

TOWARDS IMPROVED UNDERSTANDING AND  
INTERACTION BETWEEN FORENSIC SCIENCE AND  
INTERNATIONAL CRIMINAL LAW IN THE CONTEXT OF  
TRANSITIONAL JUSTICE

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**Abstract**

International criminal justice is part of a coordinated effort to achieve transitional justice in response to social trauma, human rights' abuses, mass atrocities, civil war and genocide. Critically, criminal trials are believed to contribute to a notion of truth through producing a record of the causes of conflicts, the responsible actors and parties, as well as the events. As part of its criminal investigations, the International Criminal Tribunal for the former Yugoslavia (ICTY) employed multi-disciplinary forensic teams to excavate mass graves and examine the human remains to discern information regarding the victims and the events that preceded their deaths. It thus contributed to two notions of 'forensic truth': firstly, through generating findings related to an individual level, questions such as 'what happened to an individual, where, when and how?' were answered; and secondly information about the reasons, circumstances and patterns of the events leading to the creation of mass graves was ascertained.

Focusing upon the ICTY and the Extraordinary Chambers in the Courts of Cambodia (ECCC), the research explores the reasons for, potential, values, theoretical and practical aspects of the interaction between international criminal law and forensic science evidence from mass graves. Thirty in-depth semi-structured interviews were conducted with carefully selected individuals experienced in prosecution, defence, forensic investigation or crime scene investigation, relating to either of these selected case studies.

After thorough analysis of the interview data alongside secondary materials, including relevant previous research, case law, trial transcripts and documents relating to the case studies, the study makes three original and significant contributions to knowledge: firstly, the research provides an assessment of the value forensic science evidence from mass graves holds within the ICTY and ECCC's transitional justice efforts. Secondly, it outlines the conceptual and theoretical challenges that occur as part of the 'forensic science-international criminal law relationship', thus relating traditional law-science debates to a yet unexplored context. Thirdly, with reference to exchange theory, the research produces recommendations to improve practical aspects that arise during the interaction between legal, investigative and forensic practitioners throughout forensic science investigations into mass graves for international criminal prosecutions.

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## ***Declaration***

To date, the following three journal articles that are directly related to the PhD have been published:

- M Klinkner, 'Forensic Science Expertise for International Criminal Proceedings: an old Problem; a new Context and a Pragmatic Resolution' (2009) 13(2) *International Journal of Evidence and Proof* 102.
- M Klinkner 'Proving Genocide? Forensic Expertise and the ICTY' (2008) 6(3) *Journal of International Criminal Justice* 447.
- M Klinkner 'Forensic Science for Cambodian Justice' (2008) 2(2) *International Journal of Transitional Justice* 227.

Additionally, research findings have been presented at a number of international and national conferences:

- K Brennan and M Klinkner, 'Template Analysis – Manual and Software Facilitated Experiences' 1<sup>st</sup> Annual Postgraduate Researcher Conference, Poole, 1 October 2008.
- M Klinkner, 'International Justice through Science: Investigating Human Rights Violations with or-without Forensic Science?' The 12<sup>th</sup> Biennial Conference of the International Society for Justice Research, Adelaide, 14-17 August 2008.
- M Klinkner, 'Numbers without Names? Forensic Evidentiary Requirements in International Criminal Law' Marie Curie Top Summer School in International Criminal Law, The Hague, 30 June-11 July 2008.
- M Klinkner, 'Forensic Science Expertise and International Criminal Justice' Association for Legal and Social Philosophy 2008 Annual Conference, Nottingham, 27-29 March 2008.
- M Klinkner, 'Proving Genocide – Cooperation between Lawyers and Forensic Scientists under the ICTY', Seventh Biennial Meeting of the International Association of Genocide Scholars, Sarajevo, 9-13 July 2007.
- M Klinkner, 'Post-conflict Reconstruction and Peace-building: Where Forensic Scientists and Lawyers meet', Inforce Annual International Forensic Conference, Bournemouth, 14-16 December 2006 (see Appendix A).

Furthermore, a series of six lectures to postgraduate students of Forensic Anthropology and Archaeology courses were conducted covering the topics of International Criminal Law, Forensic Science during International Criminal Investigations, and Theoretical and Ethical Considerations in the International Context.

# 1. International Criminal Law and Forensic Science in the Context of Transitional Justice

## 1.1. Transitional Justice

Depending on political forces, different societies may take differing paths to face human rights' abuses and war crimes. Responses can broadly be categorised as: 'to forget and to pardon'; 'to establish the truth, but to pardon'; 'to forget, but still punish'; and 'to establish the truth and to punish the perpetrators'.<sup>1</sup> According to proponents of transitional justice, responses to social trauma, human rights' abuses, mass atrocities, civil war or genocide should be comprehensive to have lasting effect. The concept of transitional justice encompasses the tasks of establishing the truth, developing reparation policies, remembrance, reconciliation and institutional reform as well as prosecution of perpetrators.<sup>2</sup> The need for justice, including the rectification of injustice committed during a conflict, is a crucial component of transitional justice as part of wider peace-building efforts.<sup>3</sup>

The term 'transitional justice' originates from the 1990s and is perhaps better described as 'justice during transition', with transition meaning a period of often complex political changes.<sup>4</sup> Teitel (2003) divides transitional justice efforts into three phases: The first phase began in 1945 after the Second World War with the establishment of the Nuremberg Trials and demonstrated the 'triumph of transitional justice within the scheme of international law.'<sup>5</sup> Throughout the Cold War, however, the number of armed conflicts steadily increased (see Figure 1) with the bipolarisation within the United Nations Security Council and the political landscape in general, making preventive or alleviating measures largely ineffective. Whilst the Cold War prevented war on a global scale, it left the back door open for many lower-level wars and conflicts.<sup>6</sup>

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<sup>1</sup> B Van Schlaack and RC Slye, *International Criminal Law and Its Enforcement* (Foundation Press, New York 2007) 5.

<sup>2</sup> L Bickford, 'Transitional Justice' in: D Shelton (ed), *The Encyclopaedia of Genocide and Crimes Against Humanity* (Macmillan Library Reference, San Diego 2004).

<sup>3</sup> See e.g. R Mani, 'Balancing Peace with Justice in the Aftermath of Violent Conflict' (2005) 48(3) *Development* 25 and A Cutillo, 'International Assistance to Countries Emerging From Conflict: A Review of Fifteen Years of Interventions and the Future of Peacebuilding' (Policy Paper) (February 2006) <[http://www.ipacademy.org/pdfs/Cutillo\\_E\\_RPT.pdf](http://www.ipacademy.org/pdfs/Cutillo_E_RPT.pdf)> accessed 6 November 2006. The term 'peace-building' was only coined in the early 1990s once the bipolarisation within the United Nations Security Council ceased to exist after the end of the Cold War. It denotes efforts to avoid the relapse into conflict and the establishment of sustainable peace for war-torn societies.

<sup>4</sup> See Bickford (n 2).

<sup>5</sup> RG Teitel, 'Transitional Justice Genealogy' (2003) 16 *Harvard Human Rights Journal* 69, 70.

<sup>6</sup> N Tschirgi, 'Peacebuilding as the Link between Security and Development: Is the Window of Opportunity Closing?' (December 2003) <[http://www.un.org/esa/peacebuilding/Library/Peacebuilding\\_as\\_link\\_IPA.pdf](http://www.un.org/esa/peacebuilding/Library/Peacebuilding_as_link_IPA.pdf)> accessed 19 December 2006.

Type of Conflict	1960	1970	1980	1990	1992	1998	2003
All conflicts	17	26	39	49	51	39	29
Intrastate	14	20	36	47	50	37	27
Interstate	1	3	3	2	1	2	2
Colonial	2	3	0	0	0	0	0

Figure 1: Number of Armed Conflicts per Year stated since 1960<sup>7</sup>

During the second, post-Cold War, phase, with the exception of the Balkans and Rwanda, transitional justice became more concerned with nation-building; slightly differing rule of law concepts emerged that were relevant to particular local communities and political environments.<sup>8</sup> This was only possible because the end of the Cold War provided the international community with the historic chance to engage in multi-dimensional actions towards achieving transitional justice. With the arrival of the new millennium (third phase) the idea of transitional justice is now less associated with extraordinary circumstances: through the establishment of the International Criminal Court, prosecutions for war crimes, genocide and crimes against humanity have become 'normalised', thus using international law developments initiated by the Nuremberg Tribunal.<sup>9</sup>

In 2004, former United Nations (UN) Secretary-General, Kofi Annan, identified the UN Charter along with four key areas of international law (international human rights law, international humanitarian law, international criminal law, and international refugee law) as the normative foundation for the UN's promotion of the rule of law.<sup>10</sup> This notion of the rule of law is compatible with the current third phase of transitional justice; the concept allows the rule of law to be widely accepted internationally and as a basis for domestic judicial reform. Therefore, establishing the rule of law and human rights in conflict ridden areas of the world has become a primary objective along with the realisation 'that no legal principle – not even sovereignty – should ever be allowed to shield genocide, crimes against humanity and mass suffering'.<sup>11</sup>

As transitional justice tends to be a reaction to exceptional circumstances, it becomes very difficult to generalise guidelines and create templates for future transitional justice provisions.<sup>12</sup> Nonetheless, in their study on violence and social repair, Fletcher and Weinstein (2002) propose a plethora of instruments that are crucial for any attempts to orchestrate a suitable response to achieve social repair. They categorise the various components as:

<sup>7</sup> Cutillo (n 3) 2.

<sup>8</sup> Teitel (n 5) 70.

<sup>9</sup> Ibid.

<sup>10</sup> UNSC, 'Report of the Secretary General: The Rule of Law and Transitional Justice in Conflict and Post-Conflict Societies' (23 August 2004) UN Doc S/2004/616.

<sup>11</sup> UNGA, 'Report of the Secretary General: In Larger Freedom: Towards Development, Security and Human Rights For All' (21 March 2005) UN Doc A/59/2005 para, 129.

<sup>12</sup> See Teitel (n 5).

- (1) state-level interventions;
- (2) criminal trials (national or international);
- (3) commissions of historical record (truth commissions);
- (4) individual and/or family psycho-social support;
- (5) externally-driven community interventions; and
- (6) community-based responses.<sup>13</sup>

At a more detailed level, they propose the following measures (Figure 2) as an adequate response to social breakdown.

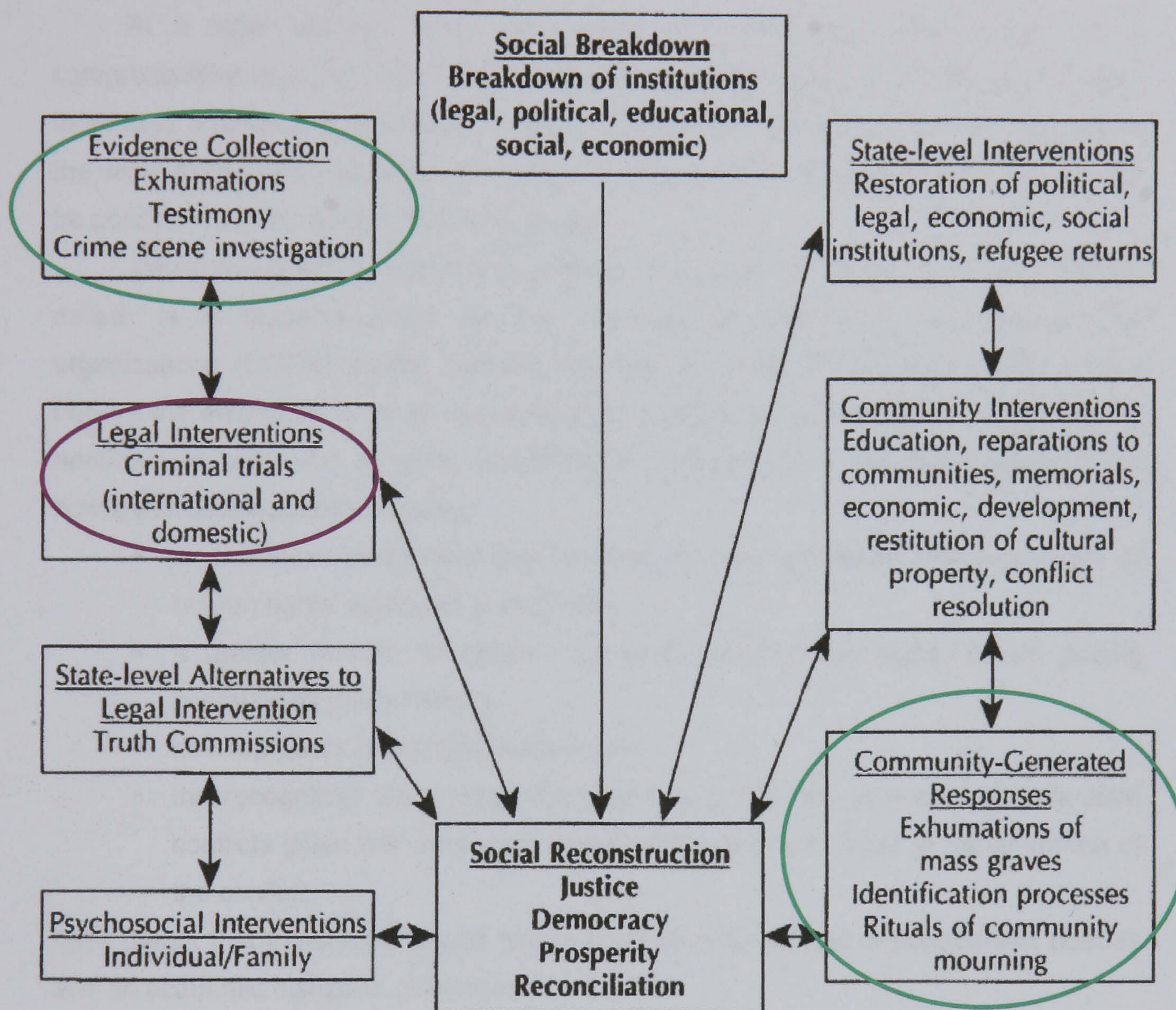


Figure 2: Ecological Model of Response to Social Breakdown<sup>14</sup>

Social reconstruction, according to Fletcher and Weinstein, consists of justice, democracy, prosperity and reconciliation. They suggest that the multiplicity of needs of the individual and the community should be satisfied to facilitate social repair; the interventions listed in the boxes to the left and right of the model outline the measures that are necessary to address those needs.<sup>15</sup>

Whilst this thesis is concerned with the use of forensic science for criminal investigative purposes, it is interesting to see that both international criminal trials and

<sup>13</sup> LE Fletcher and HM Weinstein, 'Violence and Social Repair: Rethinking the Contribution of Justice to Reconciliation' (2002) 24 Human Rights Quarterly 573, 624.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid 625.

exhumations feature as critical elements for the facilitation of general social reconstruction (see Figure 2, fields highlighted in purple and green). In fact, as part of comprehensive transitional justice methods, forensic science has been employed, as depicted in the dynamic model, either in an effort to find missing persons by examining mass graves, excavating human remains and gathering ante-mortem data to identify and return human remains to families and relatives, or within the realm of evidence collection and criminal investigations.

At a more abstract level, the Centre for Transitional Justice advocates a comprehensive approach that encompasses prosecutions and truth seeking mechanism to achieve a wide-ranging sense of justice.<sup>16</sup> Prosecutions and truth are the areas within the wider transitional justice context where this research is anchored. Both concepts will be considered in the section following below.<sup>17</sup>

Whilst the quest for transitional justice, or post-conflict justice as it is sometimes called, is a laudable effort by the international community, non-governmental organisations (NGOs) and/or national regimes, it is not without controversy. Some believe the enterprise to be an 'extravagance, costly and irrelevant to the conclusion of hostilities at best, and at worst potentially destabilizing to a fragile transition.'<sup>18</sup> Yet numerous developments, notably

- an increased awareness due to instantaneous, worldwide media coverage of human rights' violations and conflict,
- a greater number of NGOs concerned with human rights' issues putting pressure on policy makers,
- developments in international law, and
- the recognition that transitional justice is particularly important to intra-state conflicts given that intra-state populations need to co-exist in the aftermath of the conflict,

have meant that transitional justice has become an integral part of post-conflict policies and an academic discipline of its own.<sup>19</sup>

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<sup>16</sup> According to the International Centre for Transitional Justice's Annual Report other transitional justice measures include reconciliation, reparations, and vetting as well as working on memory and gender related issues (International Centre for Transitional Justice, 'Annual Report 2004/2005' <<http://www.ictj.org/images/content/5/7/578.pdf>> accessed 19 December 2006, 17).

<sup>17</sup> Arguably, other elements of transitional justice measures are interlinked with the areas of truth and prosecutions. One might suggest, for example, that prosecutions lead to at least symbolic reparation. The focus here, however, will be on prosecutions and truth.

<sup>18</sup> NJ Kritz, 'Progress and Humility: The Ongoing Search for Post-Conflict Justice' in: MC Bassiouni (ed), *Post-Conflict Justice* (Transnational Publishers, Inc., Ardsley 2002) 56.

<sup>19</sup> Ibid.

## 1.2. Prosecutions and Truth

Increasingly, transitional justice provisions are designed and executed by authorities other than the state under which the atrocities were allowed to take place. Prosecutions under international criminal law are one such example; they influence the narratives that are produced to document past violence and through the application of international legal norms aim to work towards continuity and consistency in the rule of law.<sup>20</sup> Whilst critics of international criminal justice mechanisms such as the International Criminal Tribunal for the Former Yugoslavia (ICTY) or the Extraordinary Chambers in the Courts of Cambodia (ECCC) perceive prosecutions to be a potential threat to a fragile peace, advocates believe that prosecutions and trials

will help communities rebuild because trials support one, if not all of the following goals: (1) to discover and publicize the truth of past atrocities; (2) to punish perpetrators; (3) to respond to the needs of victims; (4) to promote the rule of law in emerging democracies; and (5) to promote reconciliation.<sup>21</sup>

Academics propose that the main reasons for prosecutions and trials include truth, accountability, reconciliation and reparation (TARR)<sup>22</sup> with others wishing to add reformation of institutions to this list.<sup>23</sup> Furthermore, effective prosecutions are thought to satisfy the victims' desire for retribution, prevent individuals from seeking retaliation for what they suffered and avoid a repetition of the injustices.<sup>24</sup>

Despite a lack of empirical evidence that would substantiate the above claims regarding the merits of prosecutions, international lawyers seem at ease with the expansion of international and hybrid tribunals and their judicial processes.<sup>25</sup> This new 'tribunalism' has not only been embraced by policy makers but has also become a 'trendy and lucrative domain of professional expertise for academics, practitioners and functionaries.'<sup>26</sup> Given the international community's mixed track record in allowing atrocities to happen without intervening,<sup>27</sup> some argue that the establishment of

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<sup>20</sup> Teitel (n 5).

<sup>21</sup> Fletcher and Weinstein (n 13) 586. Fletcher and Weinstein do not endorse this view, but are rather skeptical about the positive effect of criminal trials on societies emerging from conflict.

<sup>22</sup> S Parmentier, 'Global Justice in the Aftermath of Mass Violence. The Role of the International Criminal Court in Dealing with Political Crimes', 13th World Congress of Criminology. Reducing Crimes and Promoting Justice: Challenges to Sciences, Policy and Practice, 10-15 August 2003.

<sup>23</sup> R Haveman, 'The (Ir)Rationality of Supranational Prosecutions', 18th Conference of the International Society for the Reform of Criminal Law, 8-12 August 2004 <<http://www.isrcl.org/Papers/2004/Haveman.pdf>> accessed 20 February 2009.

<sup>24</sup> Van Schlaack and Slye (n 1).

<sup>25</sup> See T Skouteris, 'The New Tribunalism: Strategies of (De)Legitimation in the Era of International Adjudication' (2006) XVII Finnish Yearbook of International Law 1 and Fletcher and Weinstein (n 13).

<sup>26</sup> Skouteris (ibid) 2.

<sup>27</sup> UNGA and UNSC, 'Report of the Panel on United Nations Peace Operations' (21 August 2000) UN Doc A/55/305-S/2000/809.

international or hybrid tribunals springs from a moral obligation felt on behalf of the international community for not taking actions to prevent human rights' violations.<sup>28</sup>

Consistent with a more modest belief that '[p]roceedings focused on individual criminal responsibility represent a form or reaction oriented toward both establishing the truth and punishing the individual criminal perpetrator',<sup>29</sup> Figure 3 diagrammatically depicts the direct concerns of prosecutions (Truth and Accountability) in red, whilst the added benefits that such prosecutions may have are in black.

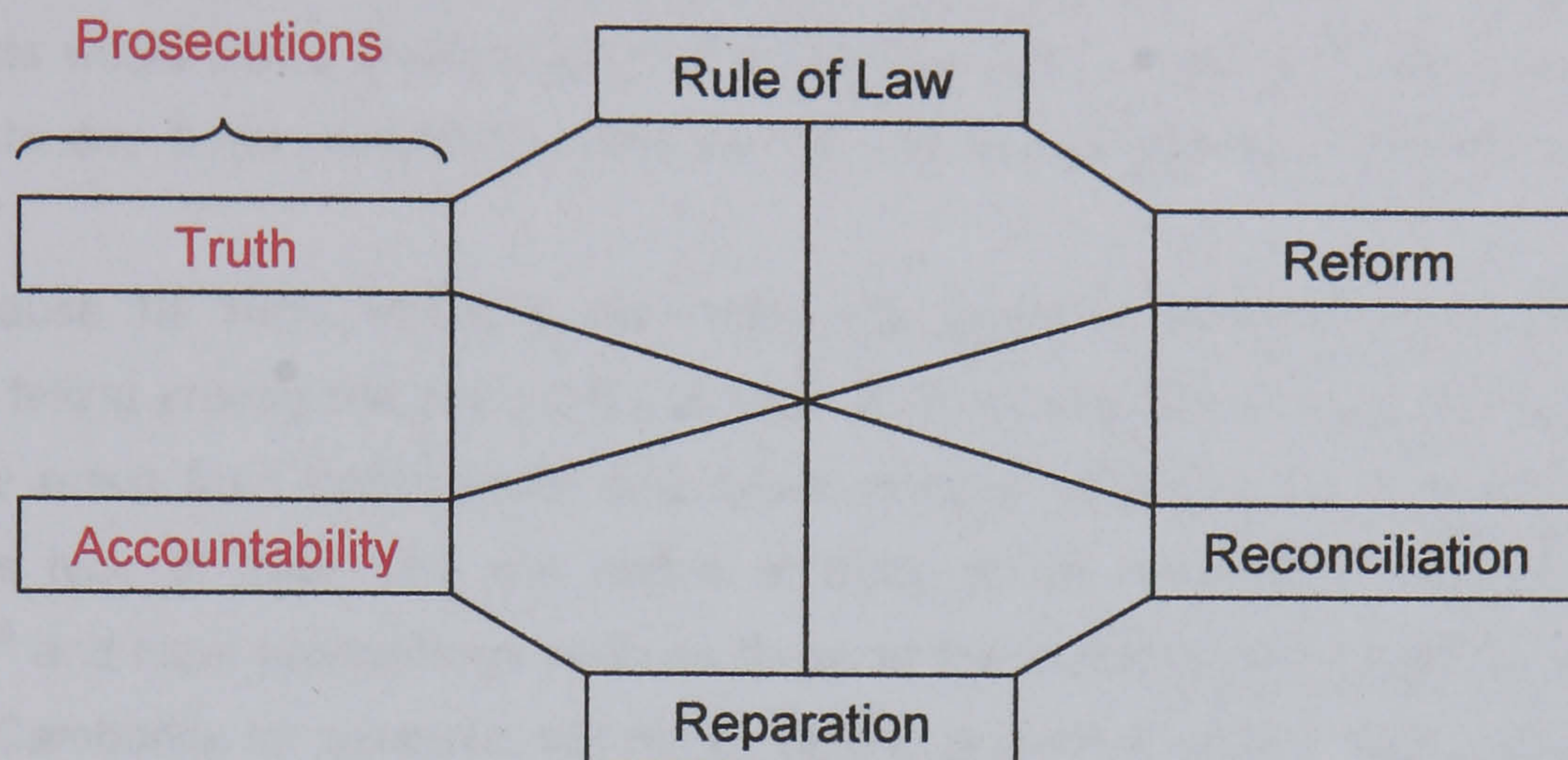


Figure 3: TARR Model<sup>30</sup>

Especially in relation to accountability, international or internationally backed trials attract more resources and can potentially be more successful in prosecuting senior perpetrators who would ordinarily be, for merely political reasons, beyond the local authorities' reach.<sup>31</sup> Criminal trials individualise guilt whilst avoiding collective group blame. This said, the picture of the crimes and conflict emerging during criminal proceedings can also implicate members of the group to which the offender belongs, especially as crimes on such large scales are rarely committed by a single person.<sup>32</sup>

Critically, in the transitional justice context, along with working towards accountability, trials are believed to contribute to a notion of truth through producing a record of the causes of conflicts, the responsible actors and parties, as well as the events themselves.<sup>33</sup> And in turn, a better understanding of the events can contribute towards an increase in accountability, whether at an international tribunal or at national trial level. However, 'revealing the truth' as is done predominantly through truth commissions, does not necessarily have the intended positive effects for the victims.

<sup>28</sup> See Kritz (n 19).

<sup>29</sup> Van Schlaack and Slye (n 1) 7.

<sup>30</sup> Source: the author. The presented model was expanded and adapted from Parmentier (n 22).

<sup>31</sup> Kritz (n 18).

<sup>32</sup> P Akhavan, 'Justice in The Hague, Peace in the Former Yugoslavia? A Commentary on the United Nations War Crimes Tribunal' (1998) 20 Human Rights Quarterly 737.

<sup>33</sup> See for example MP Scharf and PR Williams, 'The Functions of Justice and Anti-Justice in the Peace-Building Process' (2003) 35 Case Western Reserve Journal of International Law 161.

Firstly, according to Daly (2008), very few victims engage in the truth finding process.<sup>34</sup> Secondly, once records are established, victims may not have the time or literacy to digest the documents. Thirdly, victims may be psychologically ill prepared for the truth and would prefer to forget. Fourthly, many victims tend to face socio-economic challenges in their daily lives thus making 'truth' a luxury.<sup>35</sup> Whilst these points have emerged from studies on truth commissions, they are likely to hold true for the 'legal truth' as well. A 2008 study amongst Cambodians revealed that 76 percent of respondents would prefer their government to focus on the problems Cambodians face on a day to day basis, whereas a demand for justice was far less of a priority (two percent).<sup>36</sup>

Because the 'truth' emerging from trials may seem an 'elitist exercise removed from truth telling among the population at large',<sup>37</sup> it is important to note that the truth which may result from international and hybrid criminal prosecutions is merely 'legal truth'. This type of truth, like any notion of truth, is not 'monolithic, objective and verifiable',<sup>38</sup> and legal proceedings such as those at the Extraordinary Chambers in the Courts of Cambodia, for example, will not be able to provide a unified, single record for the Khmer Rouge regime. Experience from the former Yugoslavia has shown it to be doubtful that an authoritative record which would be immune to denials or alterations based on differing personal beliefs can be produced by a court.<sup>39</sup> In fact, 'the truth established in a court of law should lay no claim to represent the deeper inner truth.'<sup>40</sup> However, as trials help establish certain facts, this can increase the acknowledgement on behalf of those involved in the conflict that gross human rights' violations have occurred. Despite disagreements as to the reasons for such grave violations, it is hoped that

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<sup>34</sup> E Daly, 'Truth Skepticism: An Inquiry into the Value of Truth in Times of Transition' (2008) 2 *The International Journal of Transitional Justice* 23.

<sup>35</sup> *Ibid.*

<sup>36</sup> P Pham and others. 'So We Will Never Forget. A Population-Based Survey on Attitudes about Social Reconstruction and the Extraordinary Chambers in the Courts of Cambodia' (Human Rights Center, University of California Berkeley, Berkeley 2009) <<http://hrc.berkeley.edu/pdfs/So-We-Will-Never-Forget.pdf>> accessed 27 March 2009. One can only speculate as to whether the same survey would have produced different results had the ECCC been established 20 years earlier and the survey been conducted then.

<sup>37</sup> Akhavan (n 32) 795.

<sup>38</sup> Daly (n 34) 23.

<sup>39</sup> See The Human Rights Center and the International Human Rights Law Clinic, the University of California, Berkeley, and the Centre for Human Rights, University of Sarajevo, 'Justice, Accountability and Social Reconstruction: An Interview Study of Bosnian Judges and Prosecutors' (2000) 18 *Berkeley Journal of International Law* 102. Schabas suggests that the Sierra Leone Model of having a Truth and Reconciliation Commission (TRC) as well as the Special Court will be able to 'clarify the historical truth of the conflict in Sierra Leone' and should 'undermine future efforts to distort and deform the truth' (W Schabas, 'The Relationship Between Truth Commissions and International Courts: The Case of Sierra Leone' (2003) 25(4) *Human Rights Quarterly* 1035, 1064).

<sup>40</sup> Akhavan (n 32) 771.



Muslim, Serb, and Croat alike can appreciate the more elementary truths that snipers should not murder helpless civilians in cold blood, that the wanton destruction of historical monuments and civilian areas serves no legitimate purpose, that the pain of a bereaved mother or an orphaned child transcends ethnic affiliation.<sup>41</sup>

Furthermore, the choices as to whom to prosecute have a profound impact on the level of truth that emerges: prosecutions of high ranking political and military leaders may result in a comprehensive, but more abstract, narrative of the events; whilst prosecuting lower ranking individuals can demonstrate the ways in which ordinary people participated in the perpetration of crimes.

As part of an overall 'legal truth' based on humanitarian values, prosecutions can contribute to two specific levels of truth which were labelled 'forensic truth' by the South African Truth and Reconciliation Commission: firstly, through generating findings related to an individual level, 'forensic truth' answers questions such as 'what happened to whom, where, when and how, and who was involved?'; and secondly, 'forensic truth' is able to ascertain information about the 'context, causes and patterns of violations'.<sup>42</sup> Given that forensic teams can be employed to excavate mass graves and examine the human remains to discern information regarding the victims and the events that preceded (and post dated) their death, forensic science contributes to those notions of 'forensic truth'. Both types of 'forensic truth', whether relating to individuals or to the bigger picture of the crimes perpetrated, tend to be integrated into the legal truth, but at the same time can also be separated from the overall legal narrative. As the President for the Commission on Missing Persons in Bosnia-Herzegovina, Amor Masovic, is reported to have said in 2004:

Were it not for the Tribunal, we would probably be very, very far from the truth and justice. Were it not for the Tribunal, we would perhaps still be discussing whether Srebrenica happened or not, whether the eight thousand people who were killed ever existed at all.<sup>43</sup>

Generating and working towards 'forensic truth' provides an important ingredient for successful criminal prosecutions and the establishment of facts that are undisputable beyond ethnic and ideological divides.

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<sup>41</sup> Ibid 772.

<sup>42</sup> Truth and Reconciliation Commission, 'Truth and Reconciliation Commission of South Africa Final Report (Volume 1)' (29 October 1998) <<http://www.doj.gov.za/trc/report/finalreport/TRC%20VOLUME%201.pdf>> accessed 18 October 2007, 111.

<sup>43</sup> M Klarin, 'The Tribunal's Four Battles' (2004) 2(2) *Journal of International Criminal Justice* 546, 557.

### 1.3. International Criminal Law

International criminal law provides a body of international rules under which individual persons may be held accountable either by a state or before international courts and tribunals.<sup>44</sup> According to Tallgren (2002), international criminal law is a marriage of two disciplines:<sup>45</sup> that of international law, based predominantly on treaties and customs negotiated between nation-states,<sup>46</sup> and that of criminal law. Whilst most of international law is aimed at regulating inter-state relationships, criminal law is concerned with the individual. The justifications for the existence of criminal law are rooted in different theories about the purposes and effects of punishment:<sup>47</sup>

1) Retribution and Vengeance look at the past; punishing offenders is justified because of their criminal action. Retribution theory is often associated with Kant's deontological ethics and his 'categorical imperative of the justification to punish' (*kategorischer Imperativ der Strafgerechtigkeit*).<sup>48</sup> Kant holds that criminal punishment is retribution in the sense that only the offender may be punished for the sole reason that he or she was found guilty of a particular crime.<sup>49</sup>

2) Deterrence is one way to prevent crime either at an individual level by imposing strict sentences to ensure that an offender does not re-offend and/or at a general level by creating fear of punishment in society.<sup>50</sup>

3) Rehabilitation aims to cure lawbreakers of their tendencies to break the law again and attempts to re-integrate them into society allowing them to live their lives without committing further crimes.<sup>51</sup>

4) Restorative Justice is victim-oriented, with criminal justice aiming to undo the problems created through crime. Restorative justice seeks to provide reparations for injuries suffered (compensation) and sees criminal justice as a tool to resolve a conflict caused through the commission of a crime (conflict resolution). The latter approach aims to facilitate reconciliation between the perpetrators, victims and the wider community. This justice theory comes perhaps closest to Rama Mani's concept of reparative justice which she proposes to be most suitable in the aftermath of violent conflict: 'Reparative justice aims to be *sensitive* to the nature of offences and their impact on victims,

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<sup>44</sup> A Cassese, *International Criminal Law* (2nd edn Oxford University Press, New York 2008).

<sup>45</sup> I Tallgren, 'The Sensibility and Sense of International Criminal Law' (2002) 13 *European Journal of International Law* 561.

<sup>46</sup> A Cassese, *International Law* (Oxford University Press, Oxford 2001).

<sup>47</sup> The following section follows Van Schlaack and Slye's outline of theoretical frameworks that may justify prosecution and punishment within a domestic context (Van Schlaack and Slye (n 1) 13-18).

<sup>48</sup> For a discussion of Kant's theories on punishment, see O Höffe, *Immanuel Kant* (Beck, München 1996) 235-240.

<sup>49</sup> *Ibid.*

<sup>50</sup> However, Tallgren is adamant that empirical research has shown that prevention of this kind is not effective (Tallgren (n 45)).

<sup>51</sup> Rehabilitation therapies too have only limited success and attract much controversy (see Van Schlaack and Slye (n 1)).

offenders and societies, and *flexible* in devising a suitable combination of responses to them.<sup>52</sup>

5) Communication/Condemnation/Social Solidarity: Through punishment a message of condemnation or moral outrage is communicated to society, thus maintaining social cohesion and reaffirming common moral order.

These theories have their origin in national criminal justice systems, but are not automatically a fitting justification for international criminal law. Whilst retribution might be a suitable rationale, deterrence of future and rehabilitation of former *genocidaires* is hard to imagine. Furthermore, what is intended to be communicated through punishment can be perceived as an insult to victims.<sup>53</sup> Tallgren (2002) argues that prevention of crimes is difficult to achieve in situations where the criminal law is undermined by political situations and societal developments. Obeying criminal law is then only achieved through an act of civil disobedience or non-conformity to accepted behaviour because 'acts addressed as international crimes can, in some circumstances, be constituted in terms of conforming to a norm.'<sup>54</sup> Within the Khmer Rouge ideology it was the norm to spy upon people, punish them or deprive them of their lives should they be perceived to act contrarily to the wishes of the regime. This, to outsiders was perceived as criminal behaviour, but from within the system constituted expected behaviour. Whilst international criminal courts and tribunals are designed to prosecute the Hitlers, Pol Pots and Miloševićs of this world who are responsible for the planning, ordering, and instigating of heinous crimes, initially, at the International Criminal Tribunal for the former Yugoslavia (ICTY), the low ranking Erdemovićs and Tadićs stood in the dock.<sup>55</sup>

Despite a lack of penal theory conceived for the *sui generis* conditions of international crimes, a number of international tribunals and courts have been created to help bring international human rights' and humanitarian law violators to justice, thus complementing the role of domestic courts. The creation of international courts and tribunals over the past decades resulted in the closure of the 'greatest gap in international humanitarian law: the failure to enforce the comprehensive legal regime enhanced after World War II which was designed to protect basic human rights during armed conflict'<sup>56</sup>. The former ICTY President, Gabrielle Kirk McDonald (2001), believes

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<sup>52</sup> Mani (n 3) 31.

<sup>53</sup> As part of the interviews conducted for this study, one interviewee exemplified this point:

whenever there is a sentence, and somebody will get ten or 15 years for their role, there will be [...] an outcry from the survivors. The widows would be saying: "is that all my husband's life is worth, ten years?" (telephone interview with investigator # 1 (30 July 2007)).

<sup>54</sup> Tallgren (n 45).

<sup>55</sup> See *Prosecutor v Erdemović*, Case No IT-96-22 and *Prosecutor v Tadić*, Case No IT-94-1.

<sup>56</sup> GK McDonald, 'Reflections on the Contributions of the ICTY' (2001) 24 *Hastings International and Comparative Law Review* 155, 157.

that these tribunals are proof of the enforcement of international treaties, conventions and resolutions, giving '[t]hese paper tigers [...] sharp teeth'.<sup>57</sup>

International criminal law (ICL) is a fairly new branch of public international law; its sources are<sup>58</sup>:

1) The statutes of international courts and tribunals; historically perhaps the most important statute is the London Agreement of 8 August 1945 which outlines the substantive and procedural law of the International Military Tribunal of Nuremberg, whilst more recently the Rome Statute of the International Criminal Court (ICC) constitutes

a long and elaborate instrument that lays down both a list of crimes subject to the jurisdiction of the Court and some general principles of ICL, and in addition sets forth the main rules on the proceedings for the Court.<sup>59</sup>

2) Treaties, such as the 1949 Geneva Conventions, Additional Protocols from 1977 or the UN Convention against Torture of 1975, inform the statutes of courts and tribunals.

3) Customary international law, which is derived from the practice of states, helps to clarify the content of treaty provisions but is also a source in its own right.<sup>60</sup> If state practice is accompanied by *opinio juris*, which means that a state feels compelled to act in a particular way, not out of courtesy towards other states, but because there is a legal obligation to act in that way, then that combination of consistent practice plus *opinio juris* creates law.

4) General principles of international criminal law, such as the presumption of innocence or the principle of equality of arms,<sup>61</sup> and general principles of international law form part of ICL's sources.

5) General principles of law derived from national laws or legal systems of the world may provide a source of law as long as the principles are compatible with the other sources of law under 1)-4).<sup>62</sup>

6) Rules of Procedure and Evidence govern international proceedings and provide 'tertiary legislation'<sup>63</sup>.

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<sup>57</sup> Ibid 171.

<sup>58</sup> The next section summarises the sources identified by Cassese (Cassese (n 44) 13-27).

<sup>59</sup> Ibid 15. Other relevant statutes include those of the International Criminal Tribunal for the Former Yugoslavia (ICTY), the International Criminal Tribunal for Rwanda (ICTR), the Special Court of Sierra Leone (SCSL), the Extraordinary Chambers in the Courts of Cambodia (ECCC) and, most recently, the Special Tribunal for Lebanon (STL).

<sup>60</sup> Article 38 (1) (b) of the Statute of the International Court of Justice applies 'international custom, as evidence of general practice accepted as law' (Statute of the International Court of Justice annexed to the Charter of the United Nations (adopted 26 June 1945, entered into force 24 October 1945) <<http://www.un.org/aboutun/charter/>> accessed 6 April 2009, Annex, Art 38(1)(b)).

<sup>61</sup> The principle of equality of arms demands a fair balance of opportunities given to parties in preparing and during litigation (EA Martin and J Law (eds), *Oxford Dictionary of Law* (6th edn Oxford University Press, Oxford 2006).

<sup>62</sup> See specifically Article 21(c) of the Rome Statute (Rome Statute of the International Criminal Court (adopted 17 July 1998, as amended 16 January 2002) UN Doc A/CONF.183/9, Art 21(c) (hereinafter Rome Statute).

7) Judicial decisions and opinions of scholars may help to establish if a principle has crystallised into customary international law and if interpretations of treaty rules are adequate and consistent.

Substantive international criminal law comprises categories of crimes such as war crimes, crimes against humanity (and ethnic cleansing), genocide, the crime of aggression<sup>64</sup>, torture and terrorism.<sup>65</sup> For an accused to be found guilty of any of these crimes, the alleged perpetrator must be found criminally liable either through having materially committed the crime or through their engagement in other forms of relevant criminal behaviour. Both parts, the elements of crime<sup>66</sup> that fall under international criminal law and 'the alleged way in which the defendant was associated with the crime – for example through aiding and abetting its commission'<sup>67</sup> must be proven.<sup>68</sup> Because alleged perpetrators are often physically dissociated from the actual crimes, personal liability is of great importance in international criminal proceedings. Furthermore, Article 30 of the Rome Statute, for example, specifies that

[u]nless otherwise provided, a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court only if the material elements are committed with intent and knowledge.<sup>69</sup>

#### **1.4. Forensic Science Investigations into Mass Graves**

For the purpose of criminal investigations into the crimes codified in the ICTY's Statute, the Office of the Prosecutor (OTP) sent multi-disciplinary forensic teams into the region to conduct forensic investigations of mass graves and the associated landscape.

