. During the late 1980's and early 90's ethical inquest seemed to heighten, and more researchers recognized the important role of ethics in the fluid and ever-changing nature of the forensic sciences. Regular symposia and plenary sessions have been devoted to ethics and related issues at the Academy's yearly meetings. In the May 1989 edition of the Journal of Forensic Sciences, a symposium titled "Ethical Conflicts in the Forensic Sciences" was published consisting of five manuscripts detailing various ethical concerns within the forensic sciences. These issues ranged anywhere from expert testimony (Giannelli, 1989) to individual ethical duties (Lucas, 1989) or to the ethical responsibilities of the discipline as a whole (Peterson & Murdock, 1989). A decade later at the forty-ninth annual A.A.F.S. meetings held in New York, a plenary session was devoted to ethics and ethical issues attempting to further heighten ethical inquiry within the forensic sciences. Although the specific ethical issues raised at the above mentioned sessions were quite similar in nature, the devotion of time to ethical issues illustrated the recognition of the need for continuing ethical discourse within the discipline. That above indicates that the A.A.F.S. has acknowledged the need for subsequent ethical dialogue and provided increasing opportunities for its examination.

In addition, sections within the A.A.F.S. have more frequently presented and

discussed ethical issues as they specifically relate to their own discipline and the forensic sciences as a whole. Of these, forensic psychiatry and questioned documents are notable areas. In forensic psychiatry during the 1980's, ethics and ethical issues became the topic of much deliberation. Various surveys were conducted which sought to illuminate the state of ethics within forensic psychiatry and enable researchers to deal with the increasing problems of interfacing science and the law (Monahan, 1980; Weinstock, 1986, 1988, 1989). Forensic psychiatrists also recognized the issues pertaining to the forensic scientist as an expert witness or becoming a "hired gun" (Appelbaum, 1987; Stone, 1984). This increasing awareness of ethical issues by forensic psychiatrists has generated much research towards the topic and in turn, afforded the forensic sciences as a whole, further avenues with which to both discover and deal with issues of an ethical nature.

The field of questioned documents has also spent a considerable amount of time dealing with ethical dialogue. If not specifically from a disciplinary perspective, questioned document examiners have certainly approached ethical issues from a practical front. The rapid expanse of technology and its major advances have provided new and sometimes unique possibilities for the creation and maintenance of documents (Hilton, 1988; Moenssens, 1984). This fact alone required the field of questioned documents to survey the efficacy of its examiners when dealing with documentary amenities afforded by technological innovation. For instance, what were the limitations or benefits of the field in such areas as computer imaging (Hicks, 1995) or microfilm documents (Hanna, 1988)? The proficiency of document examiners and

the status of their training became an ever-increasing area of concern for the field of forensic document examination (Behrendt, 1989; Kam, Wetstein, & Conn, 1994). By surveying its membership and questioning areas of training and expertise, forensic document examiners have been able to establish minimum levels of competency and training foundations needed to become an expert in the field (Behrendt, 1989). This type of inquest has provided not only the field of document examination, but the forensic sciences as a whole with substantial avenues to question ethical issues.

In the mid-1970's, O.C. Schroeder (1976:751) suggested that the Biblically based "ancient prohibitions not to lie, not to cheat, and not to steal" were insufficient for regulating the conjoining of law and science. Instead, he proposed the positive canons of "reason, fairness, and humaneness" as the ethical corollaries to the above historical tenets. These guidelines, he proposed, would enable science to better serve the justice system. Although this ideology may form the basis of an unwritten ethical code for scientific researchers, it makes no exceptions for the rapidly changing technological climate. As we have seen, these scientific advances play an integral role in changing circumstances where science and the legal system interact. In recognition of this dilemma, Rosner (1996:913) has discussed the merits of designing a paradigm with which to systematically approach ethical issues, which he states are often "more notable for heat than for light." To better deal with ethical dilemmas, Rosner (1996:913) distinguishes four steps:

1. "What exactly is the issue?" [Or simply, what is the specific behavior that warrants ethical consideration?]

- 2. "What specific criteria in the Academy's Code of Ethics and Conduct are applicable to the behavior at issue?"
- 3. "What is the relevant data?" [Or what evidence is there of ethical misconduct?]
- 4. "What is the reasoning process that has been used to determine whether or not the member has breached the A.A.F.S. Code of Ethics and Conduct?"

This systematic approach to ethical misconduct is an attempt to promote ethical discourse within the discipline. The twenty-year span between the above mentioned papers illustrates the further advancement of ethical issues into the forensic sciences. Increased recognition of the importance of ethical discourse in science has forced the Academy's sections to devote valuable research into that very topic. Although many sections were initially slow to recognize their duty concerning the establishment of rules governing ethical conduct, the last decade has shown ethics to be an increasing topic for critical dialogue. Although ethics is no longer a "neglected" issue *per se* in the forensic sciences, its contestation is sure to remain prominent within the discipline.

CHAPTER III

THE FORENSIC SCIENTIST IN THE COURTROOM

To employ the forensic scientist as an expert witness obviously requires that the fields of science and law overlap. The productivity of the testimony generated by the expert witness often depends upon two criteria: (1) the expert's preparation and familiarity with the adversary system, and (2) the court's ability to deal with issues of a scientific nature. History has shown that severe problems may exist in both of these areas. It is no hidden fact that the judicial system is often highly complex and can be very confusing, especially to an inexperienced or unfamiliar scientific witness. The forensic expert is forced to surface from his or her immersion in the sciences and act within the realm of the law, which often operates under extremely different standards (Reid, 1980; Thornton, 1994). Those very standards, along with the lack of scientific education among judges and lawyers, are often unsuited in dealing with testimony from the forensic expert. In fact, the judicial rules surrounding the inclusion and presentation of scientific evidence have often been shown to be ill-suited in dealing with matters concerning forensic testimony. Oftentimes, the forensic scientist is confronted by an adversary system more interested in winning cases than understanding the true nature and results of scientific inquiry (Peterson, 1989). Subsequently, these matters may produce an unstable environment that enable forensic experts, be it intentionally or unintentionally, to breach the ethical norms of the forensic sciences.

The expanding use of the forensic scientist as an expert witness in America's courtrooms has provided the basis for an increasing amount of research dealing with the scientist as a witness. In fact, as technological fields expand, the judicial system has called not only upon scientists, but also upon a wide range of experts from many differing fields. In the last three decades, more and more research has been devoted to the particulars surrounding expert testimony, especially within the forensic sciences (Byrd & Stults, 1976; Cantor, 1985; Kogan, 1978; Joling, 1976b). Initially, providing expert testimony may seem simple enough, but oftentimes, unseen issues can present difficult hurdles for the unwary forensic scientist. These issues frequently can include such areas as proper court preparation, the presentation of scientific analysis in court, and the proper practice involving charging for services rendered, to name a few.

Since the standards that govern the judicial system are quite different from those in science, researchers need to be aware of the sometimes hidden difficulties involved in being an expert witness. Researchers have recognized that the courtroom can be a cold and dismal place for the unprepared expert witness. In an attempt to curtail these harmful environments, professional organizations are holding an increasing number of workshops, seminars, and plenary sessions to train forensic scientists on how to be able and relevant expert witnesses. At the 50th Annual A.A.F.S. meetings held in San Francisco in February of 1998, a workshop was conducted to assist forensic scientists in becoming more familiar with issues surrounding expert

testimony. Similar workshops have been conducted in the past, and often involve presentations from experts in varying fields with specific experience in courtroom scientific testimony. Some of these issues often involve "keeping your cool" on the witness stand, presentation of personal qualifications, dealing with cross examination, and even the broader concerns of the legal/public view of scientific testimony. The information highway also exhibits resources for the expert witness. In fact, many sources are now available even on the internet. For instance, see "How to be a Successful Expert Witness" (http://www.aviationlawcorp.com) or "Expert Witness Central" (<a href="http://www.home.earthlink.net/~safs/).

However, notoriety or the prestigious nature of becoming a scientific witness within the courtroom has seemingly been too great a lure for some unwary and unprepared practitioners. Grievously, some expert witnesses seem willing to testify to almost anything. As Sundick (1998) questions: "Do they do this for the excitement, the thrill of testifying, the feeling that they are helping the defendant, the money or whatever?" Likely, it may be a combination of all the above. Unfortunately, this fact places another hurdle in the path to the road of understanding between science and the adversary system. In a recent article from the Chicago Tribune (Foehr, 1998), a professional botanist was quoted as saying:

The methods we've developed are so cheap and simple that I hope they will lead to the further development of forensic botany. Anyone with a solid background in high school botany can be a competent witness in court using this evidence (italics added).

If only testifying in court were that easy. What the above statement neglects to inform the reader of are the sometimes grueling cross examinations one is forced to

undergo, the difficulty of presenting oftentimes highly technical scientific processes to a general audience, and even having to publicly face a peer with a differing opinion. In addition, the courtroom is no place for an individual not prepared for the fact that their testimony may play an integral role in leading to an individual's incarceration or death, or a multi-million dollar settlement as in the case of a mass disaster.

The public audience seems fascinated with death, science, and forensics. Some of the most popular shows on television now involve real life camera footage of trauma in emergency rooms, reenactments of cases solved by medical detectives, and law enforcement ride-alongs. In light of this, the forensic anthropologist must remain steadfast in their representation of the capabilities of the discipline. Although the famous forensic pathologist "Quincy" makes for good entertainment, he hardly represents the true nature of scientific inquiry. Essentially, forensic anthropologists, and forensic scientists in general must literally "do their homework" when it comes to courtroom preparation and conduct, and they must remain unsullied in their personal representation of the discipline. Forensic scientists must also attempt to decrease the gap between the law and science by creating an increasing amount of opportunities for dialogue between lawyers and judges and the forensic sciences.

By all accounts, the level of formal scientific education among judges and lawyers unfortunately places America's courts at a distinct disadvantage when dealing with issues of a scientific nature (Sachs, 1976; Schwarzer, 1994; Stevenson, 1998). The unfamiliarity of the adversary system with science frequently leaves judges and juries to decipher and make sense of testimony from a forensic expert. In

turn, the forensic expert must attempt to explain often highly complex issues in nontechnological and sometimes insufficient terminology. Additionally, the expert must explain his or her own personal qualifications, rationale behind evidentiary technique, and the results of scientific inquiry. With the confusion over scientific issues, "...courts may not be competent to make reasoned and principled decisions" (Schwarzer, 1994:1). In light of this, the forensic expert may find him or herself in a situation lacking guided legal structure. A slight discrepancy in testimony or a misstatement concerning personal qualifications, technique, or the evidence at hand may go unnoticed or unrecognized by the court. The implications of just such a scenario may be slight, but nonetheless may affect the outcome of any particular case. Whether these are intentional or unintentional, such discrepancies are a clear dereliction of the duties of forensic experts. In addition, it is often likely that the above scenario results in breaching of the ethical code of the forensic sciences. In essence, the ineptitude of the adversary system in dealing with scientific issues provides and unstable foundation where ethical misconduct may possibly be more apt to occur and remain unnoticed by the court. For instance, the court often accepts the testimony of a forensic scientist based on his or her credentials, even if those credentials are in an area not particularly related to the evidence in question. The introductory case to this thesis concerning footwear impression evidence illustrates this example quite clearly.

The court chose to accept Dr. Robbins' testimony based on her expertise as a forensic anthropologist. However, forensic anthropology has yet to accept the analysis of boot, shoe, or footprint evidence as part of its scientific aptitude. If the court

was ignorant of this fact, we can only assume that the testimony of Dr. Robbins was accepted due to her nature as a "scientist." In this regard, the scholarly demeanor and impressive technological jargon used by the forensic expert may "cast an aura of infallibility over his or her testimony" (Neufeld & Colman, 1990:48). In addition, the court may admit testimony regarding new and sometimes controversial techniques. Unfortunately, judicial documents have recorded the admittance and readmittance of techniques that have now fallen into disfavor. These include so-called "voiceprint" evidence (Berger, 1994; Moenssens, 1984), the "paraffin test" for identifying gunpowder residue (Berger, 1994; Neufeld & Colman, 1990), and more recently the questioning of handwriting analysis (Berger, 1994).

In many cases, even though a particular technique has been proven to be unreliable, it still may be used to set a precedent for admitting testimony in a different trial. The lack of the court's ability to keep abreast of scientific knowledge often leads the judicial system into using outdated procedures in dealing with evidence of a scientific nature. In addition, Neufeld and Colman (1990:46) state that the discrepancy between science and law "has allowed novel forensic methods to be used in criminal trials prematurely or without verification." The lack of scientific knowledge and misinformation generated by this deficit from judges and lawyers leaves the adversary system significantly behind in its understanding of scientific technology (Moenssens, 1984). According to some researchers however, the forensic science community may hold partial blame for the lack of understanding of scientific evidence in the adversarial system. Sachs (1976:760) states that "it is not their

individual fault but the fault of the forensic sciences in not making the information available through continuing education." To combat this discrepancy, Sachs (1976) calls for educational and training programs that would not only aid in the court's ability to understand and properly deal with scientific evidence, but also increase the dialogue between science and the law.

With the above mentioned points in mind, a discussion regarding the admissibility of scientific evidence is also required to further illuminate the discordance between science and the legal realm. For almost three-quarters of a century, *Frye v. United States* (1923) set the standard for the admission of scientific evidence into America's courts (Moenssens, 1984; Thornton, 1994). The *Frye* rule, as it became known, was based upon the principle of "general acceptance." Simply stated, the technique used to analyze and process evidence must have been accepted by a majority of the field. This test has been heavily relied upon by America's courts in admitting new and sometimes novel scientific evidence (Moenssens, 1984).

During the late 1980's and early 1990's, the *Frye* rule fell into disfavor. The inadequacies of this test became more and more visible, especially as scientific inquiry became increasingly precise. Although *Frye* relied upon the theory of "general acceptance", questions revolved around not only what "general acceptance" entailed, but also what it was that was to be "generally accepted." This test also lacked the time needed for critical evaluation by the court system as well as the proof of a valid, tested scientific foundation (Berger, 1994; Moenssens, 1984). Essentially, the side having to *disprove* a new or novel scientific technique that had been accepted

under the *Frye* ruling by the court was at a distinct disadvantage. However, the downfalls of *Frye* have been discussed in detail elsewhere (Berger, 1994; Moenssens, 1984; Saks, 1994) and will not be specifically covered in this thesis.

