The role of the photograph in the application of forensic anthropology and

the interpretation of clandestine scenes of crime

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Abstract

Forensic anthropology is a very visual subject, demanding as it does the inspection and examination of the deceased human body for the purposes of assigning an identity. One important aspect of the visual nature of this subject is the use of photography for recording the physical features of the body and the context of any clandestine deposition. The use of photographs and image in forensic science is a wholly under-theorised topic; although it is fundamental to the practice of the subject it is not discussed beyond the practical application at the crime scene or in the mortuary.

However, issues such as image ownership, motivation of the photographer, the purpose of the photograph and the interpretation of the image all impact upon the ability of the forensic anthropologist to conduct his or her work, to situate the discipline within society and the world at large, and to provide a narrative of the context of death. This paper will use case-study examples to discuss these issues within the framework of more general crime scene science, and consider how developments and uses here might impact on any application within forensic anthropology. It will explore how the photograph taken within the forensic anthropological arena is not the objective construction that forensic practitioners like to believe, but that it is influenced by, and in turn, influences the processes of human identification and the resolution of the context of death and disappearance.

Visualising forensic anthropology

Forensic anthropology concerns itself with the examination of human remains, usually decomposing or skeletalised, with the aim of discovering the identity of the deceased individual. Traditionally this has involved the study of the dead, but the remit of the discipline has broadened recently and forensic anthropologists are now being asked to comment upon the identity of living individuals as well. Initially this seems incongruous, however the expertise of the forensic anthropologist lies not only in osteology, but in human development and variation – principles equally applicable to the living as the dead. Few other disciplines can offer this understanding of the human body to a forensic investigation, which has led many anthropologists to be asked to examine photographs of suspects and CCTV footage. In many ways, the traditional work of the forensic anthropologist can be referred to as forensic osteology, as it involves the thorough examination of skeletal remains followed by the determination of biological sex, age-at-death, ancestry, stature and pathologies. This collection and collation of information is referred to as a biological or osteological profile. The creation of this profile is an inherently visual process, since it involves the visual assessment of a variety of morphological features and structures throughout the skeleton. At all stages photographs will be taken of the key skeletal features used in creating an osteological profile (for example, the fusing epiphyses or some mark of trauma). Discussion of the role of the forensic anthropologist and the development of the discipline is beyond the remit of this paper, and the interested reader is directed

to the likes of Thompson (2003), Cattaneo (2007) and Brickley and Ferllini (2007) where this subject is considered in far greater detail.

Photography has always played an important part in forensic anthropology. Indeed, it was the publication of a number of photographs that helped the initial development of the discipline in the United Kingdom. Up until this point, the police authorities had not utilised the services of archaeologists or anthropologists in any serious or formalised manner. Thus, when photographs of the crude excavations of Melrose Avenue in London (the location that Dennis Nilsen, at that time Britain's worst serial killer, buried the remains of this victims during his five year campaign between 1978 and 1983) and the garden in Gloucester (following a search of Fred and Rosemary West's Cromwell Street house in 1994) were seen, it was archaeologists, with their expertise in body recovery, who contacted the police to offer assistance in subsequent scenes (Hunter et al., 1996; Thompson, 2003). Forensic anthropology benefited, and developed, from these embryonic links and initial collaborations – indeed, one cannot examine the human remains and create a biological profile until the remains have been successfully recovered from the ground. Figure 1 shows the excavation of the Gloucester back-garden in action; it was the clear lack of even the most basic of archaeological principles, such as an appreciation of the importance of plotting or stratigraphy, which first caused great concern to archaeologists and anthropologists. Hunter et al. (1996) briefly discuss these cases in what is seen as the first significant book on forensic archaeology and

anthropology published from a UK perspective. Here, they make the argument that appropriate archaeological techniques in cases such as these allows for much greater information to be extracted from the site. This information does not just include skeletal remains, but other information of evidential value such as personal effects, bullet casings and even shoeprints from the grave floor and spade marks from the grave sides.

Forensic anthropology is, therefore, a young discipline in the UK and the past decades have seen much rapid development in this country (Cattaneo, 2007; Cox, 2001). However:

> "Although the development of anthropological research has a very long history in many areas of Europe, over the last 60 years the development of specialist individuals working in forensic anthropology has been slower than the advances … seen in other areas of the world."   (Brickley and Ferllini, 2007; 4)

As such, much of the subsequent development has concerned technological application or the raising of awareness within the police forces, while little discussion has developed in terms of the theoretical, social or ethical ramifications of this work (Thompson, in press). We therefore have many new methods of constructing an osteological profile from skeletal remains, but limited appreciation of what that means for Society at large. In Thompson's discussion of

the visual archive in forensic anthropology (in press), he notes that although photography is a vital component of anthropological practice, and that it permeates the entire subject, often proving to be the most obvious product of its practice, it remains wholly under-theorised. This paper makes a contribution to this sparse discussion with the hope that others will contribute to, and develop, this topic.