A mass gravesite is a potential repository of evidence of mass killings of civilians and POWs [Prisoners of War]. Such sites can yield forensic information which can provide evidence or insight into the circumstances surrounding the deaths of those buried there.<sup>70</sup>

During forensic excavations and examinations of this nature, detailed documentation of the crimes and biological facts associated with the victims are obtained.

In general, forensic scientists:

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<sup>63</sup> Cassese (n 44) 26.

<sup>64</sup> Although recognised in customary law, the ICC cannot exercise jurisdiction over this crime as yet (see Rome Statute, Art 5(2)).

<sup>65</sup> See, for example, A Zahar and G Sluiter, *International Criminal Law. A Critical Introduction* (Oxford University Press, Oxford 2008) and Cassese (n 45).

<sup>66</sup> The ICC's document 'Elements of Crimes' specifies elements of crime under the ICC's jurisdiction to assist the court in the interpretation and application of articles 6, 7 and 8 (International Criminal Court, 'Elements of Crime' (adopted 9 September 2002, entered into force 9 September 2002) ICC-ASP/1/3 (part II-B)).

<sup>67</sup> Zahar and Sluiter (n 65) 220.

<sup>68</sup> Zahar and Sluiter explain that whilst this separation may be plausible and logical, it is not always feasible because complicity in genocide, for example, is charged as a crime in itself, not a mode of commission or liability (ibid).

<sup>69</sup> Rome Statute, Art 30(1).

<sup>70</sup> UNSC, 'Final Report of the United Nations Commission of Experts established pursuant to Security Council Resolution 780 (1992) Annex X Mass graves' (28 December 1994) UN Doc S/1994/674/Add/2 (Vol.V), 2.

- recover, record, examine and interpret material to provide relevant, previously unknown information;
- collate the results in a report for the prosecution, or the defence, and for presentation in court; and
- present verbal evidence as expert witnesses during trials.<sup>71</sup>

Historically, there are some noteworthy mass graves that were investigated and documented for various reasons. In 1943, for example, the Nazi government established an international commission of professors in forensic medicine to investigate the massacre of some 15,000 Polish prisoners of war in the Katyn forest, who had been executed on the orders of the Soviet Politburo.<sup>72</sup> In an attempt to dispel rumours that would attribute these deaths to Nazi war crimes, the findings showed that the Poles had been shot in spring 1940 prior to the German occupation in June 1941. The Soviets denied these findings and, on reoccupying the territory around Katyn, established a commission of their own which attributed the killings to the Germans. The availability of Soviet documents after the fall of communism in the 1990s revealed that the Soviet allegations were false and that the deaths of the Polish prisoners were not acts of Nazi Germany.<sup>73</sup> Four decades after the Katyn massacre, in response to Argentina's request for help in exhuming and identifying individuals who had disappeared during the military junta regime of the 1970s and early 1980s, a delegation of forensic scientists investigated human rights' violations in Argentina.<sup>74</sup> Under the direction of forensic anthropologist Dr Clyde Snow, the Argentine Forensic Anthropology Team (EAAF) was created. Since then a number of anthropological teams have been founded in Latin America to facilitate the exhumation and identification of missing persons in places such as Guatemala and Peru. As part of Australia's war crimes prosecution efforts, other World War II related mass graves in the Ukraine (Sernik and Ustinovka) dating from 1942 were excavated, revealing massacres of Jewish victims.<sup>75</sup> Bodies in the graves had been numbered and examined mostly *in situ* for sex, age and injuries. According to the forensic archaeologist in charge, at the Ustinovka site the crimes

had a particularly atrocious component. Shot first were 140 adults. Then 20 children were brought in a cart to the grave. They were thrown in and those whose necks were not broken were shot as they lay in a crumpled heap. That's what the witness said. That's what our excavations revealed.<sup>76</sup>

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<sup>71</sup> See P Cobb, 'Forensic Science' in: P White (ed), *Crime Scene to Court. The Essentials of Forensic Science* (The Royal Society of Chemistry, Cambridge 1998).

<sup>72</sup> G Sanford, 'The Katyn Massacre and Polish-Soviet Relations, 1941-43' (2006) 41 *Journal of Contemporary History* 95 and WD Haglund, 'Recent Mass Graves: An Introduction' in: WD Haglund and MH Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (CRC Press, Boca Raton 2002).

<sup>73</sup> Sanford (ibid).

<sup>74</sup> DW Steadman and WD Haglund, 'The Scope of Anthropological Contributions to Human Rights Investigations' (2005) 50 *Journal of Forensic Sciences* 23.

<sup>75</sup> R Wright, 'Tales of Atrocity from the Grave' *The Australian* (17 May 2006) Higher Education 47.

<sup>76</sup> Ibid.

The *ad hoc* Tribunals have, however, pioneered the systematic application of multi-disciplinary forensic teams on a large scale. After exhumations by the Boston based NGO Physicians for Human Rights (PHR) for the ICTR at two sites in Rwanda (the church in Kibuye and the Amgar Garage in Kigali) to be used in the *Kayishema* and *Rutaganda* trials,<sup>77</sup> forensic investigations followed in 1996 for the ICTY at sites in Bosnia and Croatia.<sup>78</sup> In the following years (1997-2001), the Office of the Prosecutor decided to assemble and send its own forensic teams into the field. Local forensic commissions, the International Committee of the Red Cross (ICRC), the International Commission for Missing Persons (ICMP) and the United Nations Mission in Kosovo (UNMIK) Office on Missing Persons and Forensics (OMPF) have continued this work, albeit with the emphasis on humanitarian goals, the identification and repatriation of the dead, as opposed to prosecutorial requests.

Essentially, forensic investigations are undertaken for two reasons: to respond to the humanitarian needs arising from human rights' violations and conflicts or to satisfy legal, evidentiary requirements. One does not necessarily exclude the other, but, as this thesis will show, the mandate of missions influences the way in which forensic investigations are conducted. Table 1 outlines what the phases of such multi-disciplinary forensic investigations tend to look like.

<i>Request</i>	<i>Team Formation</i>	<i>Advance Preparations</i>	<i>Exhumation</i>
Governments Intergovernmental organisations Non-governmental organisations Victims' relatives	Forensic pathologists Forensic anthropologists Forensic geneticists Forensic odontologist Forensic archaeologist Forensic investigators Other experts: Technicians, secretaries, scene of crime officers etc.	Mandate Tasks Equipment Working instructions Health and safety issues Leaves of absence Insurance Explosive ordnance disposal	Equipment Site security Chain of custody Logistics Health and safety Database management
<i>Transportation</i>	<i>Autopsy</i>	<i>Documentation</i>	<i>Reporting</i>
Individual-resistant body bags Chain of custody	Equipment Model protocol Chain of custody Samples	Autopsy report X-rays Photographs Videos Laboratory results	Commissioner Team Public Media

*Table 1: Schematic Representation of Initial Phases in an International Forensic Mission*<sup>79</sup>

<sup>77</sup> JP Baraybar, V Brasey and A Zadel, 'The Need for a Centralised and Humanitarian-based Approach to Missing Persons in Iraq: An Example from Kosovo' (2007) 11 *The International Journal of Human Rights* 265, 268.

<sup>78</sup> Haglund (n 72).

<sup>79</sup> Source: Adapted from J Rainio, 'International Forensic Investigations: Legal Framework, Organisation and Performance' in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Springfield 2007) 5.

Although this thesis concentrates on forensic investigations instigated by international criminal tribunals, it should be noted that the initial request to conduct forensic investigations can come from various sources. For both humanitarian and investigative purposes, the teams tend to comprise many experts specialising in various areas of forensic science, such as forensic archaeology, anthropology and pathology. After advance preparations, the mission in the field starts with the location of the grave or body processing site and the excavation. The recovered and recorded bodies are then transported to the mortuary where autopsies are performed, whilst other artefacts from the grave may be sent off to laboratories for further analysis. All findings need to be analysed, recorded and interpreted before they are made available to the relevant authorities.



## 2. Research Aims and Objectives

### 2.1. The Problem

To date, no systematic research into the interaction between international criminal law and forensic science within transitional justice contexts has been conducted. Whilst the creation of the UN international criminal tribunals, their sources of law, jurisdiction, the substantive and procedural aspects of prosecution as well as their structure and administration have been (and continue to be) meticulously researched,<sup>80</sup> and forensic scientists have shared their experiences from mass graves,<sup>81</sup> the relationship between international criminal law and forensic science remains largely ignored. As forensic experts from the disciplines of forensic archaeology, anthropology and pathology have

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<sup>80</sup> E.g. A Cassese, *International Criminal Law* (2nd edn Oxford University Press, New York 2008); WA Schabas, *The UN International Criminal Tribunals: The Former Yugoslavia, Rwanda and Sierra Leone* (Cambridge University Press, Cambridge 2006); G Boas, 'Creating Laws of Evidence of International Criminal Law: The ICTY and the Principle of Flexibility' (2001) 12 *Criminal Law Forum* 41; G Boas 'A Code of Evidence and Procedure for International Criminal Law? The Rules of the ICTY' in: G Boas and WA Schabas (eds), *International Criminal Law Developments in the Case Law of the ICTY* (Martinus Nijhoff Publishers, Leiden 2003); A Zahar and G Sluiter, *International Criminal Law. A Critical Introduction* (Oxford University Press, Oxford 2008); R May and M Wierda, 'Trends in International Criminal Evidence: Nuremberg, Tokyo, The Hague, and Arusha' (1999) 37 *Columbia Journal of Transnational Law* 725; KD Rutledge, "'Spoiling Everything" - But for whom? Rules of Evidence and International Criminal Proceedings' (2003) 16 *Regent University Law Review* 151; P Murphy, 'Excluding justice or facilitating justice? International criminal law would benefit from rules of evidence' (2008) 12 *International Journal of Evidence and Proof* 1 and B Van Schlaack and RC Slye, *International Criminal Law and Its Enforcement* (Foundation Press, New York 2007).

<sup>81</sup> E.g. S Schmitt, 'Mass Graves and the Collection of Forensic Evidence: Genocide, War Crimes, and Crimes against Humanity' in: WD Haglund and MH Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (CRC Press, Boca Raton 2002); WD Haglund, 'Recent Mass Graves: An Introduction' in: WD Haglund and MH Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (CRC Press, Boca Raton 2002); ME Keough, T Simmons and M Samuels, 'Missing Persons in Post-conflict Settings: Best Practices for Integrating Psychosocial and Scientific Approaches' (2004) 124 *The Journal of the Royal Society for the Promotion of Health* 271; JP Baraybar, V Brasey and A Zadel, 'The Need for a Centralised and Humanitarian-based Approach to Missing Persons in Iraq: An Example from Kosovo' (2007) 11 *The International Journal of Human Rights* 265; J Rainio, 'International Forensic Investigations: Legal Framework, Organisation and Performance' in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Springfield 2007); JP Baraybar and M Gasior, 'Forensic Anthropology and the most probable Cause of Death in Cases of Violations against International Humanitarian Law: An example from Bosnia and Herzegovina' (2006) 51 *Journal of Forensic Sciences* 103; WD Haglund and S Sirkin, 'Surviving with the Dead: Forensic Investigations in the Service of Human Rights' in: Y Danieli (ed), *Sharing the Frontline and the Back Hills: International Protectors and Providers: Peacekeeping, Humanitarian Aid Workers and the Media in the midst of Crisis* (Baywood, New York 2001); R Wright and I Hanson, 'How to do Forensic Archaeology under the Auspices of large Organisations like the UN' in: S Blau and DH Ubelaker (eds), *Handbook of Forensic Archaeology and Anthropology* (Left Coast Press, Walnut Creek 2009) and J Hunter and B Simpson, 'Preparing the Ground: Archaeology in a War Zone' in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Illinois 2007).

given evidence during international criminal proceedings and hence had the greatest degree of interaction with investigative and legal representatives, it is those forensic sciences the research focuses on. The following three knowledge gaps relating to the interaction between forensic science and international criminal law are apparent:

1) Neither the legal nor the forensic literature attempts to integrate forensic findings and legal outcomes to evaluate the use of such evidence during proceedings<sup>82</sup> and its effect on judicial outcomes,<sup>83</sup> nor has the wider context impacting upon the value of forensic missions for prosecutions been analysed.

2) Although the use of scientific evidence in court has been explored in various national settings,<sup>84</sup> this has yet to be related to an international legal framework: to date, no discussion about the differences inherent in the disciplines of international criminal law and forensic science from mass graves exists, nor has any attention been paid as to how the disciplines' working processes and professional standards might affect their interaction.

3) Despite occasional recommendations from forensic science professionals as to how the interaction between employing authority and forensic experts could be improved from the forensic point of view,<sup>85</sup> there is little information as to the way in which the various professions (lawyers, forensic experts and investigators) interact during such missions. Furthermore, there is no holistic assessment which takes into account views from all professions as to the way working processes could be improved.

Research to fill the above knowledge gaps is not only justified but also timely and critical: Firstly, the novelty of the forensic operations under the auspices of the ICTY led

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<sup>82</sup> An exception to this gap is the Masters thesis on the methods used to prove death at the ICTY by Jennifer Beatty (J Beatty, *Proof of Death: An Analysis of Methods that the International Criminal Tribunal for the Former Yugoslavia used to Establish Death* (MA thesis, Michigan State University 2005).

<sup>83</sup> Hunter and Simpson (n 81).

<sup>84</sup> Neil Browne and his colleagues concentrate on expert testimony in the US, England, Korea and France (NM Browne, CL Williamson and LL Barkacs, 'The Perspectival Nature of Expert Testimony in the United States, England, Korea and France' (2002) 18 Connecticut Journal of International Law 55); Sheila Jasanoff and Gary Edmond examine the use of science in US and Australian courts respectively (S Jasanoff, 'Just Evidence: The Limits of Science in the Legal Process' (2006) 34 Journal of Law, Medicine & Ethics 328; S Jasanoff, 'What Judges should know about the Sociology of Science' (1992) 32 Jurimetrics 345; S Jasanoff, 'Law's Knowledge: Science for Justice in Legal Settings' (2005) 95 American Journal of Public Health 49; G Edmond, 'Science, Law and Narrative' (1999) 23 Southern Illinois University Law Journal 555); Willmore and Roberts examine the situation in the UK (P Roberts and C Willmore, 'The Role of Forensic Science Evidence in Criminal Proceedings' (Royal Commission on Criminal Justice Research Study No 11) (HMSO, London 1993); C Willmore, 'Codes of Practice: Communicating between Science and Law' in: M Freeman and H Reece (eds), *Science in Court. Issues in Law and Society* (Ashgate, Aldershot 1998)) whilst Redmayne looks more holistically at the difficulties and shortfalls associated with expert evidence (M Redmayne, *Expert Evidence and Criminal Justice* (Oxford University Press, Oxford 2001).

<sup>85</sup> M Skinner and J Sterenberg, 'Turf Wars: Authority and Responsibility for the Investigation of Mass Graves' (2005) 151(2) Forensic Science International 221; Wright and Hanson (n 81); Baraybar, Brasey and Zadel (n 81).

to reported 'deployment chaos'<sup>86</sup> adversely affecting forensic missions; secondly, international criminal justice provisions are on the increase and have become firmly institutionalised for the future; thirdly, the sad reality is that atrocity crimes resulting in unexplored mass graves are still being committed; consequently, demand for integrated, improved transitional justice provisions is on the increase. The exploration of the interface between forensic science and international criminal law is all the more important as some transitional justice scholars believe that one rationale for, and a function of, justice is to create an accurate historical record.<sup>87</sup>

## **2.2. Aims and Objectives**

The main aim of this thesis is to facilitate a better understanding and provide recommendations for future interaction between forensic science from mass graves and international criminal law as part of transitional justice provisions. Increased knowledge about the value of forensic science for international criminal prosecutions, as well as the theoretical and practical facets of such interaction, are believed to enhance both theory and practice for future forensic investigations. Through the examination of two case studies, the ICTY and the ECCC, and the analysis of the roles and views of carefully selected individuals with experience in prosecution, defence, forensic investigation or crime scene investigation, the research illustrates the reasons for the 'forensic science-international criminal law interface'. Furthermore it assesses the potential, value and inherent problems of this relationship. 30 semi-structured in-depth interviews with individuals having direct experiences from the former Yugoslavia or Cambodia were conducted. Analysis of the data produces recommendations how to improve understanding, theory and practice for future investigations. To achieve this goal, the thesis is split into three distinct findings and analysis chapters, all of which draw their conclusions from the interviews, literature, and – where applicable – case law and trial transcripts.

1) The first findings and analysis chapter examines the value of forensic science for prosecution purposes, whilst acknowledging the wider transitional justice context that is likely to impact upon the usefulness of forensic science.

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<sup>86</sup> M Cox, A Flavel and I Hanson, 'Introduction and Context' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) 17.

<sup>87</sup> Scharf and Williams, for example, believe that the creation of a historical record is one element of the justice process needed to create peaceful societies after war:

These include establishing individual responsibility and denying collective guilt, dismantling and discrediting institutions and leaders responsible for the commission of atrocities, establishing an accurate historical record, providing victim catharsis, and promoting deterrence (MP Scharf and PR Williams, 'The Functions of Justice and Anti-Justice in the Peace-Building Process' (2003) 35 *Case Western Reserve Journal of International Law* 161, 170).

The objectives are to

- identify what role forensic science plays within international prosecutorial strategies;
- analyse the importance of forensic evidence in proving the commission of crimes;
- examine the scope of physical evidence that can be retrieved from mass graves;
- assess the importance of the wider context, such as politics, NGOs, the local community and victims' rights on the value of forensic investigations of mass graves and what obligations this may pose for the experts and the employing institution.

2) Edmond (1998) observes that 'the law-science relationship is often portrayed as an uncomfortable alliance';<sup>88</sup> therefore the second part will relate an established debate on law and science to the new context of mass grave investigations and international criminal proceedings. The chapter

- clarifies the 'scientificness' of forensic sciences used at mass graves;
- explores the creation of 'forensic truth' during forensic investigations;
- explains the normative elements governing forensic professionals;
- analyses the legal proceedings affecting the use of 'forensic truth';
- examines how 'forensic science' enters the legal narratives and judgments.

3) In order to produce practical recommendations as to how to improve the interaction between the various professions involved during international forensic missions, the last findings and analysis chapter concentrates on

- outlining the exchanges that occur between the actors (forensic experts, lawyers and investigators) during the various phases of the interaction (pre-investigation, investigation, trial and beyond);
- examining the issues that are likely to arise during such interaction;
- generating recommendations to facilitate better understanding and interaction during future missions.

These three levels of analysis will 1) provide a comprehensive and realistic view of the usefulness of forensic science, 2) discuss the conceptual differences between forensic science from mass graves and international criminal law, and 3) outline how the practical interaction between the professions in the field can be improved.

### **2.3. Research Values**

Since the creation of the ICTY, the perceived value of forensic science missions in post-conflict situations has gained momentum. The UN Office of the High Commissioner for

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<sup>88</sup> G Edmond, 'Science in Court: Negotiating the Meaning of a 'Scientific' Experiment During a Murder Trial and Some Limits to Legal Deconstruction for the Public Understanding of Law and Science' (1998) 20 Sydney Law Review (1998) 361, 361.

Human Rights has explicitly recognised forensic sciences' significance for justice and reconciliation purposes, stating

that forensic investigations can play an important role in combating impunity by providing evidentiary basis on which prosecutions can successfully be brought against persons responsible for grave violations of human rights and international humanitarian law.<sup>89</sup>

This, together with an endorsement of the importance of forensic science in the Brahimi report,<sup>90</sup> the prediction that the involvement of forensic scientists during investigations into human rights abuses will increase,<sup>91</sup> and a functioning International Criminal Court, shows the need for practitioners to be aware of the potential and scope of forensic science work during international criminal missions. It is anticipated that the use of expert-witnesses will continue to be imperative for future administration of international justice because of the complexity of trying perpetrators accused of genocide, crimes against humanity, war crimes and/or the crime of aggression, thus rendering this study particularly useful to lawyers practising international criminal law.

Furthermore, recent developments in international human rights and international humanitarian law 'evidence a wide movement towards the recognition of rights of victims of crime, whether domestic or international, of gross violations of human rights'<sup>92</sup> which encompasses the need for victims and their families to know the truth about what happened to their loved ones and demands that the bodies of those disappeared are recovered, identified and buried.<sup>93</sup> The 2006 International Convention for the Protection of All Persons from Enforced Disappearance<sup>94</sup> reiterates the need to exhume, identify and return the remains in the case of a disappeared person's death.<sup>95</sup> Moreover, the convention explicitly states in Article 5 that 'the widespread or systematic practice of

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<sup>89</sup> UNCHR, 'Human Rights and Forensic Science: Human Rights Resolution 2005/26' (19 April 2005) UN Doc E/CN.4/2005/L.10/Add.11.

<sup>90</sup> The report specifies:

Where justice, reconciliation and the fight against impunity require it, the Security Council should authorize such experts, as well as relevant criminal investigators and forensic specialists, to further the work of apprehension and prosecution of persons indicted for war crimes in support of United Nations international criminal tribunals (UNGA and UNSC, 'Report of the Panel on United Nations Peace Operations' (21 August 2000) UN Doc A/55/305-S/2000/809, para 39).

<sup>91</sup> R Ferllini, 'The Development of Human Rights Investigations since 1945' (2003) 43(4) *Science & Justice* 219.

<sup>92</sup> C Bassiouni, 'International Recognition of Victims' Rights' (2006) 6(2) *Human Rights Law Review* 203, 203.

<sup>93</sup> UNGA Res 60/147 Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (16 December 2005) UN Doc A/RES/60/147, Art 22(c). The 1949 Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War already specified that in case of death, internees should be, where possible, buried in individual graves that are properly maintained and marked (Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 288, Art 130).

<sup>94</sup> UNGA Res 61/177 International Convention for the Protection of All Persons from Enforced Disappearance (20 December 2006) UN Doc A/RES/61/177.

<sup>95</sup> *Ibid* Art 15.

enforced disappearance constitutes a crime against humanity as defined in applicable international law',<sup>96</sup> thus demanding prosecutorial and investigative actions. For international lawyers, criminal investigators and forensic practitioners alike, these developments arguably underline the need for forensic professionals to be involved in humanitarian as well as criminal interventions, re-emphasising the importance of experiences in the former Yugoslavia and other contexts, such as the ECCC, for future prosecutions. Advancing understanding about the contribution of mass grave evidence, the creation of 'forensic truth', the use of this 'forensic truth' in the administration of international criminal justice fits well with the need for integrated, coordinated and cooperative approaches within transitional justice provisions.

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<sup>96</sup> Ibid Art 5.

### 3. Methodology

No previous research has been conducted into the interaction between forensic science from mass graves and international criminal investigations, as discussed in the previous chapter. Given this gap in the existing knowledge, primary data collection and analysis was necessary to complete this study and specifically examine the following three key areas:

- 1) to analyse the value and utilisation of forensic science from mass graves during international criminal prosecutions and in the wider context of transitional justice;
- 2) to explore conceptual and theoretical differences and similarities between forensic science and international criminal law; and
- 3) to provide recommendations to foster a better understanding between the professions involved during forensic investigations into mass graves.

In line with Blackburn's (2006) truism that '[r]eflection must take off from where we stand',<sup>97</sup> the question of where this research rests, both in terms of the academic field and its underlying philosophical assumptions, is crucial. This research brings together two disciplines and intends to address legal, forensic and investigative professionals involved in international investigations, yet it employs neither methodologies adopted solely within criminal law nor those usually found within the positivist tradition of natural sciences. It does not hinge on a hypothesis to be tested through measuring and quantifying data, from which logic dictates what to infer or deduce. Instead the study rests within the tradition of human and social sciences and is concerned with advancing academic understanding, clarifying dynamics and relationships that remain unexplored to date and 'producing knowledge to inform and direct social change'.<sup>98</sup> It is an explorative study and the appropriate methodological approach is qualitative in nature, drawing on the fluidity and flexibility qualitative inquiries offer.<sup>99</sup>

#### 3.1. Qualitative Research

Due to the complexity of the research area and the significant gaps in understanding that currently exist, qualitative research methods are best suited for this type of exploratory and mostly inductive research as they are not limited by the preconceived ideas of the researcher; qualitative tools enable the subject to be probed in-depth ensuring that the key points are identified.<sup>100</sup> Qualitative research is particularly useful when the initial research questions are generic and variable in their degrees of

<sup>97</sup> S Blackburn, *Truth: A Guide for the Perplexed* (Penguin, London 2006) 129.

<sup>98</sup> A Clarke, 'Research and the Policy-making Process' in: N Gilbert (ed), *Researching Social Life* (2nd edn, Sage, London 2001) 30.

<sup>99</sup> L Richards, *Handling Qualitative Data. A Practical Guide* (Sage, London 2005).

<sup>100</sup> JW Creswell, *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (Sage, London 2008).

explicitness.<sup>101</sup> In particular for explorative studies, like the one presented here, where little prior theory is available, qualitative research assists in developing theory and concepts or knowledge production if the research is instrumentally oriented.<sup>102</sup>

From the initial steps involved in qualitative research, 1) the selection of relevant subjects and site(s), 2) data collection and 3) data interpretation, the emerging concepts are usually arrived at inductively from the collected data.<sup>103</sup> Reported findings within a qualitative study tend to be more descriptive, placing emphasis on the context surrounding the phenomenon that is being investigated.

Bryman (2008) summarises that, as opposed to quantitative research approaches, qualitative research tends to operate with words and not numbers when presenting its findings. It is concerned with representing the research participants' views accurately, which means that the researcher may need to establish a relationship with the research participants to gain this understanding. Therefore, the process of conducting qualitative research is dynamic and often unstructured to provide the researcher with this possibility. Unlike quantitative research which is designed to test theories and hypotheses, in qualitative research theory emerges from the data collected whilst being mindful of the context in which the research was conducted. Through qualitative research tools and the researcher's prolonged involvement in a setting, rich data from natural settings is collected, often providing a micro or small-scale view of a phenomenon,<sup>104</sup> such as the interaction between forensic science and international criminal law in the narrowly defined context of international prosecutions.

### **3.2. Realism, Constructivism and Critical Realism**

No matter whether quantitative or qualitative research is conducted, the epistemological starting point needs to be clear. A realist perspective assumes that a reality exists outside our individual consciousness. This notion of reality leads us to the ontological question as to what reality encompasses. Reality, for the purpose of this study, refers not only to the material world but also to the existence of an independent mind and its relationship to that material world. Realists offer a description of the world;<sup>105</sup> the story naïve realists tell and believe in represents, and corresponds with, facts of the world. The world, or reality, is organised in a certain way that makes the account either true or false.<sup>106</sup> Similarly, those subscribing to scientific realism would want to add that it is through the right scientific methods that a true representation of reality can be

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<sup>101</sup> A Bryman, *Social Research Methods* (3rd edn Oxford University Press, Oxford 2008).

<sup>102</sup> Ibid. See also Clarke (n 99).

<sup>103</sup> JW Creswell, *Qualitative Inquiry and Research Design: Choosing among Five Traditions* (Thousand Oaks, Sage 1998).

<sup>104</sup> Bryman (n 101).

<sup>105</sup> Blackburn (n 97).

<sup>106</sup> Ibid.



obtained.<sup>107</sup> There is, however, 'a tricky requirement' with these stories: 'This is that the facts or aspects of the world that make commitments true or false be 'mind independent', or not of our own making'<sup>108</sup>. Realists are confident that their story is indeed *the* theory with a distinctive content that best defines reality. This is where the constructivist parts company with the realist as the former believes that the things being investigated can be seen from different angles, in different lights and might not deserve to be called 'true' or 'false'.<sup>109</sup> There may indeed be norms and reasons why we accept a specific account as truthful or not but this can be down to us, rather than 'simply read off from the world'<sup>110</sup>. The knowledge which constructivists are able to generate can thus only remain hypothetical by nature with varying degrees of plausibility, causality and coherence<sup>111</sup> as they are not necessarily compatible with the external world.

The study design incorporates both realist and constructivist views as it would be misleading to think that there is a straightforward and clear-cut choice between being a realist and a non-realist about a particular subject matter. It is rather the case that one can be more-or-less realist about a particular subject matter.'<sup>112</sup>

Therefore, the epistemology adopted here is best described as *critical realism*, which admits inherent subjectivity during knowledge production<sup>113</sup> and aims to consider extrinsic and intrinsic factors that might affect social interaction and the knowledge thereof, thus refuting that one unified scientific method would allow for the discovery of

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<sup>107</sup> A Madill, A Jordan and C-Shirley, 'Objectivity and Reliability in Qualitative Analysis: Realist, Contextualist and Radical Constructionist Epistemologies' (2000) 91 *The British Psychological Society* 1, 3.

<sup>108</sup> Blackburn (n 97) 116.

<sup>109</sup> As Nietzsche points out in an extract of *The Gay Science*:

How far the perspective character of existence extends or indeed whether existence has any other character than this; whether existence without interpretation, without "sense", does not become "nonsense"; whether, on the other hand, all existence is not essentially actively engaged in interpretation - that cannot be decided even by the most industrious and most scrupulously conscientious analysis and self-examination of the intellect; for in the course of this analysis the human intellect cannot avoid seeing itself in its own perspectives, and only in these. We cannot look around our own corner: it is a hopeless curiosity that wants to know what other kinds of intellects and perspectives there might be [...]. But I should think that today we are at least far from the ridiculous immodesty that would be involved in decreeing from our corner that perspectives are permitted only from this corner. Rather has the world become "infinite" for us all over again, inasmuch as we cannot reject the possibility that it may include infinite interpretations.' (F Nietzsche, *Die Fröhliche Wissenschaft* (KSA 3) (dtv, München 1999), para 374; English translation from <[http://users.compaqnet.be/cn127103/Nietzsche\\_the\\_gay\\_science/the\\_gay\\_science.htm](http://users.compaqnet.be/cn127103/Nietzsche_the_gay_science/the_gay_science.htm)> accessed 23 April 2009).

<sup>110</sup> Blackburn (n 97) 126.

<sup>111</sup> G Roth, *Das Gehirn und seine Wirklichkeit. Kognitive Neurobiologie und ihre philosophischen Konsequenzen* (Suhrkamp, Frankfurt am Main 1997).

<sup>112</sup> A Miller, 'Realism' *Stanford Encyclopedia of Philosophy* <<http://plato.stanford.edu/entries/realism/>> accessed 8 November 2007.

<sup>113</sup> Madill, Jordan and Shirley (n 108) 3.

the truth. Yet, correspondence between reality and the way it is perceived is to some degree assumed.

### **3.3. Case Studies and Interviews**

There are a number of reasons to identify and study case studies in order to understand a phenomenon. Case studies entail 'the detailed and intensive analysis of a single case'<sup>114</sup> and provide context-dependent knowledge.<sup>115</sup> Precisely because of the level of detail the study of a single setting provides, case studies generate a 'nuanced view of reality' which helps to create very practical knowledge as opposed to purely theoretical universals.

- 1) Despite an earlier observation that generalisations in the field of transitional justice are difficult to make, the study of individual cases is nonetheless vital in contributing to the discovery of generalisations because of the persuasiveness of examples.
- 2) In strategically choosing case studies, for example through examining representative, revealing or critical cases, information is generated from which logical deductions can be made. Whilst the Yugoslavian case study can be described as a 'revelatory' case through which the researcher can study a previously unknown phenomenon, it is also the only real exemplifying case in relation to forensic science investigations of mass graves for international prosecutions.<sup>116</sup> Cambodia, on the other hand, represents a more unique case which can be contrasted with the very differing realities of the Yugoslavian context (see sections 4.1. and 4.2.).
- 3) Contrary to the commonly held view that case studies tend to be chosen to verify the researcher's preconceptions, Flybjerg (2004) suggests that researchers engaging in case studies demonstrate a greater bias towards falsification of preconceived notions than towards verification, thus adhering to best practices from scientific research: aiming to falsify hypotheses.<sup>117</sup> Contrasting the two selected case studies with one another helps to question any preconceived ideas.

In sum, case studies have been selected as part of the methodological approach because they are an effective tool for cumulatively developing knowledge. Within the

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<sup>114</sup> Bryman (n 101) 52.

<sup>115</sup> In the next passage I follow an exposition by Bent Flybjerg adapting it to the methodological specifics of this study (B Flybjerg, 'Five Misunderstandings about Case Study Research' in: C Seale and others (eds), *Qualitative Research Practice* (Sage, London 2004)).

<sup>116</sup> Apart from Rwanda where only two mass graves were excavated for international investigations and East Timor where forensic activities concentrated predominantly on single graves, the Argentinian or Guatemalan mass grave excavation efforts were not for international prosecution purposes and do thus not qualify as suitable case studies.

<sup>117</sup> Flybjerg (n 115) 429.

boundaries of the two case studies, the method adopted to generate the primary data was through interviews.

Interviews can facilitate the approximation to reality through a multitude of expressed views. Selecting semi-structured, in-depth interviews as the preferred method of obtaining data, the researcher assumes that the accounts which interviewees give have a relation with the 'real' experiences providing an insight into their experiences which are relevant to the research topic.<sup>118</sup> After all, lawyers subscribe to a legal positivist position as far as the interpretation of the letter of the law is concerned and forensic experts subscribe to scientific positivism. This is essentially a realist premise. However, accounts made during an interview occur through interaction of the speakers: 'Interviews are, by their very nature, social encounters where speakers collaborate in producing retrospective (and prospective) *accounts* or *versions* of their past (or future) actions, experiences, feelings and thoughts'<sup>119</sup>. This situation itself gives credit to the constructivist view that our knowledge is dependent on social interaction, perception and assumptions. Interviews can be described as generating two types of data:

- *Interview-data-as-resource*: the interview data collected is seen as (more or less) reflecting the interviewees' reality outside the interview.
- *Interview-data-as-topic*: the interview data collected is seen as (more or less) reflecting a reality jointly constructed by the interviewee and interviewer.<sup>120</sup>

The notion of 'more-or-less' described in each conception of interview data re-emphasises the apparent epistemological dilemma of this research which has been resolved through the adoption of critical realism. Through selecting interviews as the method of obtaining primary data, both the realist and constructivist epistemic standpoints are relevant. Whilst the researcher, in line with critical realism, is more aligned towards 'interview-data-as-resource', both concepts were kept in mind during the interview question design and analysis to enable the researcher to determine when to take narratives at face value and when to contextualise. Constructivist related issues will become more apparent during the data-analysis phase when attention must be paid to the contextual, institutional, biographical and, to a certain extent, political elements that might have influenced interviewees' accounts, especially when attributing weight to the statements made.

The author recognises that for the study of interaction between parties, methods such as ethnography are ideal for understanding the complexity of relationships. Apart from the practical problem that ethnography relies on interaction actually occurring *in vivo* at the time the research is being conducted, which specifically for the ICTY is *not*

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<sup>118</sup> N King, 'Using Interviews in Qualitative Research' in: C Cassell and G Symon (eds), *Essential Guide to Qualitative Methods in Organizational Research* (Sage, London 2004a).

<sup>119</sup> T Rapley, 'Interviews' in: C Seale and others (eds), *Qualitative Research Practice* (Sage, London 2004) 16.

<sup>120</sup> *Ibid.*

possible, other than in the courtroom,<sup>121</sup> ethnographic research would have serious ethical ramifications that might impede the principles of *Beneficence* ('do positive good') and *Non-Maleficence* ('do no harm') to which the researcher subscribes. Findings from research *in vivo* could potentially: 1) jeopardise the admissibility of evidence at the trials and thus impact on the course of justice, 2) have an unforeseen impact on the participants working for ICTY investigations, and 3) affect the victim's family given that the victims invariably become part of the study. It is therefore believed that semi-structured or thematic interviews within case studies provide the optimum way of generating the depth, variety and complexity of the subject required, allowing the interviewer the possibility to fine-tune the questions as necessary and glean a rich depth of understanding.

### **3.4. Research Process**

The following steps were undertaken to conduct this research:

- 1) continuous review of the literature from the start of the research project until the end of the analysis phase where literature was used to inform and validate themes emerging from the data;
- 2) scoping study to better understand the issues discerned from the literature involved during the 'forensic science-international criminal law interface';
- 3) case study research comprising interviews, site visits and secondary materials such as case law;
- 4) analysis of the generated data; and
- 5) reporting of the findings.

#### **3.4.1. SCOPING STUDY**

Initially the study was conceived to illuminate cooperation between the various *professions* involved in forensic investigations for prosecutorial purposes. Therefore a scoping study was devised probing forensic experts as to what type of interaction was needed during various stages of forensic missions and what issues might arise when interacting with lawyers and investigators. The design of the scoping study was informed by literature from the fields of forensic science and organisational/cooperation research. The scoping study consisted of 10 informal though semi-structured discussions in conjunction with a poster presentation<sup>122</sup> and was conducted in December 2006. A convenience sample was used from a population consisting of forensic experts from a diverse range of disciplines all of whom had experience within criminal investigations. This research sought to confirm preliminary assumptions made by the researcher as to the type and level of interaction needed and probing for the issues that might arise

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<sup>121</sup> For example *Prosecutor v Popović et al.*, Case No IT-05-88.

<sup>122</sup> See Appendix A.

during the interaction. The discussions did not require recording or transcription, as the researcher took notes on a pre-prepared discussion guide (see Figure 4) to ensure that the participants' views and thoughts were easily captured.

Name:											
Profession:											
1. Motivations for Cooperation:											
2. Cooperation Types / where	Pre-Investigation Plan SOPs		Investigation				Trial		Identifi	Capacity-Building	
	Plan	SOPs	Loc	Site	Mort	Lab	Doc	Test	Brief	cation	Building
Communication											
Dialogue											
Advice											
Strategic Alliance											
Partnership											
Other											
Reasons:											
Additional Comments:											
3. Difficulties within Cooperation:											
4. Intentional Outcomes of Cooperation:											
5. Unintentional Outcomes of Cooperation:											
6. What is the role of the crime scene investigator? Where does he come into play?											
Email:											

Figure 4: Discussion Guide, Scoping Study (Inforce Conference, 14-16 December 2006)

Through these discussions, the researcher's awareness was raised as to the themes and issues likely to be relevant during the 'forensic science-international criminal law' interface and was able to distil some of the key features and *a priori* themes and categories for the study design. The discussions also corroborated the need to include investigators into the primary data collection phase given that they were perceived as a 'link' between the forensic expert and the lawyers. Findings from the scoping study are presented in Appendix B and discussed in relation to the research themes in section 3.4.3.2.

### 3.4.2. SITE VISITS AND SECONDARY MATERIALS

The author had the opportunity to visit a mass grave site in the area of Srebrenica<sup>123</sup> and gained an insight into how work at the site was conducted. Furthermore, the author travelled to The Hague to observe the testimony of ICTY investigator Dean Manning during the *Popović et al.* trial (10-11 December 2007). Additional resources such as forensic reports, trial transcripts and video documentation from the *Milošević* trial (available at <http://hague.bard.edu/video.html>) provided further information about the interaction between forensic experts, lawyers and judges during expert witness testimony at the ICTY.

### 3.4.3. INTERVIEWS

The main field research consisted of 30 semi-structured in-depth interviews; ten relating to the Cambodian and 20 to the ICTY case study. It was necessary to conduct more interviews in relation to the former Yugoslavia case study given the extensive use of forensic science during mass grave investigations, whilst for the ECCC, despite the vast number of victims buried in mass graves, no mass grave investigations for prosecutorial purposes had been undertaken. The interviews were conducted between April 2007 and March 2008 and typically lasted between one and two hours (the average was 66 minutes). Where possible, interviews were conducted face-to-face in Cambodia, Thailand, the United Kingdom and the Netherlands. However, where availability and accessibility of interviewees was difficult, interviews were conducted by telephone. Two interviews were complemented by further data generated through email exchange with the interviewee. In addition, five personal communications<sup>124</sup> were conducted via email or telephone, concentrating on more specific questions to complement the data set.

Prior to the interview, the nature of the research and its implications were explained to the interviewees. An interview consent form (see Appendix D) was devised to guarantee the interviewee's anonymity and confidentiality as well as to give the researcher the right to use the transcripts for scholarly purposes.

#### 3.4.3.1 Interview Sample

Interviewees, who are active (or former) agents regarding the 'forensic science-international criminal law interface', were carefully selected through judgment sampling<sup>125</sup> (due to their first-hand experience of forensic science during international

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<sup>123</sup> See Appendix C.

<sup>124</sup> The personal communications were conducted with one lawyer, forensic scientist, law academic, outreach worker and former forensic coordinator.

<sup>125</sup> HR Bernard, *Research Methods in Anthropology: Qualitative and Quantitative Approaches* (2nd edn Alta Mira Press, Oxford 1995).

criminal investigations and proceedings) and network sampling<sup>126</sup> (interviewees suggest further suitable interview candidates), ensuring equal representation of interviewee groups.