It is necessary however, to briefly review the current laws surrounding the admission of scientific evidence. Thornton (1994:476) has charged that forensic science has mostly been a "passive spectator" in the court's decisions dealing with scientific evidence and evidentiary issues. He also states that as a forensic scientist, he has an ethical responsibility to ensure that science and scientific inquiry is not warped or misshapen to fit the needs of the adversary system. By the late 1980's, an increasing number of scientists recognized this fact and pushed for a better system with which to admit scientific evidence into America's courts. In 1993, the United States Supreme Court ruled in Daubert v. Merrell Dow Pharmaceuticals that the Frye test no longer upheld the tenets of the Federal Rules of Evidence (Berger, 1994). Daubert was more specific in its approach to examining scientific evidence. This test took into account such issues as the qualifications of the expert, potential rate of error, testability, and could relay to the jury the experimental nature of some scientific techniques (Berger, 1994; Reichs, 1998; Thornton, 1994). Daubert rejected Frye's "general acceptance" tenets for a "scientific reliability" standard. This ruling was a direct result of alleged complications involving Bendectin™, an antinausea drug produced by Merrell Dow Pharmaceuticals. Numerous women who had taken the drug during pregnancy gave birth to children with severe birth defects. The defense presented a scientific expert in epidemiology who testified that no studies existed that showed *BendectinTM* was the cause of any birth defects. The prosecution however, also presented an array of experts that showed *BendectinTM* to be responsible for severe health complications in laboratory animals. Since the prosecution's witnesses were not trained epidemiologists, the court stated that no scientific reliability could be attributed to their testimony. The *Daubert* ruling made the judge the "gatekeeper" so to speak in determining whether a scientific technique possessed the necessary qualifications to be held up to a reliability standard (Thornton, 1994; Wecht, 1998). Since *Frye* typically neglected to question issues of reliability, the *Daubert* ruling changed the standards with which scientific evidence was evaluated by the court.

Although the *Daubert* ruling and its benefits are still debated by some, many feel that the implications for furthering the relationship between science and the law are obvious. According to Thornton (1994:484):

Daubert may also serve a useful adjustive purpose for the forensic science profession. Trial court judges will be nudged in the direction of learning more about science. Forensic scientists may be nudged in the direction of learning more about the scientific method.

In any event, *Daubert* has forced the forensic science community to become more aware of legal issues surrounding the sciences. On a general level, this can lead to more critical dialogue taking place between science and law that could benefit both disciplines. On a more specific level, it forces scientists to be increasingly aware of the standards within their discipline and how these standards can operate in the adversary system. In essence, unethical practice by scientists may then become more visible to a previously less knowledgeable legal system.

It is not the contention of this chapter to blame the adversary system for the unethical conduct of forensic practitioners, specifically the forensic anthropologist. It is however, necessary to illuminate the weaknesses of the court when dealing with issues of a scientific nature. As technological advances continue to test the boundaries of our social, academic, and scientific mores, then ethical issues will remain a complex and expanding topic within the forensic sciences. The adversary system has often been slow to recognize the specifics of scientific processes. This is frequently due to the fact that science changes its technological face so rapidly. For the court to keep abreast of the knowledge available is almost impossible. In addition, the forensic expert must prepare for an appearance in court and be aware of the sometimes subtle difficulties which arise from that testimony. In this regard, the forensic sciences must become more engaged in providing the adversary system with opportunities to learn about and understand scientific processes. If the forensic sciences and the adversary system wish to continue successful interaction, each side is required to familiarize themselves with the other's processes, both internal and external. When either side is unprepared or ignorant of the proper procedures, or lacks the proper funds, ethical misconduct is likely to occur. The next chapter details this happening.

CHAPTER IV

MISDEEDS OF THE FORENSIC ANTHROPOLOGIST

Although the last chapter demonstrated that the American judicial system is often woefully unsuited for dealing with matters of a scientific nature, the responsibility for expert testimony in such matters lies fully at the feet of the forensic practitioner. These experts become representatives of their respective fields in court and have a duty to present scientific opinions based on specific areas of expertise. Unfortunately, some of these experts offer testimony outside of their own area of expertise or boundaries deemed acceptable by the discipline. Whether for money, notoriety, or any other reason, this type of behavior undermines the foundations of the forensic sciences as a whole. In addition, not only does this type of activity produce shaky testimony, but it is also a clear breach of the ethical code set forth by the American Academy of Forensic Sciences. Plenty of examples of this type of misconduct can be gleaned from testimony of expert witnesses in fields such as forensic pathology or law enforcement. It is also true however, that these fields have typically enjoyed much more time in court than their somewhat newer, developing relatives within the forensic sciences.

Cases available for analysis where a forensic anthropologist has testified remain few. This is likely due to the fact that many forensic analyses done by the anthropologist are subsumed in the reports of forensic pathologists (Moenssens et al.,

1995). Although forensic anthropology has only recently begun to see more use in courts of law, a few examples do exist which illustrate the ethical misconduct of some of its practitioners. Under the guise of forensic anthropology, the judicial system has accepted testimony from these expert witnesses that at times is not only unfounded, but is also clearly beyond the accepted scope of the field. Not only is this a misuse of forensic anthropology, it can also unfairly cloud the vision of judges, juries, and lawyers as to the true capabilities of the discipline. Although Diplomates of the A.B.F.A. may readily recognize the misuse of the discipline, the adversary system does not possess the disciplinary knowledge to always detect possible misapplications of forensic anthropology. In essence then, the courtroom ethical misconduct of forensic anthropologists can negatively affect not only specific cases, but also the surrounding legal, social, and disciplinary domains.

During the 1980's a few forensic anthropologists began to embrace research involving the identification of individuals based on feet and footwear impressions (Moenssens et al., 1995). Foremost among these was the late Dr. Louise Robbins. Dr. Robbins' methodology claimed the ability to identify individuals based on a system of grid-type measurements of foot pressure points and morphology (Robbins, 1985). Footprints and footwear impressions have typically been an area of crime scene evidence often ignored or overlooked. Recently however, this type of evidence has received an increasing amount of research (Bodziak, 1986, 1990). The judicial system has seen testimony in this regard from a wide array of experts, but usually experts testifying about the forensic nature of footwear impressions consist of trace

analysts (Moenssens et al., 1995), latent print, document, or tool mark examiners, criminalists, and microscopists (Bodziak, 1990). However, the court's all too eager acceptance of this form of scientific inquiry has allowed individuals to testify perhaps without proper qualification. According to Bodziak (1990:384), the researcher should "be afforded specific training and experience in the field" including such areas as direct training from a qualified footwear examiner, attending meetings and workshops devoted to footwear impression examination and analysis, knowledge of footwear manufacturing processes and facilities, and conducting specialized research. Having expertise in a related forensic field, such as forensic anthropology, does not by default signify that a forensic scientist has the ability to analyze any or all forensic evidence and should not obfuscate the court's analysis of an individual's qualifications for expert testimony. As White (1991:418) has said of osteologists, "he or she is an expert witness in osteology and not necessarily an expert witness in criminalistics, pathology, toxicology, engineering, or detective work." It is likely that the designation of "scientist" is often a catch-all term to which the court appropriates the analysis of "scientific evidence."

Although already mentioned, footprint and footwear analysis has yet to become an accepted area of expertise within the realm of the forensic anthropologist. In Dr. Robbins' case, the court may have either ignored or been unaware of the appropriate qualifications required of an expert in footwear analysis. This fact, however, does not excuse the practitioner of forensic anthropology from the "sin" of testifying outside of his or her area of expertise. According to Moenssens et al.

(1995:1041):

When anthropologists stray beyond the disciplines of radiology and odontology, there should be a fixed requirement of specialized knowledge as a pre-condition to giving an expert opinion on such matters which are outside the usual reach of their experience and training.

Thus far, no requirement of specialized knowledge concerning footprint or footwear impression analysis exists within forensic anthropology. If one interprets the following sentence of the Academy's Code of Ethics and Conduct, Article II, Section 1.b (1986) literally:

Every member of the AAFS shall refrain from providing any material misrepresentation of *education*, *training*, *experience*, *or area of expertise* (italics added),

then Dr. Robbins essentially transgressed the ethical boundaries set forth by the discipline. One must question how exactly Dr. Robbins came to be an expert in the field of feet/footwear impression. Did her fellow peers test her theories and practice and issue her expert status? Did peer review take place that critically questioned the utility of feet/footwear impression analysis and its application within the legal realm? The latter two questions must be connected with any scientific process used within the adversary system, but this researcher can find no evidence that those questions were ever asked. Subsequently, the testimony offered by Dr. Robbins in numerous criminal cases may have been completely unqualified, and therefore may have unalterably changed the outcome of those judicial proceedings.

We know this to be true in the Buckley case. Although the entire judicial system seemed to err in the case against an innocent Stephen Buckley, it was the testimony of a forensic anthropologist which provided the lynch pin that allegedly tied

him to the crime. It is likely that under further scrutiny, other cases in which Dr. Robbins testified may also have been negatively influenced by her testimony (see United States of America v. Dorsey, 1995; United States of America v. Ferri, 1985). In addition, other practitioners of the discipline should have been more critical of Dr. Robbins' practice and testimony in such matters. Although many forensic anthropologists were likely to have disagreed with Robbins' methodology and claims, only once did a peer come forward to challenge her views in court (Moenssens et al., 1995). In any event, the testimony offered by Dr. Robbins was clearly outside of the area of expertise afforded to the forensic anthropologist.

Another similar example is illustrated in the case of *People v. Hebel* (1988). In this case, authorities were notified by an Illinois film-processing laboratory of pornographic pictures that had been identified during development. Following a stake-out of the processing establishment, law enforcement officials arrested a local dentist named Robert Hebel shortly after he attempted to pick up the developed pictures. One such picture documented the "thumb and forefinger of a hand spreading open the genital orifice" of a young girl later identified as a houseguest of the defendant's daughter (Moenssens et al., 1995:1047). Law enforcement officials contended that Hebel molested and photographed the young girl while she was visiting his home. The prosecution sought to identify the hand in the pictures as belonging to Hebel, thereby solidly connecting him to the incidents of sexual abuse. An FBI expert in photographic analysis was contacted to examine the evidence in question, and although he believed the hand in the photograph to be quite similar to that of the

defendant, he could not rule out the possibility that the hand may have belonged to another individual.

A second expert employed by the prosecution was forensic anthropologist Ellis Kerley who, after completing his own examination of the photographic evidence, was "considerably more certain that the hands matched" (Moenssens et al., 1995:1048) and testified to this contention. Analogous to the aforementioned cases of Dr. Robbins, this forensic anthropologist also broke the ethical norms of the discipline by testifying outside of his area of expertise. Like footprint analysis, expert photographic examination has yet to become a component in the disciplinary arsenal of the forensic anthropologist. Although this practitioner likely meant no conscious breach of ethics, testifying in an area better suited to the *first* prosecution expert was obviously outside the realm of the forensic anthropologist.

Some may question the charge written here that this forensic anthropologist actually did commit an ethical error. Surely a forensic anthropologist can offer court testimony based on evidentiary photographs? While this is true, the nature of the testimony far outreached the boundaries sanctioned by the discipline. The forensic anthropologist based his conclusions on twenty-two points of similarity between the hand in the photograph and a pictured hand of the defendant (Moenssens et al., 1995). The practitioner in question compared a known picture of the defendant's hand with that of the hand found in the pornographic photographs. After matching general class characteristics between both photographs, the anthropologist testified that the hand likely came from the same individual, although it was "possible" that it

did not match (*People v. Hebel* 1988). While this may have been a relatively straightforward method of inquiry, it is not one that fits within the tenets defining forensic anthropology. The analysis of photographic evidence concerning physiological structures (i.e., the defendant's hand) pushes the weight of the expertise of forensic anthropologists onto very thin ice. Regardless of the fact that Robert Hebel may or may not have been guilty of sexual abuse, the testimony of the forensic anthropologist clearly forwards the use of this science past the ethical boundaries set forth by the A.A.F.S.

The last case to be discussed in this chapter, in the opinion of this researcher, carried with it the potential to be highly damaging to the discipline of forensic anthropology. Due to the intense level of publicity generated by the horrendous nature of the crime, the general public and the surrounding legal community became more aware of the specifics of this case, and those who were involved in its outcome. It has been reported as being the "second longest criminal trial in Illinois history" (Giles, 1998). In this regard, the testimony of the forensic anthropologist may have become more visible to a previously less knowledgeable legal and public audience, who often simply accept science at face value. By testifying in regard to a domain outside of the area of expertise officially recognized by forensic anthropology, this practitioner ill-represented the discipline's abilities. The forensic anthropologist in question testified in the late 1970's joint murder trial of Patricia Columbo and Frank DeLuca, who had been charged with brutally murdering Columbo's parents and teenage brother (*People v. Columbo*, 1983). The case generated much publicity due to

the evidence of parricide on the part of a seemingly inhumane Patricia Columbo, as well as further evidence of conspiracy, solicitation, and sexual perversity.

The prosecution attempted to link Patricia Columbo's lover, Frank DeLuca to the crime by identifying gloveprints found on the Columbo's family automobile (Giles, 1998; Moenssens et al., 1995). The evidentiary gloveprints were distinctive in that they lacked an imprint from the index finger. The prosecution employed a local forensic anthropologist named Eugene Giles who opined that the gloveprints were made by an individual who was missing an index finger versus having the index finger simply raised when touching the automobile. Evidently (*People v. Columbo*, 1983),

[t]he slight difference in size from the axial tri-radius to the tri-radius on the fourth digit and from the central part of the thenar-hypothenar area to the pad area of the fourth digit could indicate that the hand was in a position of flex when placed on the car.

In simpler terms, the pressure points exhibited in the palm print indicated that the suspect was missing their index finger, versus just having the index finger raised when the print was formed. This was of major benefit to the prosecution due to the fact that DeLuca indeed, was missing his left index finger that he lost in an earlier skydiving accident (Giles, 1998). Subsequently, and in light of other telling evidence, both Columbo and DeLuca were each convicted and sentenced for their roles in these homicides. For the purposes of this thesis however, the outcome of the case is not particularly relevant. What is pertinent are the practices and testimony generated by the forensic anthropologist. As we saw in the first two cases, this case involves testimony that concerns an area not encompassed within the tenets of

traditional forensic anthropology. As of yet, the forensic analysis of hand or gloveprints remains to be accepted as a practiced area within forensic anthropology.

Although Snow (1982) has urged the science to broaden its scope, the further the discipline transgresses from the doctrines of skeletal analysis, the less it is true forensic anthropology. When the court accepts expert testimony from a forensic anthropologist, it certainly should be doing so on the basis of generally accepted practices within the discipline. In this case, the court rationalized its inclusion of expert testimony from the forensic anthropologist by likening the analysis of hand-print identification to that of footprint, fingerprint, hair, and bite-mark comparison (Giles, 1998). Because this type of comparison lacked the need for specific technological processes said the court, a skilled visual analogy would suffice for determining the qualification of the "expert." It is of this researcher's opinion that the analysis of handprints, or more specifically gloveprints, is an area that is long from seeing general acceptance within the discipline of forensic anthropology.

