

# The Use Of Forensic Science As An Investigative Tool - Whither Nigeria

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This paper is designed, primarily as a wakeup call to the organs of government involved in the administration of criminal justice. It is designed to provoke public discourse on the subject of the application and use of scientific tools available to investigators of crimes, generally referred to as forensic medicine or forensic science. It is not a paper designed for the scientific community.

Forensic Science a.k.a forensics, is the use of a broad spectrum of scientific knowledge to resolve questions or issues of interest in the legal system, whether in criminal or even civil cases. The term Forensic is generally a synonym for legal or something related to courts.

The word itself ie. Forensic, originated from the Latin adjective 'forensis' meaning 'of or before the forum'. In Roman times, a criminal charge meant presenting the case before a group of public individuals in the forum. Both the person accused of the crime and the accuser would give speeches based on their side of the story. The individual with the best argument and delivery would determine the outcome of the case. This origin is the source of the two modern usages of the word forensic -- as a form of legal evidence and a category of public presentation.

Forensic science is a division within the general umbrella of criminology but it focuses on the collection and analysis of criminal evidence. Thus forensics is the use of science primarily to investigate and resolve crimes. Forensic investigation is the practice of lawfully establishing evidence and facts that are to be presented in a court. Without the aid of forensic science, the investigation of crimes falls back to relying on witness testimony, circumstantial evidence and more commonly confessions. The effect of forensic science

investigation can be seen in the way it affected the outcome of the election petition in respect of the gubernatorial election in Osun State, which was recently determined.

In the ancient world, there were no standardized forensic practices and this enabled criminals to get away with their crimes. In Nigeria, there is no sustained and or concerted effort to incorporate forensic investigation into the system as a standard working tool for the Police investigator.

As far back as 287 - 212 B.C, the Greek, Archimedes was said to have solved the mystery of the loss of weight of the King's gold, through science. The story is told about how he made the discovery while in his bath tub and ran out shouting "Eureka".

The first written account of the use of science to solve a criminal case is in the book of Xi Yuan Lu (translated as "Washing Away of Wrongs") written in Song Dynasty China by Song Ci in 1248.

In one of the stories in the book, a case of murder was resolved by the investigator, first by figuring out how the fatal wound was inflicted. He tested various blades on an animal carcass and compared the wounds with the wound on the deceased, and concluded that it was inflicted with a sickle.

Then he instructed everyone to bring his sickle to a location. At the location, flies attracted by the smell of blood gathered on a single sickle. With this development, the murderer confessed.

The book also offers tips on how to differentiate a drowning or suicide or accidental death (water in the lungs) from a strangulation (broke neck cartilage), in order to determine if a death is a suicide or an accident or a homicide.

In 16th century Europe, doctors in the army and the universities began to gather and study information on cause and manner of death. In the late 18<sup>th</sup> century, books on forensics were written. See A TREATISE ON FORENSIC MEDICINE AND PUBLIC HEALTH BY A French Physician FODERE and THE COMPLETE SYSTEM

OF POLICE MEDICINE by JOHANN PETER FRANCK, a German medical expert.

There are other examples of the use of forensics by other Europeans, in the 18th Century. As far back as 1776, a Swedish chemist Carl Wilhein Scheele devised a way of detecting arsenous oxide i.e. simple arsenic in corpses. In 1806, a German chemist Valentin Ross improved on this method and in 1836, an English chemist James Marsh used chemical processes to confirm arsenic as the cause of death in a murder trial.

As far back as 1784, in Lancaster, one John Toms, was tried and convicted for killing one Edward Culshaw with a pistol. Upon the examination of the body of the deceased, a pistol wad (i.e. the crushed paper used, in those days, to secure powder and balls in the muzzle of the pistol) found in the head wound matched perfectly with a torn newspaper found in Tom's pocket. In another case of murder in Warwick in 1816, a young girl was found dead in a shallow pond with marks of violent assault. An impression from a corduroy cloth with a sewn patch found in the damp earth near the pool matched the breeches of a farm labourer, who had been threshing wheat nearby.

The development of forensic science methods has been steady and continuous from these early beginning and is still on going. As far back as 1909 the first school of forensic science in the world was established by Rodolphe Archibald Reiss at the University of Lausanne known as "Institut de police scientifique."

The purpose of the historical excursion is to show that forensic science is neither a fad nor a new thing. It has been around for hundreds of years. It has been around even before the birth of Christ.

It is therefore a thing of great wonder that in Nigeria, a country of over 140 million people, with diverse cultures and backgrounds, there seem to be no interest in developing the science to assist in the resolution of crimes.

The Police and other security agencies, rely on eye witness or circumstantial evidence to resolve crimes. Beside the fact that eye witness accounts can and do create problems, there are several limitations to eye witness accounts of criminal activities. It is for instance not in doubt that, where several persons are present, when an offence is committed, the account of the act given by these persons can and do differ.

This leads to the creation of doubts, which as all lawyers know have to be resolved in favour of the accused. Furthermore, many criminal acts are committed without witnesses except the perpetrators. In Nigeria today, several high profile crimes have gone unsolved principally because there were no witnesses. For each of these high profile cases, there are hundreds of cases involving persons of low profile which go unsolved and unsung.

It is not claimed that, with forensic investigation, all cases, shall willy nilly, be solved. No. Some criminals will still get away. The point however is that a greater percentage of cases shall be resolved if this **tool** is employed. It becomes harder and more difficult for criminals to get away with the use of forensic science as a tool for investigation. There are over thirty sub-divisions of forensic science, ranging from forensic accounting, through forensic document examination, forensic DNA analysis, forensic entomology to forensic serology, computational forensics etc, all of which deal with various areas of study, for the purpose of analyzing evidence to be presented in court. All these sub-divisions help in one form or the other to resolve issues in criminal or even civil cases.