Photographic developments in crime scene science

Any discussion of the use of photography in forensic anthropology must be placed within a more general context of crime scene photography.

Photographs associated with a scene of crime are generated from two arenas – the scene itself, and subsequently in the laboratory, during the analysis of any recovered articles of evidential value (Bell, 2006). These photographs now come in a variety of formats, from 35mm negative to Polaroids to digital images (Bell, 2006). Crime scene photographs are used in a number of ways, including to record the aftermath of an event as found, and the comparison of a variety of physical features (such as a shoeprint found at a scene and the suspected shoe itself). Evidence–matching using photography is a standard crime scene science process, although with the exception of facial superimposition, it rarely forms part of the forensic anthropological toolkit. This is because the techniques used to

create an osteological profile do not require that specific features of a skeleton be compared with each other. Even in cases where positive identification is being achieved by matching a skeletal feature with some ante-mortem record (for example, the comparison of a fracture line with medical records), photography is not regularly used. There is an interesting temporal component concerning such matching, seeing as a comparison can occur between photographs which are separated by many years. There is often an urgency to take photographs following the discovery of a scene of crime as this needs to be completed before the scene is altered by the forensic investigation (like an archaeological excavation, a forensic investigation of a scene of crime destroys the very thing being examined). This urgency does not necessarily extend to the comparison of photographs or items recovered, since once they are recorded on film the original object is no longer required. Finally, it can also be said that forensic photographs have a vital role to play in the corroboration or refutation of statements created by both suspects and witnesses (Jackson and Jackson, 2004). Such photographs can, for example: be used to confirm whether a suspect matches a witness description; be used to plot the direction and speed of cars from tire tracks in vehicular accidents; or be used to record soft tissue damage which can then be used to suggest whether cutmarks were self-inflicted or caused by another person (it is not uncommon for individuals to cut themselves and then accuse another of that). Photographs of the results of crimes and violence provide a permanent record; one that can survive longer than the physical results or scenes themselves. Although photography is a standard tool in forensic

anthropology and more generalised crime scene science, it is not always without controversy (for example, debates still surround the appropriate use of photographs following sexual assault, particularly with regard to the use of photo-colposcopy in adult victims and the balance between political/gender issues and independent clinical judgement [Brennan, 2006]). All of these applications can only be successfully achieved if photographs are accepted as being objective, bias-free and not to serve any party associated with the investigation.

The adoption of photographs of scenes of crime by the courts has never been appropriated generally, and it is interesting to note that a very real concern following the adoption of full colour photography in the judicial sphere was that they may frighten the courts (Conrad, 1957). However, this proved to be unfounded in one of the earliest reported cases of the use of colour photography in a crime scene setting; that of *Green vs. City and County of Denver* in 1943. Here the crime was the selling of putrid meats; colour photography was exploited fully in a comparison between fresh meat with that suspected of being rotten. The court wholly accepted the validity of the colour photographs and found the defendant guilty (see Conrad, 1957 for more details). It is worth noting here, that not all photographs will be accepted for submission to the court. The trial court judge must at all times balance the potential importance and significance of the photographic evidence against the negative impact it may have on the fairness and impartiality of the proceedings; that is, does its probative value outweigh any prejudicial impact? (Douglas et al., 1997; Robinson, 2007). The most common

examples of photographs to be rejected by the courts are those of severe gunshot injury (see Robinson, 2007) or entomological activity (the use of arthropods in the estimation of time-since-death, which invariably requires photographs of such insects *in situ* on decomposing bodies; see Greenberg and Kunich, 2002). Indeed, Greenberg and Kunich (2002) cite *State v. Klafta* (the suspicious death of a 16-month child) as one example of a criminal case where an appeal was launched stating that the entomological photographs unfairly prejudiced the jury. In this case, the appeal court dismissed these concerns. Often line drawings or black-and-while photographs are used as an alternative for the jury. The latest development within crime scene photography to negotiate for judicial acceptance is that of digital photography. This represents to the most significant debate in crime scene photography since the introduction and adoption of colour photographs. Although digital photography is rapid and allows for many more photographs to be taken, concerns regarding the ease of image manipulation have resulted in a very slow acceptance of this technology by the courts, and a questioning of its ability to be objective (Hulick, 1990; Jackson and Jackson, 2004; Robinson, 2007). A similar argument exists in photojournalism.