Columbo and DeLuca's defense team did recognize this fact and in reference to the forensic anthropologist argued that "the testimony was novel, untried and lacked the foundational requirement of general acceptance in the scientific community" (Moenssens et al., 1995:1049). Although the court rejected this claim, the argument of the defense certainly holds merit in light of known sanctioned practices within the discipline. Even the forensic anthropologist involved admitted that he knew of no previous testimony or literature of a similar nature. The forensic anthropologist had done research on New Guinean populations concerning hand

measurement, palm and fingerprints, and general hand morphology. However, he had never researched prints found on the surface of an automobile trunk, nor did he know anything about fabric impressions. This fact is quite important due to the fact that the suspect's hand was gloved. Exactly how the court made the connection between New Guinean hand morphology research and evidence of a gloved imprint on an automobile is unknown. However, Diplomates should question the validity of the testimony offered in the above case. Unfortunately, no other forensic anthropologist came forward to aid the defense in their refutation of the claims made by the prosecution's anthropologist (Moenssens et al., 1995). Like the other cases then, this case clearly illustrates the improper use and representation of forensic anthropology in the adversary system.

It must be mentioned that the cases of *Hebel* and *Columbo* are not the norm by any means for the practicing forensic anthropologist. In each case, the evidence for analysis was rather new to the discipline of forensic anthropology and had yet to have been testified upon. One can assume that as forensic roles expand, evidentiary matters will continue to become increasingly complex. Certainly, more and more forensic anthropologists will be approached with requests for testimony in similar cases. However, Diplomates should be aware of the boundaries created by the discipline. It is true that growth can only come from testing the guidelines set forth by the discipline, but venturing too far too fast into unfamiliar territory will likely do more harm to forensic anthropology than help. This thesis takes a very literal interpretation of the definition of forensic anthropology. Quite likely, a few Diplomates may find

that interpretation confining and outdated. However, to discuss ethics, one must first identify the known and tested foundations within the science to provide an ample point of departure for ethical inquest. Simply stated, one who looks too far into the future is bound to trip over what lies directly ahead.

With the community of forensic anthropologists yet small, the ethical misconduct illustrated in the above mentioned cases is relatively straightforward. Although the forensic anthropologists mentioned likely meant no conscious erratum, ethical breaches in fact did occur. In each case, the practitioner expanded the use of forensic anthropology into areas not yet accepted by the discipline. This represents a misuse of the discipline and may provide the outside community (i.e. legal, public, and academic) an unwarranted view of the present capabilities of forensic anthropology. Although the court is often unprepared for dealing with issues of a scientific nature, the responsibility for such action lies fully at the feet of the forensic anthropologist. However, as technology increases and forensic roles expand, issues surrounding ethics are sure to become more complex and questionable. In addition, more and more non-board certified "forensic" anthropologists are testifying in court on issues of a similar nature. As the numbers of these active practitioners expand, so too do the chances of ethical misconduct. Since issues of ethical misconduct are often initially less visible, a survey of the state of ethics from board certified members will provide means by which the discipline as a whole can combat furthering ethical shades of gray.

CHAPTER V

A SURVEY OF DIPLOMATES OF THE AMERICAN BOARD OF FORENSIC ANTHROPOLOGY

A survey of the board-certified members of the American Board of Forensic Anthropology was conducted to uncover current ideas and practices surrounding ethical issues. History has shown that ethics in the sciences, or even in general, has often played a catch-up game with the fast pace of technology. Although scientists have been aware of ethical issues, relatively few step forward to point the finger at peers who may be, or have been engaged in unethical or questionable practices. It may be that many ethical complaints are only heard after ethical misconduct by an individual becomes so blatant that a unified front within the discipline provides the impetus for questioning. It may also be true that the fear of being ostracized within one's own professional community for whatever reason keeps professionals from reporting unethical practices.

Since ethical situations can often only be evaluated in light of their surrounding social, academic, and technological climate (for instance, one would not evaluate the ethics surrounding the transplant of a human heart in the 1800's), scientists may oftentimes leave the difficulty of making sense of ethical dilemmas to ethics committees. Many professional organizations have created ethical boards or committees whose sole responsibility is to hear and rule on ethical complaints within the discipline. Obtaining information from these ethical boards can often be a daunting, if not

impossible task. For obvious reasons, these committees keep much of their activities and disciplinary proceedings confidential to protect the integrity of all involved. In August of 1998, the Chair of the A.A.F.S. Committee on Ethics, Dr. Don Harper Mills, was contacted in an attempt to provide further information on ethical issues within the forensic sciences and how this may relate to forensic anthropology. Nonspecific, general information on ethical issues such as the number and types of complaints heard each year, and any subsequent disciplinary action was requested. Dr. Harper Mills (personal communication, July 1998) stated that a similar request for information regarding the committee's actions had been heard in the past, but denied. He also stated that although a formal request detailing this research could be sent to the committee in an attempt to gain information, the thesis would most likely be finished before such a request would be dealt with. In addition, Dr. Frank Saul (personal communication, July 1998), the current president of the A.B.F.A. was contacted regarding this research. The A.B.F.A. has an ad hoc ethics committee that meets when a formal complaint regarding ethical misconduct within the discipline arises. Dr. Saul informed this researcher that the A.B.F.A. had yet to formalize any ethical codes and could relay little information regarding the actions of the A.B.F.A. ad hoc Committee on Ethics.

In terms of uncovering ethical malfeasance, other means had to be investigated to learn something about the nature of this problem. In this regard, a survey on ethics represented the most practical and functional way to uncover the current state of ethics within forensic anthropology. Not only did the survey ensure anonymity,

but it also left the respondent in a position where peer review was of no consequence. In essence, the survey has then produced ideas and opinions otherwise unvoiced or unheard in the forensic community. In August of 1998, Western Michigan University's Human Subjects Institutional Review Board accepted a formalized survey designed for use in this study (see Appendix B). Subsequently, a cover letter and survey were sent to the forty-seven Diplomates (one had recently passed away) listed on the A.B.F.A. homepage (see Appendices C & D). The survey itself was made up of twenty-six questions designed to uncover and illuminate ethical issues from an individual point of view. The format of the survey was quite simple and consisted of both open-ended and yes or no questions. Since issues surrounding ethics have a tendency to be sensitive, the format of the survey allowed a complete degree of anonymity, as well as provided ample areas where a respondent could elaborate on distinct areas of ethical inquest. In essence, the survey has uncovered ethics on a personal basis, which have then been correlated to ethical issues on a larger, disciplinary level. The initial questions all revolved around a researchers own ethical background and level of mentoring or student involvement, and then progressed towards items of courtroom testimony and knowledge of peer/professional actions.

Although an increasing number of non-board certified members have spent time in court testifying about forensic material, only Diplomates of the A.B.F.A. were chosen as the target group for the survey. These members have all completed the professional guidelines set forth by the A.B.F.A., which in turn created a common foundation with which to gauge actions and responses regarding ethical issues.

These guidelines include the possession of a Doctoral degree with an emphasis on Physical Anthropology, three years of professional experience, documentation of activities in forensic anthropology, and also passing a stringent written and practical examination administered by the A.B.F.A. (http://www.csuchico.edu/ anth/ ABFA). Though it is well known that non-board certified members are testifying in court on forensic issues, they have not been included in the target group for this survey because their actions cannot be evaluated in light of the guidelines set forth by the A.B.F.A. since they are not Diplomates.

Of the forty-seven surveys originally sent out to Diplomates, twenty-two were returned, providing an approximately 47% respondent rate. A return rate of almost fifty percent is better than average (Berdle, Anderson, & Niebuhr, 1986). The results tabulated are, at times, based on very small numbers indeed. However, to create and evaluative framework, those responses have been taken at face value. Although the numbers below may in fact represent only a small percentage of the practicing Diplomates, this researcher believes that the results of the survey have provided a substantial and secure entry point with which to analyze ethical issues. The survey will be presented below as it appeared in mailed format. After each question, replies will be tabulated and discussed:

Question #1: In what year were you certified by the A.B.F.A.?

Many respondents inquired about the anonymity of the survey based upon this question. To quote one respondent, this "violates confidentiality for years when only one or two people were certified." This fact may certainly be true if a researcher

were to devote time to identifying in which year forensic anthropologists were certified. To specifically identify and name a respondent would serve no useful purpose for this study and no attempts were made by the researcher to conduct such investigations. However, the information provided by certification date, essentially providing the number of years each individual has been involved in the field on a professional level, provided valuable clues with which to cross-reference other information and was integral to this study. For instance, are younger or older generations of forensic anthropologists more aware of ethical issues? Is there a difference between the two? Since technology has expanded the utility of science and forced scientists to evaluate its application, do more recently certified individuals possess more formalized ethical instruction? The point here is obvious, the year of certification provides not only the number of years an individual has been active in the field, but also the generation in which they were sanctioned by the A.B.F.A.

To keep the integrity of the respondents intact, the results of this question have been presented in decade intervals. Obviously, with the A.B.F.A. forming in 1977, the 70's decade is a short one. It is important to remember though that the changing social climate during the 1970's, 80's, and 90's had great impacts upon science and law. In this way, the decade in which one was certified has been useful in determining generational differences in ideas, opinions, and protocol in dealing with issues of an ethical nature. The results can be seen in Table 1.

Question #2: Have you completed any formal coursework that dealt specifically with ethics or ethical issues in Forensic Anthropology or the Forensic Sciences?

Table 1
Individuals Certified by the A.B.F.A. by Decade

Decade	Number of Individuals Certified
1977 to 1979	7
1980 to 1989	8
1990 >	7

Out of the twenty-two respondents, only two (9%) replied that they had received any type of formal ethical instruction or training: one was certified in the 1980's, and the other in the 90's. Interestingly, none of those certified in the 1970's indicated any degree of formalized ethical instruction in either forensic anthropology or the forensic sciences. Although this is not shocking (especially since only two respondents actually did indicate some degree of formal ethical training), it has provided clues as to the somewhat unhurried creation and application of ethical guidelines currently in the A.B.F.A. It is also likely that there were few areas where one could gain formal ethical training in the 1970's. Although science was forcing ethical issues into a more visible light, opportunities for professional instruction were still relatively few. However, an increasing number of opportunities are becoming available for scientists to delve into ethical issues. One must hope that as science and technology expand, researchers also expand their knowledge and practice in terms of ethics and subsequent issues.

Question #3: Briefly describe this course work (where was it offered, specific focus, etc.)?

Since only two respondents indicated that they had received any formalized ethical instruction, the utility of this question becomes insignificant. However, both respondents who answered this question positively indicated that their formalized ethical instruction was part of their curriculum or class work in forensic anthropology.

Question #4: Have you attended any workshops or seminars that dealt with ethical issues in Forensic Anthropology or the Forensic Sciences?

Seven of the total respondents replied positively to this question: four came from those certified in the 1970's, two in the 1980's, and one in the 1990's. It is interesting to compare this question with the results from question two. None of the respondents certified in the 1970's indicated that they had received any formal ethical instruction, but the initial results here indicate that the older generation of forensic anthropologists have indeed participated in more seminars and/or workshops concerning ethics than their younger counterparts.

Question #5: Briefly describe any workshops/seminars attended (was it worthwhile, was relevant material covered, etc.).

All the responses to this question revolved around seminars, plenary sessions, or meetings associated with professional groups. Most noted were the meetings conducted by the A.A.F.S. and the subsequent ethical topics contained therein (fair and reasonable fees for casework or court testimony for example). What is most alarming was that only seven out of twenty-two respondents had participated in ethical seminars or workshops held by professional organizations. As Chapter II indicates, the

A.A.F.S. has offered specific workshops or plenary sessions dealing with ethical issues on a number of occasions. With chances for ethical dialogue increasing in the forensic sciences, it seems distressing that few respondents have taken advantage of these areas set aside for ethical inquiry. It also may be true however, that these sessions held by professional organizations are not specifically related to forensic anthropology and as such, do not attract forensic anthropologists. Even so, forensic anthropology is not unique in the fact that its practitioners spend time in court as expert witnesses. Although forensic anthropology may be specific in terms of its practice and disciplinary objectives, its practitioners encounter the same stresses and pressures from the judicial system as do other forensic scientists. In this manner, dialogue concerning ethical issues can span all forensic disciplines and in turn, all these disciplines should have opinions, data, and experience to include.

Question #6: Have you read any books, monographs, reports, etc. on ethical issues in Forensic Anthropology or the Forensic Sciences?

Out of the eleven respondents answering positively: four were certified in the 1970's, four in the 80's, and the remaining three were certified in the 90's. Although the literature pertaining to ethics in the field of forensic anthropology remains quite small, references to ethics within the forensic sciences as a whole has seen a burgeoning interest in the last decade. These articles and monographs are easily accessible from sources such as the *Journal of Forensic Sciences* and other similar publications. They also can be presented at professional meetings such as those held by the A.A.F.S. each year. It seems unfortunate that with more and more ethical dialogue

taking place, only 50% of the respondents have read reference material concerning ethical issues, in forensic anthropology or the forensic sciences as a whole. If we refer once again to the quote of Rosner (1996:913), ethical issues are often "more notable for heat than for light." Based upon the results of this survey question, Rosner's quote seems to be true in the field of forensic anthropology. If many forensic anthropologists are attempting to increase critical dialogue concerning ethical issues (an assumption based on the amount of conversation and seemingly genuine interest in ethical issues at professional meetings), why is it that only half of them (based upon the survey results) have read monographs or papers dealing with the same? The point here is obvious. There definitely are resources available for those interested in ethical inquest. Why more are not being read by Diplomates of the A.B.F.A. is a specific area of concern.

Question #7: Of these readings please list what you believe to be the five more important references and/or which would you recommend to students or colleagues.

With this question, an attempt was made to survey the familiarity that forensic anthropologists have with existing ethical literature, as well as the literature that they believe is important to ethical issues. Five of the most notable references are: (1) Galloway et al. (1990), (2) Hollien (1990), (3) Stewart (1979), (4) White (1991), and (5) articles from both the *Journal of Forensic Sciences* and the *American Journal of Pathology and Medicine*.