A pilot interview was conducted with one individual who had extensive experience of forensic missions in the former Yugoslavia to ensure that the topics to be covered during interviews were relevant, understandable and manageable in the space of one to two hours. The pilot corroborated that the themes on the interview guideline were relevant (see section 3.4.3.2.). For the Cambodia case study, because many interviews had to be conducted in the space of a few days, judgment sampling was first used to set up five interviews. After contacting the selected individuals, one interviewee suggested further interviewees and set up an additional three interviews during the author's stay (network sampling) and later provided contact details of another person with relevant expertise, which led to an informative personal communication. Following the recommendations of other interviewees during the Cambodia study, names of further two suitable interview candidates were voiced, both of which were interviewed via telephone at a later stage.

Similarly, for the Yugoslavia case study, two individuals (one senior forensic expert and one senior international lawyer) were initially contacted for interviews due to their level of experience and involvement in forensic missions. They in turn suggested other individuals to contact, allowing the researcher to use their name to persuade other potential interviewees to participate in the research. From those initial two individuals, eventually 18 further interviewees followed, with some interviewees providing the researcher with recommendations and contact details of other suitable candidates, thus facilitating sufficient data generation.<sup>127</sup>

To warrant the critical realist assumptions about data, the chosen sampling techniques enable a broad and representative international base of opinion to be gathered from forensic scientists, lawyers, judges, crime scene investigators and academics. Considering a number of different viewpoints through the method of data collection increases the validity of the study and its findings.<sup>128</sup> In total nine forensic experts, seven international lawyers, five investigators, four judges, four researchers/academics and one scene of crime officer were interviewed. Interestingly, only three interviews were conducted with females as few women were recommended with sufficient experience in the field, a testimony perhaps to the fact that positions relating to forensic investigations at a senior level are male dominated. To guarantee the

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<sup>126</sup> See for example Creswell (1998) n 103) and S Arber, 'Designing Samples' in: N Gilbert (ed), *Researching Social Life* (Sage, London 2005).

<sup>127</sup> It should be noted that the responses to the interview requests were exceptionally good with some interviewees responding within hours to the initial request; for three interview requests the researcher received no response, with another three individuals who had been contacted suggesting other, more suitable people to participate instead of them.

<sup>128</sup> King (2004a) (n 118).

anonymity of participants, quotations that illustrate the interviewees' opinions will remain unattributed with descriptive pseudonyms indicating their profession.

### 3.4.3.2. Interview Themes

For the design of the interview study, the seven stages of interview investigation – thematising, designing, interviewing, transcribing, analysing, verifying and reporting (here summarised in five steps) – as proposed by Kvale, were used as a guideline.<sup>129</sup> To explore the relevant themes of the study, the objectives of the research and the value of its outcomes need to be clear. Initial frameworks produced in the early stages of the research served to anticipate, firstly, the stages during which forensic science interacts with international criminal investigations and proceedings (pre-investigation stage, investigation stage, trial stage and beyond);<sup>130</sup> and secondly, the various problems that might arise, especially during the investigation phase (see Figure 5).

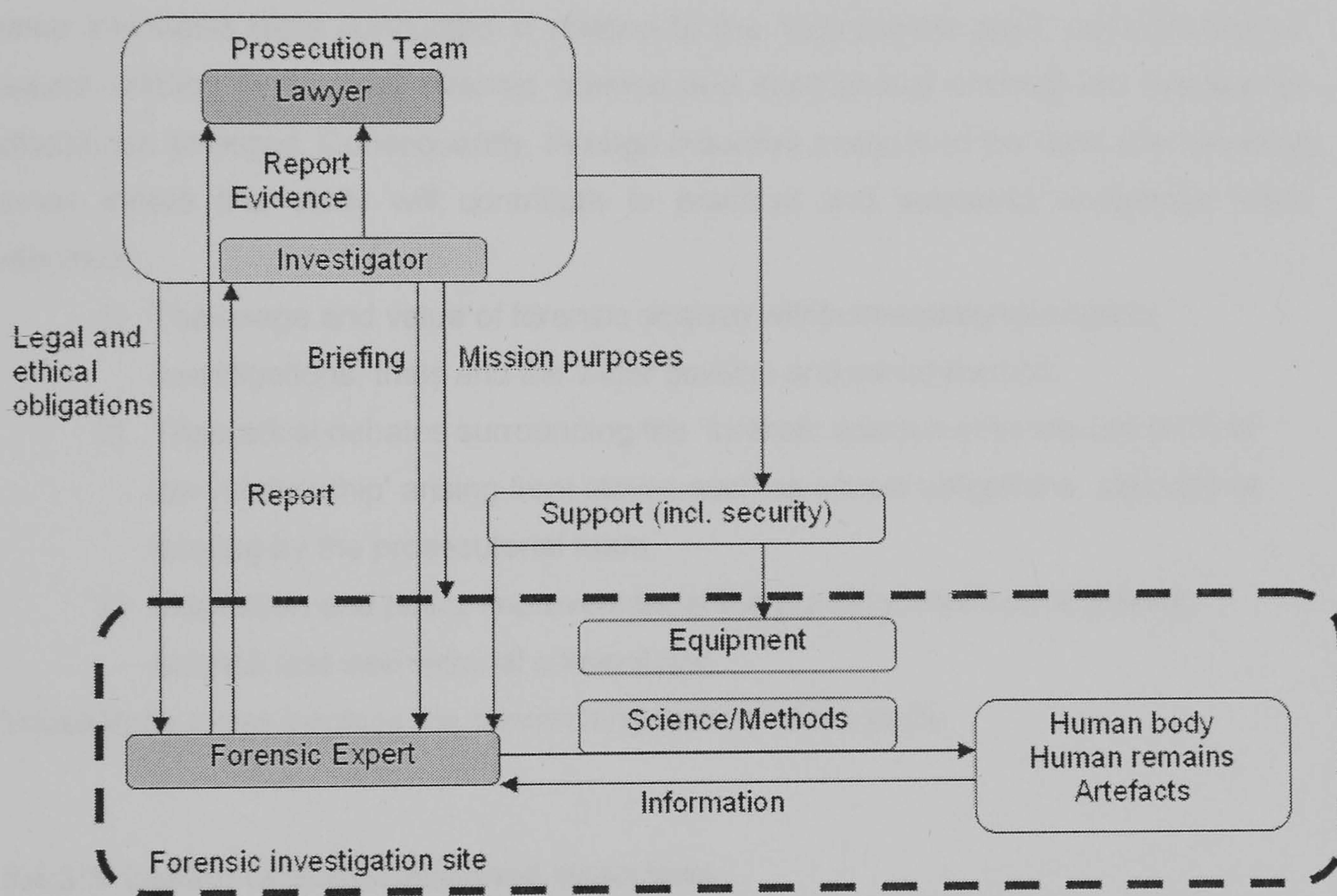


Figure 5: Interaction throughout Forensic Investigations of Mass Graves during International Criminal Prosecutions at the ICTY

This information was provided through the scoping study which corroborated the assumption that forensic scientists' overall motivation for engaging in criminal investigations is for justice purposes and to achieve closure for families (humanitarian

<sup>129</sup> S Kvale, *InterViews: An Introduction to Qualitative Research Interviewing* (Sage, Thousand Oaks 1996).

<sup>130</sup> See poster presentation, Appendix A.



purpose).<sup>131</sup> The discussions showed that segregating cooperation opportunities into stages (pre-investigation, investigation and trial) was a useful way to discuss interaction.<sup>132</sup> However, as some forensic scientists had difficulties with various concepts of cooperation (see Appendix B) the following research steps operated with the word 'interaction' or 'cooperation' only. The researcher learnt that the extent of cooperation is most likely to mean communication and information exchange and that during further primary data collection the type of interaction must be inferred from the participants' answers. Discussions revealed that the quality and integrity of the recovered evidence is a primary concern of the forensic researcher.

This preliminary work together with the findings from the scoping study formed the basis of the interview structure (see 3.4.3.3.). In the true spirit of qualitative, explorative studies, the generated data, especially from the Cambodia study, demonstrated that prior to understanding the practical aspects of the interaction between professionals during forensic investigations, context-related themes had to be explored. Similarly, once interviews were conducted in relation to the Yugoslavian case, more theoretical issues relating to the way forensic science and international criminal law operate as disciplines emerged. Consequently, through inductive analysis of the data, the following areas where this study will contribute to practical and academic knowledge were identified:

- 1) The usage and value of forensic science within international criminal investigations, trials and the wider political and social context.
- 2) Theoretical debates surrounding the 'forensic science-international criminal law relationship' arising from issues such as ethical obligations, methods or briefing by the prosecutorial team.
- 3) Interaction and policy improvement at the practical interface of forensic science and international criminal law.

These three areas became the overarching themes of the study.

#### **3.4.3.3. Design of Semi-structured Interviews**

From the scoping study and the theoretical model mentioned above, an initial interview structure with themes was devised (see Table 2). The questions were generated initially 'in negotiation with the relevant academic and non-academic literature',<sup>133</sup> as well as from ideas which the researcher deemed worth exploring or validating from the scoping study.

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<sup>131</sup> This is a finding that was replicated by the actual interview study and is discussed in detail in section 7.2.2.1.

<sup>132</sup> This division proved to be useful not only for structuring parts of the interviews, but also when analysing the data and later narrating the findings.

<sup>133</sup> Rapley (n 119) 17.

The questions can be subsumed under the following categories:

- professional values and motivations;
- specific role within/for the Tribunal;
- the understanding of other professions;
- relationships with other parties;
- the use of forensic science from mass graves;
- interviewee's idea of an ideal scenario for cooperation and interaction; and
- the impact of forensic work beyond the trials.

Forensic Experts	Lawyer	Investigator	Defence Lawyer	Judge
<b>Professional Values &amp; Motivations:</b>				
Why did you engage in the exhumations and work for the ICTY?	Why did you engage in work for the ICTY?	Why did you engage in work for your clients at the ICTY?	Why did you engage in work for the ICTY?	Why did you engage in work for the ICTY?
Of what value is your work?				
<b>Specific Role:</b>				
How would you describe your role within the ICTY?				
What investigations were you working for?				
How long did you work for the ICTY?				
<i>If applicable:</i> Why did you stop working for the ICTY?				
Who were you working for? Who was accountable for your work?				
What was the main purpose of your work for the ICTY?				
What conditions were you working under? What procedures and standards were applicable? What ethical and legal obligations were applicable?				
<b>Understanding other Professions:</b>				
What, in your opinion, is the role of the investigator?	What, in your opinion, is the role of the forensic scientist?	What, in your opinion, is the role of the forensic scientist in criminal investigations?		
What, in your opinion, is the role of the lawyer?	What ethical and legal obligations does the forensic scientist have?			
	What procedures and standards were forensic scientists required to work towards?			
	What, in your opinion, is the role of the investigator?	What, in your opinion, is the role of the lawyer?		

Forensic Experts	Lawyer	Investigator	Defence Lawyer	Judge
<b>Relationships:</b>				
Could you describe your relationship with the investigator?	Could you describe your relationship with the forensic scientist?			
Could you describe your relationship with the prosecution lawyer?	Could you describe your relationship with the investigator?			
Could you describe your relationship with the defence lawyer?				
What are the outcomes of working with lawyers and investigators?	What are the outcomes of working with forensic scientists?			
What are the difficulties in working together?				
<b>The Use of Forensic Science:</b>				
What is the purpose of forensic science?				
Do you think investigators and lawyers understand the relevance of your work?	How important is forensic science for ICTY trials? Do you seek any help for understanding forensic evidence?			
Do you think forensic science is used adequately and fairly during the trials?				
<b>Ideal Scenario:</b>				
In an ideal world, what kind of cooperation would you like to have with lawyers and investigators?	In an ideal world, what kind of cooperation would you like to have with forensic scientists?		In an ideal world, what kind of cooperation would you like lawyers to have with forensic scientists?	
Taking it in stages:				
<ul style="list-style-type: none"> <li>■ Pre-investigation</li> <li>■ Forensic investigation</li> <li>■ Pre-trial conference</li> <li>■ During Trial</li> <li>■ Beyond forensic investigation?</li> </ul>				
<ul style="list-style-type: none"> <li>■ Pre-investigation</li> <li>■ Forensic investigation</li> <li>■ Pre-trial conference</li> <li>■ During Trial</li> <li>■ Beyond forensic investigation?</li> </ul>				

Forensic Experts	Lawyer	Investigator	Defence Lawyer	Judge
<b>Beyond the ICTY:</b>				
What impact does your work have on the local population?				
<b>Demographic Questions:</b>				
Gender:				
Title:				
Age:				
Nationality:				
Education (subject & place):				

Table 2: ICTY Interview Themes Compared, March 2007<sup>134</sup>

<sup>134</sup> A similar interview guideline was prepared for the Cambodian case study and can be found under Appendix E.

Because the study examines the interaction between different disciplines and professions, some themes and questions were more pertinent to be explored with some interviewees, but not others. Therefore, a strict 'one size fits all' interview guide was deemed inappropriate, yet the researcher tried to maintain some elements for comparability purposes. The methodological choice of semi-structured interviews allowed for an active interview style,<sup>135</sup> during which the researcher was free to explore avenues deviating from the pre-prepared questions, thus allowing the explorative approach of the study to bear fruit. Interviews were thus not limited to the preconceived ideas of the researcher, but allowed the subject to be explored in-depth from differing perspectives.<sup>136</sup>

Whilst the interview guideline might give the impression that the interviews were fairly structured, it merely served as a guide to ensure that all the themes, where appropriate, were covered and to provide the researcher with questions already phrased in case the conversation ebbed off. Whilst it is not possible to disclose full transcripts due to confidentiality agreements, edited extracts from three interview transcripts (Appendix F) demonstrate how flexibly the interviews were conducted and how freely interviewees could talk about their experiences. In fact, often there was no need for the researcher to use many of the pre-prepared specific questions, as interviewees' accounts inherently gave answers to those questions. However, the guide still served to check that all themes had been adequately probed.

The choice of themes discussed during the interviews, as outlined in the guideline, allowed the interviewees to talk about their experiences, roles and the *modus operandi* during investigations and in court. Through covering themes such as professional roles, relationships and the general use of forensic science for international criminal investigations, the researcher gained a thorough understanding of the interplay from the forensic mission planning to its execution and use of forensic evidence in court. Because the anonymity of interviewees was guaranteed, problems and issues arising during the 'forensic science-international criminal law interface' emerged and are presented in the findings chapters. Interviewees also provided information about their backgrounds and levels of experience. This information proved invaluable during the analysis phase, as the level of experience impacts upon the way the information fits into the wider context of the study.

Throughout the data collection phase, questions were updated and modified depending on interview responses until theoretical saturation of the data was reached,<sup>137</sup> i.e. no new themes relating to the research questions emerged from the interviews. It is important to note that a qualitative research design, as presented here, aims to generate

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<sup>135</sup> Engaged, active or collaborative formats of interviewing have become increasingly accepted by scholars employing interview techniques for their data collection (Rapley (n 119)).

<sup>136</sup> Creswell (2008) (n 100).

<sup>137</sup> Bryman (n 101).

a holistic picture of the explored phenomenon. Consequently a single individual's view or argument is valued. The aim is not to get as many interviewees to provide the same answers, but to allow for an exhaustive, in-depth exploration. Therefore, as the research progressed, under-explored research themes such as the importance of the wider context during the interview became apparent. If and when interesting themes were mentioned by the interviewee, the semi-structured design of the study provided the necessary flexibility to ask more questions relating to this new theme. For example, the researcher was keen to explore views on admissibility rules. Consequently interviewees were given the opportunity to expand on these issues and the researcher was able to seek further clarification of the topic.<sup>138</sup> Transcript extract two, for instance, demonstrates that the conversation with one interviewee progressed from questions of admissibility to questions about weighing the evidence in court, whilst the third transcript example shows what impact a lack of admissibility rules might have on investigations. Transcript extract one, on the other hand, outlines the views of one interviewee regarding Standard Operating Procedures.<sup>139</sup>

#### 3.4.3.4. Analysis

Interviews were digitally recorded and transcribed verbatim to allow for full qualitative analysis. As all interviews were conducted in English but with some non-native speakers, and one interview was conducted through the help of a translator, the meaning of the expressed views had to be negotiated in the wider context of the interview. Therefore, detailed attention to language during the analysis phase, as required by constructivist analysis perspectives, was *sensu strictu* not possible. Transcripts were complemented by the researcher's own reflections, records of analytical notes and memoranda. In preparation for analysis, these were imported into the qualitative software analysis package QSR NVivo 7. Qualitative software packages, such as QSR Nvivo, provide a 'filing system' for all types of data files. They offer tools to initially organise the data to then enable efficient exploration and interpretation of the data.

To facilitate the qualitative analysis of the data, the author employed template analysis which is based on thorough thematic analysis. Qualitative analysis comprises of the following steps (which do not have to be undertaken in a linear way):<sup>140</sup>

- themes are identified from the data;<sup>141</sup>

<sup>138</sup> A later version of the interview guideline incorporated queries regarding admissibility of evidence for judges (see Appendix G).

<sup>139</sup> See Appendix F.

<sup>140</sup> See KA Roberts and RW Wilson, 'ICT and the Research Process: Issues Around the Compatibility of Technology with Qualitative Data Analysis' [2002] (3) Forum Qualitative Social Research <<http://www.qualitative-research.net/index.php/fqs/article/view/862/1873>> accessed 07 April 2008.

<sup>141</sup> See, for example, RE Boyatzis, *Transforming Qualitative Information. Thematic Analysis and Code Development* (Sage, Thousand Oak 1998) and N King, 'Using

- passages of text are coded and annotated;<sup>142</sup> and
- coded data is compared and contrasted to identify and explore patterns;<sup>143</sup>

Through this process a high level synthesis, potentially leading to theory development, is achieved.

Thematic analysis aims to identify, analyse and report recurring themes from within the data set<sup>144</sup> without necessarily being tied to a theoretical framework.<sup>145</sup> Whilst being a 'foundational method for qualitative analysis',<sup>146</sup> it is also a method in its own right, offering great flexibility: Firstly, its findings are usually easily accessible to readers as it summarises a large body of data into a manageable size without losing the richness of the data.<sup>147</sup> Secondly, it provides a useful tool to generate unanticipated themes and knowledge which can usefully inform policy changes.<sup>148</sup> Thematic analysis relies on repeatedly and consistently 'coding' the data: themes can be coded, re-coded and un-coded; some codes denominate the main themes, others are sub-themes. Themes can be generated inductively from the data or deductively from a theory or previously designed theoretical framework.<sup>149</sup> Themes can be discovered at a semantic and explicit level or at a more latent and interpretive level depending on the research questions and epistemological stance. Given the critical realist approach which assumes a direct link between meaning, experience and language, this research relied on coding at an explicit level. From an initial descriptive level where the data is organised and categorised, the analysis then progresses to more fine-tuned interpretation 'in an attempt to theorize the significance of the patterns and their broader meanings and implications, often in relation to previous literature.'<sup>150</sup> Figure 6 summarises the steps undertaken during thematic analysis:

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Templates in the Thematic Analysis of Text' in: C Cassell and G Symon (eds), *Essential Guide to Qualitative Methods in Organizational Research* (Sage, London 2004b).

<sup>142</sup> See, for example, AL Strauss and J Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* (Sage, Newbury Park 1990).

<sup>143</sup> See, for example, Strauss and Corbin (ibid) and Boyatzis (n 141).

<sup>144</sup> Thematic analysis in this sense is very close to grounded theory, but without the theoretical commitments grounded theory demands: namely the generation of one theory at the end of the process (V Braun and V Clarke, 'Using Thematic Analysis in Psychology' (2006) 3 *Qualitative Research in Psychology* 77 and Strauss and Corbin (n 142)).

<sup>145</sup> Braun and Clarke (ibid).

<sup>146</sup> Ibid 78.

<sup>147</sup> Boyatzis (n 141).

<sup>148</sup> Braun and Clarke (n 144) 78.

<sup>149</sup> Boyatzis (n 141).

<sup>150</sup> Braun and Clarke (n 144) 84 (references omitted).



Phase	Description
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis of the research question and literature, producing a scholarly report of the analysis.

Figure 6: Phases of Thematic Analysis<sup>151</sup>

Template analysis offers the most appropriate analytical approach, providing a pragmatic middle ground between the rather too simplistic and straightforward content analysis, trying to derive meaning through the quantification of the data in a positivistic manner, and the very contextual constructivist positions that interpret every detail and resist any form of structure that could serve to limit the possibilities of interpretation.<sup>152</sup> Template analysis provides a useful tool for systematically organising data in a meaningful way into themes, which then form a template representing the way themes are related to one another. As its main advocate King explains,

–it refers [...] to a varied but related group of techniques for thematically organizing and analysing textual data. The essence of template analysis is that the researcher produces a list of codes ('template') representing themes identified in their textual data. Some of these will usually be defined a priori, but they will be modified and added to as the researcher reads and interprets the text. The template is organized in a way which represents the relationships between themes, as defined by the researcher, most commonly involving a hierarchical structure.<sup>153</sup>

<sup>151</sup> Ibid 87.

<sup>152</sup> N King 'Template Analysis' in: G Symon and C Cassell (eds), *Qualitative Methods and Analysis in Organizational Research* (Sage, London 1998) 118-134.

<sup>153</sup> King (2004b) (n 141) 256.

During the analysis process an initially created template is modified as new themes emerge from the data while other themes may be disregarded altogether if inadequacies or inconsistencies within the data appear. This process continues until a final template is defined and the whole data set has been coded.<sup>154</sup> Specifically, the hierarchical coding adopted by template analysis allows for differing levels of specificity between codes to be explained: broader higher-order codes give an overview of the themes that emerged from the data, whilst lower level sub-themes provide a much more refined and precise analysis of the data and the arguments which the researcher aims to make.

Template analysis allows parallel coding of the same segments of text,<sup>155</sup> a feature that was particularly useful to this study, as some codes and passages of text were relevant within the different templates created for the purpose of addressing the three main objectives of this research. Furthermore, template analysis studies typically have more research participants (20 – 30) than other qualitative research studies and allow for different perspectives from various professions to be context-specifically analysed.<sup>156</sup> Once again, this fits well with the study design chosen for this study. For the research presented here, three separate templates emerged:

- the first template provides an analysis of the value and use of mass grave evidence within international criminal investigations and the wider context (as described in section 2.2. under objective 1);
- the second template analyses theoretical aspects emerging from the 'forensic-science-international criminal law interface' (objective 2);
- the third template examines the practical phase during which the various professionals interact (objective 3).<sup>157</sup>

Template analysis also has the advantage of easily creating an audit trail, being explicit about analytical decisions which are grounded in the text and being transparent in its procedures. Figure 7 visualises identified themes very early on in the analysis stage. It is a screenshot from a model the author created in April 2008 with Nvivo prior to coding and analysis of the data. Therefore, the structure is solely based on *a priori* themes, i.e. themes grounded in the literature, and a few preliminary themes that emerged from the conducted interviews. From this rudimentary start and due to continuous coding, re-coding and analysis of the data, more sophisticated templates emerged. Appendix H, for example, demonstrates the hierarchical theme structure in an excel spreadsheet which was created in June 2008. As the number of themes, sub-themes and codes grew larger and more complex, the model function of Nvivo was insufficient to visualise the relationships between themes. Therefore, the themes were exported into a spreadsheet and colour-coded to capture their links to one another.

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<sup>154</sup> Ibid.

<sup>155</sup> Ibid 258.

<sup>156</sup> Ibid.

<sup>157</sup> It should be noted that the author then chose to split the third template into three distinct parts for the purpose of the reporting stage to make it easier for the reader to follow the analysis and discussion.

After further analysis, the template (see Figure 9 in section 5.) dating from December 2008 represents the revised and simplified final template. To facilitate an easier understanding of the themes covered in the discussion and analysis of the findings, the hierarchy was kept to a minimum of three levels. Arguments captured by lower level themes, however, have not been lost, but were subsumed under higher order themes and featured in the discussion of the higher order themes. Some higher order themes that can be found in Appendix H, such as the theme 'Initiating FS' (i.e. Initiating Forensic Science) was eventually removed from the template, as this particular point was discussed more appropriately in the introduction (see section 1.4.). Similarly, the theme 'Victims' Rights', after revised analysis, became a higher order theme and is now discussed separately from 'Psycho-social Aspects' (see Appendix H and the final template, Figure 9, for comparison).

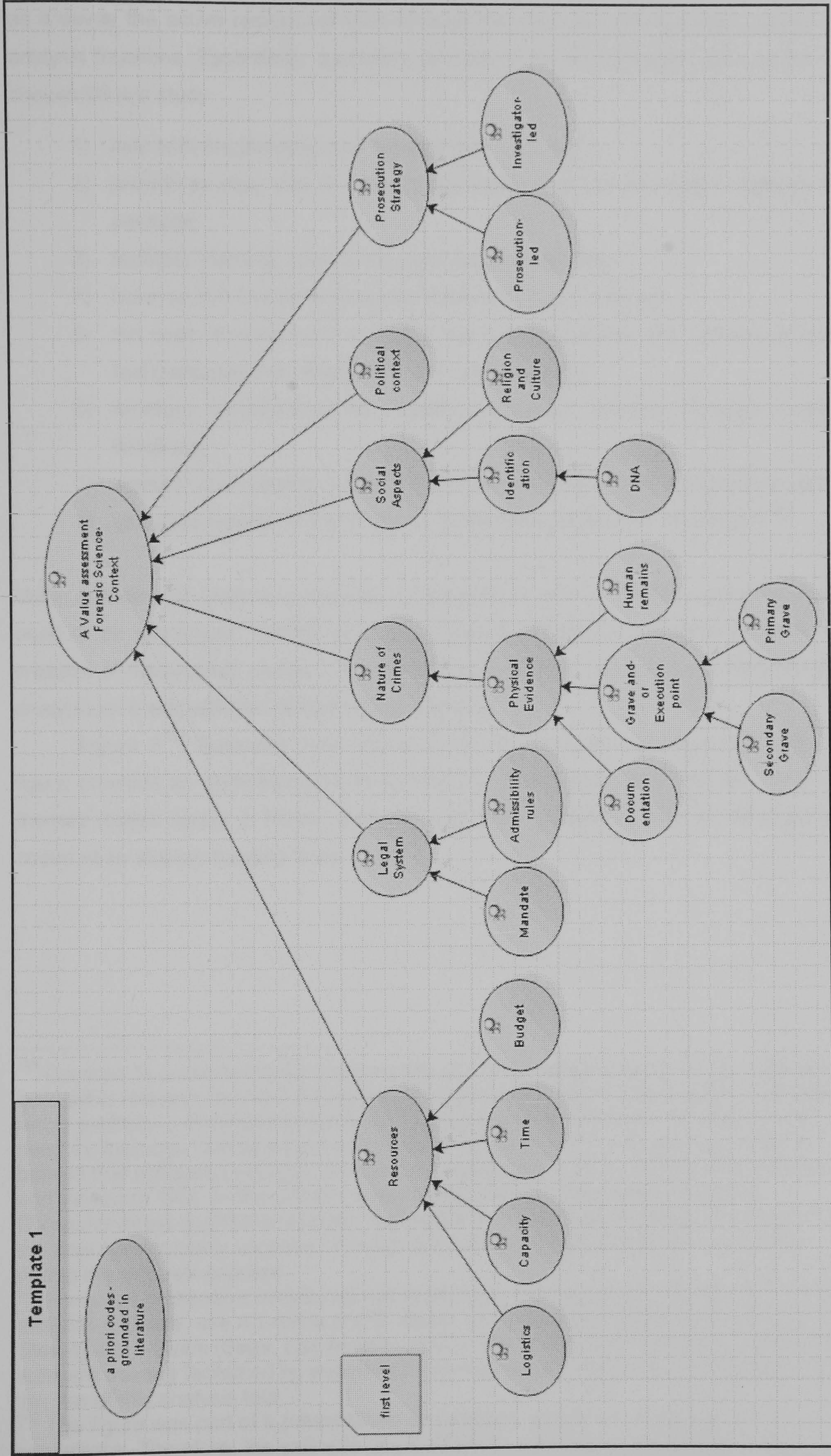


Figure 7: Value Assessment Model (14 April 2008)

The use of software<sup>158</sup> for qualitative research can make analysis more thorough as it saves the active researcher time through the effective management, coding and analysis functions. Essentially, qualitative analysis software packages such as the one chosen for this study

- 1) help with the planning and managing of a project;
- 2) provide an easy way of writing memoranda that can be linked to specific data passage;
- 3) facilitate marking, commenting and annotating data;
- 4) have search functions to search across the entire data set;
- 5) aid code development, including the coding process, the retrieval of coded text passages including its context, and re-coding;
- 6) facilitate visualisation of complex analytical process through mapping functions;
- 7) assist in interrogating subsets of the data for differences or similarities; and
- 8) generate reports on the progress made when working on the project.<sup>159</sup>

Using software for qualitative analysis is particularly useful when large amounts of data need to be processed. Furthermore, given that the employed software allows for the creation of hierarchical codes, it is a helpful tool for those researchers using template analysis as it aids with the design of the templates.

Figure 8<sup>160</sup> illustrates how coding within the software package functions. The figure provides an understanding as to how the coding processes and the creation of themes (called *nodes* in Nvivo) works: in this case a passage from an interview was coded at an already existing node.

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<sup>158</sup> Contrary to some myths surrounding the use of computer aided analysis, software in qualitative research is only a tool to help the researcher with the management of data; it never performs meaningful analysis for the researcher and it does not substitute the need for thorough familiarisation with the data but facilitates it. Roberts and Wilson believe that software packages distance the researcher from the actual data (Roberts and Wilson (n 140). In the author's experience, however, this view is outdated. Computer-aided qualitative analysis makes full immersion into the data very easy as all the data can be easily accessed through a mouse-click and printed out at any time during the analysis process.

<sup>159</sup> For a comprehensive introduction as to the use, functions and potential of qualitative analysis software, see A Lewins and C Silver, *Using Software in Qualitative Research: A Step-by-Step Guide* (Sage, Los Angeles 2007). The author participated in QSR Nvivo 7 software training facilitated by expert Ann Lewins (Surrey University) and is proficient in the use of this analysis tool.

<sup>160</sup> The figure was part of a presentation on template analysis and the use of Nvivo at a conference. Therefore, the example used is fictitious and was created for the sole purpose of outlining the mechanisms, advantages and disadvantages of using Nvivo.

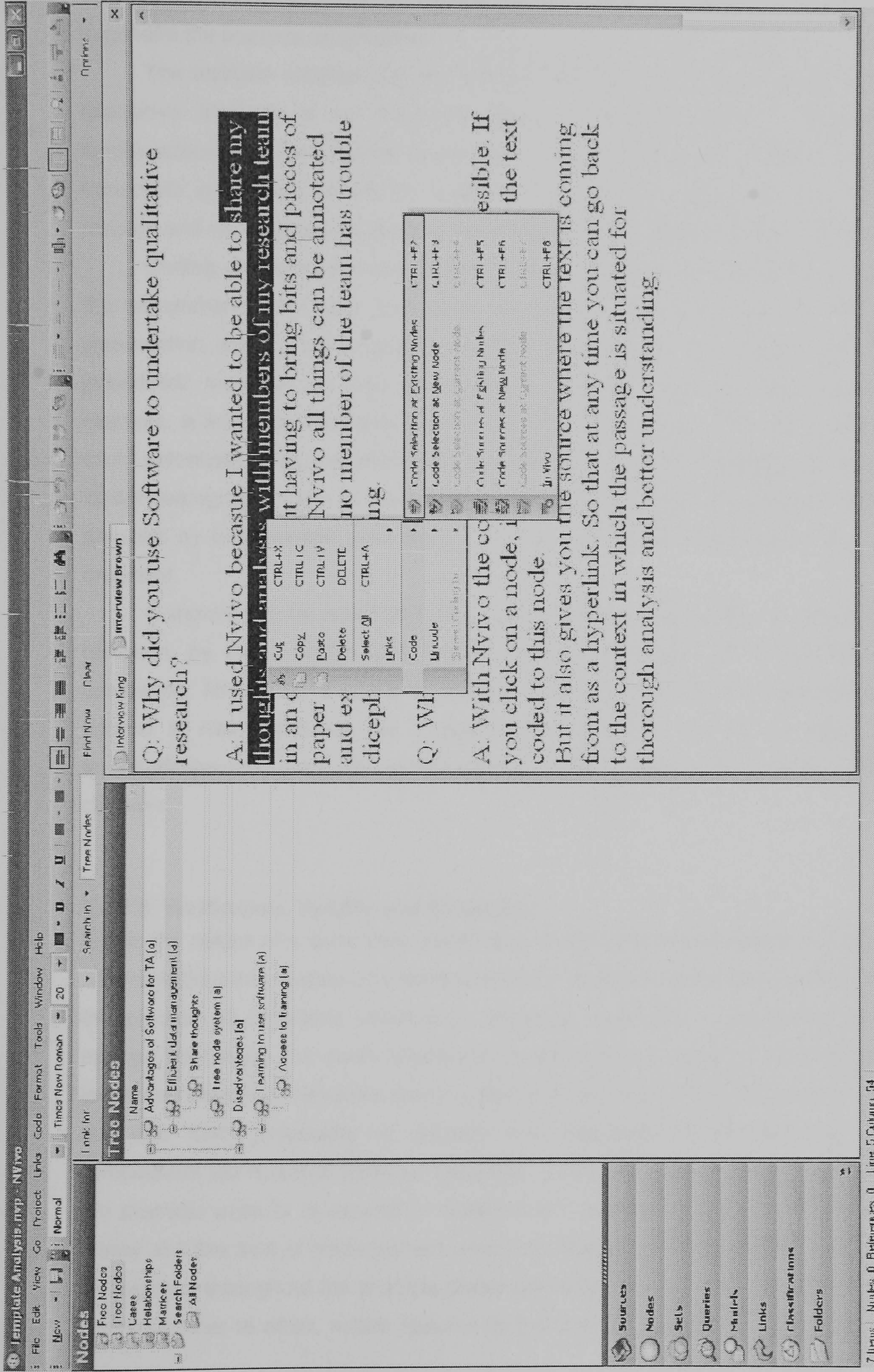


Figure 8: Coding Process in Nvivo (Screenshot)<sup>161</sup>

<sup>161</sup> The figure also shows the interface of Nvivo which is modelled on the Microsoft Outlook interface. The menu is situated on the left hand side, whilst the middle column provides an overview of the Tree Nodes (i.e. hierarchical themes or codes) within the project; the pane on the right visualises the data (in this example interview data) that was imported into Nvivo for analysis. The highlighted passage is being coded at the existing node 'Share thoughts'.

Throughout the coding and analysis phase, the author kept a project journal to keep track of the tasks undertaken.<sup>162</sup> This again functioned as an audit trail and demonstrated why certain codes and themes were created, deleted or changed and how in general the analysis progressed.

The analysis adopted was not a linear but rather a recursive process, because qualitative analysis is an 'inherently ongoing accomplishment'.<sup>163</sup> This demands familiarisation with the data and immersion in the data through repeated reading of the transcripts and active search for meaning and patterns. Through coding of themes, revision and re-organisation, the final templates of the research findings were created.

Coding, weighing and analysing the data inevitably require judgments on behalf of the researcher. Great care was taken especially in the final analysis, write-up and presentation stages, ensuring that individual statements were weighed according to individuals' expertise as well as relevance regarding the research questions. For example, a judge commenting on admissibility rules was deemed more valuable and could potentially have precedent over statements on the same topic by an investigator. Whilst demographic data as such was not taken into account, the personal information provided by interviewees gave the researcher a good understanding of their level of expertise.

It should also be noted that the Cambodia case study's main contribution to this research, by virtue of the fact that no forensic investigations for the ECCC were conducted, lies in the analysis of the value forensic science has depending on the context at hand; whereas the Yugoslavian case study, due to the many forensic investigations conducted, was instrumental for all three parts of the analysis and findings chapters.

#### **3.4.3.5. Verification, Validity and Reliability**

It is in the nature of a qualitative, explorative study that themes emerge throughout the data collection and analysis. To understand and underpin results from primary research, the process of reviewing literature is on-going, especially if arguments and topics emerge that have not been discussed in the forensic, legal or transitional justice literature. Therefore, literature not only from the forensic science and legal disciplines, but also from philosophy of science and organisational studies were used to complement the research findings. Especially in the latter part of the study dedicated to the practical aspects of interaction between the professions, literature from exchange theory and the field of management were consulted to help with the analysis. Drawing on literature throughout the analysis phase can enhance the overall result by sensitising the researcher to other, subtle features of the data.<sup>164</sup> In addition, the generated data

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<sup>162</sup> See Appendix I: Project Journal.

<sup>163</sup> Rapley (n 119) 27.

<sup>164</sup> Braun and Clarke (n 144).

was compared with trial transcripts at the ICTY and developments at the ECCC to ensure accuracy and corroborate accounts provided by the interviewees. Some scholars refer to this process as 'triangulation' whereby multiple sources and theories are used to assess the consistency of the presented findings.<sup>165</sup>

To ensure the quality and credibility of qualitative research, the author fulfilled the following criteria, ensuring that:

- 1) the methods applied are logical, clear and *transparent*;
- 2) the collected data has been *saturated*: towards the end of the primary data collection the information provided by researchers did not reveal new aspects;
- 3) the themes emerging from the data are *consistent* and codes are attributed consistently;
- 4) the themes accurately *represent* the meaning of the participants' views;
- 5) the interpretations of the data offered are a *credible* representation of reality; and
- 6) the descriptions relating to the research findings are *complete*.<sup>166</sup>

#### 3.4.3.6. Reporting - Telling the Story?

With template analysis, the account given at the end of the analysis process is

structured around the main themes identified, drawing illustrative examples from each transcript (or other text) as required. This tends to be the approach which most readily produces a clear and succinct thematic discussion.<sup>167</sup>

In other-words, for each theme identified, a clear description and detailed analysis must be given in the final report without drifting towards generalisations and losing the experiences shared by interviewees. Therefore, many quotations from the interviews capturing the interviewees' opinions and thoughts were used in the final write-up. Qualitative research, especially when interviewing a number of experts from different backgrounds and professions, will inevitably generate diverse accounts of past practices and involvement. Social researchers Gilbert and Mulkay (1984) claim that in order to produce one unitary best account, researchers are tempted to suppress certain data generated. However, the attempt '[t]o tell *the* story of a particular social setting or to formulate *the* way in which social life operates are fundamentally unsatisfactory.'<sup>168</sup> To avoid a one-dimensional account, the author, in accordance with the identified objectives of the study, has chosen to use three separate narratives exploring:

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<sup>165</sup> See for example Bryman (n 101) and Madill, Jordan and Shirley (n 107) 3.

<sup>166</sup> See for example C Seale, 'Quality in Qualitative Research' in: C Seale and others (eds), *Qualitative Research Practice* (Sage, London 2004); Braun and Clarke (n 144) and J Fereday and E Muir-Cochrane, 'Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development' (2006) 5(1) *International Journal of Qualitative Methods* 1.

<sup>167</sup> King (2004b) (n 141) 268.

<sup>168</sup> N Gilbert and M Mulkay, *Opening Pandora's Box* (Cambridge University Press, Cambridge 1984) 2.



- 1) The reasons for and against the usage of forensic expertise at international trials.
- 2) The philosophical and theoretical issues surrounding the use of forensic science in international investigations and trials.
- 3) The practical difficulties of interaction between lawyers, investigators and forensic experts, and the recommendations that follow.

Within these three analysis chapters, the accounts by interviewees are discussed alongside the relevant literature, trial transcripts and case law to provide a rich debate of the issues at hand. However, it should be noted that, unlike other qualitative research designs such as those using biographical or narrative approaches, the accounts provided through template analysis do not retain a sense of continuity and contradiction through any one individual account, no matter how revealing these may be.<sup>169</sup> Instead the presented findings capture the sum total of the 30 interviews as and when the accounts were relevant to the research questions.

#### **3.4.4. STUDY LIMITATIONS**

Whilst the collected data is inherently limited through the choice of case studies, its sample size and non-random sample, the researcher carefully selected the case studies because they are most suitable for the research at hand due to the number of mass graves and differences in context. Furthermore, network and judgment sampling techniques ensured that the most experienced individuals were selected to take part in the study. Although professionals might feel the need to present their involvement in criminal investigations in the best possible light in order to secure future employment or avoid criticism of the institutions they represent, the assured anonymity enabled the participants to discuss their thoughts openly, as will become clear in the analysis chapters.

Methodologically, any qualitative research faces the classical criticism: the method is subjective; the results are not quantifiable, not representative and not repeatable. The obvious counter argument is the depth and focus of the interview materials (as demonstrated in the transcript extracts, see Appendix F) which capture a multitude of views. Interviews are dialogues and represent an ancient form of knowledge exploration and acquisition – as demonstrated so elegantly by Socrates in Plato's dialogues.<sup>170</sup> Moreover, the techniques employed throughout the study facilitate effective analysis and data management. Limitations for the research study spring from the

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<sup>169</sup> Braun and Clarke (n 144) 97.