The debate surrounding the use of crime scene photographs extends beyond their use in court. Of key concern is their use in the mass media. Gorer's observation (back in 1987) that natural deaths were becoming increasingly shrouded in prudery, while violent deaths were an increasing feature of fantasies offered to the public through the mass media, is still true today. Crime scene

photography is a significant contributor to these offerings. Furthermore, it has long been argued that seeing images of death threatens the rationality and social management of modernity unless those dying are deemed 'foreign' (Konstantinidou, 2007). In the media context, this may explain the relative numbers of images of the victims of war crimes in Iraq or Darfur, compared with the relative sparsity of similar from the Balkans, or from crimes from the United Kingdom. It is worth noting here that much anthropological research has focussed on the segregation and sanitisation of death in contemporary Western culture. Parker Pearson (1999) describes it as the 'prettification' of death and although Konstantinidou seems to be suggesting that death in war contexts is anything but 'pretty', both authors are highlighting different means of removing death from the experiences our everyday Western lives.

Finally, photographs taken by criminals themselves can prove to be particularly useful in locating clandestine scenes of crime. Rowe (1983) provides the example of the 'Moors Murderers'. Ian Brady and Myra Hindley are infamous in Britain for a series of child tortures and killings in the early 1960's, which resulted in the burial of a number of bodies in Saddleworth Moor, on the outskirts of Manchester. Key to the prosecution was the fact that the suspects took a number of photographs showing themselves with the captured children and then subsequently at the graves that they had made for their young victims. These photographic records were discovered in the weeks following the arrest of Brady and Hindley in a locker in Manchester Central Station and were used by the

police to locate the bodies of the victims and link the suspects to these horrific crimes. In a similar way, photographs taken by individuals of themselves breaking the law are being used progressively more by the police, and they are now being found increasingly on the internet – particularly file-sharing or social networking sites such as *YouTube* and *MySpace*. These are often serious crimes, and include violent behaviour, public disorder and vandalism. Interestingly, in one complaint made to the Press Complaints Commission (http://www.pcc.org.uk) regarding the publication of stills from a YouTube clip with the name of the child offender (criminals under the age of 16 cannot be named in the British press) was not upheld as the child himself had uploaded the clip to the public-access file-sharing website and attached his name with pride, thus negating the usual legislative protection. Photographs from these contexts differ from standard forensic photographs in that their aims and objectives are different (an issue which is explored further below). It can be argued that the key difference lies in that forensic photography emphasises the crime while this material displayed for public and peer consumption simultaneously emphasises the criminal (who is often visible in the images). Recently, German police, in conjunction with Interpol under the auspices of Operation Vico, have used new digital software on photographs to remove distortions to the face of a paedophile in the act of abusing children. On 19th October 2007, 10 days after releasing the image of the face to the global media, Christopher Neill was arrested in Thailand and charged. Both before and after images, in addition to further case details,

can be found on the Interpol website

(http://www.interpol.int/Public/Children/Default.asp).

The 'objective' forensic photograph

Within the forensic and crime scene investigation arena, photographs are routinely taken to produce a permanent record of a scene prior to the removal of any artefacts from it. This is not the same as producing a record of the scene as it was left by the perpetrators. The scene will have been disturbed and had a variety of taphonomic processes (that is, environmental factors such as animal and weather activity) at work on it, ensuring that what the investigators or court see, in any image presented to them, is different to the scene at the time of body deposition. This is particularly significant if the body being recovered was exposed on the ground's surface – animal predation can distribute a decomposing body over tens or hundreds of metres. Case work undertaken by this author in woodland around both Glasgow and Edinburgh focussing on the recovery of bodies decomposing on the ground surface, has shown that it is entirely possible for body parts to be moved such distances. In each case, (which were both potential suicides) the role of the anthropologist was to complete a skeletal inventory at the scene and to advise on locating missing elements. Unfortunately with surface deposits of this nature, there are occasions when small body parts are never recovered.

Clearly, the Crime Scene Investigator, who is usually the first to examine the

scene, does not merely walk into a clandestine scene of crime and start taking

photographs. A number of processes must be undertaken to ensure the judicial

acceptability (or the objective nature) of the photographs produced. A log is

created of every photograph taken. Appropriate lenses are used to ensure a

natural view of the scene (therefore wide-angled lenses are not used and the

photographs are taken from eye-level). The Crime Scene Investigator can apply

additives to highlight features that are not clearly visible in natural light, such as

luminol reagent to expose patches of blood, ultraviolet light to expose injuries on

the skin (Jackson and Jackson, 2004), or excessive flash in fire scenes to

counter that fact that charring readily absorbs light (Redsicker, 2000). Although:

"To be admissible in court as evidence, an image or photograph

has to be a fair and accurate representation of the scene"

(Robinson, 2007; 570)

the above are all accepted methods of creating differences between the scene as

it is and how it appears on film.