Question #8: Are you currently or have you trained or served as a mentor for

Out of the eighteen respondents answering positively: six were certified in the 1970's, seven in the 1980's, and the remaining five in the 1990's. It seems straightforward that those certified in the 1980's have had more involvement with students and interns in the field of forensic anthropology. The previous generation of forensic anthropologists have retired, or are nearing retirement and may not be as active in the mentoring of students as are those from the 1980's. Similarly, those who have been more recently certified may not be as firmly planted in the discipline as Diplomates of the 1980's, and in this capacity may have yet to become heavily involved in the guidance of students. What is important here is that about 82% of all the respondents replied that they do indeed mentor students in forensic anthropology.

Question #9: Do you spend time teaching ethical issues to those students?

Eighteen of the twenty-two respondents (approximately 82%) answered positively to this question: six were certified in the 1970's, seven in the 80's, and the remaining five in the 90's. It seems important to point out that the majority of the respondents both mentor students, and according to the above results, also instruct them in ethical issues. If one is to cross-reference this fact with earlier questions regarding the degree of a Diplomate's own formal ethical instruction and familiarity with reference materials dealing with ethical issues, then the above results indicate that common sense laws are still largely the mainstays of ethical instruction. Only two of the eighteen respondents who answered 'yes' to this question (one Diplomate certified in the 1980's, the other in the 1990's) had received both formal coursework

and attended workshops or seminars dealing with ethical issues. In essence then, only 9% of those Diplomates who responded to this questionnaire have a formalized background in the topic of ethics, yet 82% indicated that they were teaching ethical issues to students. Although common sense can play a large role in determining one's professional actions, the rapidly advancing technological and social climate dictate differences in how science is currently practiced. This fact is increasingly visible when one looks at the subsequent areas that forensic experts are being asked to analyze and testify on. That Diplomates are, in fact, dealing with issues surrounding ethics is important. However, with the explosion of scientific know-how, Diplomates should be better aware of the opportunities for ethical examination afforded by professional organizations such as the A.A.F.S., and be able to relay these issues to students.

Question #10: Briefly explain the format of your ethical instruction.

This question was obviously completely open ended and required that respondents' replies emphasize the role that ethics plays in classroom instruction. Unfortunately however, most of the explanations offered illustrated very poorly formalized ethical "teaching." A large number of respondents implied that classroom instruction involved "informal discussions" regarding ethical issues "when the need arose." While these discussions are certainly beneficiary to students, do they really suffice in painting a true picture of the ethical issues one may encounter later in the field? Especially since few respondents have participated in formal situations dealing with ethics. Although this may be a harsh view of the respondents' replies, more and

more colleges and universities are implementing required courses on ethics at a graduate level, which certainly entail more than just informal discussions. In addition, programs have been designed which present students with a specifically designed ethical dilemma, requires them to formulate a response, and then discuss the ramifications in a classroom environment. These types of programs are quite easily implemented into a forensic anthropology curriculum, but as of yet, few respondents seem to indicate that they are in fact used. As one respondent replied "I fit it [ethical instruction] in where it seems appropriate."

Question #11: Have you ever been aware of a breach of ethics in the field of Forensic Anthropology in regard to an issue either yourself or someone else was involved in?

Fourteen of the twenty-two respondents answered positively: four were certified in the 1970's, five in the 80's, and the remaining five in the 90's. Considering the increasing amount of dialogue concerning ethical issues in the forensic sciences, as well as the expanding use of forensic anthropology into many more non-traditional roles (i.e., analyzing videotape footage, glove or boot/footprint identification, etc.), one might assume that a breach of ethical guidelines may become increasingly visible.

Question #12: What were the circumstances surrounding the breach(es) of ethics?

Once again, this was an open-ended question designed to initiate the proliferation of each respondent's personal view and opinion of ethics based on where exactly they believed ethical malfeasance to have existed. With a few exceptions, there were three main ethical issues covered by almost all the respondents: testifying outside of one's own area of expertise, the improper use and/or manipulation and presentation of evidence, and becoming a "hired gun" for either the prosecution or defense. One respondent went so far as to mention that they believed a colleague to have presented reports for the prosecution which were unsubstantiated by the physical evidence, and that "these reports may have led to executions in at least one case." If this charge is in fact true, forensic anthropologists should be appalled. Although it may be impossible to discover whether or not this was a case heard by the A.A.F.S. or the A.B.F.A. ad hoc Committee on Ethics, a report of such nature should be of concern to forensic scientists. While this charge may be a simple instance of difference of opinion between two forensic anthropologists and may need to be examined sensitively, it is a charge that certainly warrants investigation.

Interestingly, either implicitly or explicitly, the cases of Dr. Louise Robbins and the use of foot/bootprint evidence were mentioned by numerous respondents. Chapter IV illustrated the fact that Dr. Robbins' practices went mostly unchallenged by the forensic anthropological community. With so many respondents mentioning her work as case examples of ethical misconduct, one must question why more of her colleagues failed to come forward and publicly challenge her practices. Once again, the ugly double-sided nature of ethics rears its head. Many may recognize that ethical misconduct is occurring, but few are willing to step forward and publicly voice their concerns to the forensic community.

What is extremely interesting in regard to this question is that all the responses almost solely dealt with ethical issues as they relate(d) to courtroom or legal circumstances. Although those types of responses were critical in the formation of this thesis, it is intriguing to note that other ethical misconduct was only briefly alluded to and highly ambiguous. Why other problems dealing with ethics were not mentioned (i.e., plagiarism, inappropriate teacher/student relations, improper use of funding, etc.) is highly fascinating. To some extent, these problems exist in every discipline, so why were they not mentioned within forensic anthropology?

Question #13: Have you ever testified in court?

Eighteen of the total respondents answered positively to this question: seven of those Diplomates were certified in the 1970's, six in the 80's, and five in the 90's. The decreasing percentages of those presenting expert witness testimony throughout the three different decades is obvious. Essentially, all of those who were certified in the 1970's (and responded to this questionnaire) have spent a considerable amount of time in court. Diplomates from the other two decades have spent less time in the professional arena practicing forensic anthropology, and therefore have spent less time in court.

Question #14: How many times and what types of cases?

Within each decade (out of the 18 respondents who answered positively): those certified in the 1970's have testified in court an average of 34.5 times per Diplomate, those certified in the 80's have testified an average of 28.3 times per Diplomate, and those in the 90's have testified an average of only 4.2 times per

Diplomate (see Table 2). Almost exclusively, the types of cases involve homicides.

A limited number of respondents indicated testimony from civil proceedings, but these were very few. The above results indicate a substantial amount of time spent in the American judicial system.

Table 2

Number of Times Certified Diplomates Appeared in Court per Decade

Decade	Number of Times in Court (approximate)
1970	242
1980	170
1990	21

Question #15: If you were AWARE of a Forensic Anthropologist who testified in court on issues that could not be substantiated by the available evidence, how would you react and/or what action would you take?

The purpose of this question was essentially twofold. First, it surveyed a respondent's course of action in dealing with issues of an ethical nature and attempted to uncover the knowledge a Diplomate may have of the discipline's internal structure for dealing with those issues. Secondly, it also indirectly urged a respondent to use personal experiences to illustrate their involvement in such matters. With only a few exceptions, all Diplomates responded that they would report the incident to either the A.A.F.S., the A.B.F.A., or the court involved (i.e. judge or opposing attorneys). The results collectively indicate that each generation of forensic

anthropologist recognizes the authority of the A.B.F.A. and A.A.F.S. Committee on Ethics for dealing with ethical malfeasance and assigning disciplinary action. The question that remains unanswered however, is if Diplomates truly have reported incidents of presumed ethical misconduct. It is at this point where specific information from the A.A.F.S. or A.B.F.A. ad hoc Committee on Ethics would be useful in determining exactly how many incidents, if any, are reported from forensic anthropology each year. It is this researchers opinion that although almost all of the respondents say they would report an incident, few actually do. If we take the example of Dr. Robbins' actions in the courtroom, one can see that the judicial system used her expert testimony on numerous occasions over a number of years. This researcher assumes that her peers likely knew that her techniques were unproven and on the periphery of forensic anthropology, and that her involvement in the court may have been ethically questionable. However, how many Diplomates truly took action to challenge, either directly or indirectly, her courtroom testimony? Based upon the answers given here, one would have assumed that nearly the whole community of forensic anthropologists would be approaching the courts, the A.A.F.S., and the A.B.F.A. with claims of ethical misconduct. Simply stated, the answers to this question seem more like "textbook" type answers that are not really being practiced within the discipline.

Many of the respondents also mentioned that information from court trials does not become part of the public or professional domain until after a trial is over, essentially pointing out that ethical breaches committed by the forensic

anthropologist may well have become cold. I believe the intended point here is that if ethical misconduct were occurring, it would be easier to approach or recognize while it was taking place, or shortly thereafter.

To briefly summarize the finding based on this question, it seems that forensic anthropologists recognize that ethical misconduct does in fact occur, and that they are familiar with the chain-of-command so to speak, in dealing with ethical grievances. However, since information from ethics committees is highly guarded, one is left to wonder how often Diplomates actually report ethical misconduct.

Question #16: In a similar situation, if you were ASKED or pressured by an attorney or investigator to testify about claims which could not be substantiated by the available evidence, what would you do?

Once again, this question was designed to uncover both opinion as well as experience in the plaiting of forensic anthropology with the legal system. Numerous papers, presentations, and monographs mention the pressure that at times is leveled against the forensic expert by either side of the adversary system. Many resources have uncovered the attempts of attorneys and investigators to win their case by influencing experts to "prostitute" themselves, thereby having testimony tailored to their own specifications. Almost every respondent answered a resounding "Refuse" to this question. Perhaps the best way to categorize the responses is to liken them all to the colorful return of one Diplomate, "[I would] tell them to shove it!" Many respondents also indicated that they would advise the attorneys of the limits of their expertise and why such matters could not be testified to. Additionally, about 50% of

the respondents also indicated that if such pressure continued to occur, they would approach the court or a supervisor and report the incident. It is worth asking here however if this type of "reporting" is much like that of the "reporting" claimed in question fifteen?

Overall, this question brings to bear something that has yet been mentioned or discussed. That is the difference between opinion and just plain bad science. In this case, bad science must be defined as being the improper application of science to certain issues. The forensic anthropologists involved in the previously mentioned *Columbo/DeLuca* and *Hebel* trials most likely meant no conscious ethical misconduct. However, each was asked to testify in an area new to forensic anthropology, and as of yet, never before testified upon by a forensic anthropologist.

One must assume that as science and technology expand, and the population finds new and more complex ways to harm each other, forensic anthropology will always be forced with novel means of application. In this way, the guidelines of the discipline must be flexible enough to deal with new circumstances. Since science is only as broad as its practitioners are, the difference of opinion among forensic anthropologists is required to constantly both test and strengthen the discipline. However, when one strays too far from the basis of the formalized discipline, the bonds of science may be weakened.

Perhaps a simple example can illustrate this point. A convenience store is robbed one night, its employees shot and killed, till looted, and the masked perpetrators filmed committing the crime by the stores surveillance tape. Shortly thereafter,

the police arrest a suspect and the case goes to trial. The prosecutor asks a forensic anthropologist to testify that the videotaped image of the masked subject is the same as the man charged in the offense. Some forensic anthropologists certainly would flatly deny this request, others may honor it. Although opinions here may differ, are we looking at bad science? As forensic anthropology currently exists, the answer must be yes. To tie this all back into the question concerning pressure from the judicial system, it's not always the pressure to alter a scientific opinion, it's the pressure to say no to a request that will push the science beyond the scope of its sanctioned abilities.

Question #17: Have you ever been pressured by an outside source to tailor, modify, or otherwise alter your scientific analysis or courtroom testimony?

Four of the twenty-two respondents replied positively to this question: one was certified in the 1970's; one in the 80's; and two in the 90's. Since the adversary system is oftentimes more interested in winning cases than in understanding the nature of scientific inquiry (Peterson, 1989), this researcher expected the number of practitioners who were approached with requests to alter testimony of scientific analysis to be greater in number. Since forensic anthropology has seen less time in the judicial system than other forensic disciplines, one might assume that the more employment it sees in court, the higher the positive responses to this question will be. The small number of respondents approached with such requests, however, is encouraging.

Question #18: What were the circumstances surrounding such pressure?

Since only four respondents indicated that they had encountered certain pressures to alter and/or tailor scientific analysis or courtroom testimony, each will be discussed here to illustrate to the reader the different circumstances where such pressure can take place. For ease of presentation and comparison, and to protect those involved, each occurrence will be case numbered and be discussed in general terms.

CASE #1: an attorney requested that the forensic anthropologist involved in a criminal case testify to stronger statements than could be supported by the evidence. Even though this forensic anthropologist believed the opposing expert to be stretching the truth, he or she remained very conservative in the presentation of their scientific analysis.

CASE #2: this forensic anthropologist was requested to alter the time of death as well as the evidence of injury.

CASE #3: this case involved the analysis of certain evidentiary material by the forensic anthropologist. The law firm involved pressured the forensic anthropologist to view the evidence as supporting their version of events. This scientist remained steadfast however, and finally the law firm accepted his/her analysis and the forensic anthropologist was not asked to testify.

CASE #4: this forensic anthropologist was asked to testify as to the age of a particular individual based upon dental evidence. He/she refused however, and the investigator moved on to find an expert who was willing to give the age that the forensic anthropologist was not willing to give.

As can be seen from the few cases discussed above, the pressures from the judicial system and the subsequent legal community can be very real and very compromising. This researcher assumes that more of these types of requests will be made in the future as the forensic anthropologist sees more time in court as a specialized witness. Since many reports from forensic anthropologists are subsumed within the report of forensic pathologists (Moenssens et al., 1995), it may be possible that a forensic pathologist is the more likely candidate to see such pressures exacted.

Question #19: Are you familiar with the policy of the American Board of Forensic Anthropology in dealing with ethics?

Sixteen of the respondents acknowledged familiarity with the A.B.F.A. policy on dealing with ethics: five were certified in the 1970's, six in the 80's, and the remaining five were certified in the 90's. These numbers are encouraging because they indicate that Diplomates are familiar with the discipline's internal structure for ethical inquest.

Question #20: Do you think the A.B.F.A. is taking the proper steps in dealing with ethical issues?

Out of the Diplomates certified in the 1970's, four marked Yes, one No, and two Don't Know. From Diplomates from the 1980's, three marked Yes, one No, and four Don't Know. Of those Diplomates from the 1990's, five marked Yes, one No, and one Don't Know. Out of the 16 respondents who admitted familiarity with the A.B.F.A. practices regarding ethics [see question #19], only 11 (69%) believed that the proper steps were being taken. This is important in the fact that critical dialogue from practicing members is required in both structuring and restructuring the guidelines surrounding ethical practice. Examples of why such steps are not proper are discussed below.