<sup>170</sup> After all, as Lyotard points out, when scientists conducting research within the quantitative, positivist tradition are interviewed to explain their latest scientific discovery '[t]hey recount an epic of knowledge that is in fact wholly unepic. They play by the rules of the narrative game' (J-F Lyotard, *The Postmodern Condition: A Report on Knowledge* (Manchester University Press, Manchester 1984) 27).

nature of doctoral studies as such, where, despite close involvement of and discussions with the supervisory team, the data was coded and themes identified by one person only. This approach, however, means that consistency in methods and analysis was maintained at all times. Furthermore, neutrality and impartiality on behalf of the researcher was retained as she does not belong to any of the professions involved during the 'forensic science-international criminal law' interface.

On a different level, the study is limited through the various issues it does not explore, such as the humanitarian aspects of forensic work within transitional justice or the inclusion of the victim's views in the study design. Nonetheless, the areas this research contributes to outline the breadth of issues relating to the interaction between forensic science and international criminal law. This thorough exploration provides the in-depth detailed analysis necessary for an original contribution to knowledge. Any limitations in scope can be overcome by future studies that will build on the results presented here.

## 4. Case Studies

### 4.1. *The International Criminal Tribunal for the Former Yugoslavia (ICTY)*

After the collapse of the former Yugoslavia and whilst war was still raging in the region, the International Criminal Tribunal for the Former Yugoslavia was established under UN Security Council Resolution 827 on 25 May 1993. The ICTY was not just to become the 'next great experiment with international jurisdiction',<sup>171</sup> it was also the first time that forensic science investigations of mass graves were conducted on a large-scale to prosecute war criminals. For the Srebrenica investigations alone, between 1996 and 2001, exhumations were conducted at 23 sites, whilst a further 20 mass graves were probed to confirm that they contained human remains.<sup>172</sup> Such extensive activity makes the ICTY an ideal case study for this research, especially as part of the forensic evidence from mass graves has since been presented during trials and thus entered the ICTY's jurisprudence. Due to, firstly, the novelty of organising and conducting forensic investigations for international criminal prosecutions, secondly, the development of international criminal law since the ICTY's creation, and thirdly, studies of international transitional justice that have since been conducted, many lessons relating to the aims of this study can be learnt.

#### 4.1.1. HISTORICAL AND LEGAL CONTEXT

Under the leadership of Josip Broz Tito, the Federal Republic of Yugoslavia was successfully unified after tension between nationalist groups during World War II. The Federation was composed of six republics: Slovenia, Croatia, Bosnia-Herzegovina, Serbia, Montenegro and Macedonia; and two autonomous regions (Vojvodina and Kosovo). However, with the death of Tito in 1980 and the fall of communism, the multinational union of six Socialist republics began to suffer from a renewed rise of national sentiments which ultimately defeated the idea of 'Brotherhood and Unity'. Between June 1991 and November 1995, three different wars raged leading to the disintegration of the former Yugoslavia.<sup>173</sup> In 1991 Slovenia, Croatia and Macedonia declared their independence; both Slovenia and Croatia ended up fighting wars of secession. Whilst the war resulting from Slovenia's secession lasted only 10 days, due to the Croatian population not being as homogeneous and the opposition of Serbs to Croat rule, the war in Croatia lasted until autumn 1995. On 14 October 1991 Bosnia-

<sup>171</sup> B Van Schlaack and RC Slye, *International Criminal Law and Its Enforcement* (Foundation Press, New York 2007) 37.

<sup>172</sup> *Prosecutor v Milošević*, Witness Statement by Investigations Team Leader Dean Paul Manning, Case No IT-02-54-T, 24 November 2003, Trial Chamber III, available at <[http://www.domovina.net/archive/2003/20031124\\_manning.pdf](http://www.domovina.net/archive/2003/20031124_manning.pdf)> accessed 25 January 2007.

<sup>173</sup> I Oliver, *War and Peace in the Balkans: The Diplomacy of Conflict in the Former Yugoslavia* (I. B. Tauris & Company, London 2005).

Herzegovina, whose population comprises people of three different faiths (Islam, Catholicism and Christian-Orthodox) followed suit in declaring its independence, which resulted in a conflict between the three groups; furthermore this move towards independence was incompatible with the strategic goals of the President of the Federation, Slobodan Milošević.<sup>174</sup> He tried to avoid the dissolution of Yugoslavia by dispatching the Serb-dominated Yugoslav National Army (JNA) to support Serbian militias in setting up autonomous Serb-controlled areas in both Croatia and Bosnia-Herzegovina.<sup>175</sup> As both the newly independent Croatia under the leadership of Franjo Tudjman and the remaining Yugoslavia were keen to annex parts of Bosnia inhabited by persons of Croatian and Serb descent respectively, the war in Bosnia was fought on two fronts. What followed was an extremely brutal and violent war: harrowing pictures of concentration camps, displaced people, killings and reports of rape camps circulated in the world's media. Despite the presence of UNPROFOR (United Nations Protection Force) the atrocities culminated in the 'biggest single mass murder in Europe since the Second World War'.<sup>176</sup> Srebrenica. The term ethnic cleansing was coined as ethnically pure areas of territory emerged in Bosnia. Although from the summer of 1992 numerous attempts by various mediators were made to broker peace, it was not until the Dayton Peace Agreements, signed in December 1995 in Paris by the Presidents of Bosnia-Herzegovina (Alija Izetbegović), Croatia (Franjo Tudjman) and Serbia (Slobodan Milošević), that a fragile peace finally came to the troubled Balkan region.

Whilst war was still ongoing, the United Nations Security Council adopted Resolution 780 on 6 October 1992 and instructed then Secretary-General Boutros Boutros-Ghali to establish a Commission of Experts to document the violations of international law in the region.<sup>177</sup> Following the recommendation of the Commission of Experts' interim report to establish an *ad hoc* international tribunal to hold individuals responsible, the Security Council adopted Resolution 808 on 22 February 1993 deciding that 'an international tribunal shall be established for the prosecution of persons responsible for serious violations of international humanitarian law committed in the territory of the former Yugoslavia since 1991'.<sup>178</sup> Acting under Chapter VII of the UN Charter, the ICTY was established pursuant to Security Council Resolution 827 on 25 May 1993. Under its Statute, the ICTY has the power to prosecute

- Grave breaches of the 1949 Geneva Conventions (Art 2);
- Violations of the laws or customs of war (Art 3);
- Genocide (Art 4); and

<sup>174</sup> Ibid. For a detailed account of the political events preceding the disintegration of the former Yugoslavia see L. Silber and A. Little, *The Death of Yugoslavia* (Revised edn Penguin, London 1996).

<sup>175</sup> Van Schlaack and Slye (n 171).

<sup>176</sup> Silber and Little (n 174) 350.

<sup>177</sup> Van Schlaack and Slye (n 171).

<sup>178</sup> UNSC Res 808 (22 February 1993) UN Doc S/Res/808, para 1.

- Crimes against humanity (Art 5).<sup>179</sup>

As of March 2009, the Tribunal has indicted 161 persons; proceedings for 115 accused in 82 cases have been concluded, whilst proceedings are still ongoing for 45 accused in 20 cases, with two accused, Ratko Mladić and Goran Hadžić, still at large.<sup>180</sup>

#### 4.1.2. FORENSIC INVESTIGATIONS IN CROATIA AND BOSNIA-HERZEGOVINA

Initially, prosecuting crimes of such gravity and magnitude during ongoing conflict provides challenges.<sup>181</sup> In fact, access to the crimes and crime scenes was difficult and very often evidence had been destroyed. In its judgment in *Bosnia and Herzegovina v. Serbia and Montenegro*, the International Court of Justice observes that

[b]y the end of 1995 [...] the International Tribunal for the Former Yugoslavia had still not been granted access to the area to corroborate the allegations of mass executions with forensic evidence.<sup>182</sup>

However, the Office of the Prosecutor started to plan forensic investigations on a large scale to help with the overall investigations and excavations finally started on 7 July 1996 at Cerska, near Srebrenica (see Appendix J) in Bosnia-Herzegovina. The ICTY annual reports document the reasons for this decision and what the exhumations yielded: During the season of 1996 (July - November)

the Office of the Prosecutor conducted exhumations of human remains from five sites; four of these sites are in Bosnia and Herzegovina (Cerska, Nova Kasaba, Lazete and Pilica) and were selected because they were believed to contain evidence related to the fall of Srebrenica in 1995. For instance, Cerska valley was a site where witness testimony revealed that men who had surrendered to soldiers while trying to flee the Srebrenica enclave on foot were transported up the valley, ordered off the buses and executed. This testimony was corroborated when Tribunal forensic investigators exhumed 155 bodies from the Cerska grave, many with their hands tied. From the four sites in Bosnia and Herzegovina, over 450 bodies were recovered revealing evidence similar to that found at the Cerska site.<sup>183</sup>

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<sup>179</sup> Updated Statute of the International Criminal Tribunal for the Former Yugoslavia, (adopted 25 May 1993, as amended 29 February 2008) <[http://www.icty.org/x/file/LegalLibrary/Statute/statute\\_sept08\\_en.pdf](http://www.icty.org/x/file/LegalLibrary/Statute/statute_sept08_en.pdf)> accessed 6 April 2009 (hereinafter ICTY Statute).

<sup>180</sup> International Criminal Tribunal for the Former Yugoslavia, 'Key Figures of ICTY Cases' (2009) <<http://www.icty.org/sections/TheCases/KeyFigures#concpros>> accessed 10 March 2009.

<sup>181</sup> KD Rutledge, "Spoiling Everything" - But for whom? Rules of Evidence and International Criminal Proceedings' (2003) 16 Regent University Law Review 151.

<sup>182</sup> *Case Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (Bosnia and Herzegovina v Serbia and Montenegro) (ICJ Judgment) 26 February 2007 <<http://www.icj-cij.org/docket/files/91/13685.pdf>> accessed 28 March 2009, para 299.

<sup>183</sup> UNGA and UNSC, 'Fourth Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (1997) UN Doc A/52/375 - S/1997/729, para 65.

The forensic investigations into the Srebrenica massacre assisted in indicting General Radislav Krstić, General Ratko Mladić and Radovan Karadžić.<sup>184</sup> Specifically for the Srebrenica exhumations, the investigative objectives were to:

- corroborate victim and witness accounts of the massacres;
- determine an accurate count of victims;
- determine cause and time of death;
- determine the sex of victims;
- determine the identity of victims (a process that is ongoing with the help of DNA analysis); and
- identify links to the perpetrators.<sup>185</sup>

During the same season, a fifth grave, the Ovčara grave near Vukovar in Croatia, was exhumed and 200 bodies were recovered, establishing the cause and manner of death of those victims.<sup>186</sup> Initially Physicians for Human Rights (PHR), a Boston-based NGO, was given the task of coordinating and performing the excavations and examinations. Due to poor management, in the following years the OTP hired its own teams instead of subcontracting to PHR<sup>187</sup> and in 1997, once Chief Prosecutor Louise Arbour had managed to raise 2.2 million USD to overcome funding problems, excavations continued at a mass grave site near Brčko, Bosnia-Herzegovina. The following year saw the exhumation of human remains of 650-800 individuals, the collection of over 20,000 photographs and examination of human remains.<sup>188</sup> In that year, eight mass graves relating to the Srebrenica investigations were excavated. 1999 saw the exploration at four sites (Kozluk, Nova Kasaba, Konjevic Polje and Glogova).<sup>189</sup> The annual report specifies that 'work around Srebrenica in 1999 was related entirely to primary grave sites, unlike 1998 when secondary sites were the main focus.'<sup>190</sup> According to investigator Dean Manning, the minimum number of individuals (MNI)

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<sup>184</sup> E Stover and G Peress, *The Graves. Srebrenica and Vukovar* (Scalo, Zürich 1998) 319-328.

<sup>185</sup> See *Milošević*, Witness Statement by Investigations Team Leader Dean Paul Manning (n 172) para 4.

<sup>186</sup> UNGA and UNSC, 'Fourth Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (n 183) para 66.

<sup>187</sup> See J Beatty, *Proof of Death: An Analysis of Methods that the International Criminal Tribunal for the Former Yugoslavia used to Establish Death* (MA thesis, Michigan State University 2005).

<sup>188</sup> UNGA and UNSC, 'Sixth Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (1999) UN Doc A/54/187 - S/1999/846, para 65.

<sup>189</sup> UNGA and UNSC, 'Seventh Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (2000) UN Doc A/55/273-S/2000/777.

<sup>190</sup> *Ibid* para 179.

relating to those grave sites was 546.<sup>191</sup> During the next two years another six graves surrounding the Srebrenica massacre were exhumed. The total number of individuals exhumed from the Srebrenica sites between 1996 and 2001 is 2,570.<sup>192</sup>

Furthermore, in 2000 one grave site was exhumed in Croatia and monitors were sent to sites exhumed by the Bosnian local commission that were relevant to the ICTY's investigations, seizing a total of 380 bodies from those exhumations.<sup>193</sup> In 2001

the Prosecutor undertook the exhumation of four sites in a graveyard in Knin, Croatia. The work is related to allegations of killings of civilians of Serb ethnicity by Croats in 1995 during Operation Storm.<sup>194</sup>

In line with the then Chief Prosecutor Carla Del Ponte's decision to end excavations, exhumation and examination activities undertaken by the Croatian authorities were monitored. It should be noted that parallel to the forensic investigations conducted by the ICTY, local commissions in both Croatia and Bosnia were trying to conduct exhumations of mass graves to find the missing.<sup>195</sup>

#### 4.1.3. FORENSIC INVESTIGATIONS IN KOSOVO

Whilst Slovenia, Croatia, Macedonia and Bosnia-Herzegovina declared independence, the tiny province of Kosovo in the South of the Federation was reintegrated closely into Yugoslavia.<sup>196</sup> In fact, a visit to the province in April 1987 by Slobodan Milošević is seen by some as the starting point of Milošević's rise. Two years later, as President, he ensured that Kosovo was stripped of its autonomy.<sup>197</sup> In the 1990s passive resistance by ethnic Albanians failed to regain independence and by the middle of the decade the Kosovo Liberation Army (KLA) had increased attacks on Serb targets as a sign of

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<sup>191</sup> *Milošević, Witness Statement by Investigations Team Leader Dean Paul Manning* (n 172).

<sup>192</sup> *Ibid.*

<sup>193</sup> UNGA and UNSC, 'Eighth Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (2001) UN Doc A/56/352-S/2001/865.

<sup>194</sup> *Ibid* para 192.

<sup>195</sup> See also the account by forensic anthropologist Eva-Elvira Klonowski about local exhumation efforts. She notes that

[f]rom the very beginning, the process of exhumation and identification was plagued by a notorious lack of sufficient funds, basic necessary equipment and supplies, and a deficiency of qualified forensic experts, such as forensic pathologists, anthropologists or archaeologists (E-E Klonowski 'Forensic Anthropology in Bosnia and Herzegovina: Theory and Practice amidst Politics and Egos' in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Illinois 2007)).

<sup>196</sup> S Bouwhuis, 'Kosovo: The Legality of Intervention?' (2000) 4(2) *Australian Journal of Human Rights* 57.

<sup>197</sup> Silber and Little (n 174).

protest against Serbian rule.<sup>198</sup> In 1998 the situation escalated and ethnic cleansing campaigns against Kosovo Albanians started.<sup>199</sup> According to NATO (North Atlantic Treaty Organization) the

open conflict between Serbian military and police forces and Kosovar Albanian forces resulted in the deaths of over 1,500 Kosovar Albanians and forced 400,000 people from their homes. The international community became gravely concerned about the escalating conflict, its humanitarian consequences, and the risk of it spreading to other countries. President Milosevic's disregard for diplomatic efforts aimed at peacefully resolving the crisis and the destabilising role of militant Kosovar Albanian forces was also of concern.<sup>200</sup>

In an attempt to end the crisis, in March 1999 NATO launched air strikes in Kosovo and Serbia and, after 11 weeks, Milošević was forced to order the withdrawal of his troops. In May 1999 Milošević was indicted, *inter alia*, for the forced deportation of 740,000 Kosovo Albanians.<sup>201</sup>

Once again, the OTP deemed investigations of mass graves important for prosecution purposes and from 1999 to 2000 forensic work was conducted in Kosovo. During the first year 'gratis personnel' from numerous different countries were deployed to investigate sites that were selected on the basis of relevance to the Milošević indictment, the alleged numbers of bodies, security and accessibility at sites.<sup>202</sup> Observers commented that forensic teams 'swept into Kosovo and set up encampments near seven massacre sites allegedly left behind by retreating Yugoslav army and paramilitary forces'<sup>203</sup> and that

the Tribunal shuttled over 300 forensic scientists from fourteen countries in and out of the region in what soon turned into the largest international forensic investigation of war crimes - or possibly of any crime - in history.<sup>204</sup>

Throughout the two-year period of 1999/2000, approximately 4,000 bodies or body parts were exhumed providing the OTP 'with an excellent picture of the extent and the pattern of crimes committed in Kosovo during 1999.'<sup>205</sup> For the Milošević case, pathologist Dr Eric Baccard synthesised the forensic missions conducted by different forensic teams

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<sup>198</sup> BBC, 'Flashback to Kosovo's War' <<http://newsvote.bbc.co.uk/mpapps/pagetools/print/news.bbc.co.uk/2/hi/europe/5165042.stm>> accessed 11 March 2009.

<sup>199</sup> Ibid.

<sup>200</sup> NATO, 'NATO's Role in Relation to The Conflict in Kosovo' (1999) <<http://www.nato.int/kosovo/history.htm>> accessed 10 March 2009.

<sup>201</sup> *Prosecutor v Milošević et al.*, Initial Indictment "Kosovo", Case No IT-99-37, 22 May 1999.

<sup>202</sup> UNGA and UNSC, 'Seventh Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (n 189).

<sup>203</sup> E Stover and M Ryan, 'Breaking Bread with the Dead' (2001) 35(1) *Historical Archaeology* 7, 23.

<sup>204</sup> F Abrahams, G Peress and E Stover, *A Village Destroyed, May 14, 1999* (University of California Press, Berkeley 2001) 84.

<sup>205</sup> UNGA and UNSC, 'Eighth Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (n 193) para 191.



during 1999 in relation to 14 sites in Kosovo.<sup>206</sup> The evidence refers to a minimum number of 518 victims.<sup>207</sup>

Much controversy emerged surrounding the 1999 exhumations, with forensic experts criticising the lack of planning and centralisation of the missions as teams were deployed

regardless of experience or suitability, without issuing any clear guidelines. The consequences in Kosovo were chaotic. No systematic exhumation records were tabulated and the quality of post-mortem examinations and identifications varied considerably between national teams.<sup>208</sup>

These experiences from Kosovo form part of the rationale for further research in the area of forensic missions for international criminal proceedings.

#### 4.1.4. FORENSIC EVIDENCE AT THE ICTY

Given the novelty and extent of forensic investigations for criminal proceedings, the ICTY is, without doubt, the prime case study for any research into the interaction between forensic science from mass graves and international criminal law. As the first purely international and highly influential Tribunal since Nuremberg, the ICTY, with its jurisdiction and case law, provides a rich study resource to examine how expert witness testimony, especially forensic science testimony, is admitted, treated and weighed during international criminal proceedings. Whilst the collection of forensic evidence by the OTP through bespoke forensic missions has been completed, the forensic reports and exhibits are still being used for prosecution purposes, with the current *Popović et al.* trial and the recent *Milutinović* judgment being two examples.<sup>209</sup> It is anticipated that this trend will be continued relating to the Srebrenica massacre in the Radovan Karadžić case, and the Ratko Mladić case, should the latter ever be brought before the Tribunal.

<sup>206</sup> The teams investigating the sites came from the United States, Switzerland, Austria, Spain, France, United Kingdom, France and Canada. The Racak incident was investigated by a combination of Yugoslav, Bielo-Russian and Finnish forensic experts. *Prosecutor v Milošević et al.*, Medico-legal Analysis and Synthesis Report about the Forensic Expertises Missions Conducted in Kosovo during the Year 1999 (31 January 2002), Case No IT-02-54-T, submitted by the Prosecution on 4 February 2004, Trial Chamber III, 9-10.

<sup>207</sup> Ibid 11.

<sup>208</sup> JP Baraybar, V Brasey and A Zadel, 'The Need for a Centralised and Humanitarian-based Approach to Missing Persons in Iraq: An Example from Kosovo' (2007) 11 *The International Journal of Human Rights* 265, 268.

<sup>209</sup> Jennifer Beatty in her dissertation references 11 trial judgments in which generic forensic evidence (i.e. forensic evidence not solely recovered from mass grave sites) had been used to convict accused: *Prosecutor v Stakić*, Case No IT-97-24 (Prijedor); *Prosecutor v Kvočka et al.*, Case No IT-98-30/1 (Omarska, Keraterm and Trnopolje Camps); *Prosecutor v Krnojelac*, Case No IT-97-25 (Foca); *Prosecutor v Jelisić*, Case No IT-95-10 (Brčko); *Prosecutor v Kupreskić et al.*, Case No IT-95-16 (Lasva Valley); *Prosecutor v Naletilić and Martinović*, Case No IT-98-34 (Tuta and Stela); *Prosecutor v Vasiljević*, Case No IT-98-32 (Visegrad); *Prosecutor v Krstić*, Case No IT-98-33 (Srebrenica-Drina Corps); *Prosecutor v Blaskić*, Case No IT-95-14 (Lasva Valley); *Prosecutor v Kordić and Čerkez*, Case No IT-95-14/2 (Lasva Valley); *Prosecutor v Brđanin and Župljanin*, Case No IT-99-36 (Krajina) (Beatty (n 187) 10-11).

The most prominent trials to date at which forensic experts gave evidence have been the *Krstić* trial during which five forensic experts<sup>210</sup> gave evidence in court, and the *Milošević* trial. As will become evident in the analysis chapters, the cases systematically reviewed for this study are *Mrkšić et al.*, *Krstić*, *Popović et al.*, *Milošević* and *Milutinović et al.* Forensic science evidence from mass graves featured prominently throughout the trial phase and, with the exception of *Milošević*, in the judgments. The thesis will demonstrate that despite forensic science not being strictly speaking necessary to provide proof of death,<sup>211</sup> the value of forensic evidence from mass graves goes well beyond mere *prima facie* evidence of homicide.

Given the dissatisfaction voiced by forensic experts as to the way in which the missions were planned and executed in Kosovo,<sup>212</sup> the research concentrates on those better organised, in-house forensic missions conducted in Bosnia-Herzegovina and Croatia in order to understand and improve best practice, rather than studying ill-designed missions. Nonetheless, the evidence retrieved during the Kosovo investigations is of great relevance in judgments such as *Milutinović et al.*

As a case study the ICTY's forensic missions are interesting for 1) legal practitioners, from the point of view of prosecuting accused with evidence from mass graves, 2) investigators who are instrumental in relating the prosecutorial needs to the forensic experts and are close to the day-to-day business of actually conducting forensic missions, and 3) forensic experts who, contrary to prior mass grave investigations for humanitarian purposes, now see their work being used for criminal investigations in the first instance and for other transitional justice purposes in a second, separate instance.<sup>213</sup>

#### **4.2. The Extraordinary Chambers in the Courts of Cambodia (ECCC)<sup>214</sup>**

Cambodia is universally associated with its killing fields – a horrific inheritance from the Khmer Rouge era. The killing fields and memorials displaying the bones of victims are a constant reminder of this period; they serve both a historical and an educational function. Whilst mass grave evidence from the Khmer Rouge period is referred to in

<sup>210</sup> The experts included two forensic anthropologists, two forensic pathologists and one forensic archaeologist. In addition one demographer and two ICTY investigators gave evidence.

<sup>211</sup> Beatty (n 187) 5-6.

<sup>212</sup> See, for example, M Cox, A Flavel and I Hanson, 'Introduction and Context' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) and Baraybar, Brasey and Zadel (n 208).

<sup>213</sup> For a discussion of the problems that may arise from such a division, see section 7.2.2.1.

<sup>214</sup> The following section is an updated and expanded version of the first part of the author's article 'Forensic Science for Cambodian Justice' (M Klinkner 'Forensic Science for Cambodian Justice' (2008) 2(2) *International Journal of Transitional Justice* 227).

history and social science publications on Cambodia, it has not been used in a legal context, not even in the 1979 *in absentia* trial of Pol Pot and Ieng Sary.<sup>215</sup> The establishment of the Extraordinary Chambers in the Courts of Cambodia (ECCC) creates an opportunity for a review of this evidence 30 years after the events as those alleged to be accountable for Cambodia's killing fields are finally being brought to justice.

Firstly, the case study was chosen as part of this research because of the many mass graves that litter the Cambodian mental landscape and physical substrate. Scholars believe that Cambodia's mass graves and human remains will provide valuable physical evidence for any legal proceedings and will be of probative value.<sup>216</sup> Despite the lapse of time and the process of decay, the bones still contain information. With the help of forensic science, 'the violent method of death can be determined in a large number of cases',<sup>217</sup> and the context of death, sex, age and stature of the victim can be established. To date, many of Cambodia's killing fields, whilst disturbed, have not been scientifically analysed, thus providing an interesting and challenging research opportunity from a forensic science perspective.

Secondly, the ECCC is a fine example of delayed litigation as a transitional justice response. Unlike the ICTY, the ECCC was established on request of the Cambodian government many years after the collapse of the Khmer Rouge regime; its jurisdiction and operations are a mix between international and local traditions. Decisions at an investigative and prosecutorial level normally require the joint approval of the international and Cambodian Co-investigating judge. Whilst at the beginning of the research project it seemed that forensic science investigations into mass graves were a real option for the ECCC, now that the trials commence in 2009, it looks increasingly that such scientific evidence will not be available to the ECCC. Nonetheless, Cambodia serves as a fascinating case study to explore the reasons for and against using forensic science for legal proceedings. Furthermore, jurisprudence emerging from the trials that use information from mass graves, even if not scientifically ascertained, will provide an additional source of information for future research in the area of forensic science for international criminal proceedings.

Thirdly, the political, religious and cultural context in Cambodia is very different to that encountered in the former Yugoslavia, thus providing for interesting juxtapositions

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<sup>215</sup> HJD Nike, J Quigley and KJ Robinson (eds), *Genocide in Cambodia. Documents from the Trial of Pol Pot and Ieng Sary* (University of Pennsylvania Press, Philadelphia 2000).

<sup>216</sup> See MA Lejmi, 'Prosecuting Cambodian Genocide: Problems Caused by the Passage of Time since the Alleged Commission of Crimes' (2006) 4(2) *Journal of International Criminal Justice* 300; KD Askin, 'The Investigation and Prosecution' [2006] (Spring) *Justice Initiatives* <[http://www.justiceinitiative.org/db/resource2?res\\_id=103182](http://www.justiceinitiative.org/db/resource2?res_id=103182)> accessed 18 January 2007, 72.

<sup>217</sup> UNGA and UNSC, 'Report of the Group of Experts for Cambodia established pursuant to General Assembly Resolution 52/135' (15 March 1999) UN Doc A/53/850-S/1999/231, para 52.

between the two case studies, facilitating a richer analysis as to the role of forensic science during international criminal prosecutions in the broader transitional justice context.

#### 4.2.1. HISTORICAL AND LEGAL CONTEXT

Between 17 April 1975 and 7 January 1979, the Pol Pot regime, in its desire to create an agrarian, Marxism-inspired utopia, evacuated urban centres, destroyed books, libraries, banks, religious locations and universities, executed Cambodia's elite, alleged political opponents and those from ethnic minorities, abolished money, markets and private property, dissolved family structures, and prohibited education and religious practice.<sup>218</sup> The Khmer Rouge reign is believed to have caused the deaths of between 740,000 and 3,314,000 people through execution, torture, overwork, starvation and disease.<sup>219</sup> The debate about 'the numbers' is ongoing. The director of the Genocide Studies Program at Yale University, Ben Kiernan, relying upon demographic data and a comparison of pre-1975 and post-1979 population figures, believes that the death toll is 'between 1.671 and 1.871 million people, 21 to 24 percent of Cambodia's 1975 population',<sup>220</sup> whilst Bruce Sharp argues that it is around 2.18 million.<sup>221</sup> The Cambodian people, rightly or wrongly, refer to the atrocities committed during the period of Democratic Kampuchea as genocide,<sup>222</sup> and they are awaiting justice to this day. A 2008 survey by the Human Rights Center at the University of California, Berkeley, revealed that 93 percent of respondents who had lived under the Khmer Rouge regime, thought of themselves as victims: 82 percent had suffered from starvation and lack of food; property of 71 percent had been stolen or destroyed; 69 percent were forced to evacuate their homes; 27

<sup>218</sup> See for example Van Schlaack and Slye (n 171).

<sup>219</sup> T Fawthrop and H Jarvis, *Getting Away With Genocide? Elusive Justice and the Khmer Rouge Tribunal* (Pluto Press, London 2004).

<sup>220</sup> B Kiernan, 'The Demography of Genocide in Southeast Asia: The Death Tolls in Cambodia, 1975-79, and East Timor, 1975-80' (2003) 35(4) *Critical Asian Studies* 585, 587.

<sup>221</sup> B Sharp, 'Counting Hell' <<http://www.mekong.net/cambodia/deaths.htm>> accessed 18 January 2007. Sharp reviews the death toll proposed by Michael Vickery from census data (740,800); by Ben Kiernan from surveys (1.671 million to 1.871 million); by Craig Etcheson, whose estimations are based on the DC-Cam mapping project and house-to-house surveys (3 million); and by Patrick Heuveline, who analysed demographic trends (2 million), to come up with his own estimate of 2.18 million.

<sup>222</sup> The notorious Tuol Sleng Prison, where many victims were photographed before being killed, is now a 'Genocide Museum'. Choeung Ek is referred to as a 'Genocide Memorial'. In the *in absentia* trial of 1979, Pol Pot and Ieng Sary were charged with the crime of genocide (Nike, Quigley and Robinson (n 215)), but the definition of genocide used at that time encompassed groups of innocent people as part of protected groups (see S Luftglass, 'Crossroads in Cambodia: The United Nation's Responsibility to Withdraw Involvement from the Establishment of a Cambodian Tribunal to Prosecute the Khmer Rouge' (2004) 90 *Virginia Law Review* 893).

percent reported to have experienced torture, whilst 30 percent witnessed torture or killings (21 percent).<sup>223</sup>

To many scholars, the international community unquestionably shares guilt in the atrocities committed by the Khmer Rouge because of its inaction.<sup>224</sup> The *realpolitik* practised by the international community in the 1980s, by which the Khmer Rouge received funding from China and aid from the US via its allies and was permitted to keep Cambodia's United Nations seat, contributed to the delay in justice and allowed the Khmer Rouge to engage in guerrilla warfare.<sup>225</sup> Some argue that it was precisely western governments' support which helped Pol Pot and other senior regime leaders to escape prosecution: from 1979, when Vietnamese troops and Cambodian anti-Khmer Rouge soldiers overthrew the Pol Pot regime, until 1997, when remnants of the Khmer Rouge held a kangaroo court trial of Pol Pot in which he was convicted of committing crimes against other Khmer Rouge leaders, with no mention of any crimes against the Cambodian people, Pol Pot successfully evaded justice.<sup>226</sup> During a period when the international community was working toward ending the 'culture of impunity', Pol Pot, 'whose name had come to symbolize impunity for unconscionable crimes',<sup>227</sup> died on 15 April 1998.

In 1997, the Cambodian government requested the UN's assistance in bringing senior Khmer Rouge leaders to justice.<sup>228</sup> The Group of Experts for Cambodia, established pursuant to UN General Assembly Resolution 52/135, confirmed that evidence suggested patterns of abuse, including forced population movement, forced labour and inhumane living conditions, attacks on enemies of the revolution (officials of previous regimes, ethnic minorities, the intelligentsia, religious leaders and institutions) and purges within the Communist Party.<sup>229</sup>

Because of a lack of qualified legal professionals, the necessary legal infrastructure and 'a culture of respect for an impartial criminal justice system'<sup>230</sup> in Cambodia, the UN panel of experts advised against trials being held within the

<sup>223</sup> P Pham and others 'So We Will Never Forget. A Population-Based Survey on Attitudes about Social Reconstruction and the Extraordinary Chambers in the Courts of Cambodia' (Human Rights Center, University of California Berkeley, Berkeley 2009) <<http://hrc.berkeley.edu/pdfs/So-We-Will-Never-Forget.pdf>> accessed 27 March 2009.

<sup>224</sup> Luftglass (n 222). The US is believed to have played a significant role in the Khmer Rouge's rise to power by destabilizing Cambodia both economically and militarily through its B-52 carpet-bombing of the Cambodian countryside in 1969-1973 (AJ Buckley, 'The Conflict in Cambodia and Post-Conflict Justice' in: MC Bassiouni (ed), *Post-Conflict Justice* (Transnational Publishers, Inc., Ardsley 2002)).

<sup>225</sup> Fawthrop and Jarvis (n 219).

<sup>226</sup> Ibid.

<sup>227</sup> Buckley (n 224) 644.

<sup>228</sup> See, for example, C Etcheson, 'A "Fair and Public Trial": A Political History of the Extraordinary Chambers' [2006] (Spring) Justice Initiatives <[http://www.justiceinitiative.org/db/resource2?res\\_id=103182](http://www.justiceinitiative.org/db/resource2?res_id=103182)> accessed 18 January 2007, 7.

<sup>229</sup> UNGA and UNSC, 'Report of the Group of Experts for Cambodia established pursuant to General Assembly Resolution 52/135' (n 217).

<sup>230</sup> Ibid para 129.

country.<sup>231</sup> To date, the judicial system in Cambodia has not fully recovered since the Khmer Rouge regime collapsed.<sup>232</sup> After often troublesome and interrupted negotiations<sup>233</sup> between the UN and the Kingdom of Cambodia, the final agreement on establishing the Extraordinary Chambers diverged significantly from the Group of Experts' recommendations. Taking into consideration the lessons learnt from the *ad hoc* Tribunals for the former Yugoslavia and Rwanda (high costs, bureaucracy, remoteness and slow proceedings) and the demands of the Cambodian government, the UN eventually agreed on a 'hybrid' tribunal, situated in Phnom Penh, to try senior Khmer Rouge officials. In May 2003, seven years after the initial request for assistance, the General Assembly adopted Resolution 57/228B approving the Draft Agreement between the Royal Government of Cambodia and the UN.<sup>234</sup> On 6 June 2003, Sok An, Senior Minister in Charge of the Council of Ministers, and Hans Corell, then-UN Under-Secretary-General for Legal Affairs, signed an agreement to try

senior leaders of Democratic Kampuchea and those who were most responsible for the crimes and serious violations of Cambodian penal law, international humanitarian law and customs, and international conventions recognized by Cambodia, that were committed during the period from 17 April 1975 to 6 January 1979.<sup>235</sup>

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<sup>231</sup> This concern remains valid. According to the 2007 Global Corruption Report, corruption levels in the judiciary of Cambodia are still high, with judicial officers being amongst the least trusted government staff: 'Chronic underfunding for judges and courts, coupled with a culture that places a high value on giving gifts to people in authority, contributes to a high level of petty corruption in Cambodia's courts' (S Ford and TC Seng, 'Corruption in the Judiciary of Cambodia' in: D Rodriguez and L Ehrichs (eds), *Global Corruption Report* (Cambridge University Press, Cambridge 2007) 183). This situation, according to Antonia Potter, has partially been caused by assistance opportunities being wasted:

Because assistance actors had identified that state institutions were weak and corrupt, and because some of them had only limited funds, they chose not to work with the state institutions, pouring their resources instead into what was then a very nascent Khmer civil society. The result, unsurprisingly, is that access to justice and respect for human rights in Cambodia is considered today to be unacceptably poor, despite more than a decade of donor engagement (A Potter, 'The Rule of Law as the Measure of Peace? Responsive Policy for Reconstructing Justice and the Rule of Law in Post Conflict and Transitional Environments' (Centre for Humanitarian Dialogue, Geneva 2004)).

<sup>232</sup> The Center for Social Development, 'Annual Report: The Court Watch Project, October 2006-September 2007' (March 2008) <<http://www.csdcambodia.org/pdf/2008/Annual%20Report%202007.pdf>> accessed 13 May 2008.

<sup>233</sup> For a detailed description of the negotiations between Cambodia and the UN, see Etcheson (n 228); K Whitley, 'History of the Khmer Rouge Tribunal: Origins, Negotiations, and Establishment' in: JD Ciorciari (ed), *The Khmer Rouge Tribunal* (Documentation Center of Cambodia, Phnom Penh 2006); Fawthrop and Jarvis (n 219) and Luftglass (n 222).

<sup>234</sup> Documentation Center of Cambodia, 'Chronology of the Khmer Rouge Tribunal' (2007) <<http://www.dccam.org/Archives/Chronology/Chronology.htm>> accessed 31 May 2007.

<sup>235</sup> Agreement between the United Nations and the Royal Government of Cambodia concerning the Prosecution under Cambodian Law of Crimes committed during the period of Democratic Kampuchea (6 June 2003) <<http://www.cambodia.gov.kh/krt/pdfs/Agreement%20between%20UN%20and%20RGC.pdf>> accessed 12 December 2006 [1].

The ECCC is to try former leaders for the following crimes under domestic and international law: genocide; war crimes; crimes against humanity; torture; religious persecution; homicide; destruction of cultural property; and offences against diplomatically protected persons.<sup>236</sup>

The ECCC, as the name indicates, is part of the Cambodian courts but includes international participation. It is a unique hybrid court that has Cambodian law as its foundation but incorporates international law standards. Its chambers and judiciary offices (Pre-Trial Chamber, Trial Chamber, Supreme Court Chamber, Office of the Co-prosecutors and Office of the Co-investigating judges) are made up of Cambodian and international staff. Both the Trial Chamber (composed of three Cambodian and two international judges) and the Supreme Court Chamber (composed of four Cambodian and three international judges) require a supermajority verdict. At the Trial Chamber level, an affirmative vote of at least four judges is needed, and in the Supreme Court Chamber, an affirmative vote of at least five judges is required.<sup>237</sup>

International and Cambodian judges and prosecutors were appointed on 7 May 2006.<sup>238</sup> On 18 July 2007, the Co-prosecutors filed an introductory submission requesting that the Co-investigating judges investigate the identified crimes and charge those deemed responsible. Preliminary investigations identified five suspects. In order to support their submission, the Co-prosecutors

transmitted more than 1,000 documents [...] including third party statements and/or written records of over 350 witnesses, a list of 40 other potential witnesses, thousands of pages of Democratic Kampuchea-era documentation and the location of over 40 [sic] *undisturbed* mass graves.<sup>239</sup>

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<sup>236</sup> Secretariat of the Royal Government Task Force, *An Introduction to the Khmer Rouge Trials* (Secretariat of the Task Force for the Khmer Rouge Trials, Phnom Penh 2006). See also A Ardema, 'The Crimes to be Judged by the Extraordinary Chambers' in: JD Ciorciari (ed), *The Khmer Rouge Tribunal* (Documentation Center of Cambodia, Phnom Penh 2006).

<sup>237</sup> How this supermajority system will work in practice remains to be seen. Buckley believes it to be a 'recipe for disaster.' He predicts that

the three Cambodian judges will dance loyally to the tune of Hun Sen, and the two UN-appointed judges will refuse to join the charade. Gridlock is inevitable. The Cambodian public will be an exasperated spectator to the jerky, redundant movements of a justice system crippled by political compromise (Buckley (n 224) 650).

It is ironic that mixed tribunals, such as those for East Timor, Sierra Leone and Kosovo, followed the idea of a 'Cambodian model' before its own realisation. Because hybrid courts are visible to the local population, employ local judges and staff, encourage local ownership, help build capacity locally and come at a far lesser cost, in recent years they have been favoured over purely international *ad hoc* tribunals in The Hague (NJ Kritz, 'Progress and Humility: The Ongoing Search for Post-Conflict Justice' in: MC Bassiouni (ed), *Post-Conflict Justice* (Transnational Publishers, Inc., Ardsley 2002)).

<sup>238</sup> Documentation Center of Cambodia, 'Chronology of the Khmer Rouge Tribunal' (n 234).

<sup>239</sup> Extraordinary Chambers in the Courts of Cambodia, Office of the Prosecutor, 'Statement of the Co-Prosecutors' (Extraordinary Chambers in the Courts of Cambodia, Phnom Penh 2007) 6 (emphasis added).

All five suspects, Kaing Guek Eav (also known as Duch), Nuon Chea (known as Brother Number Two), Ieng Sary (Deputy Prime Minister and Foreign Minister of Democratic Kampuchea), Ieng Thirith (Minister of Social Affairs and Head of Democratic Kampuchea's Red Cross Society) and Khieu Samphan (Head of State in Democratic Kampuchea), are currently in detention. The first procedural hearing in the trial of former Toul Sleng prison commander Kaing Guek Ev took place in February 2009.