In forensic anthropology and crime scene science generally, there is the

assumption that a photograph is more than a mere representation of the scene,

in much the same way as Konstantinidou argues for in photojournalism:

"… the theory of the photograph as an analogue of reality has been abandoned … the common-sense belief in the photograph as a picture of objective reality … as a form of eyewitnessing remains deeply embedded"   (Konstantinidou, 2007; 148)

Even earlier, Conrad (1957) noted, at the time of the emergence of crime scene photography, that although black and white photography was accepted as if it were the real scene, it is actually a two-dimensional, abstract medium. He later went on to argue:

"Once we forget its novelty and glamorous aspects, we shall accept color photography as the closet proximation to reality as nature's own glow"   (Conrad, 1957; 323)

Although one can appreciate his argument, in the mid 1950's there was no technical difference between the make up of black and white photography and that of colour. This is because both produce colouring as a result of a chemical reaction and artificially produce results entirely dependent upon the conditions of the developing chemicals. Perhaps it is only now with the development of digital photography and a new kind of image development can we begin to question whether Conrad's statement holds true (although we must acknowledge that although digital photography negates the use, and thus the inaccuracies, of the

chemical development process the use of printers or monitors can create

variance between the photograph and the object being photographed).

Hulick (1990) argues that the scientific origins of photography permitted the

notion of the objective photograph to spread, from the Victorian era to the current

day, as a result of a new method of mechanically rendering space and detail. The

development of this new technology coincided with the advance of scientific

naturalism, which assumed the existence of pure facts, even if one could not

identify these facts at the time of looking (Green, 1984). The analysis and

observation of these pure facts depended upon the removal of the observer's

prejudices and subjectivities and the advocation of Empiricism (Green, 1984).

The ability of photography to precisely and accurately mirror reality was sufficient

to prove to early users the existence of an objective truth inherent in the

photograph (Hulick, 1990). Thus photography was perceived by some as a

passive, non-interventionist, means of collecting scientific knowledge (Green,

1984) and real-world details were precisely reproduced in a method that became

predictable and automatic relative to other graphic arts such as illustration

(Hulick, 1990). Hulick argues (1990) that such photography is unique in that it is

the only art form that gained strength through the absence of human touch.

Although a little vague, Hulick is likely intimating that it is the mechanical camera

that records or captures the image – although it is still under the control of the

human photographer. It is this historical connection between science and

photography that has resulted in the permeation of the notion of scientific and forensic photographic objectivity to this day.

A key example of the application of this principle of photography-based empirical study to the anthropological world of this late nineteen century period, are the portraits taken to highlight key morphological features associated with race and criminality in the study of Eugenics, which was part of the study of early Anthropology. In both cases, it was felt by anthropologists that any observed physical differences could be directly linked to differences in mental capacities and moral fortitude:

"Criminality was redefined as a natural and hereditary condition of a distinct human type, associated with a general deterioration of physical and mental health and a state of congenital imbecility and moral depravity"   (Green, 1984; 10)

While Cesare Lombroso, key advocator of this approach to criminology, in his influential book *Criminal Man* of 1876 stated plainly that:

"The criminal [physical] type is so strong as to force one to wonder whether some of the portraits [sent for his assessment] are no more than different shots of the same person … the abnormal characteristics that predominate among born criminals, especially

murderers, are … a large jaw, a scanty beard, enlarged sinus

cavities, a shift gaze, thick hair, jug ears … asymmetry, femininity,

sloping foreheads, and prognathism"   (Lombroso, 2006; 205)

This approach to studying mankind led directly (that is, the examination and

recording of physical differences in people) to the development and acceptance

of eugenics by the intellectual class as a desirable social policy. Furthermore, it

also assisted in the justification of colonialism and slavery since many of the so-

called criminal morphologies were present in indigenous populations. Despite the

reliance of this approach on portrait photographs, it has since been shown that

photographs of this type were carefully and subtly composed to fulfil a series of

codes and conventions (Green, 1984), for example with direction that the

subjects looked in (into the bottom corner), the angle of the photograph and the

clothes they were made to wear (or not, as 'sexual perverts' were often seen

naked in their photographs). In other words, they were not the product of

objective impartial empiricism. Both Green (1984) and Horn (2003) have

interesting examples of these forms of photograph.