For the ordinary folks, the use of forensic science as an investigative tool has become real through television. Thus such popular films or television series like CSI, Cold Case, Bower, Law and Order, NCIS, Waking the Dead, etc bring the case of forensic science to homes. There are also nonfiction, real life cases dramatized in such series as "Forensic Files", "The New Detectives", "Body of Evidence" etc., which show how real cases were solved using forensic science.

The good thing about forensic science investigation is that the results are like the universal symbol of justice i.e. the blindfolded lady with the scales and a sword, which depicts justice as blind, in the sense that it is no respecter of persons. In the same vein, forensic science results are blind in the sense that it does not care or take into account the parties involved.

Thus just as forensic science can aid an investigator in getting the perpetrator of a criminal act, it also helps in exonerating a person falsely or wrongly accused.

In the United States of America, an NGO known as Innocence Project set up in 1992, has helped to free many persons who had been wrongly convicted through post conviction DNA testing. These are cases where the possibility of a DNA test of blood or Semen samples are still available. The common problems that led to these convictions in the first place were

- (A) wrong identification by an eye witness or the victim;
- (B) invalid or improper forensic science;
- (C) overzealous police officers or prosecutors and
- (D) inexperienced or inept defence counsel/Judge.

These problems do exist in the system but the DNA testing which is a prominent component of the forensic investigation technique, has helped to get those persons wrongfully convicted to be freed.

It could be argued that post conviction testing of samples, cannot be conducted in Nigeria, since we do not have, provisions for a court to revisit a case based on new evidence.

This is particularly so if the case has been pronounced upon by the apex court i.e. the Supreme Court.

That may be so, but such post conviction testing can avail a convict either before the Court of Appeal or the Supreme Court. In

view of that, the use of forensic science to aid investigation, after a conviction cannot be waved away. It can still be useful. Clearly in the investigation of cases, it is very useful.

It is not all plain sailing for forensic science as a tool to aid investigators. There are also pitfalls and problems associated with the system. If the system is to be embraced in Nigeria these problems have to be studied.

One of the major problems associated with this method of investigation is the misconduct of those charged with carrying out the tests. In view of the nature of forensic evidence there is a tendency, indeed an inclination by the courts to give it a great probative value. Sometimes more than other forms of evidence. Knowing this, there is, in some cases, an unholy alliance between the Police/Prosecutors and the laboratories and or their personnel that conduct the testing, to bring out results that favour the prosecution rather than bring out the truth.

Some such officers have come out with results that are garnished. At other times, they have consumed or destroyed the entire sample, thereby making further testing impossible. Thus their sins cannot be unearthed. The variety of misconduct that can be perpetrated range from planting evidence at the crime scene, deliberate mishandling or mislabeling of samples, destruction of evidence or samples, poor testing, to contamination of samples etc.

Worse still, there is also the misrepresentation of findings or even reporting results when no tests were performed. These forms of misconduct have been revealed or exposed by hard and persistent work by staff of the Innocence Project. The question is, if forensic science investigative techniques are adopted in Nigeria, and considering the endemic nature of corruption in the country, will these established methods of misconduct not kill the system?

No one can answer that question, principally because, no one knows the future. However, it can be argued that the endemic nature of corruption in the country should not discourage or dissuade us from

adopting the science. For one thing it could also help in reducing corrupt practices. After all it is a science of investigation of crimes. In view of its wide application, forensic science will open a whole new vista of study, employment and bring new challenges to our society.

If anything, the time we are in now, shows that we must embrace forensic science as an investigative tool. For some years now, there have been violent agitations in oil producing areas of Nigeria where pipelines have been blown up. There have been violent upheavals in other parts of the country. Recently bombs have exploded in different parts of the country. The perpetrators of these acts cannot be effectively traced without the aid of forensic science.

In this connection, I recall a case of attempted murder, handled at the High Court of Justice Benin City, sometime ago i.e. Charge No. B/53c/2004 State v UHUNOMA. He had thrown a liquid substance on his lover who was pregnant and refused to have an abortion. Since the victim did not die, there was evidence from her, that he threw the liquid on her face and chest.

The Police investigators did not have the liquid tested, especially as the container from which the liquid was thrown was recovered and tendered in court. The accused himself while questioning the investigator (as his Counsel had been persistently absent) asked him whether he had the liquid tested? Of course the answer was No.

He then asked the investigator how he got to know that the liquid was an acid. The investigator had no answer. For such a heinous crime, the inept handling of the investigation allowed the accused to escape the due weight of the law. He got a conviction for assault. The use of acids as a form of attack has become prevalent and forensic science is the key to making these attackers pay in full for their crimes.

The advantages of the use of forensic science as a tool for investigation cannot be over emphasized. While the disadvantages, which are due to human weakness and errors, are few, the use of the

science shall assist the system to make sure that perpetrators of criminal acts do not go scot-free and it will help to exclude the innocent from faulty identification or fabricated evidence.

In view of the overwhelming advantages, it is strongly suggested that a concerted effort be made to incorporate forensic science into our systems. In order to do this, some universities could be directed or encouraged to include the study of forensic science (directed at investigations) in their curriculum.

Secondly, forensic laboratories should be built across the country. It is not enough to build one in Abuja and pretend that the country has been covered as is the current practice. For a start, one laboratory should be built in each of the six geopolitical zones. It is sincerely hoped that before the year 2020, Nigeria would have fully embraced the use of forensic science as an effective investigative tool.

#### References

<http://en.wikipedia.org/wiki/forensic-science>

<http://www.innocenceproject.org/know/>