However, the ECCC's operations are far from running smoothly. In December 2008, Co-prosecutor Robert Petit wished to submit the names of additional suspects to the Co-investigating judges, recommending they should be charged with crimes under the ECCC's jurisdiction.<sup>240</sup> But Chea Lang, the Cambodian Co-prosecutor, refused to endorse this submission for political and policy reasons.<sup>241</sup> A special dispute resolution procedure, designed to prevent political interference regarding prosecutorial and investigative decisions, will show whether the court can be independent in its investigations.<sup>242</sup> Secondly, allegations of corruption and insufficient funding<sup>243</sup> continue to plague the ECCC; both are interlinked as the failure to adequately address allegations of corruption and partiality impacts upon the willingness of donors to provide the necessary funds.<sup>244</sup> Thirdly, the Victims Unit of the court has a backlog of 2,800 complaints and civil party applications and is in need of more staff.<sup>245</sup> Fourthly, 39 percent of 1000 surveyed Cambodians aged 18 had no knowledge of the Extraordinary Chambers, thus outlining the need for further outreach operations on behalf of the ECCC.<sup>246</sup>

Despite these challenges, it is hoped that proceedings will be able to continue and start in due course for the other four detainees. Most of the evidence that will feature in the forthcoming trials is expected to come from witness testimony and documents, but the country has an abundance of a particular type of physical evidence: human remains. The following section provides an overview as to the research that to date has been conducted regarding Cambodia's mass graves.

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<sup>240</sup> Human Rights Watch, 'Cambodia: 30 Years After Fall of the Khmer Rouge, Justice Still Elusive' (2009) <<http://www.hrw.org/en/news/2009/01/05/cambodia-30-years-after-fall-khmer-rouge-justice-still-elusive>> accessed 9 January 2009.

<sup>241</sup> Ibid.

<sup>242</sup> Open Society Justice Initiative, 'Recent Developments at the Extraordinary Chambers in the Courts of Cambodia. February 2009 Update' (Open Society Institute, Washington DC 2009).

<sup>243</sup> The Associated Press reported at the beginning of March 2009, that the funding crisis is so imminent that Cambodian staff might have to stop working for the ECCC (S Cheang, 'Judge: Cambodian Genocide Court Faces Fund Crunch' (2009) <[http://www.google.com/hostednews/ap/article/ALeqM5gkvDgd\\_ZwL0x\\_nwAEI-0V3V4iURAD96M1KQ80](http://www.google.com/hostednews/ap/article/ALeqM5gkvDgd_ZwL0x_nwAEI-0V3V4iURAD96M1KQ80)> accessed 8 March 2009).

<sup>244</sup> Open Society Justice Initiative (n 242).

<sup>245</sup> Ibid.

<sup>246</sup> Pham and others (n 223).



#### 4.2.2. EXHUMATIONS BY THE VIETNAMESE

The Vietnamese are believed to have undertaken forensic excavations in the early and late 1980s, but to date they have made no reports public. Researchers from the Documentation Center of Cambodia (DC-Cam) can only draw inferences as to the activities of the Vietnamese from the traces excavators left on human remains, from how the remains were arranged by bone type at memorial sites and from photographic records. It is reported that in 1980, about 89 of the estimated 130 mass graves in the area of Choeung Ek, the killing field on the outskirts of Phnom Penh, were excavated by Vietnamese authorities using mostly untrained staff; hence, not all fragments were recovered.<sup>247</sup> The human crania are stored in a *stupa* at Cheoung Ek, a 62-metre-tall memorial built in 1988. According to Fawthrop and Jarvis (2004), in 1988 and 1989, an expert team from Ho Chi Minh University in Vietnam examined and measured the 8,000 exhumed crania from Choeung Ek during three trips to the field.<sup>248</sup> It became apparent from the interviews conducted for this research that despite DC-Cam's efforts to obtain them, no reports as to the findings and methods employed seem to be available.

#### 4.2.3. SURVEYS BY THE DOCUMENTATION CENTER OF CAMBODIA

The Documentation Center of Cambodia, an independent, nongovernmental and not-for-profit research institute committed to researching and documenting the Khmer Rouge era, aimed to locate the various sites containing human remains from the Khmer Rouge era. In DC-Cam's 1999 mapping project analysis, Etcheson describes the NGO's formidable task of trying to locate and map each mass grave, prison and memorial in Cambodia through global positioning system mapping, as well as through more traditional field work, with investigators exploring Cambodia for killing fields and graves.<sup>249</sup> Ninety-five percent of the graves DC-Cam located had been exhumed by the Cambodian government without staff trained in forensic sciences or disturbed and robbed by locals looking for family members or valuables. The estimated number of bodies at the mapped sites is based on interviews with witnesses, perpetrator testimony, counts of crania at memorial sites, comparisons with records kept from government exhumations and estimates by DC-Cam staff based on apparent grave size and their own experiences from previously assessed graves. They employed no forensic science methods, however, in estimating grave sizes to infer numbers. From 1995, the year the

<sup>247</sup> See SC Ta'ala, GE Berg and K Haden, 'Blunt force Cranial Trauma in the Cambodian Killing Fields' (2006) 51 (5) *Journal of Forensic Sciences* 996 and W Cougill, 'Buddhist Cremation Traditions for the Dead and the Need to Preserve' <[http://www.dccam.org/Projects/Maps/Buddhist\\_Cremation\\_Traditions.htm](http://www.dccam.org/Projects/Maps/Buddhist_Cremation_Traditions.htm)> accessed 26 March 2007.

<sup>248</sup> Fawthrop and Jarvis (n 219).

<sup>249</sup> C Etcheson, 'Mapping Project 1999: The Analysis. "The Number" - Quantifying Crimes Against Humanity in Cambodia' (Report) <[http://www.dccam.org/Projects/Maps/Mass\\_Graves\\_Study.htm](http://www.dccam.org/Projects/Maps/Mass_Graves_Study.htm)> accessed 17 November 2006. These mass graves are then divided into subcategories: some denote earthen pits, wells or caves while others relate to people burned in brick kilns or bodies scattered on open land.

project started, to 2007, DC-Cam identified 19,733 mass burial pits that were organised in 388 burial sites, providing an idea of the systematic character of the killing and torture.<sup>250</sup> In the NGO's 1999 report, Etcheson speculates that 1,110,829 victims of execution are buried in these mass graves. Some of the pits are believed to contain (or have contained) many thousands of victims,<sup>251</sup> findings that one interviewee believed to be overestimates.<sup>252</sup>

Without excavations and analysis of the bodies in the graves, this figure remains unsubstantiated.<sup>253</sup> Furthermore, as no attempts have been made to determine the size and shape of the excavated and unexcavated graves through archaeological surveys to assess how many bodies they might have contained, the numbers are easily disputed. Indeed, Etcheson acknowledges that because of the methods employed, which were based on social science research and on the interviewing and counting skills of project staff untrained in forensic sciences, the numbers lack scientific certainty. Consequently, he recommends 'a formal, full-scale forensic project'<sup>254</sup> to add credibility to the mapping project and to extract further information from the physical evidence.

#### 4.2.4. RECENT FORENSIC PROJECTS

A case report published in 2006 presents the findings of a study of 85 crania from the *stupa* at Choeung Ek. This project was supported by the Joint POW/MIA Accounting Command (JPAC) and the Kingdom of Cambodia. The report describes a pattern of systematic execution through blows on a specific area on the back of victims' heads that is sensitive due to its proximity to the cerebellum, brainstem and spinal cord.<sup>255</sup> In addition to perimortem damage, more recent postmortem damage of the crania, such as loss of teeth, was noted. The authors conclude that more killing techniques, such as the use of plastic bags for suffocation, might be detected through carefully conducted forensic examinations of mass graves and human remains.<sup>256</sup> Further research into methods of killing would yield valuable information for legal actions related to these crimes. Interestingly, none of the interviewees mentioned this study, though they regularly referred to DC-Cam studies and early exhumations by the Vietnamese.

<sup>250</sup> Documentation Center of Cambodia, 'Mapping Project: 1995-Present' <<http://www.dccam.org/Projects/Maps/Mapping.htm>> accessed 21 November 2007.

<sup>251</sup> See Documentation Center of Cambodia, 'Burial' (last updated 18 February 2008) <[http://www.dccam.org/Projects/Maps/List\\_of\\_Burial\\_Site\\_Most\\_Updated.pdf](http://www.dccam.org/Projects/Maps/List_of_Burial_Site_Most_Updated.pdf)> accessed 13 October 2008. For example, a site named Chamkar Khnao in the Sisophon District is believed to hold 20,000 victims.

<sup>252</sup> Telephone interview with forensic expert # 4 (4 June 2007).

<sup>253</sup> Kiernan (n 220).

<sup>254</sup> Etcheson (n 249) 15.

<sup>255</sup> Ta'ala, Berg and Haden (n 247).

<sup>256</sup> *Ibid.* It should, however, be noted that inferences of this nature would not result from the examination of skeletal remains as such, but through finding the artefact tied around the head of a victim.

In 2003, DC-Cam launched what it called a forensic project, comprising an exhibition of crania and a site selection study in preparation for a full-scale multidisciplinary forensic exhumation.<sup>257</sup> The exhibition of crania from Choeung Ek was designed to demonstrate the potential of human remains to serve as valuable evidence of Khmer Rouge crimes and to yield medico-legal information. Forensic experts took samples from the crania that had been excavated in the 1980s and preserved in *stupas* and examined the crania to determine the age, sex, trauma and cause of death of each victim. The selected crania show blunt-force trauma, sharp-force trauma and gunshot wounds. Explanations of the findings were intended to educate Cambodians about the value of forensic science in terms of recording evidence and proving elements of crimes. DC-Cam staff say they refrained from actually displaying the examined crania in public because of a 'controversy in Cambodian society over whether this is appropriate',<sup>258</sup> as well as then-King Norodom Sihanouk's dislike of such displays. The crania now are housed in a separate room at Tuol Sleng Museum.

DC-Cam employed forensic experts to conduct a site selection survey in order to identify appropriate sites at which to conduct forensic exhumations. To make the planned study authoritative, the forensic scientists insisted on finding easily accessible, undisturbed graves – a task that proved difficult as witnesses' memories had faded and most graves had been disturbed. After a physical inspection of 53 sites led by Canadian pathologist Dr Michael Pollanen, the team concluded that only six sites were undisturbed and suitable for full-scale forensic excavation. The sites have been kept confidential by DC-Cam to protect them from grave robbers.

DC-Cam aimed to use the evidence gathered through forensic science to complement the evidence it had already obtained through the social science methods of gathering witness statements and estimating the number of dead. Furthermore, the project was designed to test the accuracy of witness statements gathered through the mapping project in order to confirm that the sites contain victims of Khmer Rouge atrocities and to establish how the victims died. However, full-scale excavations were never started. The decision by DC-Cam to put excavations on hold was, apart from funding issues, justifiable given the imminence of the Extraordinary Chambers becoming operational. The quest to document and investigate human rights' abuses can, in some circumstances, hinder criminal investigations.<sup>259</sup> DC-Cam was careful not to engage in

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<sup>257</sup> Documentation Center of Cambodia, 'Forensic Pathology and Anthropology of Historical Mass Killing in Cambodia' (Report) (14 January 2004) <[http://www.dccam.org/Projects/Forensic\\_Study/Forensic\\_Final\\_Report.pdf](http://www.dccam.org/Projects/Forensic_Study/Forensic_Final_Report.pdf)> accessed 14 September 2007.

<sup>258</sup> Documentation Center of Cambodia, 'Forensic Exhibition' (2004) <[http://www.dccam.org/Projects/Forensic\\_Study/Forensics\\_Exhibition.htm](http://www.dccam.org/Projects/Forensic_Study/Forensics_Exhibition.htm)> accessed 30 March 2009.

<sup>259</sup> As was experienced in the former Yugoslavia, overly close cooperation with non-governmental organisations can cause problems when investigations into human rights' violations by NGOs get in the way of criminal investigations conducted by the tribunal:

In the former Yugoslavia, this sort of problem caused the relationship between the criminal investigators and the NGOs to deteriorate to the point where the tribunal

investigations that the ECCC potentially wanted to undertake in order to avoid damaging evidence or rendering it inadmissible in court.

#### 4.2.5. FORENSIC SCIENCE EXHUMATIONS FOR THE ECCC?

The Co-investigating judges were keen to explore the question of whether the ECCC needed forensic science investigations. A confidential forensic needs assessment was conducted by Dr Andrew Thompson, who had previously been involved in establishing and managing forensic programmes for both the ICTY and the ICTR. The assessment was submitted to the ECCC Co-investigating judges in June 2007.<sup>260</sup> In accordance with Rule 31 of the ECCC's Internal Rules, it is the Co-investigating judges who decide whether forensic work is needed for an approximation of the true course of events.<sup>261</sup> This decision can be triggered by requests from the Co-prosecutors or the defence, but ultimately it is the Co-investigating judges, or the Trial Chamber, who initiate any forensic work by nominating experts to conduct specific tasks.

In the Cambodian context, forensic science would complement the predominantly social science research conducted to date. The ECCC is expected to make an important contribution to Cambodian history and collective memory through its judgments and legal documents. Collecting all available evidence, in particular physical evidence through using scientific methods, would help provide as comprehensive and impartial an account of events as possible. However, the time for the ECCC to investigate crimes before the remaining trials start has nearly run out. Sadly, it increasingly seems as if an opportunity to gather evidence that is distinct from what is already available to the ECCC will be missed.

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demanded that human rights groups cease and resist taking statements from witnesses, a prospect disagreeable to NGOs who had spent a great deal of time and energy documenting violations of humanitarian law (R McGrath, 'Problems of Investigations into War Crimes and Crimes Against Humanity During and After Ethnic Conflict' in: MC Bassiouni (ed), *Post-Conflict Justice* (Transnational Publishers, Inc., Ardsley 2002) 902).

<sup>260</sup> In general, the importance of forensic work has been recognised by the ECCC. According to one interviewee, training provided for investigative police and ECCC staff 'included sessions on processing crime scenes and documenting evidence collection. The sessions were more of an introductory nature and dealt with basic principles regarding collection of evidence' (additional email exchange with investigator # 4 (2 September 2007)). Due to the confidential nature of the forensic needs assessment, the author was unable to obtain the findings of this assessment.

<sup>261</sup> Rule 31 states: 'Expert opinion may be sought by the co-investigating judges or the Chambers, on any subject deemed necessary to their investigations of proceedings before the ECCC' (Extraordinary Chambers in the Courts of Cambodia, 'Internal Rules' (as revised on 6 March 2009) <<http://www.eccc.gov.kh/english/cabinet/fileUpload/121/IRv3-EN.pdf>> accessed 6 April 2009, Rule 31 (hereinafter ECCC IR).

## 5. A Value Assessment of Forensic Science

As discussed in the introduction, prosecutions are part of the transitional justice mix and contribute to establishing some notion of truth through investigations and the processes in court. The question concerning this analysis chapter is: of what value are forensic exhumations when prosecuting international crimes? What factors are important to consider when deciding whether to conduct forensic science exhumations? Drawing on the information provided by the interviewees, comparing and contrasting between the two scenarios (the former Yugoslavia and Cambodia) and through reference to the relevant literature and case law, a template was developed to provide an overall view of the contextual elements affecting the value of forensic science excavations for prosecution purposes. As explained in the methodology chapter under section 3.4.3.4., thematic analysis and template analysis were used to analyse the gathered data. It should be noted that the template presented below (Figure 9) is a condensed version of earlier, more detailed templates, and is designed to provide a comprehensive overview of the data analysis and findings discussed in this chapter. Furthermore, it has been designed to function as guidance for future decision-making processes regarding the use of forensic science from mass graves for international criminal prosecutions.

Systematic research into how the context impacts on the decision to undertake forensic investigations for criminal proceedings is overdue. As so often context is highly important; this is especially noticeable when contrasting the two *ad hoc* Tribunals with one another: the ICTY relied heavily on forensic science to prove and corroborate crimes, mainly because thousands of people were buried in clandestine graves. Furthermore, in an attempt to hide the crimes, primary graves were dug up again and the human remains transported to different (secondary) graves resulting in commingled human remains. In Rwanda hardly any forensic science for investigative purposes was undertaken because there was no need from a prosecution point of view – nobody disputed that the crimes had happened and there were enough eye witnesses to testify. Interestingly, in Cambodia, a country famous for its killing fields, no forensic excavations have been undertaken for the forthcoming trials. One interviewee was clearly amazed by this, especially when considering that the negotiations for the Extraordinary Chambers had started in 1997, allowing plenty of time to think about forensic science.<sup>262</sup>

Of course, as one interviewee remarked, 'the extent to which it [forensic science] will pay off for the Tribunal as such is something that can only be demonstrated in the event - demonstrated conclusively at least'.<sup>263</sup> Based upon the empirical knowledge gathered, however, it is possible to make an educated guess as to the value of forensic science in these situations and it is paramount that practitioners take this into consideration when deciding whether to embark on a mission.

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<sup>262</sup> Personal interview with international lawyer # 5 (24 April 2007).

<sup>263</sup> Personal interview with investigator # 3 (23 April 2007).

As illustrated in Figure 9 the study has identified six different 'categories of context' which impact on the value of forensic science excavations and examination of mass graves. Naturally their use is determined by the legal needs, the nature of crimes and the crime scenes themselves. But there are other issues that play an important role in the debate as well, especially psycho-social aspects within a country that could make or break the decision to conduct exhumations. Similarly the work of NGOs, the overall political situation both internationally and domestic as well as victims' rights and the significant recent developments within international law have an impact on whether forensic science is needed.

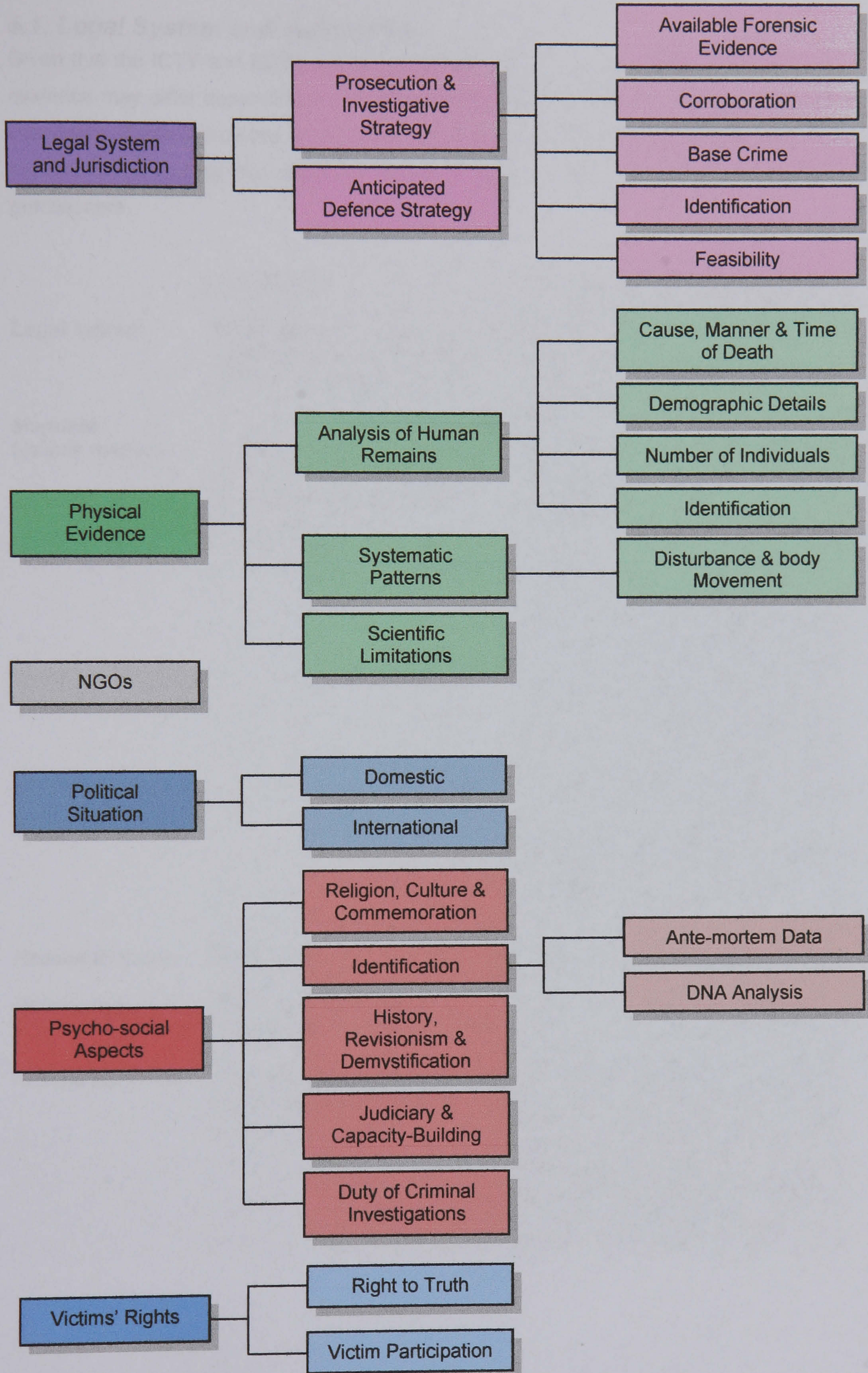


Figure 93: Value Assessment

### 5.1. Legal System and Jurisdiction

Given that the ICTY and ECCC are structured differently, the need for forensic science evidence may differ depending on the mandate, jurisdiction and Rules of Evidence and Procedure. Table 3 provides an overview of the differences that are most important for the discussion as they may affect the use of forensic science and the work of forensic practitioners.

	ICTY	ECCC
<b>Legal system</b>	<i>Mixed system:</i> combining inquisitorial law of evidence with an adversarial system	<i>Hybrid system:</i> Combining international and local law within an inquisitorial system
<b>Mandate</b>		
<i>Ratione materiae</i>	<ul style="list-style-type: none"> <li>▪ Grave breaches of the 1949 Geneva Conventions;</li> <li>▪ Violations of the laws or customs of war;</li> <li>▪ Genocide;</li> <li>▪ Crimes against humanity.</li> </ul>	<p><i>Crimes under Cambodian Law:</i></p> <ul style="list-style-type: none"> <li>▪ Murder;</li> <li>▪ Torture;</li> <li>▪ Religious persecution.</li> </ul> <p><i>Crimes under International Law:</i></p> <ul style="list-style-type: none"> <li>▪ Genocide;</li> <li>▪ Crimes against humanity (such as mass murder, deportation, torture, persecution on political, racial and religious grounds, rape and other crimes of sexual violence);</li> <li>▪ War crimes;</li> <li>▪ Destruction of cultural property;</li> <li>▪ Crimes against internationally protected persons.</li> </ul>
<i>Ratione temporis</i>	Post-1991	17 April 1975 to 6 January 1979
<i>Ratione loci</i>	Territory of the former Yugoslavia	Democratic Kampuchea
<i>Ratione personae</i>	Persons responsible for serious violations of international humanitarian law	Persons who were most responsible for the crimes and serious violations of Cambodian penal law, international humanitarian law and custom, and international conventions recognised by Cambodia.



**Rules of Evidence and Procedure**

- Rule 89 outlines the general provisions regarding the regulation of evidentiary matters;
- Rules 95 and 96 are exclusionary rules;
- Rule 94 *bis* regulates the testimony of expert witnesses;
- Rule 92 (D) Admissibility of summary evidence and transcript testimony<sup>264</sup>
- Rule 31 regulates the use of expert opinion before the ECCC;
- Rule 83 regulates the appearance of witnesses and experts;
- Rule 87 provides general Rules of evidence.<sup>265</sup>

Table 3: An Overview of the ICTY and ECCC's Legal Structures

As the first of its kind, the ICTY has had an impact upon other tribunals, such as those in Sierra Leone and Cambodia, but also on the ICC. In fact, international criminal law and practice evolved throughout the ICTY's lifespan: the rules of evidence and procedure were created by the appointed judges and fine tuned over time<sup>266</sup> and its jurisprudence has been referred to by other institutions.<sup>267</sup> Consequently, as one interviewee pointed out, investigations started without firm rules regarding evidence being in place<sup>268</sup> and people who were used to working in a different legal system suddenly had to adjust to a new mixed system.<sup>269</sup> Both the ICTY and the ECCC have an inquisitorial approach to the law of evidence; no technical rules govern the admissibility of expert evidence and forensic science evidence in particular. For the Cambodian system this means, as one interviewee described it, that

typically, any evidence can be considered by the judges and they themselves then decide to assign the necessary weight and value to different pieces of evidence in reaching their conclusion. But you don't go through the challenge of admissibility that is typical to a common law system.<sup>270</sup>

The lack of specific rules regarding the admissibility of expert evidence is in no way an indication of the critical importance such evidence has in international criminal cases as can be seen throughout various trials, where a lot of expert evidence was

<sup>264</sup> See International Criminal Tribunal for the Former Yugoslavia 'Rules of Procedure and Evidence' UN Doc IT/32/Rev. 42 (hereinafter ICTY RPE).

<sup>265</sup> ECCC Internal Rules.

<sup>266</sup> ICTY judges are both rule-makers and decision-makers.

<sup>267</sup> See, for example, *Case Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, ICJ Judgment (26 February 2007), available at <<http://www.icj-cij.org/docket/files/91/13685.pdf>> accessed 28 March 2009.

<sup>268</sup> Personal interview with investigator # 2 (12 December 2007).

<sup>269</sup> As the interviewee explained, this had ramifications for how investigations were conducted. Whilst investigators coming from one system were used to conducting investigations without the presence of a lawyer, at the ICTY when interviewing witnesses, the presence of a lawyer was required (ibid).

<sup>270</sup> Personal interview with researcher/academic # 1 (24 April 2007).

presented and featured in the judgments.<sup>271</sup> The slender body of admissibility rules regarding expert evidence does not pose a stumbling block for the use of forensic science.<sup>272</sup> However, the mandate of the ICTY and the prosecutorial demands determined as to how forensic science exhumations of mass graves were approached. Under the Chapter VII mandate,<sup>273</sup> to ensure peace and security, the ICTY was

to both investigate and to prosecute. So the prosecutor had a Security Council mandate to enter these territories and had priority over any local investigation. And the governments of the former Yugoslavia were required as members of the United Nations to cooperate.<sup>274</sup>

The legal grounds for forensic investigations were provided. Prior to forensic excavations at the ICTY, excavations were done mainly for humanitarian purposes: the identification and repatriation of victims.<sup>275</sup> With the ICTY's investigations, the emphasis shifted towards the criminal investigation of mass graves and did not encompass the identification of individuals as a prime objective.<sup>276</sup> Indeed, there is an argument to be made that the ICTY's main occupation was and is to prosecute crimes only – it is not an

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<sup>271</sup> The trials relating to the Srebrenica massacres, such as that of Radislav Krstić, are prime examples.

<sup>272</sup> For a more detailed discussion on admissibility rules see section 6.2.1.1. and M Klinkner, 'Forensic Science Expertise for International Criminal Proceedings: an old Problem; a new Context and a Pragmatic Resolution' (2009) 13(2) *International Journal of Evidence and Proof* 102.

<sup>273</sup> Chapter VII of the UN Charter is concerned with the type of actions to take when threats to peace, breaches of peace and acts of aggression occur. As a last resort, Article 49 allows that the Security Council 'may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security' (Charter of the United Nations (adopted 26 June 1945, entered into force 24 October 1945) <<http://www.un.org/aboutun/charter/>> accessed 6 April 2009, Art 49). Under Article 50 member states are then required

to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security (ibid Art 50).

<sup>274</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>275</sup> Cox and colleagues elaborate:

In 'older' cases, the rationale for an investigation is often humanitarian, with such factors as amnesty laws of current political experience (e.g. Cyprus) preventing a judicial element. Many investigations have been undertaken to provide closure for survivors and to allow the deceased the right of being laid to rest in a marked grave. To date, it has been rare indeed for an investigation to provide evidence in a way, and to standards, that satisfy the needs of both judicial process and human rights. We suggest that to fail to do so at the very least further disempowers both the deceased and the survivors; it also fails to fulfill the requirements of the Geneva Convention and may lead to the destruction of evidence that could be vital for justice to be served and identifications to be made (M Cox, A Flavel and I Hanson, 'Introduction and Context' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) 13).

<sup>276</sup> For example, telephone interview with forensic expert # 6 (15 September 2007).

'institute for the protection of human rights.'<sup>277</sup> Therefore, it concentrated its resources on investigative as opposed to systematic identification efforts, leaving the latter to either local authorities or experienced NGOs as will be discussed in sections 5.6.2. and 5.6.5.

### 5.1.1. PROSECUTION AND INVESTIGATIVE STRATEGY

Generally speaking, three main types of evidence are used to present a case in court: 1) documents, 2) eye witness accounts<sup>278</sup> and 3) physical evidence. Investigations are keen to provide the necessary evidence through seizing and analysing documents, interviewing eye witnesses and the accused, gaining access to insiders of an organisation to which the accused was affiliated, examining the crime scenes and consulting experts for their opinions.<sup>279</sup> The evidence available to a case can then be categorised depending on whether it provides 1) background evidence to the case, 2) crime base evidence or goes to 3) prove the innocence or guilt of the accused.<sup>280</sup>

International criminal investigations of high profile suspects face significant challenges. For a delay in investigations, in the case of Cambodia a delay of three decades, means that much of the evidence, especially physical evidence, has vanished or deteriorated in condition due to alterations to crime scenes.<sup>281</sup> Witnesses can be lost through death, intimidation, murder or flight from an ongoing war zone<sup>282</sup> and access to war-torn countries can be both dangerous and difficult, especially if necessary international and domestic support is not forthcoming. Another challenge when trying to prosecute high level accused is that few 'smoking guns' can be found relating to them, making it more difficult to build up a case against them.<sup>283</sup> Indeed the pursuit of justice by the ICTY resulting in indictments and trials of those most responsible was seen by some to pose a threat to peace-building in the region.<sup>284</sup> To follow its mandate and policy, the ICTY started by prosecuting lower level perpetrators in an attempt to show that the Tribunal was working<sup>285</sup> and to be able to establish a chain of command that

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<sup>277</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>278</sup> Interestingly, witness accounts, the evidence source most used in other tribunals, may not provide the strongest evidence for the ECCC due to the lapse of time (See J Fromholz, 'Proving Khmer Rouge Abuses: Uses and Limitations of the Available Evidence' in: JD Ciorciari (ed), *The Khmer Rouge Tribunal* (Documentation Center of Cambodia, Phnom Penh 2006) 108).

<sup>279</sup> Personal interview with investigator # 5 (3 October 2007).

<sup>280</sup> R Gallmetzer, 'Rules of Evidence Applicable at the International Criminal Court', Marie Curie Top Summer School in International Criminal Law 2008, 30 June-11 July 2008.

<sup>281</sup> R McGrath, 'Problems of Investigations into War Crimes and Crimes Against Humanity During and After Ethnic Conflict' in: MC Bassiouni (ed), *Post-Conflict Justice* (Transnational Publishers, Inc., Ardsley 2002) 893.

<sup>282</sup> Ibid.

<sup>283</sup> Telephone interview with international lawyer # 3 (21 September 2007).

<sup>284</sup> GK McDonald, 'Reflections on the Contributions of the ICTY' (2001) 24 *Hastings International and Comparative Law Review* 155.

<sup>285</sup> See, for example, M Klarin, 'The Tribunal's Four Battles' (2004) 2(2) *Journal of International Criminal Justice* 546.

would lead to 'those who were either responsible for giving the orders for the crimes to be committed, or who had the authority to stop the crimes and failed to stop them.'<sup>286</sup>

Whilst the charges against a particular accused would give investigations a certain direction, investigators had to get as much information on cases as possible in an attempt to prove or disprove links from lower-level perpetrators to higher-level accused.

As one interviewee described:

right from 1994 the original targets of investigations were the top leaders on all sides of the parties of the conflict. And it was just a question of being able to gather sufficient evidence [... that] led to the indictments at different times.<sup>287</sup>

It very much depends on the prosecution and investigative strategy adopted as to whether forensic science excavations of mass graves are necessary. Crimes like those under the mandate of both the ICTY and the ECCC have been successfully proven in the past without the use of forensic science.<sup>288</sup> Indeed, as was made clear in *Tadić*, proof of homicide does not necessarily require material forensic evidence:

Since these were not times of normalcy, it is inappropriate to apply rules of some national systems that require the production of a body as proof to death. However, there must be evidence to link injuries received to a resulting death.<sup>289</sup>

One compelling argument for not using forensic science is if there are other means to prove the crimes. If you can get proof of crimes more quickly and easily through other methods, then there is no need from a prosecution point of view to utilise forensic science. In the former Yugoslavia, nevertheless, many crimes and crime scenes were unheard of, as described by former ICTY Prosecutor Mark Harmon:

In general, however, unspeakable atrocities took place in isolated locations, under cover of darkness, in non-descript buildings, in common fields and forests, out of sight of media cameras or military surveillance, totally unknown to the wider world.<sup>290</sup>

Therefore, the physical evidence was needed to establish that crimes such as murder, rape, torture and beatings had been committed. Whilst forensic science evidence from crime scenes does not attempt to explain *why* certain crimes were

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<sup>286</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>287</sup> Ibid.

<sup>288</sup> The example of Rwanda has been mentioned where the Trial Chamber in *Musema* ruled:

The absence of forensic or real evidence shall in no way diminish the probative value of the evidence which is provided to the Chamber; in particular, the absence of forensic evidence corroborating eyewitness testimonies shall in no way affect the assessment of those testimonies, the relevance, reliability and probative value of which shall be assessed as discussed above (*Prosecutor v Musema*, Judgment and Sentence, Case No ICTR-96-13-A, 27 January 2000, Trial Chamber I, para 52).

<sup>289</sup> *Prosecutor v Tadić*, Opinion and Judgment, Case No IT-94-1-T, 7 May 1997, Trial Chamber II, para 204.

<sup>290</sup> MB Harmon and F Gaynor, 'Prosecuting Massive Crimes with Primitive Tools: Three Difficulties Encountered by Prosecutors in International Criminal Proceedings' (2004) 2(2) *Journal of International Criminal Justice* 403, 406.

committed, it can give indications as to *what* happened and *how*. Furthermore forensic evidence can assist in establishing a link between the perpetrator and the crime scene. It attempts to answer these empirical questions through well-designed empirical studies and inquiries. Because of previous experience from war crimes prosecutions in Australia within the OTP, the importance of forensic evidence for war crimes cases was well known due to its Australian members of staff, most notably Deputy Prosecutor Graham Blewitt. Therefore the decision was made that from an evidentiary point of view excavations of bodies was critically important. Consequently excavations associated with the Srebrenica massacre and other places in Bosnia, Croatia and later in Kosovo were undertaken.

Whilst the complexity of forensic investigations of mass graves for criminal purposes is immense, according to one interviewee the 'formula' for successful prosecution

is fairly simple: the number of bodies, the methods of how they were killed, gathering any forensic evidence that is located in the grave, the timeframe that the crimes were committed [in] and things like that.<sup>291</sup>

The following sections will concentrate on the physical evidence from mass graves and its potential as an investigative tool for international criminal proceedings. The five sub-themes identified by the study (as can be seen in the template, Figure 9) are: (1) available forensic evidence, (2) corroboration of evidence, (3) base crime evidence, (4) identification and the (5) feasibility of forensic science for criminal investigations.

#### **5.1.1.1. Available Forensic Evidence**

Both in the former Yugoslavia and in Cambodia, prior to the establishment of the tribunals, the United Nations assembled a Group of Experts for Cambodia<sup>292</sup> and a Commission of Experts for the former Yugoslavia<sup>293</sup> to examine whether gross violations of international law had occurred in each country. Both expert groups examined physical evidence, including evidence from mass graves and included it in their reports. In each case, the experts came to the conclusion that there was sufficient evidence available to demonstrate that horrific crimes had been committed.

#### The former Yugoslavia

As part of its mandate to collect and analyse information of alleged grave breaches of the Geneva Conventions or other violations of international humanitarian law committed in the territory of the former Yugoslavia, the Commission of Experts undertook several

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<sup>291</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>292</sup> UNGA and UNSC, 'Report of the Group of Experts for Cambodia established pursuant to General Assembly Resolution 52/135' (15 March 1999) UN Doc A/53/850-S/1999/231, para 52.

<sup>293</sup> UNSC, 'Final Report of the United Nations Commission of Experts established pursuant to Security Council Resolution 780 (1992)' (27 May 1994) UN Doc S/1994/674.

missions to the region, including mass grave investigations. When in December 1993 the Prosecutor of the ICTY was appointed, the Commission was requested to finalise its report and transfer its files, documents and databases to the ICTY in spring 1994.

The number of alleged mass graves reported to the Commission of Experts for both Bosnia-Herzegovina and Croatia amount to 187, with 99 of the alleged sites appearing to be mass killing sites. Not all mass graves are necessarily unlawful mass graves that contain unlawfully killed humans. The expert report distinguishes four types of mass graves: 1) bodies were subject to mass killing but buried properly; 2) human remains are those of civilian casualties and soldiers killed in combat but the burial was improper; 3) victims of mass killings were buried improperly; 4) the circumstances surrounding the death and the burial method were improper.<sup>294</sup>

The number of victims suspected to be buried in the mass graves ranged from ten to over 500. In terms of ethnicity the victims were described to be Muslims, Croats or Serbs (most victims were reported to be Muslims, whilst Serbs were least often thought to be the victims) and all three ethnic groups were perpetrators (although 81 of the reported mass graves were attributed to Serb, 16 gravesites to Croat and five to Muslim perpetrators).<sup>295</sup> Certain trends became apparent about the reported mass grave sites. 1) Many mass graves were reported to exist near detention centres suggesting that they were created to dispose of unlawfully killed detainees. 2) The method in which graves were created was often the same with prisoners or civilians having to dig the graves before being killed and thrown into the grave on completion of the task in an attempt to minimize witnesses. 3) Bodies were often placed in mass graves without any protective material around them, let alone coffins, denying the dead a dignified death and preventing family members from finding and identifying their loved ones. 4) Dead bodies were frequently disposed in mineshafts, canals, quarries, landfills, caves etc. thus avoiding the need to excavate proper burial sites. 5) Many dead bodies were denied burial and left in the open, forcing civilians to witness the humiliation whilst preventing them from providing a burial, thus instilling fear. 6) Another reported trend was the complete circumvention of burial in graves by dumping bodies into rivers or burning them.<sup>296</sup>

The overall analysis of the events preceding many mass killings is described as follows:

[m]ass graves in many regions appear to be the final phase in an “ethnic cleansing” process. Mass graves are usually found in sectors where forces have followed a distinct pattern of expulsion: the county is attacked by artillery; infantry troops enter the villages and force villagers from their homes, during which time many are killed. Once the houses are emptied, they are looted and burned. Those villagers who are still alive are rounded up and the men are separated from the

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<sup>294</sup> UNSC, ‘Final Report of the United Nations Commission of Experts established pursuant to Security Council Resolution 780 (1992) Annex X Mass graves’ (28 December 1994) UN Doc S/1994/674/Add/2 (Vol.V), 4.

<sup>295</sup> Ibid.

<sup>296</sup> Ibid 5.

women, children and elderly. These villagers are either killed, deported or detained; in any event, they rarely return to the village from which they came. The bodies of those killed during the initial expulsion, subsequent detention, or expulsion after release are often deposited in mass graves in and around the area where they were killed or died from torture or otherwise.<sup>297</sup>

As part of a separate Commission on the Situation of Human Rights in the territory of the former Yugoslavia by the Special Rapporteur and former Prime Minister of Poland, Tadeusz Mazowiecki, one mass grave that was discovered in October 1992 in Croatia was the Ovčara grave. The Ovčara grave was the place of execution and burial of patients and staff of the Vukovar Hospital on 20 November 1991. Following its discovery, the grave was protected by a Russian battalion and in December 1992 a forensic team came back for a 'reconnaissance or exploration of the site'<sup>298</sup> to estimate the grave size, dig a test trench and get an impression of the numbers of people that might be buried in the grave, after which the investigation was moved under the auspices of the Commission of Experts. This initial site exploration resulted in the belief that 1) a mass execution had indeed taken place, 2) the number of bodies contained in the grave could be around 200, 3) due to its remoteness, the bodies had been executed and buried in secrecy, 4) the grave had not been disturbed since execution and interment, 5) two bodies bore necklaces with Roman Catholic Crosses and the inscription 'BOG I HRVATI' (God and Croatians), and 6) a full scientific exhumation of the grave and identification of the victims would show whether the findings and the witness testimony were compatible.<sup>299</sup>

In October 1993 a ten member strong international forensic team intended to excavate the mass grave. However, the team was forced by the local Serb administration to abandon the mission; therefore only an incomplete surface investigation was conducted.<sup>300</sup> The site was not actually excavated until 1996 under the direction of the ICTY, when the safety of the forensic staff was guaranteed by the United Nations.<sup>301</sup>

### Cambodia

One interviewee summarised that in Cambodia there

is no shortage of evidence. We have millions of pages of documents. We have millions of witnesses; we have thousands of perpetrators that can be called on to testify. We have 25 years of scholarly analysis to draw on.<sup>302</sup>

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<sup>297</sup> Ibid 6.

<sup>298</sup> *Prosecutor v Dokmanović*, Expert Witness Testimony by Forensic Anthropologist Dr Clyde Snow, Transcript, Case No IT-95-13a-PT, 17 March 1998, Trial Chamber II, 1543, line 18.