Question #21: Briefly explain why you think the A.B.F.A. is not dealing with such issues properly.

The issues brought about by this question seem to uncover opinions that may not often be heard or even voiced to peers within the discipline. Even the Diplomates who answered yes to Question #22 had opinions to add. Many of the respondents felt that the A.B.F.A. needed more "teeth" when it came to issues surrounding ethics. However, others felt that dealing with ethics was a developmental process and that the future will indeed hold advances for the A.B.F.A. in terms of its administrative and functional roles. Yet others mentioned expediency, or lack thereof, and the fact that the A.B.F.A. was not always as politic as possible in dealing with issues of an ethical nature. As one respondent opined "the A.B.F.A. is not aggressive enough in getting the message across as to what the ethics policy is" for practicing Diplomates.

For those who believed the A.B.F.A. was not appropriately handling ethical issues, the main focus was on the policing of the non-board certified anthropologists who were testifying in court on forensic material. Many felt that the A.B.F.A. needed to play a larger regulatory role in this matter. It is also important to mention that one respondent replied that "too much fear by younger practitioners to challenge established personnel in the field" may be another area where ethics becomes an important issue. This is a very important opinion to keep in mind when questioning the level of whistle-blowing, or lack thereof, that takes place by Diplomates of the A.B.F.A.

Question #22: Likewise, are you familiar with the policy of the American Academy of Forensic Sciences in dealing with ethical issues?

From the seventeen who responded positively to this question: five were certified in the 1970's, six in the 80's, and the remaining six in the 90's.

Question #23: Do you think the A.A.F.S. is taking the proper steps in dealing

From those certified in the 1970's, three responded Yes, one No, and three Don't Know. From the 1980's, five responded Yes, one No, and two Don't Know. Those Diplomates from the 1990's, three responded with Yes, one No, and three Don't Know.

Question #24: Briefly explain why you think the A.A.F.S. is not dealing with such issues properly.

Interestingly, a number of respondents replied that they thought ethics needed to be stressed more in the A.A.F.S., and not just an occasional theme. Additionally, that more workshops and seminars needed to be made available to emphasize the importance of professional ethics. This reply is interesting considering that 32%, or only seven of the total respondents have taken part in ethical workshops conducted by the A.B.F.A. or A.A.F.S. (see Question #4). It seems that recently, an increasing amount of ethical dialogue has been taking place. It may only be that an increasing amount of talk concerning an increasing amount of ethical dialogue is actually taking place.

It was also mentioned that the A.A.F.S. may be too leery of political difficulties and that due to the fear of lawsuits, they are unwilling to move accordingly on reported ethical misconduct. Once again, information from the A.A.F.S. or A.B.F.A. ad hoc Committee on Ethics would be useful in determining how much action the board sees on a yearly basis, and whether or not that action is increasing. Anyone familiar with Law Enforcement knows that the fear of unnecessary lawsuits is a real

and quite dismal outlook. It may be that slow action and reaction by the A.A.F.S. and A.B.F.A. regarding ethical issues, either directly or indirectly, avoids these types of damaging lawsuits.

Another important point here is the lack of knowledge of the A.A.F.S. ethics policy by eight (36%) of the respondents. Considering that the written policy on ethics is explicitly stated within the A.A.F.S. *Bylaws*, does a lack of understanding of current ethical dialogue on a disciplinary basis leave these Diplomates at a disadvantage?

Question #25: In your opinion, what is the number one ethical problem or dilemma now faced by Forensic Anthropologists?

The obvious nature of this question was to provide a means for respondents to voice their opinions or concerns involving ethical issues within the discipline. The responses ranged in nature from a simple statement to a page in length. With an overwhelming majority of the responses however, the number one ethical concern listed by Diplomates was the involvement of non-board certified anthropologists in forensic casework. As one respondent replied, the problem is "physical anthropologists' who consider themselves 'forensic anthropologists' by default." Many times, law enforcement may not realize that a physical anthropologist *is not* a forensic anthropologist, and that a high degree of specialized training separates the two. One might assume that had this researcher surveyed all of those "forensic" anthropologists who had testified in court on forensic issues, the target group for respondents would have increased twofold. Since the A.B.F.A. and the A.A.F.S. are not policing agen-

cies, the continued use of non-board certified members by law enforcement in a professional capacity may certainly damage the discipline as a whole. If these "experts" are aiding law enforcement without proper training or experience, the results could be disastrous for the image and use of forensic anthropology.

Other important issues also came to light from the Diplomates responses to this question. Most of these issues concerned forensic anthropologists moving into areas traditionally not included within forensic anthropology. Of these, entomology was specifically mentioned. One could also assume that areas such as shoe/boot/ footprint evidence also would fit into this category. The direction of the responses indicated that numerous Diplomates were uneasy about forensic anthropology expanding its scope without either first creating, or maintaining a proper scientific framework. Specifically suggested was the ability to keep abreast of knowledge within the discipline, the lack of training in scientific dialogue to address certain issues, and the "willingness to use techniques that are not thoroughly tested and accepted" by anthropologists.

Some other peripheral comments dealt with the admission of new students in regard to job demand (or lack thereof), and issues surrounding the retention and use of case material after it has been cleared in court. It also must be mentioned that there was one respondent who did not reply to this question and another who responded with "I don't think ethics is a problem." With the above mentioned issues providing insight, one can see that forensic anthropologists certainly are aware of ethical issues, and especially how these issues relate to other more broadly based

circumstances.

Question #26: What question(s) concerning ethics (or more specifically the breach of) in Forensic Anthropology haven't I asked that you may feel is (are) pertinent to my topic, and how would you approach these questions?

Overall, this question was left relatively blank by the respondents. The author must therefore assume that the questions included in the survey amply uncovered the most important issues surrounding ethics in the discipline, and also provided sufficient areas for personal elaboration upon ethical opinions. There were however, a few questions that some Diplomates thought would benefit this survey. Interestingly, most of the recommendations for further questions involved the regulation of the forensic anthropologist in court. This included whether or not non-Diplomates should be discriminated against by medico-legal agencies because they have not been certified by the A.B.F.A. Similarly, as one respondent wrote, "should Diplomates of the A.B.F.A. be regarded by medico-legal agencies as the *only* suitable expert witnesses in cases presented in court?" Another recommendation for questioning was whether or not forensic anthropologists should "actively" advertise their services to the agencies involved in the judicial system. Additionally, if forensic anthropologists should notify the opposing side in judicial proceedings when they discover an unqualified individual providing testimony on issues of forensic anthropology. This researcher believes that the answer to this question is blatantly obvious, of course they should.

Finally, a recommendation for a query that would not be so much a survey

question as it would be a personal question for Diplomates and administrators in the A.B.F.A.: "What will happen to control of ethics in the A.B.F.A./A.A.F.S. as membership grows to the level when we no longer know one another?" One can only hope that forensic scientists proceed to confront ethical issues head on and continue the motive to deal with the topic. The above survey results indicate however, that more Diplomates should be active in dealing with issues of an ethical nature. Without continued dialogue on the subject, problems regarding disciplinary and personal misconduct will only compound, and in this regard, the A.B.F.A. will weaken and possibly fail in its professional applications.

CHAPTER VI

DISCUSSION

This survey has provided valuable clues as to the level of ethical dialogue and knowledge of ethical issues among Diplomates of the A.B.F.A. Unfortunately, it has also uncovered some major problems within the discipline dealing with ethics that, without modification, may unalterably scar the face of forensic anthropology. Although ethical issues are gaining an increasing amount of interest as a specific disciplinary area of concern, these issues are still relatively absent from published work within the discipline. It is interesting to search in a few of the major textbooks in forensic anthropology for issues involving ethics. An examination of the indices of some of the major texts reveals that the word "ethics" is completely absent (e.g., see El-Najjar & McWilliams, 1978; Iscan & Kennedy, 1989; Krogman & Iscan, 1986; Rogers, 1987; Stewart, 1979). Even some of the more recent work lacks the heading of "ethics" in the indices (see Maples & Browning, 1994; Rhine, 1998). Are we to assume then that issues regarding ethics are largely only seen as minor points of contention, if actually mentioned at all? The survey indicates that Diplomates recognize ethical issues, so what are the reasons that they are still largely absent from major works within the discipline? It may be that a pervasive attitude among scientists is that ethics should be an area of discussion for the discipline as a whole, but not in their own practice. After all, don't most scientists see themselves as being ethical? It always seems to be the "other" scientist who is unethical.

As the survey results indicate, the topic of ethics is a recognized area of concern, but seemingly has been taken little farther on an individual basis than just being recognized. Unfortunately, the topic has long been weighed with the baggage of theoretical density, situational difficulty, and sensitive self-questioning. In this regard, it seems easier to talk about ethics from a distant standpoint (i.e., "I recognize that John Q. Scientist has been engaged in unethical practices") than from a formal query into one's own actions (i.e., "Are my own actions completely ethical, or do I open myself to ethical breaches by my professional activities?"). Grievously, this type of self-questioning is largely what the discipline is lacking. The A.A.F.S. has begun to provide general and disciplinary approaches to the issue of ethics, but what remains to be seen is initiative from individuals regarding how ethics and ethical issues play a role in their everyday practice.

Another area of weakness in forensic anthropology concerning ethical issues revolves around the level of formalized ethical training undertaken and completed by Diplomates. Although in recent years plenary sessions and workshops have become increasingly available for scientific researchers concerning ethics, the survey results indicate that Diplomates are not taking advantage of these sessions. In fact, a few respondents even indicated that the A.B.F.A. and the A.A.F.S. need to stress these types of sessions more. However, the survey results indicate that even if this is accomplished, Diplomates still may neglect to attend. The survey replies also show that almost all Diplomates either mentor or advise students in the discipline. Like

any other discipline, the mentoring and training of future students is required to ensure the strength and capabilities of the sciences. Unfortunately, technical instruction seems to outweigh the teaching of ethical issues. As the respondents' indicated, classroom instruction regarding ethics often consists of nothing more than informal discussions regarding general topics.

Recently a survey was conducted to discover, among other things, the minimum number of students forensic anthropologists are responsible for training each year. According to Galloway and Simmons (1997:798), forensic anthropologists train approximately 616 undergraduates and 129 graduate students with a specific focus on forensic anthropology each year. The results of the survey sent out by this researcher show that professional instruction by Diplomates in forensic anthropology is woefully lacking in proper ethical instruction. If Galloway and Simmons' data is correct (keep in mind, they sought to identify the *minimum* number of students with a specific focus in forensic anthropology taught each year), then educational and professional training programs are producing large numbers of students who may be completely unprepared for "real world" ethical dilemmas. As Galloway and Simmons (1997:801) state,

Thus, at present, the issue of training large numbers of students without proper caution and regard for the implications of misrepresentation must be re-examined. We certainly feel that all forensic anthropology courses should minimally contain a discussion of the certification process, legal responsibilities, and ethics (italics added).

Not only is the topic of ethics often weighed down by complex and difficult theoretical dimensions, it is also a topic few scientists neither understand well nor

feel comfortable teaching to others. The rapid pace of science has placed ethics and issues surrounding ethical discourse in an oftentimes inferior position to more technological topics. As the forensic sciences see further specialization and technological sophistication, there has been a "growing pressure to minimize coursework which does not advance the technical skills of students" (Peterson, 1988). This may increase the technological base of forensic scientists, but unfortunately may leave serious questions surrounding the application of the scientific process in real time situations. Although the laboratory must remain a mainstay for the scientist, without the proper application of scientific principles in the real world, the discipline fails in its utility. As Lang (1998:225) has stated, "the educational system at all levels fails to teach properly how to respond critically to tendentious questions." An increasing number of educational facilities and professional groups have recognized this fact. Since science has become increasingly complex and technical, more and more colleges and universities are recognizing that students need to be better equipped to deal with issues of an ethical nature. In an attempt to teach students about the responsibilities of the scientist and proper scientific conduct, the National Institutes of Health [NIH] have mandated that grant recipients take courses in ethics (Macrina & Munro, 1993; Reiser & Heitman, 1993). No matter what the level of the student, or their specific discipline, the NIH recommends courses that deal with topics such as the responsible use of human or animal subjects, conflicts of interest, responsible authorship, and data management (Macrina & Munro, 1993). It seems that scientists and educational facilities have recognized that technological specialization is of no use if it cannot be applied appropriately and honestly.

The 1970's saw a rapid expansion in the interest of professional ethics among law schools and lawyers. In the backwash of Watergate, there was a determined effort to strengthen the knowledge and application of legal ethics (Mangan, 1998). Even in light of the jokes and quips that still surround the public perception of a lawyer's "win at all costs" demeanor, the legal arena has made significant and formal moves to incorporate ethical issues into its repertoire. In fact, the bar exam has a section specifically devoted to professional ethics and has recently been expanded to further prepare students and survey the current state of ethics among lawyers. Many universities and colleges have expanded their ethics courses in both size and structure to incorporate simulations or scenarios which reduce the amount of theoretical reading and increase the amount of applied role-playing exercises such as those of Temple, Fordham, and Northwestern Universities (Mangan, 1998). These courses are designed to place the student in an active role, faced with a simulation of a real life or hypothetical situation. In this regard, the confines of a relatively professionally "safe" classroom are lessened and the student may receive a more accurate view of what a real situation may entail, and their reaction to it. Many of the scenarios, and subsequent student actions, are then discussed in a general forum or seminar type format where all students provide opinions and constructive criticism regarding the scenario. These types of courses offer a valid arena for ethical dialogue where the stu-\dent becomes an active participant and is able to apply his or her own thoughts and actions on a professional level. It is no hidden fact that ethics and ethical issues are an area often avoided by the average student. Even though ethical dialogue is increasing in the sciences, many seem to avoid the topic. This is likely due to the complex situational and moral differences often brought about by ethical dilemmas. Researchers may recognize the oftentimes sensitive nature of ethical deliberation and run the opposite way. This is probably the case with many students as well. Since ethics is often closely associated with sometimes thick and difficult theoretical reading, it may be that this theory overload diverts students into other areas of interest. Therefore, creating courses on ethics and ethical issues needs to be very interactive and progressive in its classroom and teaching format. However, forensic anthropology can and should learn from its neighbor, the judicial system. Since forensic anthropology, by definition, is tied to the adversary system, forensic anthropologists should be aware of the ethical dimensions involved in the legal field. Courses designed for ethical instruction in both the biological sciences (Macrina & Munro, 1993; Reiser & Heitman, 1993) and the legal field (Mangan, 1998), can provide valuable information as to the creation of similar courses for the forensic anthropologist.