Photographic fakery is not a new phenomenon; it has always been a matter of

concern for crime scene scientists. Rowe (1983) discusses the lengths that

experts went to prove that a number of images of the carnage of the American

Civil War were staged or creatively edited (including a series of famous shots of

Gettysburg and a series by George N. Bernard). Konstantinidou (2007) argues

that the fakery of photographs representing conflicts can even be extended to include the biased nature of the employment of some photographs, whether this is in their framing or their usage in the media. In terms of deployment in the printed media, it can be argued that any perceived objectivity (or objective meaning) that a photograph may have, is negated when framed with text , and placed within the overall layout of the media presentation (such as a newspaper, magazine or website) (Konstantinidou, 2007). The first stage in creating this bias is by simple censorship of which photographs are allowed in the media; for example, the photographs vetted by the Office of War Information in the Second World War (for example, images of dead US soldiers (except towards the end of the war in order to counter domestic complacency – and only then were 'heroic' deaths permitted), 'friendly-fire' incidents, soldiers partaking in vulgar or sexual behaviour and soldiers suffering mental stress were not permitted in the national press; Clark, 1997) or the lack of images of the injured US soldiers from Iraq (which partly contributed to the shockwaves created by Michael Moore's *Fahrenheit 9/11* documentary). Konstantinidou (2007) is referring to newspapers in her essay, and it is intriguing to think that the potential effects of this bias are both insignificant and significant, in that it is generally assumed that newspapers have an underlying political affiliation or bias, and that the readership of the newspaper is collusive in this (insignificant bias within the readership) while acknowledging that the said readership of the newspapers is so large (significant bias within the wider population). However, we can raise the same charges at publications with a far greater implied objectivity. Research has shown that even

criminal justice textbooks rely on specific image types as shorthand for crimes or criminals, for example the general image used for the 'typical criminal' will be of a Black/Hispanic male, handcuffed and in state-issued clothing (Burns and Katovich, 2006). On the whole however, these texts provided photographs of offenders that correlated with the statistical evidence for the race and gender of the offender, except where highly melodramatic images are used in association with suspects and defendants charged with murder (Burns and Katovich, 2006), for example, where images of dishevelled suspects in handcuffs being dragged into the court house are used. This is significant, as these publications are used by students of criminal justice, and will therefore play an important role in founding perceptions of the criminal system (Burns and Katovich, 2006).

Both wet-film and digital photographs are regularly utilised by the courts today, but one could argue that actually the courts themselves accept that crime scene photographs are not objective – if they were, one wonders how they could prejudice proceedings as Douglas et al. (1997) argue above with regard to the vivid content of the photograph? There is an innate acknowledgement of the power and agency of such photographs when used in these circumstances that undermines the objective veneer placed on such photographs by that very same court system. There is much evidence of the persuasive manner of photographs to influence the decision-making of members of the public – and this is true for crime scene photographs too. Participants of mock trials exposed to vivid, colour autopsy photographs were almost two-times as likely to find the accused guilty

(Douglas et al., 1997). This may be due to a dysphoric mood created in the jurors, or a sense of moral outrage that demands that people are held accountable (Douglas et al., 1997). In their discussion of images of bereaved mothers, Valier and Lippens (2004) refer to this form of emotional impact in the viewer as a *punctum*, a little wound. This is a concept first discussed by Roland Barthes in his famous book *Camera Lucida* (1982). In essence, Barthes was describing an element of a photograph, often some aspect captured unintentionally by the photographer, which reached out and connected with him in a more personal way than the image as a whole. Valier and Lippens continue to argue that in the case of photographs of bereaved mothers, we will all experience a similar *punctum* which will move us all, allowing the photograph to become a more sensuous experience, and thus influencing our decision-making. This also connects back to the means in which viewing crime scene photographs can influence the outcome of criminal trails discussed by Douglas et al., (1997).