<sup>299</sup> UNSC, 'Final Report of the United Nations Commission of Experts established pursuant to Security Council Resolution 780 (1992) Annex X.A Mass graves - Ovčara' (28 December 1994) UN Doc S/1994/674/Add/2 (Vol.V), 7.

<sup>300</sup> Ibid 10.

<sup>301</sup> *Dokmanović*, Expert Witness Testimony by Forensic Anthropologist Dr Clyde Snow (n 298) 1565.

<sup>302</sup> Personal interview with investigator # 3 (23 April 2007).

In its 1999 report, the Group of Experts for Cambodia established pursuant to General Assembly resolution 52/135, agrees with this assessment. Furthermore the findings include that 'many thousands of execution sites and burial pits'<sup>303</sup> exist within Cambodia and that despite 30 years of decay, information regarding the way people were killed can still be deduced from the human remains. Whilst the report does not elaborate on the quality and quantity of forensic evidence available, the case study on Cambodia has outlined what research has been conducted in relation to the many mass graves. The following section shows that, despite this research, little forensic evidence is available to the ECCC.

In principle, under Cambodia's civil law system, any evidence can be admitted provided it is relevant and has been obtained through lawful methods. Notwithstanding the large number of excavated, disturbed and robbed mass graves, few forensic exhumations have been conducted. Insufficient records from the exhumations conducted by the Vietnamese (see section 4.2.2.) render their work useless to the court. Even if scientifically sound reports existed, the findings could be challenged because of the political situation – straight after the Vietnamese 'liberated' Cambodia from the Khmer Rouge regime – in which the excavations were conducted and the potential propaganda value of such excavations. The two recent forensic studies on crania from Choeung Ek (see section 4.2.4.) could encounter similar criticisms, as both reports build on the Vietnamese exhumations and are scientifically limited by their small sample size, selection bias and lack of taphonomic analogues.<sup>304</sup> It is thus questionable whether any of the forensic evidence that has been recovered and examined would be given much weight by ECCC judges.

In general, it is debatable whether forensic science investigations conducted outside of a legal process by an NGO qualify as impartial and independent. Forensic scientists' overriding duty is to the court and the administration of justice. According to DC-Cam representatives, the NGO's forensic investigations had the explicit authorisation and backing of the Cambodian government. It received general authorisation from Prime Minister Hun Sen in 2001 and specific authorisation from Deputy Prime Minister and Co-minister of the Interior, Sar Kheng, on 10 March 2003. DC-Cam claims that the forensic work was carried out in compliance with legal and regulatory provisions.<sup>305</sup> Because the work was conducted under the auspices of an NGO and without a legal mandate, however, it could be accused of bias, which would make it difficult for the prosecution to rely upon and easy for the defence to challenge.

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<sup>303</sup> UNGA and UNSC, 'Report of the Group of Experts for Cambodia established pursuant to General Assembly Resolution 52/135' (n 292) para 52.

<sup>304</sup> Taphonomy is the study of decaying organisms over time. Knowledge about how bodies decay in South-East Asia would help establish the time since death of bodies found in mass graves.

<sup>305</sup> Documentation Center of Cambodia, 'Forensic Exhibition' (2004) <[http://www.dccam.org/Projects/Forensic\\_Study/Forensics\\_Exhibition.htm](http://www.dccam.org/Projects/Forensic_Study/Forensics_Exhibition.htm)> accessed 30 March 2009.



As DC-Cam has the largest archive of documents relating to the Khmer Rouge era, it cooperates with the ECCC and provides access to original papers and statements obtained through interviews. DC-Cam explicitly states that its mission is to collect and preserve evidence, including evidence from its mapping and forensic projects, for posterity and legal contexts:

The first [objective] is to record and preserve the history of the Khmer Rouge regime for future generations. The second is to compile and organize information that can serve as potential evidence in a legal accounting for the crimes of the Khmer Rouge. These objectives represent our promotion of *memory* and *justice*, both of which are critical foundations for the rule of law and genuine national reconciliation in Cambodia.<sup>306</sup>

DC-Cam has made available more than 400,000 pages of documents, microfilms, scans and photocopies to the Co-prosecutors, including the entire mapping project of undisturbed graves. Given that DC-Cam has identified undisturbed graves and conducted preliminary site assessment work, in principle, this could have provided a useful basis for the ECCC's own forensic investigations.

Given this level of preliminary evidence or information available to both the ECCC and the ICTY right from the start of their operations, the question regarding mass graves, the victims and the potential of forensic excavations and examinations for prosecutions must have been raised as an option fairly early on in the investigation processes.

#### 5.1.1.2. Corroboration of Evidence

The evidence recovered from mass graves provides useful corroboration for eye witness testimony. In Srebrenica for example, there were a few people who escaped from executions or graves and the evidence from the execution points and graves matched their accounts of the events. One interviewee explained the process: 'your witness gives a statement, you're then going to do your exhumations and it's just magnificent corroboration for the witness: yeah, that's exactly what we found in the grave.'<sup>307</sup> In the case of Dražen Erdemović, who pleaded guilty to the count of murder as a crime against humanity, it was the accused himself who led the investigations to execution and inhumation sites which were not known to the Office of the Prosecutor prior to Erdemović's statement.<sup>308</sup> Following the fall of Srebrenica, Bosnian Serb Army (VRS) soldier Erdemović had taken part in the executions and estimated that 1,200 persons

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<sup>306</sup> Documentation Center of Cambodia, 'History and Description of DC-CAM' <<http://www.dccam.org/Abouts/History/Histories.htm>> accessed 20 December 2006.

<sup>307</sup> Personal interview with investigator # 5 (3 October 2007). Aerial images also assisted in finding graves (see D Manning (ICTY Investigator), 'Srebrenica Investigations. Summary of Forensic Evidence Execution Points and Mass Graves' (Report) (16 May 2000), available at <[http://www.domovina.net/archive/2000/20000516\\_manning.pdf](http://www.domovina.net/archive/2000/20000516_manning.pdf)> accessed 25 January 2007).

<sup>308</sup> *Prosecutor v Erdemović*, Witness Statement by ICTY Investigator Jean-Rene Ruez, Transcript, Case No IT-96-22-T, 19 November 1996, Trial Chamber I, 135.

had been killed on 16 July 1995. Excavations that took place at the Branjevo Military Farm revealed that there were 132 male victims in the grave, 130 of whom had died from gunshot wounds and 83 ligatures were found in the grave. Furthermore, analysis showed that the Branjevo Military Farm mass grave had been disturbed and individuals been removed and placed in secondary graves.<sup>309</sup> In this case, as one interviewee summed it up

'[t]he exhumations helped prove beyond a question that he [Erdemović] gave [...] accurate information as to where the mass grave was and that people had been killed at about the time of the Srebrenica massacre and that they had been killed with a single bullet behind their head. So that was a [...] hugely important corroboration.<sup>310</sup>

Forensic science is thus most valuable and most reliable where it is compared with other evidence, especially as those witnesses who are the victims of crimes often have an emotional or political interest in the conviction or acquittal of the accused. This makes scientific evidence that is not second hand very valuable.

In the case of Cambodia, it could be used to prove or disprove social science research and demographic information. In a personal communication, forensic anthropologist Debra Komar reported a discrepancy between the number of individuals who were believed to be held in the Tuol Sleng Prison (approximately 14,000 prisoners of whom only very few survived), and those exhumed at Choeung Ek (8,800), thus querying where the remaining 5,200 prisoners were buried.<sup>311</sup> However, in his book *A History of Democratic Kampuchea (1975-1979)*, Khamboly Dy reports that '[f]or the first year of S-21's [Tuol Sleng Prison's] existence, corpses were buried near the prison<sup>312</sup> and that only once cadres ran out of space at the end of 1976, prisoners were taken to Choeung Ek, the killing field outside Phnom Penh, where they were killed by axe, hoe, stick or shooting.<sup>313</sup> This might help account for the discrepancy. Without accurate records and due to the 30 year delay, this particular problem might be difficult to solve.

In Cambodia, due to the lapse of time, witnesses' memories may have faded or been affected by Post-Traumatic Stress Disorder. Despite the fact that much mass grave evidence from the Khmer Rouge era has been lost or destroyed as crime scenes have been altered, forensic science might help with victim selection to see whether the forensic account matches that of the victims. As one interviewee pointed out, 'for the purpose of the trial, you actually want the person who was there and actually saw what happened.'<sup>314</sup> Given the passage of time, it is likely that some witnesses will suffer from memory loss or alteration by adding to their own painful memories details they heard

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<sup>309</sup> Manning (n 306).

<sup>310</sup> Telephone interview with international lawyer # 3 (21 September 2007).

<sup>311</sup> Statement by Debra Komar (Personal email correspondence 16 March 2008).

<sup>312</sup> K Dy, *A History of Democratic Kampuchea (1975-1979)* (Documentation Center of Cambodia, Phnom Penh 2007) 55.

<sup>313</sup> Ibid.

<sup>314</sup> Telephone interview with forensic expert # 4 (4 June 2007).

from fellow sufferers, which poses challenges for the investigation.<sup>315</sup> Furthermore, studies on eye witness testimony have found that 'recall of details from a violent incident was significantly worse than recall of a nonviolent incident.'<sup>316</sup> Contrary to the belief that most people would never forget the face of an individual who had physically confronted and threatened them, a more recent study showed that large numbers of participants were unable to identify correctly the person responsible for their ordeal. The researchers are confident of having found 'robust evidence that eyewitness memory of persons encountered during events that are personally relevant, highly stressful, and realistic in nature may be subject to substantial error.'<sup>317</sup>

Statistics from a 2003 epidemiological study with 610 Cambodians show a high percentage of traumatised, as described in the 2003-2005 report of the Victims of Torture Project. Eighty-one percent of the Cambodians in the study have experienced violence, with 28.4 percent suffering from Post-Traumatic Stress Disorder, 11.5 percent from Mood Disorder and 40 percent from Anxiety Disorder.<sup>318</sup> In his book, *The Witnesses*, Eric Stover refers to a study on political activists that shows '36 percent of those who had been tortured reported an inability to recall an important aspect of the trauma, whereas only 2 percent of those who had not been tortured reported this symptom.'<sup>319</sup> The issue of witness reliability thus could be tested and resolved through forensic science by comparing witness testimonies with scientific records.

### 5.1.1.3. Base Crime<sup>320</sup>

Whilst forensic science is unlikely to help us understand why things happened, it will be able to clarify what crimes were committed and how they were perpetrated. The following section will examine three types of crimes under the jurisdiction of both the ECCC and the ICTY to explain ways in which forensic science can contribute to the evidence presented when such charges are brought.

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<sup>315</sup> Neuroscientist Daniel Schacter explains that human memory is susceptible to omitting memories (transience, absentmindedness and blocking) or to remembering things wrongly (misattribution, suggestibility, bias and persistence) (DL Schacter, *The Seven Sins of Memory: How the Mind Forgets and Remembers* (Houghton Mifflin Company, Boston 2001)).

<sup>316</sup> BR Clifford and J Scott, 'Individual and Situational Factors in Eyewitness Testimony' (1978) 63 *Journal of Applied Psychology* 352, 356.

<sup>317</sup> CA Morgan and others, 'Accuracy of Eyewitness Memory for Persons Encountered during Exposure of Highly Intense Stress' (2004) 27 *International Journal of Law and Psychiatry* 265, 274.

<sup>318</sup> Documentation Center of Cambodia, 'Victims of Torture (VOT) Project: Helping the Victims of the Khmer Rouge.' (Final Report) (September 2005) <[http://www.dccam.org/Projects/VOT/Fianl\\_Report\\_2005.pdf](http://www.dccam.org/Projects/VOT/Fianl_Report_2005.pdf)> accessed 25 October 2007.

<sup>319</sup> E Stover, *The Witnesses: War Crimes and the Promise of Justice in The Hague* (University of Pennsylvania Press, Philadelphia 2005) 9.

<sup>320</sup> 'Base crime' or 'crime base' is a term frequently used in international criminal law for crimes such as murder, torture or assault committed at the 'bottom' of the command chain. Whilst the perpetrators of the actual killings are often not on trial, the crimes they perpetrated (e.g. the base crimes) are important to establish the magnitude of the crimes and who is ultimately responsible for the atrocities.

### War crimes

International humanitarian law or 'the laws and customs of war' aims to mitigate and moderate clashes of arms<sup>321</sup> through declarations that, for example, limit the choice and use of weapons deemed to cause excessive suffering. In 1949 states tried to further devise legislation about the means and methods of warfare; four Conventions for the protection of individuals, in particular those who no longer participate in hostilities, namely the wounded and sick in the field, the shipwrecked, prisoners of war, and civilians, were adopted.<sup>322</sup> Since then these provisions have been updated through two Additional Protocols (1977) and 'gradually turned into customary law'.<sup>323</sup>

The 1949 Geneva Conventions are perhaps most interesting from a mass grave excavation point of view, in particular Geneva Convention III which is designed to minimise the effect armed conflict has on civilians.<sup>324</sup> But also at the burial level itself, as noted by the UN Commission of Experts, the way in which a mass grave is created can be in breach of the 1949 Geneva Conventions IV, Articles 129-131 and a violation of Chapter II, Article 19 of the Annex to The Hague Convention IV of 1907.<sup>325</sup>

The Geneva Conventions require parties to a conflict to search for the dead and to prevent their bodies and remains from being despoiled. For every deceased person who falls into the hands of the adverse party, the adverse party must record, prepare, and forward all identification information, death certificates and personal effects to the appropriate parties. Parties to a conflict must also ensure that deceased persons are autopsied and buried in individual graves, as far apart as circumstances permit. Bodies should not be cremated except for hygiene reasons or for the religious reasons of the deceased. Interment should be carried out in an honourable fashion, according to the religious rites of the deceased. Victims should be grouped by nationality and their graves maintained and marked so that they can be easily found.<sup>326</sup>

Whilst the violations of international humanitarian law, as outlined by the Commission, may not constitute crimes under the ICTY's jurisdiction, grave breaches against the Geneva Conventions fall within the subject matter jurisdiction of the ICTY and include:

- (a) wilful killing;
- (b) torture or inhuman treatment, including biological experiments;
- (c) willful causing great suffering or serious injury to body or health;
- (d) extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly;

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<sup>321</sup> A Cassese, *International Law* (Oxford University Press, Oxford 2001).

<sup>322</sup> Ibid.

<sup>323</sup> Ibid.

<sup>324</sup> See Van Schlaack and Slye for a much more detailed exploration of international humanitarian law in the context of international criminal law (B Van Schlaack and RC Slye, *International Criminal Law and Its Enforcement* (Foundation Press, New York 2007)).

<sup>325</sup> Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 288 and Hague Convention (IV) Respecting the Laws and Customs of War on Land (adopted 18 October 1907, entered into force 26 January 1910) 2 A.J.I.L. Supp. 90.

<sup>326</sup> UNSC, 'Final Report of the United Nations Commission of Experts established pursuant to Security Council Resolution 780 (1992) Annex X Mass graves' (n 294) 2 (footnotes omitted).

- (e) compelling a prisoner of war or a civilian to serve in the forces of a hostile power;
- (f) unlawful deportation or transfer or unlawful confinement of a civilian;
- (g) taking civilian hostages.<sup>327</sup>

Furthermore, Article 3 of the ICTY Statute provides the ICTY with the power to prosecute 'violations of the laws or customs of war'; ICTY jurisprudence established that this covers those violations of humanitarian law that do not fall under Articles 2, 4 or 5 of the Statute and include:

- (i) violations of the Hague law on international conflicts; (ii) infringements of provisions of the Geneva Conventions other than those classified as "grave breaches" by those Conventions; (iii) violations of common Article 3 and other customary rules on internal conflicts; (iv) violations of agreements binding upon the parties to the conflict, considered qua treaty law, i.e., agreements which have not turned into customary international law [...].<sup>328</sup>

Violations such as cruel treatment, torture and murder fall under the war crimes category. From a forensic science point of view, murder, torture and bodily injuries can often be discerned from bodies recovered from mass graves. Findings presented in *Prosecutor v. Mrkšić et al.* from forensic examinations of the bodies retrieved from the Ovčara mass grave showed that 198 were male and 2 were female, with an age range

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<sup>327</sup> ICTY Statute, Art 2.

<sup>328</sup> *Prosecutor v Tadić*, Decision on the motion for interlocutory appeal on jurisdiction, Case No IT-94-1, 2 October 1995, Appeals Chamber, para 89. The following provisions outlined in Article 3 of the Geneva Conventions are relevant to the debate here and apply to all contracting parties:

- (1) Persons taking no active part in the hostilities, including members of armed forces who have laid down their arms and those placed *hors de combat* by sickness, wounds, detention, or any other cause, shall in all circumstances be treated humanely, without any adverse distinction founded on race, colour, religion or faith, sex, birth or wealth, or any other similar criteria. To this end, the following acts are and shall remain prohibited at any time and in any place whatsoever with respect to the above-mentioned persons:
  - (a) violence to life and person, in particular murder or all kinds, mutilation, cruel treatment and torture;
  - (b) taking hostages;
  - (c) outrages upon personal dignity, in particular, humiliating and degrading treatment; the passing of sentences and the carrying out of executions without previous judgment pronounced by a regularly constituted court, affording all the judicial guarantees which are recognized as indispensable by civilized peoples. (Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War (n 325) Art 3).

Zahar and Sluiter summarise:

war crimes within the jurisdiction of the tribunals are 'violations of the laws of customs of war' (an allusion to the 1907 Hague Conventions IV and its regulations), and non-grave-breach infringements of the Geneva Conventions and of Additional Protocol I committed in the course of international armed conflicts. Two other categories [...] are acts recognized as war crimes in non-international armed conflicts, as provided for by Article 3 of the Geneva Conventions (Common Article 3) and by Additional Protocol II, as well as acts prohibited in any conflict, international or internal (A Zahar and G Sluiter, *International Criminal Law. A Critical Introduction* (Oxford University Press, Oxford 2008) 110 [footnotes omitted]).

from 16 to 72 years. The cause of death in 188 cases was death through gunshot wounds or multiple gunshot wounds, 7 individuals are believed to have died from trauma, whilst the cause of death is still unknown for the remaining five victims. Furthermore, the post-mortem examination revealed that 86 individuals had suffered from injuries prior to their death on 20/21 November 1991.<sup>329</sup> In 1997, it was possible to identify 192 of the victims buried at Ovčara.<sup>330</sup> With the help of forensic science the ICTY had little difficulty in proving the crimes that had occurred at Vukovar and was also satisfied that the victims who were taken from the Vukovar hospital on 20 November 1991 in the morning were at that time not taking part in the hostilities.<sup>331</sup>

### Genocide

The 1948 Genocide Convention states that

genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:

- (a) Killing members of the group;
- (b) Causing serious bodily or mental harm to members of the group;
- (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
- (d) Imposing measures intended to prevent births within the group;
- (e) Forcibly transferring children of the group to another group.<sup>332</sup>

The contracting parties are obliged to prevent genocide from happening and punish *genocidaires* in line with international law.<sup>333</sup> The above definition of genocide was included verbatim in the ICTY Statute (Article 4) and almost verbatim in the ECCC's Law (Article 4). However, the first time the term genocide, as defined in the convention, was interpreted by an international criminal tribunal was in *Prosecutor v. Akayesu*<sup>334</sup> when the Trial Chamber ruled that genocide had occurred in Rwanda. For the crime of genocide the specific intent of the accused to destroy a protected group as a separate and distinct identity must be proven. Where direct evidence of genocidal intent is absent, the intent may be inferred from the factual circumstances of the crime.

From a forensic science point of view, perhaps the most interesting case to date where a defendant was indicted for genocide is *Krstić*, where Radislav Krstić stood accused for his actions as Deputy Commander of the Bosnian Serb Army during the Srebrenica massacre between 10 and 19 July 1995. To establish that killings on a mass scale which may qualify as genocide had actually occurred, the prosecution had to collect relevant evidence to prove the *dolus specialis* behind the deed, showing that the

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<sup>329</sup> *Prosecutor v Mrkšić et al.*, Judgment, Case No IT-95-13/1-T, 27 September 2007, Trial Chamber II, para 494.

<sup>330</sup> *Ibid* para 496.

<sup>331</sup> *Ibid* para 207 and 427.

<sup>332</sup> Convention on the Prevention and Punishment of the Crime of Genocide (adopted 9 December 1948, entered into force 12 January 1952) 78 UNTS 277, Art 2.

<sup>333</sup> *Ibid* Art 1.

<sup>334</sup> *Prosecutor v Akayesu*, Judgment, Case No ICTR-95-4-T, 2 September 1998, Trial Chamber I.

crimes had been planned with the specific intention of destroying a particular national, ethnical, racial or religious group, as such.

The Trial Chamber first had to establish whether the crime of genocide had been committed before deciding whether Radislav Krstić was guilty of it. During the trial, two forensic anthropologists (Jose-Pablo Baraybar and Dr William Haglund), two forensic pathologists (Dr John Clark and Dr Christopher Lawrence), one forensic archaeologist (Prof Richard Wright), and two ICTY investigators (Dean Manning and Jean-Rene Ruez) gave evidence regarding the mass grave investigations. The Trial Chamber found that the forensic evidence corroborated 'important aspects of the testimony of survivors from the execution sites'<sup>335</sup> and was sufficiently credible and compelling to confirm the *actus reus* of genocide.

The judges concluded that 'following the take-over of Srebrenica, thousands of Bosnian Muslims were summarily executed and consigned to mass graves'.<sup>336</sup> Furthermore, the Trial Chamber found that forensic evidence suggesting that the majority of bodies exhumed had not been killed in combat was conclusive and decided that most of the over 7,000 missing people had been executed and buried in mass graves.<sup>337</sup> The disappearance of generations of men, reasoned the Trial Chamber, showed the intent to physically destroy Bosnian Muslims. Forensic evidence provided further indication of the intent to destroy the group, as such, due to the findings that executions had followed a 'well-established pattern'<sup>338</sup> and that bodies were not only concealed in mass graves, but were later dug up in an attempt to hide the crimes. The seven exhumed secondary graves contained commingled and mutilated body parts rendering identification as well as appropriate burials extremely difficult, thus causing further distress to the survivors.

The Trial Chamber, once satisfied that genocide had occurred, then examined whether Krstić had shared the intention to carry out genocide. The fact that all located and examined gravesites associated with the Srebrenica massacre were within the Drina Corps area of responsibility contributed to the Trial Chamber's overall notion that Krstić had been aware of the genocide: 'due to their massive nature and the level of co-operation required, the executions [and the re-burials] could not have been accomplished in isolation from the Drina Corps Command.'<sup>339</sup> Furthermore, despite the absence of forensic evidence to suggest that General Krstić had been present at any of the executions, the Trial Chamber was satisfied that he had participated in the joint

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<sup>335</sup> *Prosecutor v Krstić*, Judgment, Case No IT-98-33-T, 2 August 2001, Trial Chamber I, para 71.

<sup>336</sup> *Ibid* para 73.

<sup>337</sup> *Ibid* para 82.

<sup>338</sup> *Ibid* para 68.

<sup>339</sup> *Ibid* para 276.

criminal enterprise<sup>340</sup> and shared the genocidal intent to kill the Bosnian Muslims. Consequently, on 2 August 2001, Radislav Krstić was found guilty of genocide.

On appeal, however, this verdict was overturned. The Appeals Chamber concurred with the Trial Chamber that the Bosnian Muslims of Srebrenica did qualify as a protected group under Article 4 of the ICTY Statute. Furthermore, the Appeals Chamber agreed that 'some members of the VRS main staff intended to destroy Bosnian Muslims',<sup>341</sup> targeting for extinction the 40,000 Bosnian Muslims living in Srebrenica. But according to the Appeals Chamber, the cardinal question as to whether Krstić had had the necessary intent to commit genocide was not proven; it criticised the Trial Chamber for its 'failure to supply adequate proof that Radislav Krstić possessed genocidal intent,' ruling that Krstić 'is not guilty of genocide as a principal perpetrator.'<sup>342</sup> Instead, the Appeals Chamber limited his liability in the joint criminal enterprise and

found Radislav Krstić responsible as an aider and abettor to genocide and to murders as a violation of the law or customs of war committed between 13 and 19 July 1995, instead of as a co-perpetrator, as found by the Trial Chamber.<sup>343</sup>

In order to give judgment, the judges had to rule on the base crime before contemplating the guilt of the accused. In this sense, forensic evidence had a part to play, convincing them of the factuality of the forensic accounts. Forensic evidence from the mass graves helped to define the targeted group as Bosnian Muslims; it contributed to the ruling that the intent to commit genocide existed, through demonstrating the systematic nature of the killings; it showed that many of the dead were civilians and that attempts had been made to conceal the crimes. Furthermore, through the location and excavation of the mass graves, forensic science assisted in outlining the amount of cooperation required to undertake such executions and burials, thus indirectly suggesting the involvement or knowledge of the Drina Corps which ultimately led to implicating its commander, General Krstić. However, forensic evidence did not establish a direct link between Krstić and the killings.

The *Krstić* ruling and its use of forensic evidence has since been relevant to other Srebrenica cases, especially *Blagojević, Popović et al.*, and the *Milošević* case, as he was charged *inter alia* with genocide and complicity in genocide in Bosnia-Herzegovina. Similarly, in the 2007 *Genocide* case, the International Court of Justice (ICJ) referred repeatedly to the *Krstić* judgments (both of the Trial and the Appeals Chamber), particularly regarding the definition of the protected group within a geographically limited

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<sup>340</sup> Joint criminal enterprise (JCE) denotes a liability mode imposing individual criminal responsibility on an individual for actions perpetrated by other persons in trying to realise a common criminal plan.

<sup>341</sup> *Prosecutor v Krstić*, Judgment, Case No IT-98-33-A, 19 April 2004, Appeals Chamber, para 26.

<sup>342</sup> *Ibid* para 134.

<sup>343</sup> *Ibid* para 266.



area<sup>344</sup> and the massacres at Srebrenica.<sup>345</sup> Without specifically mentioning forensic science exhumations, the ICJ referred to the *Krstić* case and its conclusion that ‘the *actus reus* of killings in Article II(a) of the Convention was satisfied’.<sup>346</sup> In relation to intent, the ICJ quoted the Trial Chamber’s findings that many non-combatant Bosnian Muslim men of military age had been targeted, the executions had happened on a large scale and the killing methods had been invariable, thus referring to evidence generated through forensic science and presented during *Krstić*.<sup>347</sup>

With regard to Cambodia, the atrocities committed during the Democratic Kampuchea era pose an interesting challenge to the genocide definition, given that members of the same group targeted their own kind. Some scholars query whether the atrocities committed in Cambodia against individuals who did not fit in or conform with the politico-ideological aims of the ruling party qualify as genocide or ‘auto-genocide,’ given that ‘political genocide’ is a blind spot in the 1948 Genocide Convention.<sup>348</sup> However, it is possible to prosecute those killings under the category of crimes against humanity.

#### Crimes against humanity

The concept of crimes against humanity is rooted in the so-called Martens Clause which can be found in the preamble of the 1907 Hague Convention Respecting the Law and Customs of War on Land (IV).<sup>349</sup> The passage ‘first articulated the notion that international law encompasses transcendental humanitarian principles that exist beyond conventional (treaty) law.’<sup>350</sup> However, the term ‘crime against humanity’ as such first appeared in Article 6 (c) of the Nuremberg Charter<sup>351</sup> but was never formally codified in a treaty or multilateral convention. One interviewee explained the concept as follows:

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<sup>344</sup> See *Case Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, ICJ Judgment (n 267) para 197.

<sup>345</sup> Ibid paras 278, 281, 290 and 292.

<sup>346</sup> Ibid para 290.

<sup>347</sup> Ibid para 292.

<sup>348</sup> See J Mezel, ‘Justice Delayed or Too Late for Justice? The Khmer Rouge Tribunal and the Cambodian “Genocide” 1975-79’ (2007) 9 *Journal of Genocide Research* 215 and PM Wald, ‘Prosecuting Genocide’ [2006] (Spring) *Justice Initiatives* <[http://www.justiceinitiative.org/db/resource2?res\\_id=103182](http://www.justiceinitiative.org/db/resource2?res_id=103182)> accessed 18 January 2007, 85.

<sup>349</sup> The convention stipulates:

Until a more complete code of the laws of war has been issued, the High Contracting Parties deem it expedient to declare that, in cases not included in the Regulations adopted by them, the inhabitants and the belligerents remain under the protection and the rule of the principles of the law of nations, as they result from the usages established among civilized peoples, from the laws of humanity, and the dictates of the public conscience (Hague Convention (IV) Respecting the Laws and Customs of War on Land (n 325)).

<sup>350</sup> Van Schlaack and Slye (n 324) 354.

<sup>351</sup> Ibid 355. Article 6 (c) of the Nuremberg Charter states:

the big difference between a murder and a crime against humanity is that in a murder the value which was offended was that this individual person was killed or passed away. In the crimes against humanity the value which is safeguarded is the humanity, the fact of this person being a human being. These are different things.<sup>352</sup>

Crimes against humanity are within the subject matter jurisdiction of the ICTY. Article 5 of the ICTY Statute states:

The International Tribunal shall have the power to prosecute persons responsible for the following crimes when committed in armed conflict, whether international or internal in character, and directed against any civilian population:

- (a) Murder;
- (b) Extermination;
- (c) Enslavement;
- (d) Deportation;
- (e) Imprisonment;
- (f) Torture;
- (g) Rape;
- (h) Persecutions on political, racial and religious grounds;
- (i) Other inhumane acts.<sup>353</sup>

The definition of crimes against humanity in the Law of the Establishment of the Extraordinary Chambers is slightly different and not as narrowly defined as by the ICTY Statute where the crimes must be committed as part of an internal or international armed conflict. Article 5 of the ECCC law states:

Crimes against humanity, which have no statute of limitations, are any acts committed as part of a widespread or systematic attack directed against any civilian population, on national, political, ethnical, racial or religious grounds<sup>354</sup>

and lists the same crimes as the ICTY Statute.

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CRIMES AGAINST HUMANITY: namely, murder, extermination, enslavement, deportation, and other inhumane acts committed against any civilian population, before or during the war; or persecutions on political, racial or religious grounds in execution of or in connection with any crime within the jurisdiction of the Tribunal, whether or not in violation of the domestic law of the country where perpetrated (Charter of the International Military Tribunal (agreement signed 8 August 1945) <<http://avalon.law.yale.edu/imt/imtconst.asp>> accessed 29 October 2008) Art 6(c).

<sup>352</sup> Telephone interview with international judge # 2 (27 September 2007).

<sup>353</sup> ICTY Statute, Art 5.

<sup>354</sup> Law on the Establishment of Extraordinary Chambers in the Courts of Cambodia for the Prosecution of Crimes Committed during the Period of Democratic Kampuchea (adopted 2 January 2001, as amended 27 October 2004) NS/RKM/0801/12 <[http://www.eccc.gov.kh/english/cabinet/law/4/KR\\_Law\\_as\\_amended\\_27\\_Oct\\_2004\\_Eng.pdf](http://www.eccc.gov.kh/english/cabinet/law/4/KR_Law_as_amended_27_Oct_2004_Eng.pdf)> accessed 6 May 2009, Art 5. Interestingly, the ICTR and the ICC have slightly different definitions again. The ICTR speaks of 'crimes when committed as part of a widespread or systematic attack against any civilian population on national, political, ethnic, racial or religious grounds' whilst the ICC Statute defines crimes against humanity as 'any of the following acts when committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack' (see Updated Statute of the International Criminal Tribunal for Rwanda, (adopted 8 November 1994, as amended) <<http://69.94.11.53/ENGLISH/basicdocs/statute/2007.pdf>> accessed 23 April 2009, Art 3 and Rome Statute, Art 7). Furthermore, the list of crimes within the subject matter jurisdiction of the ICC include '[e]nforced disappearance of persons' and '[t]he crime of apartheid' (ibid).

At the ICTY, a large number of defendants have been charged with crimes against humanity, mostly in relation to attempts to ethnically cleanse particular regions. In the current *Popović et al.* trial, where five of the defendants stand accused of extermination as a crime against humanity, the defence lawyers were particularly keen to clarify whether those found in mass graves had been killed in combat or whether they were identifiable as civilians which would constitute a crime against humanity. Pathologist Dr Clark, for instance, was asked whether some victims from mass graves could have died as a result of combat as opposed to execution<sup>355</sup> and both Dr Clark and Chief Archaeologist Prof Wright were cross-examined as to whether military clothing was found on the buried bodies.<sup>356</sup>

In *Milutinović et al.* the accused were allegedly responsible for deportation, forcible transfer, murder (as a crime against humanity and a violation of the laws or customs of war) and persecution of Kosovo Albanians. Volume two of the judgment reviews the evidence relating to the alleged crimes, relying on much of the forensic evidence conducted in Kosovo during 1999 which was summarised by forensic pathologist Dr Eric Baccard.<sup>357</sup> In light of the forensic findings, the Trial Chamber concluded that during the NATO bombing campaign, over 700 bodies originally buried throughout Kosovo were secretly exhumed and transported to Serbia proper in an attempt to conceal these bodies from citizens of the former Yugoslavia and the international community.<sup>358</sup> These clandestine operations of concealment led the Trial Chamber to believe 'that the great majority of the corpses moved were victims of crime, as opposed to combatants or people who perished during legitimate combat activities.'<sup>359</sup> The forensic evidence thus helped the Trial Chamber come to the conclusion that some of the persons killed, especially as women and children were among those dead, were killed unlawfully, thus constituting a crime against humanity.

Radislav Krstić was also accused of the crime of extermination. However, the Trial Chamber decided that because the crime was better described as genocide than as a crime against humanity, it was 'impermissible to convict the accused of the two offences of extermination and genocide based on the same conduct.'<sup>360</sup> Had General Krstić not been convicted of genocide by the Trial Chamber, the forensic information could have been used to demonstrate extermination at the systematic level needed by the definition of crimes against humanity:

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<sup>355</sup> *Prosecutor v Popović et al.*, Expert Witness Testimony by Dr John Clark, Transcript, Case No IT-05-88-T, 19 February 2007, Trial Chamber II, 7345-7361 and 7392-7398.

<sup>356</sup> *Ibid* 7369-70 and *Prosecutor v Popović et al.*, Expert Witness Testimony by Prof Richard Wright, Transcript, Case No IT-05-88-T, 21 February 2007, Trial Chamber II, 7490-91.

<sup>357</sup> *Prosecutor v Milutinović et al.*, Judgment, Case No IT-05-87-T, 26 February 2009, Trial Chamber III, Vol 2 and *Prosecutor v Milutinović et al.*, Expert Witness Testimony by Dr Eric Baccard, Transcript, Case No IT-05-87-T, 19-20 February 2007, Trial Chamber III.

<sup>358</sup> *Milutinović et al.*, Judgment (2009) (*ibid*) para 1356-1357.

<sup>359</sup> *Ibid* para 1357.

<sup>360</sup> *Krstić*, Judgment (2001) (n 335) para 685.

At the ECCC, Khmer Rouge leaders Nuon Chea, Ieng Sary and Khieu Samphan have been charged with both war crimes and crimes against humanity – but not genocide. Some believe that forensic science could play a valuable role in proving certain elements of the crimes committed:

Forensic scientists will help establish a nationwide pattern of systematic mass murder of 'class enemies' of the Khmer Rouge regime, as well as of certain ethnic and religious groups, such as the Muslim Cham, Buddhist monks, Christians and the Vietnamese minority.<sup>361</sup>

An examination of human remains could establish the cause of death and signs of torture and might reveal artefacts that could help prove the religious beliefs of the victims. Investigators could concentrate on exhuming a few sites of key strategic importance to support claims that particular ethnic or religious groups were targeted and killed through large-scale executions, starvation and torture. They could pinpoint a few graves, representative of most graves from across the country, to demonstrate the widespread nature of the killings in Cambodia. One interviewee explained that forensic science might help determine what category of crime was actually committed in Cambodia, thus helping to clarify the dispute as to whether the Khmer Rouge atrocities qualified as genocide.<sup>362</sup>

It is commonly believed that around 20 to 25 percent of the Cambodian population died during the Khmer Rouge era. Whilst prosecution and co-investigating judges are unlikely to use forensic science to produce an accurate figure, not least because the original crime scenes have been disturbed, they might attempt to verify death toll estimates to avoid moderation of the deaths attributed to the Khmer Rouge by ascribing culpability to US carpet-bombing prior to 1975, the invasion by Vietnam and the civil war.<sup>363</sup> Thus, the use of carefully selected exhumations that verify DC-Cam's mapping projections and establish cause and approximate time of death in order to confirm that the victims were from the Khmer Rouge era would put an end to suggestions regarding overestimates of the death toll.

#### Links to High Level Perpetrator

Whilst the base crimes might be relatively easy to prove, establishing the link between a base crime and a perpetrator constitutes the real challenge. The defence is unlikely to dispute that the actual killings ever happened but is more likely to argue that defendants

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<sup>361</sup> Statement by Gregory Stanton (Personal email correspondence 7 May 2007).

<sup>362</sup> Personal interview with international judge # 4 (25 April 2007).

<sup>363</sup> During the *Milošević* trial, statistician Patrick Ball gave evidence on killings in Kosovo based on a report that contained a statistical analysis of interview records, documents and exhumation reports. The findings showed that killings (and refugee flow) occurred in a regular pattern throughout March-June 1999 and that 10,356 Kosovar Albanians were killed (P Ball and others, 'Killings and Refugee Flow in Kosovo March-June 1999: A Report to the International Criminal Tribunal for the Former Yugoslavia' (American Association for the Advancement of Science, Washington 2002)). A similar approach might be feasible in Cambodia.

have no connection to the crimes. It is predicted that at the ECCC, prosecutors will rely predominantly on written evidence to try to prove the chain of command and to establish superior responsibility for the crimes.<sup>364</sup> Evidence collected by forensic scientists could be one indirect way to establish whether there was a systematic pattern of killings that can be linked to orders given by the defendants. However, as one interviewee pointed out,

if there is more interest in command structures as opposed to sort of ground level activity, then there may be very good legal issues why you wouldn't put resources into a forensic mission.<sup>365</sup>

Given that in Cambodia the existence of graves is not a secret and it is widely acknowledged that hundreds of thousands of people died simply because so many human remains are displayed in memorials, the need to prove that killings occurred might be less critical. Therefore, forensic science might not be employed to confirm the base crimes. Instead, documents and witness testimonies might be used to establish the involvement of the alleged perpetrators. Yet, because the ECCC is expected to make an important contribution to Cambodian history and collective memory through its judgments and legal documents, collecting all available evidence, in particular physical evidence, using scientific methods would help provide as comprehensive and impartial an account of events as possible. As one interviewee said, forensic evidence provides a 'good balance to the whole court case.'<sup>366</sup> In May 2007 a confidential forensic needs assessment was conducted<sup>367</sup> and forensic anthropologist Debra Komar was asked to examine evidence relating to Cheoung Ek.<sup>368</sup>

At the ICTY, it was paramount to prove the crimes despite charging the top leaders. As one interviewee explained:

Although the overall interest is in establishing the line of criminal culpability against Milošević as a political leader, [...] you actually still have to prove enough crimes in a very conventional way.<sup>369</sup>

Forensic science can be necessary to show that mass graves existed in the first place and who the victims were. Furthermore, the value of scientific evidence depends on the level of perpetrator in question: the higher up the chain of command, the less detailed crime base evidence is required. In *Krstić* five forensic experts and two investigators gave evidence regarding the Srebrenica massacres. In *Milošević*, one investigator gave the summary evidence regarding Srebrenica, one forensic pathologist provided the summary findings from forensic investigations in Kosovo, another pathologist gave evidence relating to killings in Croatia and one more court witness was invited to provide expert evidence regarding the Racak killings. The wide ranging allegations against

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<sup>364</sup> J Fromholz (n 278).

<sup>365</sup> Telephone interview with forensic expert # 5 (13 February 2008).

<sup>366</sup> Telephone interview with investigator # 1 (30 July 2007).

<sup>367</sup> Statement by Andrew Thompson (Personal email correspondence 25 June 2007).

<sup>368</sup> Statement by Debra Komar (Personal email correspondence 16 March 2008).

<sup>369</sup> Personal interview with international lawyer # 6 (1 November 2007).

Milošević and his command responsibility demanded this efficient approach to trial management.

#### 5.1.1.4. Identification

The ICTY has been criticised for focusing on categorical identification, e.g. confirming the ethnicity, sex, age, religion, cause and manner of death only as opposed to pursuing positive identification through circumstantial evidence, such as clothing and other artefacts, or through medical identification, such as dental records, and the use of DNA.<sup>370</sup> Some argue that evidence collection may interfere with reconciliation and community processes of rebuilding,<sup>371</sup> especially in relation to investigating mass graves, as it can cause delays in achieving humanitarian goals<sup>372</sup> if national and international support is channelled into exhumations that satisfy prosecution strategies only, without paying sufficient attention to the identification of the missing. Such activities can raise the unrealistic expectation amongst survivors that they will be informed about the fate of missing family members, and that victims will be identified, repatriated and buried.