Recently, a number of authors have researched the creation and maintenance of ethical courses in the sciences (Macrina & Munro, 1993; Peterson, 1988; Reiser & Heitman, 1993). Without exception, these researchers believe that ethical courses should be highly fluid in their guidelines. Proponents for ethical courses in the sciences recognize the importance of the evolution of the course to meet the everchanging technological and social climate. As Reiser and Heitman (1993) indicate, the formation of an ethical course really should consist of distinctive steps designed

to keep both interest in and a focus on ethical issues. This includes active participation from the faculty and integrating the course into the curriculum at an appropriate time. Although this topic has been discussed elsewhere (Macrina & Munro, 1993; Peterson, 1988; Reiser& Heitman, 1993), it is important for this thesis to touch upon the formation and maintenance of specific courses on ethics in the sciences. Research may show that ethical courses are difficult to design and maintain considering such issues as the fast pace of science, the sometimes tedious nature of theory, and sensitive self-questioning. But ethical courses *have* been operating and benefiting students in the sciences. In this regard, the forensic sciences in general need to be better versed in how the discipline can better prepare its representatives for practice in non-classroom situations. Forensic anthropology, on both a personal and disciplinary basis, needs to awake from its purely scientific slumber and take notice of the other factors (i.e., ethics) which affect the discipline.

Another area of serious concern for the discipline is the number of non-board certified members who are testifying as "forensic" anthropologists in court. An over-riding point in almost all of the survey replies was mention of this topic. As stated earlier, there is a high degree of specialized training that differentiates a forensic anthropologist from a physical anthropologist. Although the difference between the two may seem slight to an attorney, judge, or jury, the implications for either the misapplication or unprofessional presentation of the discipline can lead to grave consequences. This topic may be a sensitive one for the field of physical anthropology in general. Since forensic anthropology is the prodigy of physical anthropology,

physical and forensic anthropologists are inextricably interwoven. This however, does not mean that the two are interchangeable. Although the professional membership in the field of forensic anthropology has been somewhat exclusive, the field is expanding both in its scope and body of members. In essence, the field has become more available for students to explore. In all honesty, the field is definitely intriguing and exciting. Even the general public has a fascinated interest in all things forensic, as the popularity of television shows that deal with topics such as emergency room trauma, law enforcement, and the forensic sciences skyrockets. It is perhaps this excitement that plays a part in attracting scientists to the field of forensics. Another possibility is the notoriety that some scientists may enjoy by playing roles in high profile cases which generate much publicity. With this stated, it is easy to see why participation in such fields is increasing. However, the excitement which generates interest in such fields can also cloud certain important factors not readily visible. A simple explanation can illustrate this point quite readily. For instance, the television show Cops, which broadcasts camera crew ride-alongs with Law Enforcement agencies is highly popular with the viewing public. Viewers are riveted by real footage of high-speed pursuits, drunk driving arrests, and incidents of domestic violence. However, the televised imagery is absent of the hours of tedious paperwork involved in such scenarios, the sometimes horrendous social consequences of crime, and the internal workings of the criminal justice system which are not so glamorous. The same could be said of forensic anthropology. Yes, it is exciting. Yes, it is intriguing. But it also consists of hours upon hours of scientific study, research projects, and

oftentimes not so glamorous library inquiry. Perhaps the hoopla created by the wonderful advances in technology have unfortunately led to unqualified physical anthropologists to testify in areas that are not specifically suited to them.

It is obvious by reading thus far that this thesis is primarily concerned with the state of ethics among forensic anthropologists specifically in the courtroom. The survey however, was entitled "Survey of the State of Ethics in Forensic Anthropology." The reasons for this were twofold. First, to provide a framework with which to gauge ethical dialogue within the discipline, the survey itself needed to be somewhat general in nature. By identifying ethics from a general standpoint, a foundation was created to gauge specific questions that sought to uncover ethical ideas and dialogue within the courtroom. Although the survey consisted largely of questions dealing with general ethical concerns, only a few questions were pointedly directed at specific ethical issues within, or as they related to court. Secondly, it gave respondents the obligation of directing their responses. On a general level, this pointed the way to major areas of concern in reference to ethics. More specifically, it also uncovered personal experience and knowledge of ethical misdeeds or misconduct. It is extremely interesting to note that almost all of the respondents' replies dealt only with ethical issues as they arose in, or were related to, courtroom actions. Even though those responses were instrumental in the formation and completion of this thesis, this researcher finds it very interesting that almost all the responses were devoid of ethical breaches in other areas of the discipline. Once or twice was an ethical problem mentioned concerning an area other than related to the courtroom,

and even then they were only briefly alluded to and highly ambiguous. By nature, forensic anthropology must at some level be tied to the adversary system. However, there certainly are the possibilities of ethical breaches in areas of the discipline not specifically related to the judicial process. All sciences can be plagued by incidents such as plagiarism, incorrect alterations of data in scientific study, and improper teacher/student conduct. Why these types of incidents were not mentioned more by Diplomates is a unique area of interest. For instance, why didn't more Diplomates mention the problems surrounding the blatant misidentification of war dead by the Central Identification Laboratory in Hawaii (CILHI)? In this researcher's opinion, this is definitely an area that should have been mentioned considering the breaching of professional ethics. Another area that should have been mentioned is the treatment of human remains from international casework. Are ethical considerations being taken in regard to the collection and use of these remains in scientific study? The fact that these issues were not reported on the surveys is an area of peculiar interest. It is possible that more examples of ethical misconduct were not mentioned due to the fact that the survey does not specifically define ethics as it relates to professional conduct. If Diplomates were given a specific base with which to judge ethical misconduct, perhaps more of the above instances would have been mentioned.

Although the major downfalls uncovered by the surveys concerning the topic of ethics have been discussed above, there also were some encouraging results exposed. For instance, all of those Diplomates who answered that they were responsible for mentoring or training students in forensic anthropology (see Survey

Question #9) replied that they also instruct those students on ethical issues. Although this thesis has already discussed the problems with those Diplomates own level of ethical education and the poor formalization of ethical instruction, the fact that they are indeed relaying concern for ethics, even on a very general level, is important. The more that Diplomates are aware of ethical issues, the more they then can relay to their students. If the trend of ethical awareness in the forensic sciences continues, then students are sure to benefit through instruction from their teachers and mentors.

Another area of encouragement comes from the results of question number seventeen, which surveys the pressure forensic anthropologists have felt from attorneys or investigators to alter scientific analyses. Only four of the twenty-two Diplomates had met with such pressure. Although this type of pressure will surely always be found in the adversary system, the fact that more forensic anthropologists have not yet been approached with such requests to alter or obfuscate legitimate scientific analyses is encouraging. As Peterson (1989) charges, the adversary system is often more interested in winning cases than understanding the true nature of scientific inquiry. As long as this fact exists, it seems that pressures from either the prosecution or defense will also exist. Until the judicial system is better versed on the scientific process, blatant suggestions to alter scientific presentation or analysis in court are sure to remain. In this regard, forensic anthropology, as well as the forensic sciences in general, has a duty to continue increasing the dialogue between science and the law.

Finally, it is important to mention that the majority of the Diplomates are

familiar with the policy on ethics of both the A.B.F.A. and the A.A.F.S. It is vital that researchers are well-acquainted with the ethical codes that govern a discipline's membership, be it forensic anthropology or another. This not only ensures that a member knows the guidelines in which he or she should be practicing, but also creates a formalized chain-of-action so to speak, for grievances dealing with issues of an ethical nature. If a scientist is familiar with the processes concerning formalized complaints within the discipline, it seems natural to assume that they would be more likely to report ethical misconduct. Although this *did not* work in cases such as *Buckley v. Fitzsimmons* (1994), one can only assume that the future will learn from past mistakes. This is an important fact considering the critical role that forensic anthropology can play in the outcome of any particular court case.

CHAPTER VII

CONCLUSION

This thesis has defined the term ethics in its broadest and most general sense, as a shared or group morality. Throughout time, common sense has largely been the basis for ethical dialogue. For centuries the age-old advice to be honest, and not to steal or cheat has provided society with guidelines for action, judging ethical issues, and keeping morality the driving process in law making. Science however, has existed in a different realm. Although basic individual ethical beliefs color all aspects of a scientist's everyday actions, the scientific process itself challenges traditional views of reality. In this manner, ethics must meet the ever-changing face of technological know-how, or rather, technological change should force researchers to be cognizant of the sometimes disparate roles between science and a traditional ethical value system. Within the last two decades technology has enabled science to become much more highly complex, and in so doing, has created new situations with which conventional ethical thought is not always prepared to deal. In this regard, the forensic sciences, and more specifically forensic anthropology, have been faced with new and exciting advances in technology which continually test the boundaries and conventional views of ethical thought. However, before attempting to understand and deal with issues that challenge current ethical thought, a discipline must seek to understand its own level and state of ethical dialogue and action. This may require such aspects as surveying members on their level of both individual and disciplinary ethical knowledge and performance, studying instances of ethical misconduct and identifying alternate courses of action, and providing open lines of communication specifically designed for ethical inquest in the face of an ever-changing social paradigm.

This thesis illustrates that forensic anthropology has lacked specific motivation in dealing with ethical issues. Is this rare? Certainly not. Many other disciplines encounter the same problems with ethical dialogue and inquiry. This is possibly due to the complex nature of ethical theory and the oftentimes situational difficulties where personal morality may be questioned. However, forensic anthropology serves a dual purpose. On one hand, it is a part of the driving force that has enabled science to expand rapidly and become increasingly complex. On the other hand, it has allowed the adversary system a specialized means with which to aid judges, juries, and attorneys in the judicial use of scientific evidence. In this regard, forensic anthropology has a specific and important duty. The application of forensic anthropology to worldly dilemmas carries with it incredible weight. Since the outcome of the discipline's scientific inquiry may mean incarceration, death, or strict penalties for either individuals or institutions, forensic anthropologists must remain unsullied in the employment of their science. This thesis has uncovered specific weaknesses in ethical thought, action, and dialogue within the discipline.

The history of applied ethics within the forensic sciences in general has been somewhat slow moving. This is not surprising since ethical issues have historically

played catch-up to the fast pace of science. Even other non-scientific disciplines have found it necessary to work through problems concerning ethics and the application of sometimes disparate individual or specific mores or belief systems and values. As technology expands, the boundaries of ethical thought are challenged. As disciplinary roles expand, and more individuals are found practicing those disciplines, the basis for ethical thought increases exponentially. What may be a "cut and dried" revelation for one person may be the opposite for another. In this regard, the rapid expanse of the forensic sciences has brought with it both an increasing number of practitioners as well as a broadening base for ethical dialogue. As Schroeder (1976: 751) has stated, the "ancient prohibitions not to lie, not to cheat, and not to steal" no longer are adequate for regulating the conjoining of law and science. Although the basic premise remains the same, ethical thought now requires more than simply being a "good" scientist. The definition of "good" has changed in the face of increasing technology. The history of applied, or professional ethics within the A.A.F.S. has shown this change in ethical practice and dialogue. Although ethics has most likely not enjoyed the proper time and study it is due, it has become an increasing area of Both individual scientists and research institutions have realized that concern. science no longer fulfills its obligations if it cannot be conducted appropriately and honestly. The A.A.F.S. has seen an augmented level of ethical thought and deliberation. More and more plenary sessions and seminars have been specifically devoted to the topic. A few sanctioned disciplines within the A.A.F.S. have taken the topic of ethics a step or two further by increasing the amount of published monographs,

surveys, research papers, and presentations involving ethics as a primary area of concern. Notably among these are the fields of forensic document examination and forensic psychiatry. These disciplines have not only recognized that ethics is a major concern in the twentieth century, but also attempted to understand the level of ethical dialogue among their practitioners, thereby both strengthening and preparing the discipline for further scientific advancement.

As mentioned before however, the forensic sciences are no different from any other discipline in regard to ethical concerns. The legal system has been plagued with ethical difficulties for decades. In the 1960's however, scandals like Watergate fueled public dissatisfaction with the discipline and forced the legal system to reevaluate personal values and ethical conduct, or misconduct among its membership. The actions of the legal system, and other disciplines closely associated with it can be examples for the field of forensic anthropology in terms of questioning its own level of ethical dialogue and action. The bar exam for lawyers has contained questions dealing with ethical concerns since the 1960's (Mangan, 1998). Would forensic anthropology benefit if a portion of the certification exam for Diplomates were devoted to ethical questions? The answer is undoubtedly yes. However, how would the A.B.F.A. implement such a section? The answer to this question is not as straightforward as it seems. For instance, this chapter has briefly discussed the differences in ethical thought brought about by different social mores among practitioners of the discipline. Once again we must be forced with the differences between professional opinion and actually transgressing ethical boundaries. Although this thesis has defined ethics as being a group morality, groups are made of thinking and acting individuals. What one may be willing to analyze and testify on, another may perceive as ethical misconduct. Considering this disparity, how does a certification board choose ethical dilemmas for questioning, and better yet, who would grade the responses and how would they do so? An increasing amount of ethical questions are being found in some discipline's certification exams. However, considering the relatively new interest concerning ethical dialogue within forensic anthropology, the discipline has a long way to go before it implements such questions on its own certification exams.

Another area of concern for forensic anthropology is the courtroom. This thesis has illustrated quite clearly that the judicial system is often unprepared for dealing with issues of a scientific nature. Although the *Daubert* ruling has proved beneficial in plaiting science with the law, the remnants of *Frye* still prevail in some courts. Oftentimes the old and outdated uses of science are still being employed to display scientific evidence to judges and juries. This is another area where forensic anthropology can strengthen its scientific rigor in the courtroom. Forensic scientists in general need to continue the dialogue between science and the law. If lawyers are unaware of the proper processes for scientific inquiry, they cannot always be blamed for promoting unethical alterations or presentation of scientific evidence.

The difficulties between science and the law present another dilemma. If judges, juries, and lawyers are not properly versed in the capabilities of the discipline, both forensic anthropology and the adversary system are damaged. Forensic

anthropologists may be placed in situations where breaching ethical boundaries can occur. The adversary system is then given an improperly vague understanding of the discipline to base its knowledge of the capabilities of forensic anthropology. The cases of Dr. Robbins' illustrate this all too clearly. Although Dr. Robbins likely meant no conscious ethical misconduct, the overzealous use of her methods doubt-lessly marred forensic anthropology proper. It is also at this point where questions arise about the testimony of non-board certified anthropologists. The surveys show that this is a specific area of concern for Diplomates. Once again, the differences between physical and forensic anthropology must be stressed. If the courts are accepting testimony from unqualified individuals, the breaching of ethical boundaries is more likely to occur. The implications here for misconduct are clear. In this regard, Diplomates should be more vocal and play a larger role in attempting to regulate who is able to testify under the heading of a "forensic anthropologist."