This raises an important question: at what point does the camera lose its objectivity when its output shifts from documentary to creative art? How is it possible to tell, from the photographs produced, which of the two was the intention of the photographer? Indeed, can the same photograph fall into both camps? Certainly photographs from the same series of clandestine forensic anthropological scenes of crime can. The aftermath of the crimes against humanity in Kosovo is a pertinent example of a region that has been photographed for both forensic and artistic purposes. In 1989, Slobodan

Milosevic began his racist rhetoric against the 1.7 million Kosovar Albanians, as part of his bid to draw Kosovo, which had experienced a fair degree of autonomy up until that point, back fully under the banner of Serbia. Part of this campaign of terror was the execution of thousands of Kosovar Albanians, and the dumping of their bodies in mass graves. Following the 1999 NATO campaign, forensic personnel entered the country and began to accumulate evidence of this blatant crime against humanity. British artist Melanie Friend, in her volume *No Place Like Home* (2001) presents us with a range of photographs from this country. Many of them include the sites of clandestine burial or the victims of the atrocities who lost family and friends. Her images are poignant and haunting, but are, in their content, often very similar to the countless comparable photographs taken by those deployed to the area to assist in the criminal investigations. Often Friend's photographs are of the exact same scenes or locations as those taken by the crime scene personnel, but their intent is considerably different. There is also the question of where the photos will be viewed and by whom. Both of these will be significant in terms of selecting the content of a photograph from a forensic scenario. One key difference, as Hulick (1990) comments, results from the ability of the artistic photographer to achieve an emotional impact and style by investing their photographs with their own personal sensibilities, whether they are moral, political or aesthetic. The other key difference is in surrounding these photographs with contextualising interviews rather than fixing them in a small 6" by 4" spiral bound booklet as is the case with crime scene images. In this case, it is the framing of the photographs, as Konstantinidou (2007) alludes, that allows

the viewer to interpret essentially similar images in very different ways. Furthermore, if the photographs are consumed in book form it is a far more intimate experience for the viewer – indeed, the spiral bound scene of crime booklet is rarely viewed on ones own but instead surrounded by a group of other forensic experts all simultaneously commenting on what they see. These points also touch upon the separation between being paid to photograph (forensic) and being paid for the photograph (artistic). However, the need to successfully sell and distribute artistic photographs to their intended audience may also result in multiple influences relating to specific standards and disciplinary practices acting upon their work in a similar way to those that influence forensic/crime scene photography. When we finally revisit the American Civil War photographs discussed by Rowe (1983), one questions whether they fall not into the documentary but into the creative art category (because their inaccuracies counteract their use as fact-based evidence), even though they were taken at the time and location of the incidents in question.

Photography and the forensic anthropologist

It has been argued elsewhere (Thompson, 2003; in press) that forensic anthropology is somewhat of an impure discipline, formed as it is by contributions and influences from a number of other disciplines and interested parties. Most significant are the influences of the public, the police, the legal system, the

educational system and the media. Each group demands a very specific outcome from the photographs taken by the forensic anthropologist, whether it is photographs showing the identities of the deceased, photographs demonstrating evidential value, or photographs showing scenes of interest to the news-consuming public. However, when we more closely examine the repositories of photographs in forensic anthropology, we can see that actually there are just three archives; the Judicial, the Public and the Private. Photographs that are used by any of the five influential groups are extracted from one of these three archives. For example, photographs used during anthropology lectures are invariably from the Private archives of practitioners, while the photographs needed by the police and legal system are stored in the Judicial archive.

Photographs taken by forensic anthropologists for the Judicial archive are much the same as those taken for other crime scene contexts; the same constraints and requirements are placed upon them to ensure the fabled objectivity required for admission to court. For the forensic anthropologist, these images tend to be focussed on highly specific skeletal elements or features. If an anthropologist is claiming that an individual is male or 25 years old, it is necessary to have photographs that show the appropriate indicative features. Figures 2 and 3 show the nature of such images in forensic anthropology. The photographs hold a great deal of evidential information, but are problematical to interpret without the necessary anthropological training. Furthermore, without any other visual cues it is impossible to know the context of these images, other than the fact that they

originate from a forensic setting. In fact, Figure 2 is the result of an exhumation in Chile following the suspected torture and deposition at sea an individual – however the results of this examination were consistent with drowning as a cause of death, and not torture subsequently disguised as a drowning. Figure 3 is in fact photographic proof that the bone sent for examination is from the mandible of an archaeological terrestrial mammal. These two classic images represent quite different events separated by considerable time and space.

Photographs of clandestine scenes of crime and stored in the Public Domain are rarely taken by forensic anthropologists. Strict controls over the nature of photographs taken at the scene or in the mortuary means that those images taken are rarely suitable for the public, or indeed, would be of limited interest. The rare times when this is not the case is when a forensic anthropologist publishes some form of case-book, usually for the interested public, and uses their own photographs to illustrate the information that they are describing, or worse, to titillate potential readers. An example of this difference would be a comparison of the photographs in Clea Koff's *The Bone Woman* (2004; a memoir of her time as a forensic anthropologist in regions of war and genocide) and Bill Bass and Jon Jefferson's *Death's Acre* (2003; a review of the development of the so-called 'Body Farm' in Tennessee). The former provides photographs that nicely help to communicate the largely sensitive prose. Koff has attempted to provide a book that discusses her personal feelings and emotions throughout her challenging time in the field, rather than focus on the explicit details of the cases

in question. She was 23 years old when she first deployed to Rwanda and her book is based on her journal writings of the time. The latter features images of bones and bodies that add little to the already extravagant commentary. What is interesting is that the photographs of the former are often more graphic than those of the latter, yet the more successful deployment and contextualisation of them makes the graphic nature of the photographs seem more acceptable to many anthropologists.