The human remains, once exhumed and examined by the ICTY's forensic teams, were handed over to the local authorities. Initially Physicians for Human Rights and then the International Commission for Missing Persons (ICMP) worked towards identification. With the help of unique DNA profiles, 6,248 of those who disappeared during the Srebrenica massacre have been positively identified by ICMP.<sup>373</sup> Updates on the numbers of victims and identification reports from those efforts have since been used in trials, strengthening the prosecution's case through attributing names to the victims.<sup>374</sup>

However, interviewees made it clear that identification is important to the ICTY and that it took its 'obligation to victims very seriously.'<sup>375</sup> After all, that was 'the main reason why the Tribunal was set up. It was to bring justice to the victims.'<sup>376</sup> Another interviewee emphasised this point by stating:

that this institution finds identification important. The United Nations have regarded the interest of victims in this place as a very important interest. And one

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<sup>370</sup> E Stover and R Shigekane, 'Exhumation of Mass Graves: Balancing Legal and Humanitarian Needs' in: E Stover and HM Weinstein (eds), *My Neighbor, My Enemy: Justice and Community in the Aftermath of Mass Atrocity* (Cambridge University Press, Cambridge 2004).

<sup>371</sup> LE Fletcher and HM Weinstein, 'Violence and Social Repair: Rethinking the Contribution of Justice to Reconciliation' (2002) 24 *Human Rights Quarterly* 573.

<sup>372</sup> ME Keough, T Simmons and M Samuels, 'Missing Persons in Post-conflict Settings: Best Practices for Integrating Psychosocial and Scientific Approaches' (2004) 124 *The Journal of the Royal Society for the Promotion of Health* 271.

<sup>373</sup> International Commission on Missing Persons, 'Number of Assisted DNA Identifications of Persons Missing - Southeast Europe' (2008) <<http://www.icmp.org/icmp-worldwide/southeast-europe/>> accessed 15 November 2009.

<sup>374</sup> See *Prosecutor v Popović et al.*, Witness Testimony by investigator Dean Manning, Transcript, Case No IT-05-88-T, 11-12 December 2007, Trial Chamber II.

<sup>375</sup> Telephone interview with international lawyer # 3 (21 September 2007).

<sup>376</sup> *Ibid.*

of the ways that's dealt with is to identify [...] that their family member was murdered in a particular situation.<sup>377</sup>

The possibility of positive identification has, of course, become quicker and easier since the end of the 1990s through DNA technologies and methods developed by the International Commission of Missing Persons, making identification more readily available to the OTP. It should, however, be noted that where entire families were killed, identification efforts will remain unsuccessful.

For some cases, especially for those involving high level accused, positive identification of the victims may not be important, especially if the court has already concluded that atrocities were committed.<sup>378</sup> For other cases identification is paramount to prove the crimes and links to the accused. As one interviewee explained:

[i]f you have bodies and they look a little bit suspicious and you have [...] no evidence who they are and where they come from, then you haven't proved your crimes, you left a gap.<sup>379</sup>

Regarding crimes committed in Kosovo in 1999, for example, where mass graves were smaller in size than in Bosnia-Herzegovina or Croatia, it was important to prove the identity of victims to prevent the defence from arguing that the victims were of a different ethnicity. In the *Haradinaj* trial, as one interviewee explained, the prosecution was working closely with ICMP to get DNA identification with the investigations providing the necessary blood samples from family members to facilitate identification.

Because of heightened awareness of the increased possibility of positive identification, one interviewee mentioned that the bodies of some victims had been transported into Serbia in an attempt to evade identification and incrimination.<sup>380</sup> Given the 'no body, no crime' principle, 'scientific evidence of body movement in Kosovo [...] was very valuable.'<sup>381</sup> This body movement has been demonstrated in the *Milutinović et al.* judgment where it was used to infer that crimes against humanity had been committed.<sup>382</sup>

#### 5.1.1.5. Feasibility

Any decision to conduct forensic missions is grounded in the legal needs and scientific assessment; of course, it is also determined by the resources available, most notably budget, time scales, team size, team composition and logistics. As one interviewee explained, forensic missions are 'very time-consuming, expensive, resourceful – so you

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<sup>377</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>378</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>379</sup> Personal interview with international lawyer # 6 (1 November 2007).

<sup>380</sup> *Ibid.*

<sup>381</sup> *Ibid.*

<sup>382</sup> *Milutinović et al.*, Judgment (2009) (n 357) para 1356-1357.

look to see whether there are other methods of proving the same thing.<sup>383</sup> Even if a forensic mission has been approved, access to crime scenes is often dangerous and difficult. Furthermore, evidence is often destroyed and human remains removed,<sup>384</sup> thus slowing the excavation processes down whilst affecting the overall time plan.

Given the budgets assigned to the Tribunal, affordability can become an issue. However, if forensic missions are really important, there are other means of raising the necessary funds without tapping into the assigned court budget, particularly through trying to secure other government support. At the ICTY, for example, for the 1997 forensic mission, Chief Prosecutor Louise Arbour, through diplomatic briefings, managed to raise 2.2 million USD from various countries<sup>385</sup>. For the following year's excavation and examination work, once again, funding was made available through an appeal to member states.<sup>386</sup>

A constant pressure for prosecutors, investigators and potentially also forensic staff is time. As one interviewee expressed it, 'time is always against us, always.'<sup>387</sup> The need for speed was such that one interviewee said that some work was done 'more quickly than would be acceptable in any [...] domestic situation with say one or two bodies.'<sup>388</sup> The fear of not having enough results before a trial commences means that prosecutors can feel the need to exert pressure in order to have sufficient materials to put into evidence. One discrepancy arising from this need for speed is that this attitude may conflict with the forensic staff's professional ethos: whilst forensic scientists are bound to seek quality of results, when prosecuting atrocity crimes as described above, it is often the quantity of evidence that counts.<sup>389</sup> Similarly, the decision not to excavate and exhume certain graves was determined by the parameters of time, cost and inadequate sites.<sup>390</sup>

The assembling of a team of experts and support personnel depends on the nature of the conflict. At times entirely international teams may be preferable over a

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<sup>383</sup> Telephone interview with investigator # 4 (28 June 2007). Apparently ICTY field costs were two to three million USD per year (Statement by Ian Hanson (Personal communication 14 April 2009)).

<sup>384</sup> Harmon and Gaynor (n 290).

<sup>385</sup> Contributions for the exhumation projects came from Austria, Canada, Malaysia, the Netherlands, Sweden, Switzerland and the United States of America (UNGA and UNSC, 'Fifths Annual Report of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991' (1998) UN Doc A/53/219 - S/1998/737).

<sup>386</sup> This time the money came from the United Kingdom, Canada, Denmark, Saudi Arabia and the United States of America (ibid para 119 and 120). Whether the ex-budget financing by third countries is politically motivated is a legitimate questions, although one might argue that the ICTY as a whole is a politically motivated enterprise through the backing of the United Nations. Any outstanding costs, according to one interviewee, were covered from budgets available to the OTP and its investigation divisions (personal interview with investigator # 5 (3 October 2007)).

<sup>387</sup> Personal interview with investigator # 5 (3 October 2007).

<sup>388</sup> Personal interview with investigator # 2 (12 December 2007).

<sup>389</sup> Personal Interview with international lawyer # 2 (10 December 2007).

<sup>390</sup> See *Popović et al.*, Expert Witness Testimony by Prof Richard Wright (n 356) 7468.



mixture of local and international staff. Given the politically sensitive situation with warring ethnic fractions in the former Yugoslavia, forensic missions for the ICTY were conducted solely by international teams<sup>391</sup> to ensure impartiality. As one interviewee explained

it was important [...] that the team consisted of people from different backgrounds, different countries because it would be very hard to conspire and falsify evidence when your team owes nothing to you and they're just there as their own independent experts under your direction. It would be very hard to manufacture or to deceive.<sup>392</sup>

In her account of local exhumation processes in Bosnia-Herzegovina, anthropologist Klonowski (2007) describes how the local efforts were adversely affected by insufficient funding, equipment and forensic expertise, making the forensic exhumations unprofessional. 'Unfortunately,' she explains, 'in many situations, basic lack of knowledge, egos, ignorance and politics ruled over principled best practice activities.'<sup>393</sup> The ICTY reserved the right that, if the local exhumation efforts became relevant to its investigations and prosecution, the evidence would be provided by the local teams.

However, in situations such as Cambodia where the conflict was internal and happened 30 years ago, one interviewee suggested<sup>394</sup> that in those cases it is worth trying to offer Cambodians some ownership of excavations, provided that the expertise is available. At least an attempt should be made to incorporate a capacity-building element into the process, to avoid forensic missions being viewed as a form of 'scientific colonialism'.

### 5.1.2. ANTICIPATED DEFENCE STRATEGY

The onus to prove the guilt of the defendant is on the prosecution. In general, the defence is unlikely to challenge the base crime evidence presented by the prosecution that so many people had been killed, but rather to deny the involvement of their clients. Producing forensic evidence can prevent the defence from saying that the crimes had

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<sup>391</sup> See *Dokmanović, Expert Witness Testimony* by Forensic Anthropologist Dr Clyde Snow, Transcript (n 298) 1572.

<sup>392</sup> Telephone interview with forensic expert # 8 (16 May 2007). The interviewee went on to explain that if non-international teams were to conduct forensic missions in various situations, they could be perceived to be compromised:

The Americans made a mistake, I think, in gathering the forensic evidence in Iraq or going in there as an American team and talking to the press that they were there to get evidence [...]; the leader of the team [was] saying that he was there to get evidence to convict Saddam Hussein [...] which is preposterous from a point of view of independence of experts and is something that we [...] always tell people they've really got to watch (ibid).

<sup>393</sup> E-E Klonowski, 'Forensic Anthropology in Bosnia and Herzegovina: Theory and Practice amidst Politics and Egos' in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Illinois 2007) 158.

<sup>394</sup> Telephone interview with forensic expert # 5 (13 February 2008).

not been committed as much of the forensic evidence is viewed as unassailable. Furthermore, it is very difficult for the defence to re-visit investigations conducted by the prosecution, mainly because of a lack of resources, but also due to the lapse of time between the excavations and the proceedings.<sup>395</sup>

However, as Defence Counsel Guénaël Mettraux mentioned in a lecture in The Hague (2008), sometimes it is worth keeping an eye on what the prosecution do not put into evidence. For example, if an expert report that could contain evidence relevant to a case is not tendered into evidence by the prosecution, the defence might want to try and examine such a document to see why it was not deemed important. Whilst the prosecution has the duty to also disclose exculpatory information, in essence investigations are conducted on behalf of the Office of the Prosecutor who is a party to the proceedings.<sup>396</sup>

## **5.2. Physical Evidence<sup>397</sup>**

In line with Locard's principle that all contact leaves a physical trace, crimes under international criminal law leave behind signs of torture, injuries, murder, detention, transportation of bodies, deposition of bodies, grave construction and links between graves. Reconstructing events to show the nature of the crime and the way in which it was committed is the forensic scientists' duty. Not only forensic scientists, investigators and lawyers, but also local people and relatives demand explanations for bodies in mass graves; as former ICTY Chief Archaeologist Richard Wright said, 'these explanations must come through the eyes of unbiased forensic professionals.'<sup>398</sup> Once forensic experts have examined the scene, established that it is indeed a crime scene, collected all the artefacts, human remains and examined them, it is up to the lawyers to establish a link between the forensic findings, the category of crime committed and the potential perpetrator. And information relating to the context of the extra-judicial activities plays a vital role in doing so. Figure 10 provides a good overview as to the various features and physical evidence which forensic experts may find at a mass grave site.

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<sup>395</sup> Personal interview with international lawyer # 7 (24 July 2007).

<sup>396</sup> G Mettraux, 'Fair Trial', Marie Curie Top Summer School in International Criminal Law 2008, 30 June-11 July 2008.

<sup>397</sup> The author had access to a number of reports produced by the various forensic experts involved in forensic investigations for the ICTY which have informed the following analysis (see Appendix L).

<sup>398</sup> R Wright, 'Tales of Atrocity from the Grave' *The Australian* (17 May 2006) Higher Education 47.

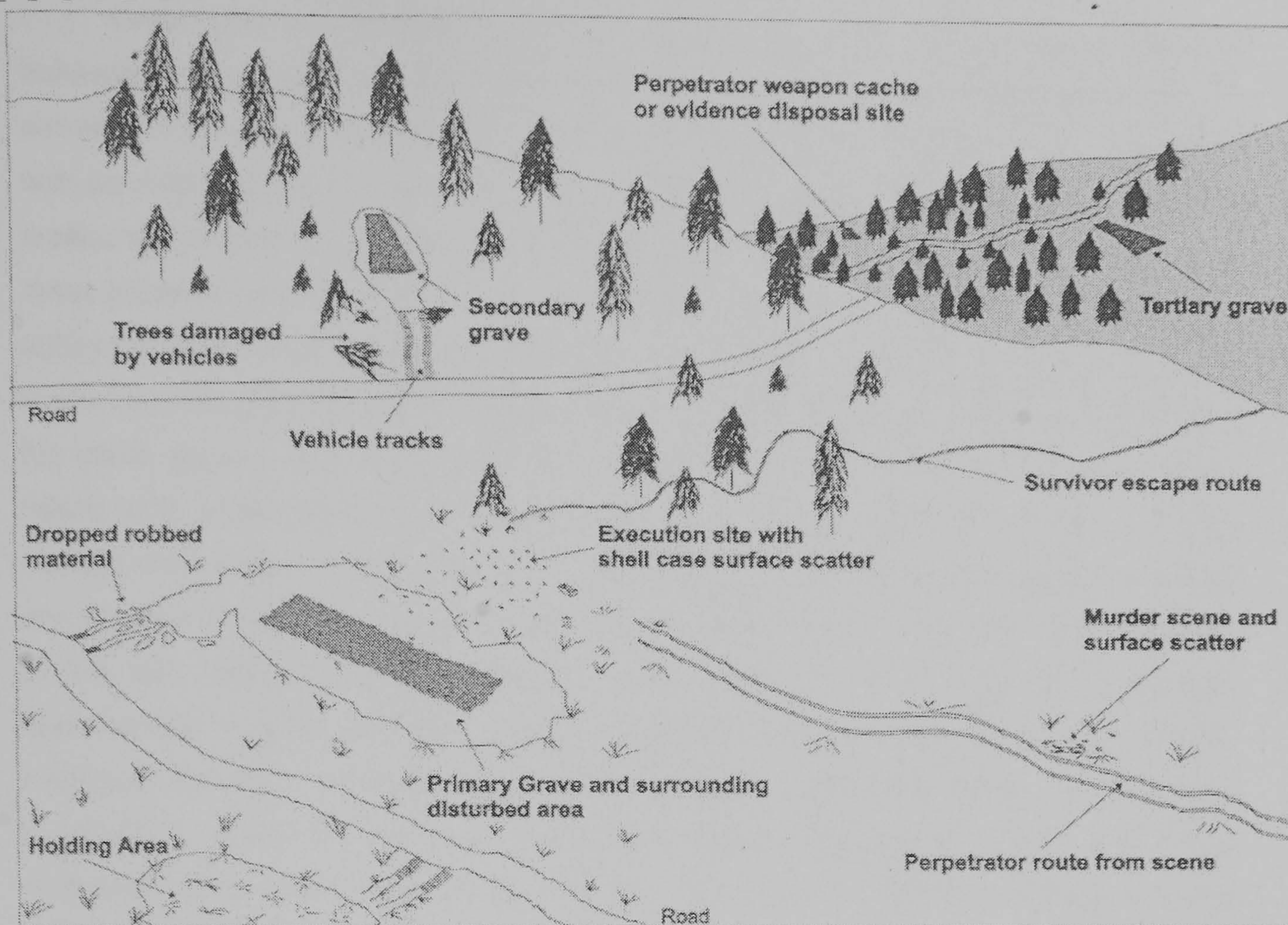


Figure 4: Forensic Landscape<sup>399</sup>

The figure shows grave sites, execution sites, vehicle tracks and other features that can be detected through the careful scientific analysis of the forensic landscape through archaeological techniques, soil sampling and laboratory analysis of artefacts. As was the case surrounding the Srebrenica massacre, the initial inhumation site, called the primary grave, may have been disturbed and in an attempt to conceal the crime, evidence and bodies may have been moved to secondary or even tertiary graves. One interviewee explained that excavation reveals more than bodies:

Some of the pieces of evidence were actual material evidence like shell cases or blindfolds on bodies and some are not material ones like teethmarks in the ground and just access routes.<sup>400</sup>

Toothmarks, grave ramps and vehicle tyre prints give information about how the graves were created, how many times a lorry drove up and down the ramp and what type of equipment was used. The investigators can then confirm through military experts that 'according to Yugoslavian military manuals, this is how they would [...] construct a, what they used to call, cemetery grave on the battlefields'<sup>401</sup> and try to interview army personnel that might have been involved in the operation to provide further corroboration.

<sup>399</sup> Source: P Cheetham and others 'Search, Location, Excavation and Recovery' in: Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) 207.

<sup>400</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>401</sup> Telephone interview with investigator # 1 (30 July 2007).

Grave sites in Cambodia can be very complex as well. Not only are 95 percent believed to have been disturbed, there are also many sites with thousands of human remains. A product of exhumation campaigns and grave robbing are the memorial sites with so-called *stupas* in which the skeletonised human remains, mainly long bones and crania, are housed. *Stupas* are widely distributed over the country and are located near mass graves and prison sites.<sup>402</sup> The relevance of these human remains in *stupas*, as a substrate for forensic analysis, has to date been largely ignored. One interviewee said that when investigating human rights' abuses, the standard forensic paradigm is to look for mass graves, excavate, examine and document. In Cambodia, however, 'there needs to be some kind of programmatic analysis of the relevance of the *stupas*.'<sup>403</sup> The skeletal material is in variable states of preservation, but injuries, a demographic profile and an idea of numbers could be ascertainable and linked to other information relevant to the site. Similarly, the Tuol Sleng Museum in Phnom Penh contains bones and documentary records including many photographs which, again, represent 'a non-traditional archive of information that can be studied in a forensic context.'<sup>404</sup> Therefore, in situations such as Cambodia, the classic forensic paradigms might have to be reconsidered to allow for the full realisation of forensic science explanations when investigating atrocity crimes.

### 5.2.1. ANALYSIS OF HUMAN REMAINS

Analysis of human remains begins at the site *in situ* when evidence is removed. Once the bodies are transferred to the mortuary and all clothing and other personal belongings have been recorded, the examination of human remains which encompasses a medico-legal post-mortem analysis by forensic pathologists and skeletal analysis by the forensic anthropologists, all of which is aided by mortuary technicians and radiographers, can start.<sup>405</sup> The information needed for international criminal investigations is 1) cause, manner and time of death, 2) demographic details, 3) number of individuals and 4) identification.

#### 5.2.1.1. Cause, Manner and Time of Death

Examination efforts in the mortuary can provide a general description of the people who had died and how they died. In the former Yugoslavia, examinations showed that many

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<sup>402</sup> See Appendix M.

<sup>403</sup> Telephone interview with forensic expert 5 (13 February 2008).

<sup>404</sup> Ibid.

<sup>405</sup> For a step-by-step description of mortuary procedures, see chapters 6, 7 and 8 in M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) 268-462. Interestingly, few odontologists seem to have worked for the ICTY. This could be due to the fact that positive identifications were not a priority of criminal investigations and because dental records were not easily available.

people had died from gunshot injuries: in the May 2000 summary report on the Srebrenica investigations, the death of 1,424 individuals was attributed to gunshot injuries, 169 died of probable gunshot wounds, five died from shrapnel injuries, whilst four died of other causes such as trauma or suffocation.<sup>406</sup> With gunshot wounds it is also possible to determine the directions of shots and the various weapons used to fire the shots. It was also significant, as one interviewee pointed out, that experts could prove 'that the majority of people died from gunshots as opposed to explosion injuries, which in any war situation you get far more explosion injuries rather than gunshot injuries.'<sup>407</sup>

In Cambodia, forensic analysis of crania from Choeung Ek revealed blunt impact head trauma, as well as sharp force injuries, such as chopping and stabbing, and gunshot wounds that were clearly identified to be non-accidental injuries, but extrajudicial killings.<sup>408</sup> The added complication in Cambodia will be to assess whether the human remains are indeed victims of Khmer Rouge atrocities, or whether they were killed by the carpet bombing by the United States before 1975. Whilst the time of death can often be determined at the grave site through artefacts found in the grave, pollen analysis, dendrochronology or through sets of aerial images, if taphonomic alterations to the bodies are well understood, a time estimate can be given and post-mortem damage such as dismemberment or destruction can be deduced.

#### 5.2.1.2. Demographic Details

As became clear from the definition of genocide and crimes against humanity (see section 5.1.1.3.), it is important to prove that a particular group of civilians was targeted. For forensic experts this means answering such questions as 'are they male, are they young, are they disabled people, are they military?'<sup>409</sup> And of course, did the victims belong to a national, ethnic, racial or religious group? Ancestry estimates, e.g. 'the biogeographic population to which a person belongs, by virtue of their genetic heritage',<sup>410</sup> do not necessarily help with trying to establish ethnicity, nationality or religion. Therefore, the careful examination of artefacts such as identity cards and jewellery can help.

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<sup>406</sup> Manning (n 307) 3.

<sup>407</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>408</sup> SC Ta'ala, GE Berg and K Haden, 'Blunt force Cranial Trauma in the Cambodian Killing Fields' (2006) 51 (5) *Journal of Forensic Sciences* 996.

<sup>409</sup> Personal interview with forensic expert 3 (30 May 2007). This view, however, is not shared by all forensic experts; some would not want to focus on these questions but instead examine the remains and interpret the results without being guided by specific questions (Statement by Margaret Cox (Personal communication 1 April 2009).

<sup>410</sup> C Barker and others, 'Mortuary Procedures II - Skeletal Analysis I: Basic Procedures and Demographic Assessment' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) 322.

If the biological sex and age of an individual have not been established through the analysis of soft tissue, where no soft tissue survives, skeletal remains and their morphology help determine sex and age, the latter is often aided by examination of teeth and their comparison with dentition development.<sup>411</sup>

### 5.2.1.3. Numbers of Individuals

Forensic anthropologists speak of the minimum number of individuals found in single or multiple interment sites or crime scenes. The calculation of the minimum number of individuals can be complicated when commingled and disassociated body parts are involved as the reassociation of human remains from differing interment sites can be required.<sup>412</sup> in the *Popović et al.* trial, forensic anthropologist Jose-Pablo Baraybar explained the procedure to the Trial Chamber as follows:

in order to get the minimal number of people present in all the graves, the primary and secondaries, you have -- for consistency, you need to count the same type of bone. Otherwise you will be duplicating them. [...] If the most popular bone, for example, in the primary site is the right femur, you will be counting only right femur [sic] in all the other sites, because then you know you have X number of right femurs and X number of individuals.<sup>413</sup>

Based upon the minimum number of individuals calculated for the exhumed Srebrenica case, Chief Archaeologist Prof Richard Wright estimated the possible number of bodies in un-exhumed but probed sites. These figures have since been updated through work conducted by ICMP and the figure is shown to be higher than the conservative estimates by Prof Wright.<sup>414</sup>

As already mentioned, in Cambodia the question of MNI has arisen in relation to the human-remains exhumed at Cheoung Ek and the alleged numbers killed in Tuol Sleng prison. Furthermore, the total number of individuals killed during the Khmer Rouge era is under constant dispute. It is believed that forensic science could confirm only some of the figures proposed by DC-Cam from mass graves by carefully counting skeletal remains at memorial-sites and when conducting exhumations of undisturbed mass graves.

### 5.2.1.4. Identification

Fingerprints, DNA and dental records are primary identifiers, but other biological features, such as ancestry, sex, age, and living stature can help with identification

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<sup>411</sup> Ibid.

<sup>412</sup> For more details on the determination of MNI, see *ibid* 305-308.

<sup>413</sup> *Prosecutor v Popović et al.* Expert Witness Testimony by Jose Pablo Baraybar, Transcript, Case No IT-05-88-T, 14 March 2007, Trial Chamber II, 8801-8802.

<sup>414</sup> *Popović*, Witness Testimony by investigator Dean Manning (n 374).

efforts. Often comparison between ante-mortem and post-mortem data is vital.<sup>415</sup> In general, '[m]ethods used for identification by comparison may include fingerprints; dental records, including radiographs; medical and laboratory reports, including radiographs; photographs; clothing and special identifying features on the body.'<sup>416</sup> Photographs of less decomposed bodies, clothing or unique artefacts may be presented to relatives for identification purposes.

As was the case in the former Yugoslavia, where the responsibility to identify victims was handed over first to Physicians for Human Rights and then to ICMP, identification efforts are likely to be undertaken by different institutions. The International Committee of the Red Cross or the Disaster Victim Identification Committee of Interpol are specialised agencies for identifying the missing.<sup>417</sup> If such bodies work alongside forensic missions for international criminal prosecution purposes, autopsy and skeletal analysis records, including samples, will be made available to them.

### 5.2.2. SYSTEMATIC PATTERNS

Systematic patterns of evidence implying planned and highly organised events can be found both at the graves and in the mortuary. Findings may reveal that most graves were dug in a similar way during the same period of time, that often execution sites were very close to the interment site, that the bullets found at the grave sites came from the same type of weapons etc. Similarly, in conjunction with careful examination in the mortuary, with regards to the Srebrenica investigations, it became apparent that those targeted were mostly men (by 2000, 1,656 human remains were determined to be male, one individual was female, whilst 212 remained undetermined) and they were mostly shot. Religious artefacts such as prayer beads, a prayer book, copies of the Koran, verses from the Koran, religious pendants and other items were found on the bodies, thus confirming the belief that Muslim men had been the victims. Furthermore, ligatures were found at 11 sites (six primary and five secondary) and blindfolds were recovered from eight mass graves (three primary and five secondary).<sup>418</sup>

In Cambodia, where 'class enemies' of the Khmer Rouge regime were systematically targeted, mass grave evidence would help show that the killings occurred throughout the country thus suggesting systematic attacks. Furthermore the DC-Cam mapping project has already revealed that many mass grave sites were in close proximity to prison sites (see Appendix O).

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<sup>415</sup> See Appendix N for a flow chart depicting the various elements of ante-mortem data collection and the relationship to scientific procedures.

<sup>416</sup> A Anderson and others, 'Mortuary Procedures I - Pathology, Radiography, and the Role of the Anatomical Pathology Technologist' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008) 273.

<sup>417</sup> Ibid.

<sup>418</sup> Manning (n 307).

#### **5.2.2.1. Disturbance and Body Movement**

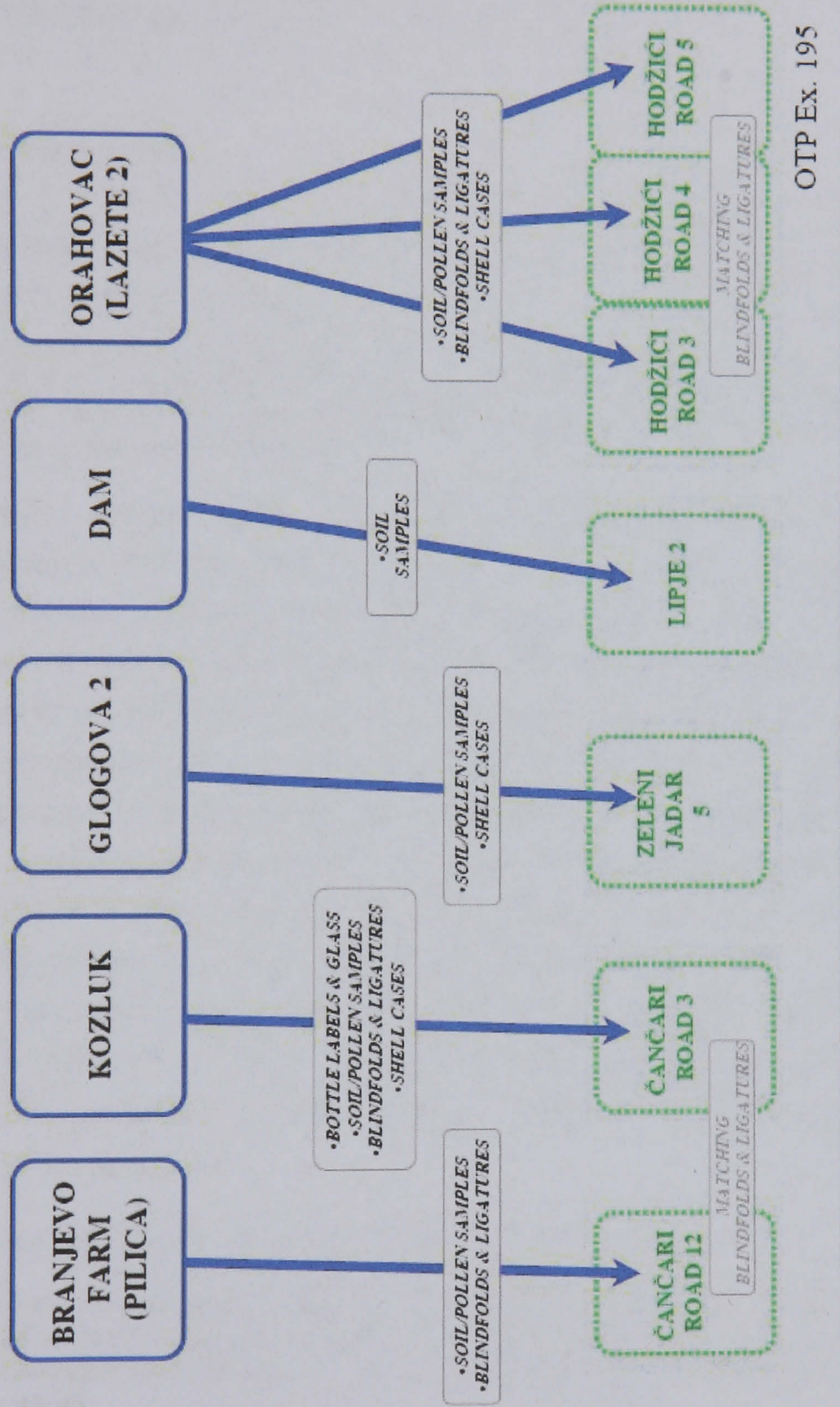
Once the international community became aware of what had happened in Srebrenica, attempts were made by Bosnian Serbs to hide the evidence and that meant moving bodies to new graves. However, evidence of disturbance to primary graves was found through stratigraphic excavation,<sup>419</sup> and it was possible to link primary graves to secondary and at times tertiary graves through the comparison of ligatures, blindfolds, soil and pollen samples, artefacts (including glass fragments and bottle labels) and matching shell cases (see Figure 11).

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<sup>419</sup> Telephone interview with forensic expert # 8 (16 May 2007).



# SREBRENICA GRAVES PRIMARY TO SECONDARY



OTP Ex. 195

Figure 5: Srebrenica Graves, Primary to Secondary<sup>420</sup>

<sup>420</sup> Manning (n 307) 25.

A further indication that the grave had indeed been robbed was the high number of disassociated body parts: 'As putrefaction of the bodies will weaken cohesion of the parts, unless a primary grave is carefully exhumed, the bodies will become disarticulated on transport and reburial at the secondary site.'<sup>421</sup>

In Cambodia, since the site selection phase was conducted as part of DC-Cam's forensic project, grave disturbances through exhumation campaigns after the fall of the Khmer Rouge, grave robbing or cultivation of land are well-known.

### 5.2.3. SCIENTIFIC LIMITATIONS

Despite the belief that forensic science 'undoubtedly puts hard facts to a lot of suppositions',<sup>422</sup> scientific limits remain. As one interviewee explains, with some gunshot injuries to the head, a pathologist cannot

prove that that was caused in life because of the decomposition. You can only tell injuries caused from life because of bruising and bleeding and what have you. So you need to be dead for five years for all this to have long since disappeared and all you have is a hole in the bone.<sup>423</sup>

Therefore, the potential defence theory, that an individual was shot after that person had died of natural causes, is difficult to exclude with certainty as that particular scenario is, at least in theory, possible. Forensic anthropologists, however, might be able to tell from fracture patterns on the bones whether the injuries were inflicted peri or post-mortem.<sup>424</sup>

There are other problems to contend with. Little is known, for example, about the range and scope of changes that occur in bones and bodies after death in Cambodia.<sup>425</sup> Whilst general principles of taphonomy should apply, in order to make this evidence unassailable in a court of law, these taphonomic alterations might have to be studied carefully beforehand. If scientists are only examining a discrete amount of graves or human remains, they can be accused of selection bias regarding their sampling.

In general, as scholar Mike Redmayne (2001) points out, '[m]uch writing on forensic science evidence stresses the role of interpretation in the process of drawing conclusions from the examination of physical evidence.'<sup>426</sup> Despite the requirement that

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<sup>421</sup> Ibid 16.

<sup>422</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>423</sup> Ibid.

<sup>424</sup> C Barker and others, 'Mortuary Procedures III - Skeletal Analysis 2: Techniques for determining Identity' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008).

<sup>425</sup> According to the Joint POW/MIA Accounting Command (JPAC), who aim to recover and repatriate US Army personnel, successfully creating biological profiles depends on the preservation and/or condition of the human remains. Southeast Asian jungles, for example, can be very damaging to the preservation of these remains (Joint POW/MIA Accounting Command, 'Anthropology' <<http://www.jpac.pacom.mil/index.php?page=anthropology&size=100&ind=2>> accessed 22 April 2009).

<sup>426</sup> See M Redmayne, *Expert Evidence and Criminal Justice* (Oxford University Press, Oxford 2001) 30. As anthropologist Byers notes in his textbook '[o]ne of the most common problems faced by forensic anthropologists [and shared by the forensic

the basis of any interpretation should be accessible to the scientific community,<sup>427</sup> interpretation bears the connotation of subjectivity, individual discretion and probability, rather than objective certainty resulting in potential 'under-determination' of findings.

Forensic scientists have tried to redress these problems of alternative causes and probabilities, either through conducting further experiments until a clear result is available, or with the help of Bayes' theorem about conditional probabilities, incorporating different potential contexts to explore the most probable scenario. Scientists use the theorem on all possible alternative hypotheses they form, in the hope that it 'will result in their convergence on the most reasonable probability values'.<sup>428</sup> During most domestic criminal investigations, forensic science is largely concerned with recovering and testing evidence in a laboratory to identify the perpetrator and link him or her to the crime. Statistical models may be available and feasible procedures be in place to ensure that all evidence is taken into account and all hypotheses considered.

The sheer complexity of grave sites and commingled human remains poses scientific challenges as well as practical ones. And the strategy, processes and choice of techniques employed at a mass grave are different to those at a domestic crime scene where more trace evidence would be collected.<sup>429</sup> Within a mass grave investigation, scientists are more concerned with probabilities as to the cause and manner of death or determination of sex and thus rarely operate with statistical models, but rather through accumulating evidence. Once a certain threshold is reached, a decision can be arrived at. To offset the threat of subjectivity, bias and differing levels of professional experience, operating procedures, thorough recording<sup>430</sup> and colleague consultation, are in place to achieve the highest possible levels of accuracy. Coming to a consensus regarding the interpretation of the findings, as one interviewee explained, is achieved through 'very strong teamwork'.<sup>431</sup> At the ICTY the procedures and protocols were created, adopted and amended in agreement with the leading forensic expert, prosecution lawyer and investigator to satisfy both scientific and investigative

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archaeologists and pathologists respectively] is how to make a single determination from ambiguous data' (S Byers, *Introduction to Forensic Anthropology* (3rd edn Pearson, Boston 2008) 16).

<sup>427</sup> P Cobb, 'Forensic Science' in: P White (ed), *Crime Scene to Court. The Essentials of Forensic Science* (The Royal Society of Chemistry, Cambridge 1998).

<sup>428</sup> For a detailed explanation of probability models and the Bayesian turn within the forensic sciences, see Redmayne (n 426) and M Redmayne 'Bayesianism and Proof' in: M Freeman and H Reece (eds), *Science in Court* (Ashgate, Aldershot 1998).

<sup>429</sup> Personal interview with scene of crime officer (8 August 2007). Trace evidence is important to establish a link between the actual perpetrator and the crime scene; this is often not a prosecutorial priority when dealing with high-level accused.

<sup>430</sup> Given that reproducibility of results within a mass grave is hardly possible (a body or piece of evidence can only be excavated once), the recording and documentation element becomes an important source of information and evidence for the court, as expert reports and photographs can be examined by other experts not involved in the original forensic investigation. Photographs in particular often function as a quality control.

<sup>431</sup> Personal interview with forensic expert # 3 (30 May 2007).

requirements. A more theoretical debate about the limited validity of forensic science evidence will follow in section 6.1.2.

### **5.3. Beyond the Legal and Scientific Context**

International criminal law does not operate in a vacuum. Tribunals like the ICTY and the ECCC have been created as a reaction to terrible crimes and trauma inflicted on societies by politics, ideology and ethnic divide. Therefore, the validity of such judicial efforts can only be empirically proven through studying the impact they might have on the non-legal sphere they operate in.<sup>432</sup> Similarly, it is vitally important to assess the context prior to making decisions regarding the use of forensic science for investigative purposes as forensic missions can have a profound impact on the societies concerned. Investigations usually are carried out in the midst of people's lives, not in a detached office or court room in The Hague or outside Phnom Penh. The interview data have thus led to the findings that more parameters need consideration, most notably the importance of NGOs, political situations, psycho-social aspects within the affected population and the role other international law provisions, such as the rights of victims, might play. This is compatible with best practice by institutions that focus on forensic investigations of war crimes, crimes against humanity and extra-judicial killings, such as the Inforce Foundation, who conduct thorough impact assessments prior to embarking on forensic missions.<sup>433</sup>

### **5.4. NGOs**

NGOs are often the first organisations to appear on a scene of crisis to observe and report crimes in great detail. Time and again it is their reports that raise awareness of horrific events, thus encouraging the international community to act and – where necessary – intervene. As the ICTY was commencing its work, few resources on the ground were available to the OTP to start gathering the witness statements needed. Therefore it enlisted the assistance of NGOs, with varying mandates, to record the details of crimes that had been committed and to gather details of potential witnesses. One interviewee clarified that the ICTY was not

asking them [the NGOs] to take statements, but merely to record incidents of crimes that had occurred and then the details of the witnesses themselves so that

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<sup>432</sup> International law scholar Skouteris, for example, criticises the belief that more tribunals and international adjudication are in effect progress in international law and have positive effects on the so-called international community, as their validity is not demonstrated in international criminal law literature through empirical proof but is merely based on rhetoric (T Skouteris, 'The New Tribunalism: Strategies of (De)Legitimation in the Era of International Adjudication' (2006) XVII Finnish Yearbook of International Law 1).

<sup>433</sup> Statement by Margaret Cox (Personal communication 1 April 2009).

if any of those instances became relevant, we could send our own investigator to follow up and many organisations cooperated in that regard.<sup>434</sup>

However, the fact that NGOs gather information, interview witnesses and write reports with their particular mandate in mind also creates problems for investigations, mainly because they are not trained investigators but have an agenda of their own, for example, being very pro-victim, gender or politically oriented. Because the information is taken in a different format, it rarely makes it into court. Instead, the investigator has to re-visit the witnesses, make them re-live horrific memories, take a statement, ensure that it is correct and persuade the person to act as a witness in court because 'they have got to prove it in a court of law, not in a public forum'.<sup>435</sup> According to former ICTY investigator Raymond McGrath (2002), when employing NGOs '[a]t its best, this system has produced or discovered outstanding personnel, while being very time-consuming; at worst it has resulted in uneven levels of quality and experience'.<sup>436</sup> Furthermore, at trial level, information and evidence gathered by NGOs could be seen as biased. For this reason, one interviewee said:

why should the prosecution even begin to raise a question over the work they're doing by engaging people from organisations which have [...] issues of human rights at the heart of what they're doing? This isn't an institute for the protection of human rights. It's here to prosecute crime.<sup>437</sup>

it is, however, important to acknowledge the work done by NGOs and the contribution they make; as one interviewee put it, 'if there wasn't a Physicians for Human Rights, we would have had problems'.<sup>438</sup> In 1996, the NGO Physicians for Human Rights was sub-contracted by the Office of the Prosecutor for one year to conduct forensic investigations of a handful of mass graves. For a number of reasons ranging from alleged misconduct of forensic professionals<sup>439</sup> to the ICTY wanting more control over its exhumations, PHR did not work for the ICTY in subsequent years. Instead PHR shifted its focus to identification by creating an identification project designed to work towards identifications by gathering ante-mortem data.<sup>440</sup> Over 7,500 individuals had been registered as missing by Srebrenica survivors with the International Committee of the Red Cross.<sup>441</sup> In 2001, through the creation of the International Commission on Missing

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<sup>434</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>435</sup> Personal interview with investigator # 2 (12 December 2007).