Science, by nature, must make mistakes to grow and expand in its capabilities. Forensic anthropology, being a part of science, is then also required to make its share of mistakes, and learn accordingly. This researcher, however, feels strongly that in a court of law, forensic anthropology must confine itself to its scientific foundations. Although the judicial system is often impressed with highly technical jargon, colorfully specific illustrations, and personal qualifications, this obviously does not always signify that an expert truly *is* an expert. In this researcher's opinion, the cases of Dr. Robbins represent a blatant misuse of the discipline in a court of law. Despite the fact that her intentions of expanding the science were appropriate,

footwear impression analysis is not an area of expertise among forensic anthropologists. Although it is easy to see why the courts accepted her testimony, it is inappropriate that more of her peers did not approach either the courts or the A.A.F.S. and report her testimony as being outside the realm of forensic anthropology.

The cases of *Hebel* and *Columbo* also indicate areas where forensic anthropologists have overstepped the boundaries of the discipline. Although these cases are not as blatant as those of Dr. Robbins, they do represent a misuse of the discipline as it is currently defined. In this thesis, I have defined forensic anthropology rigidly. When one considers the duty of the forensic anthropologist in court, then a very specific and strong foundation must be used. Any new or expanded application of forensic anthropology must be scientifically validated before being presented in court.

This survey has presented forensic anthropology with a starting point for considering ethical dialogue and practice within the discipline. The replies from Diplomates have been both educational and intriguing. As a start for ethical inquiry, the survey has produced valuable results that can both gauge the current status of ethical issues as well as provide direction for future avenues of research. In any event, ethics must no longer be dealt with so casually. Time spent as expert witnesses by forensic anthropologists is sure to increase as science enjoys an increasing role in the adversary process. To strengthen and honor the boundaries of this discipline, practitioners need to be aware of the escalating disparity that is taking place between science and traditional ethical value systems.

Recently in Illinois, a man was released from prison. This middle aged

African American male had been incarcerated for the better part of twenty years for the sexual assault and murder of a young, white female. After being so long imprisoned, the advancements in the forensic sciences, specifically DNA analysis, enabled the judicial system to see that they had imprisoned an innocent man. In the early years of forensic science, and in the often racially biased justice system of the 1960's and 70's, many may have been imprisoned for crimes that they did not commit. Only recently have advancements in the forensic sciences enabled researchers to see where once was only darkness. Technological advancements have been incredible and undeniably exciting. As actors in this explosion of scientific know-how, the forensic anthropologist must avoid getting lost in the technological fog so to speak, and remain tied to traditional disciplinary foundations that have served the field well for decades.

Appendix A

American Academy of Forensic Sciences Code of Ethics and Conduct SECTION 1-THE CODE: As a means to promote the highest quality of professional and personal conduct of its members, the following constitute the Code of Ethics and Conduct which is endorsed and adhered to by all members of the American Academy of Forensic Sciences:

- a. Every member of the American Academy of Forensic Sciences shall refrain from exercising professional or personal conduct adverse to the best interest and purposes of the Academy.
- b. Every member of the AAFS shall refrain from providing any material misrepresentation of education, training, experience or area of expertise. Misrepresentation of one or more enterta for membership in the AAFS shall constitute a violation of this section of the code.
- c. Every member of the AAFS shall refrain from providing any material misrepresentation of data upon which an expert opinion or conclusion is based.
- d. Every member of the AAFS shall refrain from issuing public statements which appear to represent the position of the Academy without specific authority first obtained from the Board of Directors.

SECTION 2 - MEMBER LIABILITY: Any member of the American Academy of Forensic Sciences who has violated any of the provisions of the Code of Ethica (Article II, Section 1) may be liable to censure, suspension or expulsion by action of the Board of Directors, as provided in Section 5th below.

SECTION 3 - INVESTIGATIVE BODY: There shall be constituted a standing Ethica Committee (see Article VI for composition) the primary function of which will be:

- a. To order or conduct investigations and, as necessary, to serve as a hearing body concerning conduct of individual members which may constitute a violation of the provisions of Article II. Section 2.
- b. To art at an advisory body, rendering opinions on the ramifications of contemplated actions by individual members in terms of the provisions of America?

SECTION 2 - INVESTIGATION INITIATING ACTION: The following are the principal forms by which the Ethics Committee may initiate investigative proceedings:

- a. A member of the Academy may submit a formal written complaint or allegation of violation(s) concerning a member to the Sectorary of the Academy (see Section S, Rules and Procedures, below) or to the Chairman of the Ethica Committee.
- b. The Ethici Committee may institute an inquiry based on any evidence brought to its attention which in its opinion indicates the need for further euery or action under the provisions of these bylaws. Appropriate to this form of action. Section Officers, upon receipt of a complaint or allegation concerning the professional or personal conduct of a member of their section, may refer the complaint or allegation to the Ethics Committee in writing, accompanied by a recommendation

may be emisured, suspended or expelled. No member of the Board of Directors who is the subject of a pending accusation under the provisions of this Article shall six in deliberation on any matter concerning ethics. Suspension of the accused will be qualified by the permissible method of functionment.

- i. The accused has the right to appeal from the action of the Board of Directors to the membership of the Academy. In effecting an appeal, the appealant must fire a brief written notice of the appeal, together with any written statement he may wish to submit in his behalf, with the Academy Secretary not less than one hundred twenty (120) days prior to the next Annual Mercing of the Academy. The Secretary shall immediately advise each member of the Board of Directors of the appeal and shall forward to each a copy of the supporting papers submitted by the appellant.
- j. The Board of Directors shall then prepare a written statement of the reasons for its actions and file the same with the Academy Secretary not less than forty (40) days prior to the next Annual Meeting.
- k. Within twenty (20) days thereafter, the Academy Secretary shall mail to each young member of the Academy a copy of the appellant's notice

if any, concerning the need for further investigation. Such recommendations, however, shall not be binding on the Ethics Committee.

SECTION 5 - RULES AND PROCEDURES: The following procedures shall apply to any written complaint(s) or allegation(s) of unethical or wrongful conduct against a member of the Academy whether initiated by a member or resulting from an inquiry originated by the Ethics Committee.

- a. Written complaints or allegations against a member if delivered to the Academy Secretary, shall promptly be transmitted to the Chairman of the Ethica Committee.
- b. The Ethics Committee shall determine whether the complaint(s) or allegation(s) fall(s) within its jurisdiction and whether there is probable cause to believe that the complaint(s) or allegation(s) may be well founded.
- c. If the Ethics Committee, in its preliminary determination, finds that it does not have jurisdiction or that there is a lack of probable cause to believe that the complaint(s) or allegation(s) may be well founded, it shall distants the complaint(s) or allegation(s). It shall issue a report of such determination to the Board of Directors, seeing forth the basic facts but omitting the names of the parties, and stating the reasons for its decision to dismiss. Notice of the filing of the complaint or allegation shall also be given to the accused.
- d. If the Ethics Committee finds that it has jurisdiction and that there is probable cause to believe that the complaint(s) or allegation(s) may be well founded, it shall give notice of the filling of a complaint(s) or allegation(s) to the accused, and, in accordance with Rules and Regulations formulated by the Ethics Committee and approved by the Board of Direction, assemble such writen data from both the accused and the accuser(s) which will permit the Ethics Committee to determine whether the complaint(s) or allegation(s) requires further investigation.
- e. The Ethios Committee may appoint an Academy Fellow or Fellows to investigate the complaint(s) or allegation(s) and, if necessary, to present the charges) on behalf of the Academy to the Committee.
- f. If, as a result of an investigation, the Ethies Committee decides to dismiss the sharper() without a formal hearing, it may do so, it shall notify the accused and the accuser(s) of its decision and shall issue report to the Board of Directors setting forth the basic facts but omitting the name of the parties and stating the reason(s) for its decision.
- g. If the Ethics Committee decides to formally hear the chargets), it shall give both the accused and the accuser(s) a reasonable opportunity to be heard and to confront each other. It shall then make a decision and notify both parties of its decision. The Ethics Committee shall then make a report to the Board of Directors on its decision including reasons and any recommendation for further action.
- h. Following receipt of a renort of the Ethics Committee and upon a vote of three-fourths (3/4) of the members of the Board of Directors present and voting, the party accused of unethical or wrongful conduct

of appeal and his supporting statement, if any, and a copy of the Board of Director's statement.

- A vote of three-fourths (3/4) of the members present and voting at the Annual Business Meeting shall be required to overtule the action of the Board of Directors in regard to censure, surpension or expulsion of a member.
- m. The Ethica Committee shall formulate internal Rules and Procedures, designed to facilitate the expeditious, fair, discreet, and impartial handling of all complaints or matters brought before it. The Rules and Procedures, and any subsequent deletions, additions or amendments thereo, shall be subject to the approval of the Board of Directors.

SECTION 6 - SUSPENSION OF MEMBERS: Members who have been suspended from membership may apply for reinstatementonee the period of suspension is completed. A suspended member will not be required to pay due during the period of suspension. If reinstated, the required due payment will be the annual dues less the pro-rated amount for the period of suspension.

Appendix B

Protocol Clearance From the Human Subjects Institutional Review Board Human Subjects Institutional Review Board



Kalamazoo, Michigan 49008-3899

WESTERN MICHIGAN UNIVERSITY

Date: 10 August 1998

To: Robert Sundick, Principal Investigator

Brent Benzing, Student Investigator

From: Richard Wright, Chair

Re: HSIRB Project Number 98-07-05

This letter will serve as confirmation that your research project entitled "The State of Ethics in Forensic Anthropology" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 10 August 1999

Appendix C

Cover Letter for Survey Instrument

College of Arts and Sciences

Department of Anthropologic



Kalamazoo, Michigan 49008-5032 616 387-3969 FAX: 616 387-3999 E-Mail: ANTHRO©GW WMICH.EDU

WESTERN MICHIGAN UNIVERSITY

WESTERN MICHIGAN UNIVERSITY
H. S. I. R. B.
Approved for use for one year from this date

AUG 1 0 1998

* FOR R. Weight

At the 50th annual meetings of the American Academy of Forensic Sciences in San Francisco the Physical Anthropology section scheduled a session on "Forensic Anthropology and the Courtroom." A number of the papers in that session dealt with some issues of ethics in Forensic Science and more specifically, ethics in Forensic Anthropology. In addition, other sections within the A.A.F.S. also had papers presented which dealt with ethics and ethical issues. The recent announcement of the Midwest Bioarchaeology and Forensic Anthropology Association meetings, to be held in October of 1998, also lists a session on ethics.

As a result of this recent concern with the issue of ethics in the Forensic Sciences, I have decided to write my M.A. thesis on the subject of ethics in Forensic Anthropology. I am doing this work in conjunction with my advisor. Dr. Robert I. Sundick of Western Michigan University's Department of Anthropology. In my thesis I will be examining the issue of ethics in the Forensic Sciences in general, and then I will be looking more specifically at ethics policies adopted by various professional organizations including the American Board of Forensic Anthropology. As a part of the thesis I would like to learn how aware Diplomates of the American Board of Forensic Anthropology are of scientific ethics, and how they deal with the issue of ethics in their everyday practice, including the teaching and mentoring of students.

I am therefore sending a copy of the enclosed survey to all of the Diplomates of the American Board of Forensic Anthropology for their input. The survey results, of course, will be anonymous so do not put your name anywhere on the form. You may choose to not answer any question and simply leave it blank. The results will only be meaningful if a majority of you respond, so I encourage you to complete the survey contained herein and return it in the enclosed self-addressed envelope immediately. It should take less than twenty minutes to complete the form. Returning the survey indicates your consent for the use of the answers you supply. Should any questions arise pertaining to the survey or the research in general, I have included both telephone numbers and E-mail addresses of myself and Dr. Sundick. The participant may also contact the Chair, Human Subjects Institutional Review Board (616-387-8293) or the Vice President for Research (616-387-8298) if questions or problems arise during the

course of the study. This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner of both pages. You should not participate in this research if the corners do not have a stamped date and signature.

I thank you in advance for your assistance and hope that the results of my survey will be of use to you and the profession when I present them at a future meeting of the A.A.F.S. Any questions, comments, or criticisms are certainly welcome.

Sincerely,

Brent D. Benzing

Master of Arts candidate Department of Anthropology Western Michigan University

Phone: (616) 387-3970

E-mail: x93benzing@wmich.edu

Robert I. Sundick, Ph.D., D.A.B.F.A.

Professor of Anthropology Department of Anthropology Western Michigan University

Phone: (616) 387-3967 E-mail: sundick@wmich.edu Appendix D

Survey Instrument

SURVEY OF THE STATE OF ETHICS IN FORENSIC ANTHROPOLOGY

(Please use the back of each page for supplemental answer space as needed.)

1.	In what year were you certified by the American Board of Forensic Anthropology?
2.	Have you completed any formal coursework that dealt specifically with ethics or ethical issues in Forensic Anthropology or the Forensic Sciences? Yes No (If "No", skip to question #4.)
3.	Briefly describe this coursework (where it was offered, specific focus, etc.):
_	
4.	Have you attended any workshops or seminars that dealt with ethical issues in Forensic Anthropology or the Forensic Sciences? Yes No (If "No", skip to question #6.)
5.	Briefly describe any workshops/seminars attended (was it worthwhile, was relevant material covered, etc.):
6.	Have you read any books, monographs, reports, etc. on ethical issues in Forensic Anthropology or the Forensic Sciences? Yes No (If "No", skip to question #8.)
7.	Of these readings please list what you believe to be the five most important references and/or which would you recommend to students or colleagues:
8.	Are you currently or have you trained or served as a mentor for students in Forensic Anthropology? Yes No (If "No", skip to question #11.)

9. Do you spend any time teaching ethics or ethical issues to those students? Yes No	
10. Briefly explain the format of your classroom ethical instruction (If you do specifically teach ethical issues in the classroom, please send your course syllabus and reading list.):	
 11. Have you ever been aware of a breach of ethics in the field of Forensic Anthropology in regard to an issue either yourself or someone else was involved in? Yes No (If "No", skip to question #13.) 	
12. What were the circumstances surrounding the breach(es) of ethics (omitting names or institutions?	
13. Have you ever testified in court? Yes No (If "No", skip to question #15.)	
14. How many times and what types of cases?	
15. If you were AWARE of a Forensic Anthropologist who testified in court on issues that could not be substantiated by the available evidence, how would you react and/or what action would you take?	