Photographs situated within the Private archive tend to dramatically differ in style and content compared to those in the Judicial archive. Instead of specific isolated skeletal features we tend to see photographs of people or practice. The people can include our colleagues as well as those who live in the region, while photographs of practice tend to show the forensic or crime scene procedures (such as the excavation of the remains or their cleaning in the mortuary) that one is performing or contributing to. These differences between the photographs of the Private and Judicial archive are a consequence of the different requirement of these photographs; they have no evidential value but are instead mementos of a time spent away from home, working in unusual and testing circumstances, with people one may never have met before and may never meet again for example. This is an aspect of photography from scenes of crime in war zones that Konstantinidou (2007) does not fully appreciate in her paper. She lists 3 central themes for war scene photography – the conflict *per se*, civilian life in the war situation, and human casualties and costs. This may be true of published

photographs, but there is also a whole archive of photographs taken by those more directly involved in the war itself whereby the central theme of the images is as a memento, whether it be associated with humiliating the enemy (i.e.: Abu-Ghraib) or reminding us of friends and colleagues that we have worked with. Often the photographs of colleagues taken for the Private archive show the result of working long hours in trying conditions. Figures 4 and 5 demonstrate just this. In the former, a scene of crime officer sits waiting for the next body to be brought up from the mortuary freezer so that he can begin the next round of evidential photograph collection. This mortuary was based in Pristina in eastern Kosovo, and received hundreds of bodies from the surrounding area. When this photograph was taken, our team of forensic pathologists, anthropologists, radiographers, technicians, evidence officers and scene of crime officers was reaching the end of a 10 hour day. The work in the mortuary was physically demanding due to the nature of the bodies and the heat, but less so than the work in the mass graves itself. For those not used to this work, the active mortuary is an assault on the senses. In Figure 5 a team member stops for a moment of contemplation during the intense sorting of rubble, debris and human remains following the crash of a passenger plane into a baggage handling facility at Linate Airport, Milan. Tonnes of material needed to be sifted through in order to ensure that all human remains could be recovered. Thanks to the work of such team members every body from this incident was identified and repatriated. These photographs were taken as a reminder not only of those who the author was deployed with, but also of the emotional connections that one makes with

the incident that takes it beyond the mere collection and collation of biological

profiles of the deceased. This again connects with the notion of the *punctum* as

discussed by Barthes (although in this example it also highlights his suggestion

that this feeling can result from memory too). Looking at such private

photographs in chronological order from the beginning to the end of a

deployment serves to create a visual narrative of that time that is important for

the psychological well-being of the practitioner. This relates somewhat to the

work of Leary (2002) who highlighted links between crime scene evidence and

literary theory. She proposed that each piece of evidence constituted a

conjunction which could be linked together to develop the story of the crime, in

much the same way as a piece of literature uses conjunctions to link together

sentences of a story. She argued that the revealing of each forensic morsel

forced the investigator to constantly reorient their position and be responsive to

new interpretations (in the same way one does when reading a novel and new

information within the story is presented to us). In this way, each photograph can

be linked together to tell the story of the anthropologist's experiences. Although

photographs within this archive are for the individual practitioner, they are often

shared with friends and family; in many ways like an alternative family album.

This usually occurs because the deployment experience is so different from

normal life experiences that our photographs are a way of explaining it to our

families; that is, making it seem less like an abstract or phenomenological set of

experiences or events. Figures 6 to 9 fall into that grouping; these are mementos,

photos taken to allow others to understand the work that we do and the reasons behind it.