16.	In a similar situation, if you were ASKED or pressured by an attorney or investigator to testify about claims which could not be substantiated by the available evidence, what would you do?
17.	Have you ever been pressured by an outside source (investigator, attorney, etc.) to
	tailor, modify, or otherwise alter your scientific analysis or courtroom testimony? Yes No (If "No", skip to question #19.)
18.	What were the circumstances surrounding such pressure?
19.	Are you familiar with the policy of the American Board of Forensic Anthropology in dealing with ethics? Yes No
20.	Do you think the A.B.F.A. is taking the proper steps in dealing with ethical issues? Yes No Don't Know (If "Yes"or"Don't Know", skip to question #22.)
21.	Briefly explain why you think the A.B.F.A. is not dealing with such issues properly:
22.	Likewise, are you familiar with the policy of the American Academy of Forensic Sciences in dealing with ethical issues? YesNo
23.	Do you think the A.A.F.S. is taking the proper steps in dealing with ethical issues? Yes No Don't Know (If "Yes"or"Don't Know", skip to question #25.)

24.	Briefly explain why you think the A.A.F.S. is not dealing with such issues properly:
25.	In your opinion, what is the number one ethical problem or dilemma now faced by Forensic Anthropologists?
26.	What question(s) concerning ethics (or more specifically the breach of) in Forensic Anthropology haven't I asked that you may feel is(are) pertinent to my topic, and how would you approach these questions?

BIBLIOGRAPHY

American Board of Forensic Anthropology, homepage http://www.csuchico.edu/anth/ABFA/

American Academy of Forensic Sciences

1986 Code of Ethics and Conduct. American Academy of Forensic Sciences, Membership Directory Colorado Springs, CO: XIII.

Appelbaum, Paul S.

1987 In the Wake of Ake: The Ethics of Expert Testimony in an Advocate's World.

Bulletin of the American Academy of Psychiatry and the Law 15(1): 15-25.

Bass, William M. and Patricia A. Driscoll

1983 Summary of Skeletal Identification in Tennessee: 1971-1981. *Journal of Forensic Sciences* 28(1): 159-168.

Berdle, Doug R., John F. Anderson, and Marsha A. Niebuhr

1986 <u>Questionnaires: Design and Use, 2nd Edition.</u> Metuchen, N.J.: The Scarecrow Press, Inc.

Berger, Margaret A.

1994 Evidentiary Framework. *Reference Manual on Scientific Evidence*. Pp: 39-117. Federal Judicial Center: Federal Procedure, Lawyers Edition.

Behrendt, James E.

The Status of Training for Questioned Document Examiners in the United States. *Journal of Forensic Sciences* 34(2): 366-370.

Bodziak, William J.

- 1986 Manufacturing Processes for Athletic Shoe Outsoles and Their Significance in the Examination of Footwear Impression Evidence. *Journal of Forensic Sciences* 31(1): 153-176.
- 1990 <u>Footwear Impression Evidence.</u> New York: Elsevier Science Publishing Company, Inc.

Buckley v. Fitzsimmons, 20 F.3d 789 (1994).

Byrd, G.J. and Thomas Stults

1976 The Expert Witness: A Dilemma. *Journal of Forensic Sciences* 21(4): 944-948.

Cantor, B.J.

1985 <u>The Expert Witness.</u> Belmont, MA: Civil Evidence Photography Seminars

Coe, John I.

1980 Resident's message: Ethics for the Forensic Pathologist. *The American Journal of Forensic Medicine and Pathology* 1(4): 367-368.

Cowger, J.F.

1979 Moving Towards the Professionalization of Latent Print Examiners. Journal of Forensic Sciences 24(3): 591-595.

Daubert v. Merrell Dow Pharmaceuticals, 113 S.Ct. 2786 (1993).

El-Najjar, MahMoudy and K. Richard McWilliams

1978 Forensic Anthropology: the Structure, Morphology, and Variation of Human Bone and Dentition. Springfield: Charles C. Thomas.

Expert Witness Central. Homepage http://www.home.earthlink.net/~safs/

Field, Kenneth S.

1998 <u>History of the American Academy of Forensic Sciences.</u> American Academy of Forensic Sciences. Colorado Springs, CO. Philadelphia: American Society for Testing and Materials.

Foehr, Stephen

1998 Flower Child. Chicago Tribune. June 26: Sec. 2L, Pg. 1, Col. 2.

Frye v. United States, 293 f. 1013 D.C. Cir. (1923).

Galbraith, Nanette G.

1980 Trends in the Field of Questioned Document Examination. *Journal of Forensic Sciences* 25(1): 132-140.

Galloway, Alison, Walter H. Birkby, Tzipi Kahana, and Laura Fulginiti

1990 Physical Anthropology and the Law: Legal Responsibilities of Forensic Anthropologists. *Yearbook of Physical Anthropology* 33: 39-57.

Galloway, Alison and Tal L. Simmons

1997 Education in Forensic Anthropology: Appraisal and Outlook. *Journal of Forensic Sciences* 42(5): 796-801.

Garrison, D.H. Jr.

1991 Bad Science. Midwestern Association of Forensic Scientists Newsletter, October.

Giannelli, Paul C.

1989 Evidentiary and Procedural Rules Governing Expert Testimony. *Journal of Forensic Sciences* 34(3): 730-748.

Giles, Eugene

1998 "It Had Everything, Blood, Gore, Sex, Kinky Stuff": Chicago's Columbo/DeLuca Murder Case. Paper Presented at the A.A.F.S. 50th Anniversary Meeting, San Francisco, February.

Giles, Eugene and Paul H. Vallandigham

1991 Height Estimation from Foot and Shoeprint Length. *Journal of Forensic Sciences* 36(4): 1134-1151.

Hanna, Georgia A.

1988 Microfilm Documents: What are the Boundaries in Document Examination? *Journal of Forensic Sciences* 33(1): 154-166.

Harper Mills, Don

1986 Code of Ethics for the Academy. *Journal of Forensic Sciences, Guest Editorial* 31(3): 798-799.

Hicks, A. Frank

1995 Computer Imaging for Questioned Document Examiners 1: The Benefits. Journal of Forensic Sciences 40(6): 1045-1051.

Hilton, Ordway

1988 The Evolution of Questioned Document Examination in the Last 50 Years. *Journal of Forensic Sciences* 33(6): 1310-1318.

Hollien, Harry

1990 The Expert Witness: Ethics and Responsibilities. *Journal of Forensic Sciences* 35(6): 1414-1423.

How to be a Successful Expert Witness, Phillip J. Kolczynski, homepage http://www.aviationlawcorp.com

Iscan, Mehmet Yasar and Kenneth A.R. Kennedy

1989 Reconstruction of Life from the Skeleton. New York: Wiley Liss, Inc

Joling, R. J.

1976a Problems of Freedom and Responsibility in the Forensic Sciences.

Journal of Forensic Sciences, Plenary Session: Ethics in the Forensic Sciences 21(4): 743-747.

1976b The Policeman as a Witness. Journal of Forensic Sciences 21(1): 3-8.

Jolly, Clifford and Fred Plog

1986 <u>Physical Anthropology and Archeology, Fourth Edition.</u> New York: Alfred A. Knopf.

Kam, Moshe, Joseph Wetstein, and Robert Conn

1994 Proficiency of Professional Document Examiners in Writer Identification. Journal of Forensic Sciences 39(1): 5-14.

Kantrowitz, S.B.

1981 Expert Testimony and Scientific Evidence in Arson Related Cases. Journal of Forensic Sciences 26(1): 142-152.

Kogan, J.D.

1978 On Being a Good Expert Witness in a Criminal Case. *Journal of Forensic Sciences* 23(1): 190-200.

Krogman, W.M. and Mehmet Yasar Iscan

1986 <u>The Human Skeleton in Forensic Medicine.</u> Springfield: Charles C. Thomas.

Kultgen, John H.

1988 Ethics and Professionalism. Philadelphia: University of Pennsylvania Press.

Lang, Serge

1998 Challenges. New York: Springer.

Laskowski, Gregory E. and Vernon L. Kyle

1988 Barefoot Impressions-A Preliminary Study of Identifying Characteristics and Population Frequency of Their Morphological Features. *Journal of Forensic Sciences* 33(2): 378-388.

Lucas, Douglas M.

1989 The Ethical Responsibilities of the Forensic Scientist: Exploring the Limits. *Journal of Forensic Sciences* 34(3): 719-729.

Macrina, Francis L. and Cindy L. Munro

1993 Graduate Teaching Principles of Scientific Integrity. *Academic Medicine* 68(12): 879-884.

Mangan, Katherine S.

1998 Making Future Lawyers Squirm: Law Schools Focus on Ethical Dilemmas. *The Chronicle of Higher Education*. March 20: A12.

Maples, William R. and M. Browning

1994 <u>Dead Men Do Tell Tales.</u> New York: Doubleday.

Moenssens, Andre A.

1984 Admissibility of Scientific Evidence-An Alternative to the *Frye* Rule. William and Mary Law Review 25: 545-575.

Moenssens, Andre A., Fred E. Inbau and James E. Starrs

1995 Scientific Evidence in Civil and Criminal Cases, 4th Ed. New York: Foundation Press.

Monahan, J.

1980 Who is the Client? American Psychological Association, Washington, D.C.

Neufeld, Peter J. and Neville Colman

1990 When Science Takes the Witness Stand. *Scientific American* 262(5): 46-53.

Nordby, Jon J.

1997 A Member of the Roy Rogers Riders Club is Expected to Follow the Rules Faithfully. *Journal of Forensic Sciences* 42(6): 1195-1197.

Parke, David R.

The Legal Profession and it's Ethical Responsibilities. *Ethics and the Legal Profession*. Michael Davis and Frederick A. Elliston, eds. Pp. 29-49. Buffalo: Prometheus.

People v. Columbo, 118 Ill. App. 3david 882 (1983).

People v. Hebel, 174 Ill. App. 3david 1 (1988).

Peterson, Joseph L.

1988 Teaching Ethics in a Forensic Science Curriculum. *Journal of Forensic Sciences* 33(4): 1081-1085.

1989 Symposium: Ethical Conflicts in the Forensic Sciences. *Journal of Forensic Sciences* 34(3): 717-718.

Peterson, Joseph L. and John E. Murdock

1989 Forensic Science Ethics: Developing an Integrated System of Support and Enforcement. *Journal of Forensic Sciences* 34(3): 749-762.

Reagan, Charles E.

1971 Ethics for Scientific Researchers. Springfield: Charles C. Thomas.

Reichs, Kathleen J.

1998 Forensic Anthropology: A Decade of Progress. Forensic Osteology, 2nd Edition. Kathleen J. Reichs, ed. Pp. 13-38. Springfield: Charles C. Thomas

Reid, R.

1980 Admissibility and the Whole Truth. *Journal of Forensic Sciences* 20: 81-92.

Reiser, Stanley J. and Elizabeth Heitman

1993 Creating a Course on Ethics in the Biological Sciences. Academic Medicine 68(12): 876-879.

Rhine, Stanley

1998 <u>Bone Voyage: A Journey in Forensic Anthropology.</u> Albuquerque: University of New Mexico Press.

Robbins, Louise M.

1985 <u>Footprints: Collection, Analysis, and Interpretation.</u> Springfield: Charles C. Thomas.

Rogers, Spencer L.

1987 <u>Personal Identification from Human Remains.</u> Springfield: Charles C. Thomas.

Rosner, Richard

1996 Ethical Practice in the Forensic Sciences and the Justification of Ethical Codes. *Journal of Forensic Sciences* 41(6): 913-915.

Sachs, J.L.

1976 The Need for and the Relationship of the Forensic Sciences to the Civil Laws. *Journal of Forensic Sciences* 17(3): 759-762.

Saks, Michael J.

1994 Implications of the Daubert Test for Forensic Identification Science. Shepard's Expert and Scientific Evidence Quarterly 1(3): 427-434.

Schroeder, O.C.

- 1976 Old Ethics for New Sciences-What Confronts Justice. *Journal of Forensic Sciences, Plenary Session: Ethics and the Forensic Sciences* 21(4): 748-758.
- 1984 Ethical and Moral Dilemmas Confronting Forensic Scientists. *Journal of Forensic Sciences* 29(4): 966-986.

Schwarzer, William W.

1994 Management of Expert Evidence. Reference Manual on Scientific Evidence. Pp: 1-35. Federal Judicial Center: Federal Procedure, Lawyers Edition.

Shannon, Thomas A. and James D. DiGiacomo

1979 An Introduction to Boethics. New York: Paulist Press.

Snow, Clyde C.

1982 Forensic Anthropology. *Annual Review of Anthropology* 11: 97-131.

Stevenson, Robert

1998 Crisis in Forensic Science: Fallout in the Courts and Society. *Journal of the American Association of Forensic Dentists* 21(4-6): 2-3.

Stewart, T. Dale

1979 <u>Essentials of Forensic Anthropology</u>. Springfield: Charles C. Thomas.

Stone, Alan A.

The Ethical Boundaries of Forensic Psychiatry: A View from the Ivory Tower. Bulletin of the American Academy of Psychiatry and the Law 12(3): 209-219.

Sundick, Robert I.

1998 The Use and Misuse of Forensic Experts in the Courtroom. Paper presented at the A.A.F.S. 50th Anniversary meeting, San Francisco, February.

Thornton, John I.

1994 Courts of Law v. Courts of Science: A Forensic Scientist's Reaction to Daubert. Shepard's Expert and Scientific Quarterly. 1(3): 475-486.

United States v. Dorsey, 45 F. 3d 809 (1995).

United States v. Ferri, 778 F. 2d 985 (1985).

Wecht, Cyril H.

1998 A Forensic Pathologist's Perspective on Realistic Applications of Daubert: Will it Make a Difference? Paper presented at the A.A.F.S. 50th Anniversary meeting, San Francisco, February.

Weinstock, Robert

- 1986 Ethical Concerns Expressed by Forensic Psychiatrists. *Journal of Forensic Sciences* 31(2): 596-602.
- 1988 Controversial Ethical Issues in Forensic Psychiatry: A Survey. *Journal of Forensic Sciences* 33(1): 176-186.
- 1989 Perceptions of Ethical Problems by Forensic Psychiatrists. *Bulletin of the American Academy of Psychiatry and the Law* 17(2): 189-202.

White, Tim

1991 Human Osteology. San Diego: Academic Press, Inc.

Wienker, C.W. and J.S. Rhine

1989 A Professional Profile of the Physical Anthropology Section Membership, American Academy of Forensic Sciences. *Journal of Forensic Sciences* 34: 647-658.