The presence of three distinct photographic archives does not mean that photographs initially stored in one archive cannot transfer to another. Indeed Figures 4 and 5 were locked away in this author's own Private archive for many years before now being placed in the Public archive. Volumes such as that by Ellroy and Wride (2004) explicitly and unashamedly transfer scenes of crime images from the Judicial to the Public archive. Here Ellroy and Wride present a large collection of crime scene photographs from the vaults of the Los Angeles Police Department. Although it is possible to argue that there is an important historical lesson to learn from these images (a lesson regarding best crime scene practice), this approach is tautly associated with a number of ethical dilemmas, and in the case of *Scenes of the Crime* (Ellroy and Wride, 2004) the key debate is the appropriateness of selling a book filled with photographs of corpses. This action impacts on a number of issues such as any right to self-determination of representation after death, the lack of consent given by those in the photograph (in the UK written permission would be required from these individuals if they were living) or the fact that often it is vulnerable demographics that are exploited in this way (similar issues surround the use of the dead in medical and forensic research and education). Indeed, this is also a common criticism of the use of Private archive images in case-books such as those mentioned above: is it acceptable to earn money from photographically detailing cases with other

peoples' misery and suffering? Friend's book (2001) arguably creates a greater sense of tragedy regarding conflict in the Balkans without the use of photographs of the deceased, than Koff's (2004) does with them.

Conclusions

The argument that forensic photography is objective is constructed upon the premise that scientific knowledge is autonomous and independent of the context in which it is used and that it is not the product of, nor is it intended to serve, specific interests (Green, 1984). As has been argued above, this is clearly not the case. Since such photographs are taken with the specific purpose of assisting the courts, they instantly lose their objectivity. Therefore, it is vital for the forensic anthropologist and crime scene scientist to appreciate that photographs cannot be truly objective, and instead have meaning constructed within them as a result of photographic language and convention combined with more sociological signs and codes, such as dress, landscape and body language (Burns and Katovich, 2006; Clark, 1997; Konstantinidou, 2007), and memory and death (Barthes, 1982). These cues can be extended to include the influence of the use of a scale in the image or the association of the photograph to its identifying number to the crime scene log mentioned above. Clark (1997) notes that this is a two-way exchange, and that the viewer also has an expectation of the visual style, cues and shorthands contained within these photographs. These expectations are based upon previous life experiences, experiences of

examining photographs in the past, the context in which they are currently examining the photographs (for example, in a judicial setting or at home) and so on. Burns and Katovich (2006; 111) neatly refer to this as appealing to the 'visual literacy' of the viewer. It has also been stated that a key benefit of crime scene photographs is that they communicate quickly and accurately (Pasqualone, 1995). However, the term 'communicate' is significant here; if something is being communicated, then its meaning can by its very nature be interpreted in a number of ways – both as intended and unintended by the author. Naturally, the degree of visual literacy, education and cultural experiences in an audience will affect this. Interpreting images from forensic anthropology or clandestine scene of crime requires the navigation of the fields of evidence, politics and humanitarianism (Green, 1984; Konstantinidou, 2007). Such photographs are complex, multilayered and most definitely filled with meaning (Konstantinidou, 2007).

Furthermore, the photographs that forensic anthropologists take while working at a scene of crime, whether they involves one or many bodies, reveal much about the case itself, but also the context within which they work. Each time these photographs are examined, they impact immediately upon the practitioner and/or other interested parties resulting in a new appreciation of the subject and the nature of that work. This in turn could influence the processes of human identification and the ability to resolve future clandestine scenes of crime.

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<u>Figure Titles</u>

Figure 1: The excavation of the back-garden in Gloucester. Note the seemingly haphazard manner of the excavation; often in these situations enthusiasm got the better of the inexperienced excavators. (courtesy of Yorkshire Post Newspapers).

Figure 2: A typical forensic anthropological photograph taken for evidential purposes. (courtesy of Dr Claudia Garrido Varas).

Figure 3: A typical forensic anthropological photograph taken for evidential purposes.

Figure 4: A scene of crime officer rests while waiting for the next body to be brought from storage to the autopsy table. This work is seemingly relentless with tens of bodies examined every day.

Figure 5: A team-member reflects during the processing of an aeroplane crash in Italy. It is often forgotten that these events have profound effects on those responding to the incident as well as those who have lost loved ones in it.

Figure 6: Cleaning the clothes of the deceased, Kosovo 2000. This site of drying proved to be an important site for identification by grieving relatives. (courtesy of CRC Press, Inc. – Thompson and Puxley, 2007).

Figure 7: Cleaning the clothes of the deceased, Kosovo 2000. This site of drying proved to be an important site for identification by grieving relatives. (courtesy of CRC Press, Inc. – Thompson and Puxley, 2007).

Figure 8: The devastation following the tsunami in SE Asia, Thailand 2005. Forensic anthropology had an important role to play in a context that resulted in the failure of other standard identification techniques. (courtesy of Putra Bridge).

Figure 9: One of many walls adorned with the faces of the missing, Thailand 2005. This represents the primary aim of forensic anthropology, to place a face and name to a body. (courtesy of Putra Bridge).