<sup>436</sup> McGrath (n 281) 900.

<sup>437</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>438</sup> Telephone interview with international lawyer # 3 (21 September 2007).

<sup>439</sup> See section 6.1.3. for further details on professional ethos and misconduct.

<sup>440</sup> Physicians for Human Rights, 'Medical Group Announces First Identification of Victims of Srebrenica Massacre' (2007) <<http://physiciansforhumanrights.org/library/news-1997-07-17.html>> accessed 12 November 2008.

<sup>441</sup> The ICRC has since been involved in creating mechanisms to ensure adequate management of the dead and their families in the aftermath of catastrophes. The ICRC recognises

Persons which used DNA profiling at an unprecedented scale, the identification efforts became more and more successful. At a local level and within local commissions there was not enough capacity in the war-torn country and there were too many political problems<sup>442</sup> to effectively deal with identification.

Similarly in Cambodia, it was an NGO<sup>443</sup> such as the Cambodian Documentation Center that conducted a mapping project that aimed to map every single prison, memorial site and mass grave related to the Khmer Rouge era. Through interviewing survivors, researchers tried to estimate the number of people likely to be buried at the various sites whilst realising that the estimates needed to be corroborated by scientific studies. Consequently, DC-Cam started the forensic project to find undisturbed graves which they could scientifically examine to determine numbers, cause of death, age etc. Whilst DC-Cam did not 'want to do the job for the Co-prosecutor',<sup>444</sup> information on undisturbed graves is available to the ECCC. At present, the NGO is working together with the Extraordinary Chambers, not by providing analysis and interpretation, but through sharing archives and information with them, helping with translation and generic sourcing of documents. As one interviewee explained, 'they've [DC-Cam] actually set up some offices in the Documentation Centre for the Office of the Co-prosecutors and they have been going there every week, and giving copies to the courts.'<sup>445</sup> After the trials are concluded, DC-Cam may yet procure the funds to further their knowledge on the victims of the Khmer Rouge era.

It seems that before embarking on forensic missions it is wise to seek close information exchange between prosecution and NGO efforts in order to avoid wasting precious resources and to facilitate a holistic approach to dealing with human remains and grieving families. Some forensic experts argue that if the information regarding

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[t]he individual right of family members to know the fate of missing relatives, their whereabouts or, if dead, the circumstances and cause of their deaths, should be explicitly recognized in times of armed conflict and internal violence. The violation of the right to inform relatives of one's whereabouts or of the right of family members to receive information on the fate of relatives missing because of armed conflict or internal violence should be considered a violation of the right to family life. The systematic and/or persistent violation of these rights should be considered cruel or inhuman treatment (International Committee of the Red Cross, 'The Missing and their Families. Summary of the Conclusions arising from Events held prior to the International Conference of Governmental and Non-Governmental Experts' (Report) (ICRC, Geneva 2003) 11).

Part of their efforts resulted in the production of operational best practices regarding the management of human remains and information on the dead (Ibid 64-78). See also M Tidball-Binz, 'Managing the Dead in Catastrophes: Guiding Principles and Practical Recommendations for first Responders' (2007) 89 International Review of the Red Cross 421.

<sup>442</sup> See Klonowski (n 393).

<sup>443</sup> NGOs play a very important role in Cambodia. See for example A Potter, 'The Rule of Law as the Measure of Peace? Responsive policy for reconstructing Justice and the Rule of Law in post conflict and transitional environment' (Centre for Humanitarian Dialogue, Geneva 2004) 10.

<sup>444</sup> Personal interview with researcher/academic # 4 (27 April 2007).

<sup>445</sup> Personal interview with researcher/academic # 1 (24 April 2007).

identification is ascertainable, a broad strategy encompassing identification efforts needs to be in place when embarking on forensic missions within international criminal investigations.<sup>446</sup> Working together with NGOs can be the way to achieve this without overstressing the mandate of the tribunals.

### **5.5. Political Context**

The political context has a profound impact as to whether forensic missions can and should be conducted in specific situations. The violent disintegration of the former Yugoslavia attracted a lot of international attention, political negotiation efforts and ultimately resulted in the humiliation of the international community. Despite the presence of the United Nations Protection Force, the world watched how through 'means of ethnic cleansing and mass murder, ethnically pure territorial units were emerging'.<sup>447</sup> The ICTY was already operational when the Srebrenica massacre happened. Similarly, in Cambodia, due to complex Cold War politics, investigations into the Khmer Rouge atrocities as part of criminal investigations are only now being conducted.

#### **5.5.1. INTERNATIONAL POLITICS**

Whilst war was still raging in the former Yugoslavia it was possible to guard known mass burial sites, such as the Ovčara grave. But conducting meaningful forensic investigations was not. Once the ICTY had started its operation, one interviewee noted, 'it was often difficult to get people in [into the country] and more importantly to have some sort of reassurance about their safety'.<sup>448</sup> The interviewee went on to say that little assistance was provided by UN forces, which at times refused to guard mass graves at night or refused to de-mine sites.<sup>449</sup> Only after the Dayton agreement in December 1995 could excavation work at selected sites begin.

In 2005, the role of forensic science was explicitly recognised at an international level by the UN stating that forensic investigations can provide an 'evidentiary basis on which prosecutions can successfully be brought against persons responsible for grave violations of human rights and international humanitarian law'.<sup>450</sup> Despite this endorsement, it remains to be seen if and how with the further development of international criminal law forensic science will feature in the future.

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<sup>446</sup> JP Baraybar, V Brasey and A Zadel, 'The Need for a Centralised and Humanitarian-based Approach to Missing Persons in Iraq: An Example from Kosovo' (2007) 11 *The International Journal of Human Rights* 265.

<sup>447</sup> L Silber and A Little, *The Death of Yugoslavia* (Revised edn Penguin, London 1996) 350.

<sup>448</sup> Telephone interview with international lawyer # 3 (21 September 2007).

<sup>449</sup> *Ibid.*

<sup>450</sup> UNCHR, 'Human Rights and Forensic Science: Human Rights Resolution 2005/26' (19 April 2005) UN Doc E/CN.4/2005/L.10/Add.11, 1.

### 5.5.2. DOMESTIC POLITICS

If consent from the ruling government regarding forensic missions is not forthcoming, excavations and examinations may not be possible or only within a narrow mandate. Cox and her colleagues (2008) describe how the rationale for forensic exhumations in the past has often been humanitarian as opposed to prosecutorial, thus actively preventing retributive justice and favouring amnesties. The authors conclude that: '[i]t cannot be denied that limited mandates and aims detract from justice in its broadest sense'<sup>451</sup> and that valuable evidence is destroyed in the process.

The forensic programme by DC-Cam received explicit government authorisation. In 2001 the government in a statement by Prime Minister Hun Sen made it clear that human remains were to be displayed, urging Cambodians

to cooperate with expert institutions to examine, restore and maintain all existing memorials; and to examine and research other remaining grave sites, so that all such places may be transformed into memorials.<sup>452</sup>

One interviewee explained that the reasons behind this position are to 'make sure that there is sufficient evidence that such a crime won't be repeated in this society'.<sup>453</sup> However, exhumation of dead bodies is, as one respondent explained, 'not acceptable for the Cambodian people'.<sup>454</sup> And former King Norodom Sihanouk is against such plans. He favours mass cremation of Khmer Rouge victims, a proposal that might be realised once the ECCC has finished its work. The government's position to preserve the human remains from further decay, looting<sup>455</sup> and disturbance by animals is indeed pressing, for legal as well as historical and educational reasons that will become apparent in the next section. Government interference, however, has the potential to undermine the victims' families' opinion; critics may argue that it is up to the surviving family members to decide what should happen to their loved ones' remains and not government policy.

### 5.6. *Psycho-social Aspects*

Despite the fact that victims are not a main focus of the research study, they are often cited as one of the main reasons why prosecutions take place. During the data collection

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<sup>451</sup> Cox, Flavel and Hanson (n 275) 13.

<sup>452</sup> Documentation Center of Cambodia, 'Government Circular on the Preservation of Victim Memorial by Prime Minister Hun Sen' (14 December 2001), <[http://www.dccam.org/Projects/Maps/Victim\\_Memorials.htm](http://www.dccam.org/Projects/Maps/Victim_Memorials.htm)> accessed 9 April 2009.

<sup>453</sup> Personal interview with researcher/academic # 4 (27 April 2007).

<sup>454</sup> Personal interview with international judge # 4 (25 April 2007).

<sup>455</sup> As reported by the *International Herald Tribune* from Sre Liev village in May 2007, undisturbed graves can become subject to looting by impoverished locals. In the process, bones get piled up in the open. 'After the assault on the burial ground,' Seth Mydans recounts, 'this village seemed filled with remorse and dread' (S Mydans, 'Villagers Find and Loot Cambodian Killing Field,' *International Herald Tribune* (Paris 15 May 2007) <[http://www.genocidewatch.org/images/Cambodia\\_15\\_May\\_07\\_Villagers\\_Find\\_and\\_Loot\\_Cambodian\\_Killing\\_Field.pdf](http://www.genocidewatch.org/images/Cambodia_15_May_07_Villagers_Find_and_Loot_Cambodian_Killing_Field.pdf)> accessed 9 April 2009).



many interviewees reflected on how forensic missions affected victims' relatives. As forensic anthropologist Haglund points out, exhumations assist in establishing accountability; raise awareness; help identify victims; create an account that is immune to revisionism; and lend dignity to victims, their families and human life in general.<sup>456</sup> Indeed, some of these purposes go beyond the trial and are directed at meeting the needs of the local population. The psycho-social effect that forensic work may have on part of the population and entire societies should not be underestimated. Forensic experts Doretti and Fondebrider (2001) observed throughout their careers that the impact of an individual's disappearance on a family is similar regardless of cultural, religious or ideological background.<sup>457</sup> Despite absence of news from the missing and the increased likelihood of his or her death, families live in limbo and cling to the hope that the disappeared may return: '[s]o long as there are no corpses, or concrete information about their death, there can be no funeral rites and no final answers.'<sup>458</sup> It was pointed out during interviews that it is important not to raise unrealistic hopes of recovery, identification and return when engaging in excavations and examinations.<sup>459</sup> Survivors are often interested in and grateful for investigations which try to find out what happened to the disappeared as it is the only way the human remains

could be returned to the relatives to be buried [...] according to their own traditions and religion and that the grave would be bearing the honest and true name of that particular individual.<sup>460</sup>

However, investigating to prosecute and achieve justice in the ICTY's or ECCC's sense is not necessarily the type of justice demanded by the survivors. Furthermore, with regards to the former Yugoslavia, given that the international community had failed to protect the families of Srebrenica in 1995, 'they didn't want to have anything to do with the ICTY'.<sup>461</sup>

One key recommendation that was voiced by many forensic experts during the study is that families and relatives should not come as an afterthought.<sup>462</sup> Instead, as

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<sup>456</sup> WD Haglund, 'Recent Mass Graves: An Introduction' in: WD Haglund and MH Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (CRC Press, Boca Raton 2002).

<sup>457</sup> M Doretti and L Fondebrider, 'Truth, Justice, Reparation and Reconciliation, a Long Way in Third World Countries' in: V Buchli and G Lucas (eds), *Archaeologies of the Contemporary Past* (Routledge, London 2001). Other scholars note that the effect of mass casualties is very complex as not only lives, but also incomes may be lost. Survivors are often displaced, traumatised and feel guilt for having survived. On top of that survivors may have suffered more traumas through torture, rape, hunger and imprisonment adding to the level of distress (ED Williams and JD Crews, 'From Dust to Dust: Ethical and Practical Issues Involved in the Location, Exhumation, and Identification of Bodies from Mass Graves' (2003) 44 *Croatian Medical Journal* 251).

<sup>458</sup> Doretti and Fondebrider (ibid) 143.

<sup>459</sup> Telephone interview with forensic expert # 7 (8 January 2008) and telephone interview with researcher/academic # 2 (10 September 2008).

<sup>460</sup> Telephone interview with forensic expert # 7 (ibid).

<sup>461</sup> Telephone interview with researcher/academic # 2 (10 September 2008).

<sup>462</sup> One interviewee said that this was very much the case at the beginning in the former Yugoslavia, where exhumations started without appropriate community liaison and ante-

one interviewee strongly believed, 'you've got to do your work with the families'<sup>463</sup> which can considerably increase the costs and time spent on a mission but might provide valuable information for investigations. This 'integrated approach' that combines psychosocial and scientific practices is also advocated in the literature as being beneficial for all stakeholders involved during post-conflict operations involving identification of the missing.<sup>464</sup> However, the examples of the former Yugoslavia and Cambodia show the need to differentiate carefully between diverse contexts: the causes and types of trauma inflicted on a population differ, as do religion, culture, education and, specifically in the case of Cambodia, the lapse of time between commission and investigation of a crime. Whilst the former Yugoslavia was part of Europe and thus familiar with the Western paradigm of science and justice, Cambodia, as its elite and intelligentsia were eradicated during the 1970s, is perhaps less so. Not only is the knowledge of what forensic science can achieve underdeveloped and culturally difficult to accept, the workings of the ECCC are not well understood either<sup>465</sup> and trust in the justice system is low.<sup>466</sup> As one interviewee said in relation to the potential of forensic work in Cambodia, 'you don't want to come to a country like that and just sort of set up sharp and start looking at [...] mortal remains.'<sup>467</sup> In fact this, by many, would be deemed unacceptable ethically, socially and morally. Therefore, the impact such investigations would have needs careful consideration. The Cambodian population has for decades been used to displays of human remains for educational, political or propaganda purposes. As one interviewee explained, 'the trauma of 30 years ago is still very present'<sup>468</sup> and another observed that the Cambodian society, as a consequence of the Khmer Rouge era, is still 'a broken society'<sup>469</sup>. Forensic excavations would concern not only the local community with its farmers, villagers and former Khmer Rouge soldiers, but also the urban population who had been displaced to rural areas during Democratic Kampuchea and the international community in general who has an interest in accurate historical accounts.

The study has identified sub-themes under the overarching theme of psychosocial aspects, namely 1) religion, culture and commemoration; 2) history, revisionism and demystification; 3) identification issues; 4) impact on domestic judiciary and

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mortem data collection efforts in place (telephone interview with forensic expert # 1 (17 March 2008).

<sup>463</sup> Ibid.

<sup>464</sup> Keough, Simmons and Samuels (n 372) and Baraybar, Brasey and Zadel (n 446).

<sup>465</sup> Personal interview with international judge # 4 (25 April 2007) and P Pham and others, 'So We Will Never Forget. A Population-Based Survey on Attitudes about Social Reconstruction and the Extraordinary Chambers in the Courts of Cambodia' (Human Rights Center, University of California Berkeley, Berkeley 2009) <<http://hrc.berkeley.edu/pdfs/So-We-Will-Never-Forget.pdf>> accessed 27 March 2009

<sup>466</sup> See S Ford and TC Seng, 'Corruption in the Judiciary of Cambodia' in: D Rodriguez and L Ehrichs (eds), *Global Corruption Report* (Cambridge University Press, Cambridge 2007).

<sup>467</sup> Telephone interview with forensic expert # 5 (13 February 2008).

<sup>468</sup> Personal interview with international judge # 1 (25 May 2007).

<sup>469</sup> Personal Interview with researcher/academic # 4 (27 May 2007).

capacity-building; and lastly asks 5) whether it is the duty of investigations to take psycho-social factors into account.

### 5.6.1. RELIGION, CULTURE AND COMMEMORATION

According to interviewees, Cambodians are gradually starting to understand and accept that forensic examinations of victims, such as autopsies, can provide valuable evidence and assist in the administration of justice. The Cambodian people are culturally and religiously sensitive about the treatment of the deceased, believing that the spirits of those who die unnatural deaths cannot rest and therefore may cause misfortune amongst the living.<sup>470</sup> The issues may be less acute with skeletonised remains as opposed to fleshed remains,<sup>471</sup> yet it is paramount to ensure that forensic missions do not violate any religious taboos as this could generate hostility in the community.

Under the theme of domestic politics the controversy around the fate of human remains has already been mentioned: the government's policy of displaying the remains of Khmer Rouge victims in public memorials is opposed by the former King who favours the cremation of those remains in accordance with Buddhist tradition (although burials are also practised). Cambodian society, according to one interviewee, is split over the issues with two-thirds of the population supporting the government idea and one third in favour of cremation.<sup>472</sup> Cremation of the remains, which Cambodians believe would liberate the souls of the dead for reincarnation, is difficult because individual human remains belong to the families of the deceased. In order to return remains to victims' families, identification would be necessary. This places Cambodians in an impossible

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<sup>470</sup> W Cougill, 'Buddhist Cremation Traditions for the Dead and the Need to Preserve' <[http://www.dccam.org/Projects/Maps/Buddhist\\_Cremation\\_Traditions.htm](http://www.dccam.org/Projects/Maps/Buddhist_Cremation_Traditions.htm)> accessed 26 March 2007.

<sup>471</sup> Personal interview with investigator # 3 (23 April 2007).

<sup>472</sup> Ibid. The interviewee who mentioned this point referred to a survey conducted by the Cambodian Centre for Social Development CSD. The author was unable to obtain the report summarising the survey's findings. Interestingly, in the aftermath of 1979, exhumations and the display of human remains in stupas was encouraged. Another interviewee pointed out that 'one has to also bear in mind that at the time the people's Republic of Kampuchea was not an explicitly Buddhist state; so Cambodia went back to being 'Buddhist' [...] in 1989' (personal interview with researcher/academic # 1 (24 April 2007)). The interviewee continued to explain that memorial sites

were maintained more carefully during the early 80s, but again they were casualties to political developments and during the late 80s and the early 90s when the Khmer Rouge was accepted back in as a party after the Paris peace agreement, a lot of people felt that they should not maintain the evidence of Khmer Rouge crimes because then they would be criticised by the Khmer Rouge. So they tended to go even more in decline at that time, so it is rather ironic that some of this documentary evidence is and physical evidence was properly maintained quite well and respectfully up until – for 10 years, and then in the 90s, for political considerations, people didn't want to know about it (ibid).

See also T Fawthrop and H Jarvis, *Getting Away With Genocide? Elusive Justice and the Khmer Rouge Tribunal* (Pluto Press, London 2004). Ossuaries where many human remains are displayed are also common in Rwanda as a legacy of the genocide.

situation, as identification would require that all recovered remains be examined. Another problem with forensic excavations would be to decide what to do with freshly exhumed human remains – should they be displayed too? Despite the prevailing custom being cremation, the importance of memorial sites and *stupas* for commemoration purposes, chanting, blessing and showing respect to those dead, especially on the so-called ‘Day of Anger’ on 21<sup>st</sup> March, cannot be ignored, even though the role they play in Cambodian society and oral history is, from a Western point of view, not well understood. One interviewee contemplated that the ‘large-scale ossuaries of human material [that are] being used as sort of religious *loci*, and to some extent social-political *loci*’<sup>473</sup> present an area of further research that would be interesting to forensic scientists and social scientists alike, as those memorials offer a delicate substrate for forensic inquiry.

Similarly, every year on 11 July, services are held at Potočari, where the main Srebrenica Genocide Memorial and cemetery are located and the human remains of the missing are buried.<sup>474</sup> It is worth remembering that different religious beliefs, such as the Muslim faith, might impose certain challenges with respect to the handling of human remains, of which excavation and examination staff should be aware. For example, it should be clarified whether it is acceptable for non-Muslim forensic staff to handle bodily remains of Muslims. One interviewee gave the following account of her conversation with an Imam in Pristina, Kosovo. She had asked

whether he saw any problem in women handling male human remains. Because according to the tradition in Kosovo, only the wife of someone who has been killed, a man, is [...] allowed [...] to handle the remains and wash them. And then one important thing also in Kosovo was the colour [...] of the sheet for instance, because it had a very strong symbolic value. [...] If I remember correctly, the white colour is the highest so that would be the colour which would then be restricted to [the] Imam and other people [of] high ranking in religious terms and so on. And also the heroes of war, they were never washed. That’s the tradition – if you conduct the autopsy you have to wash them anyway.<sup>475</sup>

Female scientists were involved in forensic investigations in Kosovo, and autopsies were performed on those who had allegedly died under suspicious circumstances, yet showing respect for the local or religious customs can aid acceptance by the local community.

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<sup>473</sup> Telephone interview with forensic expert # 5 (13 February 2008).

<sup>474</sup> On 11 July 2007, the author had the privilege to attend the Remembrance Day at Potočari and saw the line of green coffins containing human remains of those victims who had been identified in the previous year. These human remains were buried at the cemetery on this day.

<sup>475</sup> Telephone interview with forensic expert # 7 (8 January 2008). Cultural differences were encountered throughout investigations and a number of interviewees accounted similar anecdotes during interviews (for example, personal interview with international lawyer # 6 (1 November 2007) and personal interview with investigator # 5 (3 October 2007)).

### 5.6.2. IDENTIFICATION EFFORTS

In the former Yugoslavia, forensic missions under the auspices of the ICTY did not have the resources nor the prosecutorial desire to deal with positive identification. Nonetheless, many forensic experts agree that they need to prepare for future identification by collecting as many identification features as possible, post-mortem and ante-mortem, as well as preserving bio-samples for later identification and that this effort 'has to be part of the methodology of the SOPs which is not negotiable'<sup>476</sup> Indeed, one interviewee dismissed the distinction between humanitarian and forensic work at the grave as semantics:

You dig, you dig, you do the same kind of care dealing with humanitarian graves as you do a forensic grave; you want to identify them and that potentially could be able to be used in court.<sup>477</sup>

The key is to put measures in place so that identification efforts can be carried out by other organisations, whether NGOs or local commissions to fulfil the 'moral obligation of identifying every body if the society where these people come from wishes that to be done.'<sup>478</sup>

Contrary to the former Yugoslavia, the expectation of identification in Cambodia is predicted to be low:

I would venture to say that dispute would be likely to be less acute here because of the elapsed time, and also the dimensions of the killing here, and the fact that people are unlikely to be able to identify individuals.<sup>479</sup>

Entire families were killed by the Khmer Rouge. Most graves have already been disturbed and even if it were realistic to attempt to identify all the remains through DNA analysis, which would require extensive interviewing and gathering of ante-mortem data, it is questionable whether the population would want all human remains to be examined and each grave to be excavated. Identification efforts would, however, provide an opportunity to demonstrate Cambodians the potential of forensic science *per se*, should this be desired.

#### 5.6.2.1. Ante-mortem Data

The need to gather ante-mortem data requires interaction with the families to facilitate identification. However, it can take many years and anthropologically but also psychologically trained staff to compile a comprehensive database. One interviewee recalled that '[i]t took five years [...] in Bosnia to contact a large percentage of the Srebrenica families - five years.'<sup>480</sup> Obstacles include the fact that many people have been displaced and their location is unknown. In Cambodia, 30 years have passed since

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<sup>476</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>477</sup> Telephone interview with forensic expert # 6 (15 September 2007).

<sup>478</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>479</sup> Personal interview with researcher/academic # 1 (24 April 2007).

<sup>480</sup> Telephone interview with forensic expert # 6 (15 September 2007).

the events, no medical or dental records are available and other important artefacts that could facilitate circumstantial information, such as clothing, are likely to have degraded.

### 5.6.2.2. DNA Analysis

DNA analysis is a very powerful identification tool especially when used in conjunction with databases that are able to link excavation sites, individuals, donor-DNA, associated evidence and unidentified cases to one another. However, in the late 1990s, those techniques were still evolving and the success rate of DNA evidence from bones has since been dramatically increased. Sadly, with better DNA identification, further distress was caused for the families when experts realised that earlier circumstantial identification had been false: 'they found now with DNA confirmation that 38 percent of them were wrong. They gave the bodies to the wrong people.'<sup>481</sup> Furthermore, DNA identification has inherent ethical problems as its results can destroy families if biological non-paternity is discovered in the process.<sup>482</sup>

Identification through DNA is very accurate: at ICMP matching reports are only issued if statistically the probability of a family link is 99.95 percent or more.<sup>483</sup> As of November 2009, ICMP assisted in making 15,086 identifications: 12,660 of these relate to persons missing from the conflict in Bosnia-Herzegovina, 2,223 persons from Kosovo and 203 from Croatia. 87,546 blood samples and the analysis of 30,466 bone samples from body parts recovered from mass graves were needed to make these DNA-based identifications.<sup>484</sup>

### 5.6.3. HISTORY, REVISIONISM AND DEMYSTIFICATION

In Cambodia it is urgent that the remains be preserved from further decay, looting<sup>485</sup> and disturbance by animals, for historical and educational reasons, as a gap in perception exists between those immediately affected by the Khmer Rouge terror and the younger generations. Today's children, as one interviewee observed, assume that unburied or un-displayed human remains belong to bad people who do not deserve better treatment.<sup>486</sup> Physical evidence that records the trauma suffered by victims would help to rectify that perception.

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<sup>481</sup> Telephone interview with forensic expert # 6 (15 September 2007).

<sup>482</sup> For a detailed description of the legal implications general identification efforts can bring with them, see D Ranson, 'Legal Aspects of Identification' in: S Blau and DH Ubelaker (eds), *Handbook of Forensic Archaeology and Anthropology* (Left Coast Press, Walnut Creek 2009).

<sup>483</sup> See International Commission on Missing Persons, 'Tracking Chart for the Former Yugoslavia' (Report) (ICMP, Sarajevo 2007) courtesy of Kathyne Bromberger, ICMP Director-General (Personal email correspondence 18 July 2007) see Appendix K.

<sup>484</sup> International Commission on Missing Persons (n 373).

<sup>485</sup> See Mydans (n 455).

<sup>486</sup> Personal interview with researcher/academic # 4 (27 April 2007). A history book which is the first textbook about the Khmer Rouge era to be written by a Cambodian has

Whilst Cambodians have been living with the displays and grave sites literally in their backyards, they are still waiting for answers as to why and how this happened.<sup>487</sup> Unlike Westerners with access to libraries and internet, one interviewee explained that

[i]n this particular context, which is different from other contexts, there is a whole generation of Cambodians who grew up not knowing what happened. Because people survived from it – some of them don't want to talk about it because that new generation doesn't believe that such things could happen; because it is not taught in school. And because even at the time that it did happen, it wasn't even clear to the people who were being victimised.<sup>488</sup>

A number of questions, as one participant explained, remain unanswered: 'Why did it happen? Why did we have to suffer this much? Why did our children destroy this country? What were they *thinking*?'<sup>489</sup> Although the ECCC's primary objective is not to answer existential questions of this nature, it will inevitably touch upon why the crimes were committed. 'If we explain these crimes,' continued the interviewee, 'they will go part of the way towards answering those questions. And that is what many, many people really want.'<sup>490</sup> The ECCC is expected to make an important contribution to Cambodian history and collective memory through its judgments and legal documents. Collecting all available evidence, in particular physical evidence, using scientific methods, will help provide as comprehensive and impartial an account of events as possible. The time for forensic scientists to gain firsthand information from eye witnesses that might enter a historical record is running out.

In the case of Srebrenica, forensic evidence is believed to have prevented revisionists from continuing to publicise that the crimes had not been committed.<sup>491</sup> One interviewee explained that '[b]y the time we dug up 4,000 of the 8,000 people, that argument was no longer tenable.'<sup>492</sup> Whilst trials aim to produce an impartial, authoritative account about past events, this does not mean they will be successful in

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been released in 2007: K Dy, *A History of Democratic Kampuchea (1975-1979)* (Documentation Center of Cambodia, Phnom Penh 2007) However, according to media reports,

[a] Cambodian government review panel deemed the book unsuitable for use in the regular curriculum. Instead, the panel said the book could be used as supplementary reference material and as a basis for the Ministry of Education to write its own textbook (See E Kinetz, 'In Cambodia, a Clash Over History of the Khmer Rouge' *The Washington Post* (Washington 8 May 2007) Special to The Washington Post 14 <<http://www.washingtonpost.com/wp-yn/content/article/2007/05/07/AR2007050701870.html?hpid=artslot>> accessed 8 May 2007).

For an account of how an absence of history education affects many young Cambodians, see B Münyas, 'Genocide in the Minds of Cambodian Youth: Transmitting (Hi)stories of Genocide to Second and Third Generations in Cambodia' (2008) 10 *Journal of Genocide Research* 413.

<sup>487</sup> Personal Interview with researcher/academic # 4 (27 April 2007).

<sup>488</sup> Personal interview with international lawyer # 4 (25 April 2007).

<sup>489</sup> Personal interview with investigator # 3 (23 April 2007).

<sup>490</sup> Ibid.

<sup>491</sup> M Klarin, 'The Tribunal's Four Battles' (2004) 2(2) *Journal of International Criminal Justice* 546.

<sup>492</sup> Telephone interview with investigator # 4 (28 June 2007).

this quest, nor does it mean that this new record will not be distorted for various political or personal reasons. Through the presentation of physical evidence, the independence and impartiality of the account is likely to be greater: although the judicial interpretation of facts can be highly disputed, the information from forensic mass grave investigations speaks, to some degree, for itself.

#### 5.6.4. JUDICIARY AND CAPACITY-BUILDING

Tribunals are expected to have a lasting legacy and to have positive effects on the rule of law and local judiciary. The ECCC, for instance,

is expected to serve as an example for the regular courts, leaving a legacy of greater respect for fair trial rights and the more efficient and fairer implementation of legal principles of international standard.<sup>493</sup>

This could include elements of capacity-building both at a legal and a forensic science level. The jurisprudence that emerges from tribunals like the ICTY is used in national courts, such as the War Crimes Chamber in Sarajevo, where lower level perpetrators are facing trials. As one interviewee explained:

since the international court established that it's genocide, a national court doesn't need to prove the specific elements of the definition of genocide. Maybe they have only to try the murder and say: It was a murder yes, but as the murder was committed in the frame of the specific situation, for instance, having widespread systematic attack against the civilian population, this person who committed murder or killed persons knew about the attack and he wanted to participate there; this murder at national level, without the other element would be a simple murder, but with the elements already proven by international jurisdiction, this murder will be for sure a crime against humanity.<sup>494</sup>

Enabling trials of those minor criminals who actually pulled the trigger or were immediately responsible for the death of loved ones is often a more meaningful sign of justice for the survivors. For these local trials some evidence, including forensic evidence, filters down from the international Tribunal.

During the forensic investigations, team members, whether international or local, will have a chance to learn from their peers. One interviewee said that especially when local personnel are engaged 'it provides some ownership to the process for the people that are there.'<sup>495</sup> This is of particular importance in the Cambodian context. Given one interviewee's suspicion that there is not 'a single Cambodian lawyer who has ever used a scientist to try and prosecute a case,'<sup>496</sup> introducing forensic science into judicial proceedings provides an excellent opportunity to build local capacity in this area.<sup>497</sup> This in turn may help empower Cambodians to have a debate on the future of the country's

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<sup>493</sup> The Center for Social Development, 'Annual Report: The Court Watch Project, October 2006-September 2007' (March 2008) <<http://www.csdcambodia.org/pdf/2008/Annual%20Report%202007.pdf>> accessed 13 May 2008, 6.

<sup>494</sup> Telephone interview with researcher/academic # 4 (27 September 2007).

<sup>495</sup> Telephone interview with forensic expert # 5 (13 February 2008).

<sup>496</sup> Personal interview with international lawyer # 5 (24 April 2007).

<sup>497</sup> Personal interview with researcher/academic # 4 (27 April 2007).



human remains, weighing the use of exhumations and preservations with cultural, religious, historical and political arguments.

### 5.6.5. DUTY OF CRIMINAL INVESTIGATIONS

The question which the psycho-social aspects ultimately raise is whether criminal investigations should ensure that forensic science exhumations are compatible with the psycho-social context at hand. The answer is both yes and no. It is held that the purpose of a trial is, first and foremost, as philosopher Hannah Arendt (1963) notes,

to render justice, and nothing else; even the noblest of ulterior purposes [...] can only detract from the law's main business: to weigh the charges brought against the accused, to render judgment, and to mete out due punishment.<sup>498</sup>

Forensic work needed for these trials, as one interviewee acknowledged, 'is probably a small proportion of the overall forensic work that is done'<sup>499</sup> for predominantly humanitarian purposes. Nonetheless, as already mentioned, international criminal prosecutions are anchored in the wider transitional justice mechanisms. Therefore the institutions need to be mindful of psycho-social aspects and work together with other transitional justice institutions, to facilitate a broader, holistic approach to transitional justice than is the duty of prosecutions *per se*. Identification is perhaps the single most important example as to why such a concerted effort must be contemplated from the outset. Some forensic experts believe that humanitarian problems are created if identification is not a key priority.

Our experience from Kosovo tells us that focusing on the collection of forensic evidence for criminal investigations tends to preclude sustainable humanitarian solutions. Prioritising the broader social issue of psychological trauma and institution building, however, does not jeopardise the use of forensic evidence for prosecution.<sup>500</sup>

Therefore they propose central coordination efforts comprising effective information management and information sharing between organisations and the families as well as local capacity-building to prevent investigations from adversely affecting humanitarian issues.<sup>501</sup> Furthermore, it needs to be clear that other organisations take over excavation, examination and identification efforts once the investigative strategies are fulfilled, allowing the prosecution to walk away from this task, safe in the knowledge that other organisations take care of the human remains once they leave a tribunal's custody.

The ICTY learnt its lesson as to how important it is to engage with the local community. Klarin (2004) describes the battle for 'hearts and minds' which the ICTY

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<sup>498</sup> H Arendt, *Eichmann in Jerusalem. A report on the Banality of Evil* (Penguin, London [1963] 1994), 253.

<sup>499</sup> Telephone interview with investigator # 4 (28 June 2007).

<sup>500</sup> Baraybar, Brasey and Zadel (n 446) 273.

<sup>501</sup> *Ibid.*

needed to fight after it had demonstrated to work successfully in terms of trials.<sup>502</sup> In 1999, when then ICTY President Gabrielle Kirk McDonald realised that the Tribunal had an image problem, an outreach section was established to bridge the gap between The Hague and the former Yugoslavia, aiming to make the trials, judgments and workings of the Tribunal more accessible and understandable to its prime audience. However, outreach mechanisms were not in place at the investigative stages; instead it was part of the investigator's job to make people understand that they were trying to be impartial and professional in what they were doing.<sup>503</sup> Such liaison efforts and effective outreach strategies also need to bear in mind what impact investigative teams will have on the local population.<sup>504</sup> At the ICC this situation has been rectified and outreach efforts run parallel to the investigations.

### **5.7. Victims' Rights**

Whilst victims' rights were not explicitly mentioned by many interviewees, it was suggested that, to make the study topical, the relevance of forensic science should also be considered in light of the latest developments at the ICC. These are coupled with other recent developments in public international law. Therefore, the following section will, firstly, examine the significance of the 'right to truth' as proposed by Article 32 of Protocol I Additional to the Geneva Conventions relating to the Protection of Victims of International Armed Conflict and other Conventions on forensic investigations. Secondly, the section will look at the possibility of victim participation at the ICC and what meaning this may have for forensic science investigations.

#### **5.7.1. THE 'RIGHT TO TRUTH'**

The 'right to truth' may appear problematic as 'truth' is a difficult concept. The philosophical tradition in trying to define truth is long. Aristotle in Book IV of his *Metaphysics* states:

To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true.<sup>505</sup>

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<sup>502</sup> Klarin (n 491).

<sup>503</sup> Statement by Rebecca Cuthill (Personal communication 10 December 2007). The liaison efforts comprised meetings between the investigators and representatives of the local community. It should be noted that storing excavated bodies and body parts in chiller vans or salt mines before handing them over to local authorities did not necessarily help persuade the local population of the investigations' professionalism and good intentions (See E Stover and G Peress, *The Graves. Srebrenica and Vukovar* (Scalo, Zürich 1998)).

<sup>504</sup> Apart from the psychological impact investigations, and excavations in particular, can have on a local community, one interviewee described the presence of a forensic team to be of financial benefit to the local community (personal interview with forensic expert # 3 (30 May 2007)).

<sup>505</sup> Aristotle, *Metaphysics* 1001b.

Speaking the truth is to match what one says with what happened – it establishes a link between reality and depiction of the reality.<sup>506</sup> According to the German philosopher Immanuel Kant, truth or error do not reside in the things themselves, but within our judgments regarding things and events<sup>507</sup> and wrong judgments come from tainted reasoning. Post-modernist thinker Foucault believes

that truth isn't outside power or lacking power: [...] Truth is a thing of this world: it is produced only by virtue of multiple forms of constraint. And it induces regular effects of power. Each society has its régime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true.<sup>508</sup>

As science and the legal sphere are embedded in a social dimension and conducted by individuals, so are its results and interpretations subject to influences. Yet, the idea behind the 'right to truth' is to provide victims with a right to know. Part of victims' rights encompasses the verification and full public disclosure of the facts associated with the crimes which they or their relatives suffered. According to a study on the 'right to truth' by The Office of the United Nations High Commissioner for Human Rights,

[t]he right to the truth implies knowing the full and complete truth as to the events that transpired, their specific circumstances, and who participated in them, including knowing the circumstances in which the violations took place, as well as the reasons for them.<sup>509</sup>

An essential element of the 'right to truth' is to ensure

(c) [t]he search for the whereabouts of the disappeared [...] and for the bodies of those killed, and assistance in the recovery, identification and reburial of the bodies in accordance with the expressed or presumed wish of the victims, or the cultural practices of the families and communities.<sup>510</sup>

However, the concept is not limited to enforced disappearance, but is also applicable to serious human rights' violations.<sup>511</sup> Transitional justice mechanisms, including international criminal tribunals, are seen as a key tool in ensuring this 'right to truth'.<sup>512</sup>

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<sup>506</sup> Thomas Aquinas expressed this relationship succinctly: '*Veritas est adaequatio rei et intellectus*' (Thomas Aquinas, *De Veritate* Q.1, *Summa Theologiae*, Q.16).

<sup>507</sup> I Kant, *Kritik der reinen Vernunft* (Werke, Könnemann, Köln 1995).

<sup>508</sup> M Foucault, *Power/Knowledge. Selected Interviews and Other Writings 1972-1977* (New York, Prentice Hall 1980) 131.

<sup>509</sup> UNCHR, 'Promotion and Protection of Human Rights. Study on the Right to Truth' (8 February 2006) UN Doc E/CN.4/2006/91, para 3.

<sup>510</sup> UNGA Res 60/147 Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (16 December 2005) UN Doc A/RES/60/147, Art 22b)c). See also C Bassiouni, 'International Recognition of Victims' Rights' (2006) 6(2) *Human Rights Law Review* 203, 270-271.

<sup>511</sup> UNHCR (2006) (n 509) para 8.

<sup>512</sup> *Ibid* para 61.

To some scholars the 'right to truth', which is rooted in international humanitarian law,<sup>513</sup> exists as a substantive right.<sup>514</sup> It is designed to ensure that people are informed about what happened, why it happened, and who is responsible for the crimes committed. The importance of the 'right to truth' is based on the belief that by disclosing the truth, the suffering of victims is alleviated, and that it vindicates the memory and status of the victims of gross human rights violations.<sup>515</sup> Efforts in Bosnia-Herzegovina aiming to identify individuals have shown that survivors engage in interviews conducted to discern ante-mortem data because they want to 1) know what happened to missing persons, 2) contribute to missing persons being found, and 3) help identify human remains.<sup>516</sup> Psychologically mindful and community-based psycho-social preparation prior to the disclosure of the truth is deemed more beneficial than the apparently humane act of withholding such information.<sup>517</sup>

Those arguing for the 'right to truth' have been trying to codify this right in conventions other than the Additional Protocol. States' duty to guarantee such a right has been affirmed by the International Convention for the Protection of All Persons from Enforced Disappearance:

States Parties shall cooperate with each other and shall afford one another the greatest measure of mutual assistance with a view to assisting victims of enforced disappearance, and in searching for, locating and releasing disappeared persons and, in the event of death, in exhuming and identifying them and returning their remains<sup>518</sup>

Furthermore, case law from the Human Rights Chamber for Bosnia-Herzegovina based the right of families to know the fate of their missing relatives on the European Convention on Human Rights (1950). The judges found that the failure to conduct appropriate investigations in relation to the Srebrenica massacre violated the victims' 'rights to be free from inhuman and degrading treatment, as guaranteed by Article 3 of the Convention'.<sup>519</sup> It will be interesting to see whether the 'right to truth' will be referred to in the forthcoming trials at the ICC and how such a concept may be invoked legally.

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<sup>513</sup> Article 32 of Protocol I Additional to the Geneva Conventions relating to the Protection of Victims of International Armed Conflict provides for 'the right of families to know the fate of their relatives' (Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) (adopted 8 June 1977, entered into force 7 December 1979) 1125 UNTS 17512, Art 32).

<sup>514</sup> R Aldana-Pindell, 'In Vindication of Justiciable Victims' Rights to Truth and Justice for State-Sponsored Crimes' (2002) 35(5) *Vanderbilt Journal of Transitional Law* 1399.

<sup>515</sup> *Ibid.*

<sup>516</sup> ME Keough, S Kahn and A Andreievic, 'Disclosing the Truth: Informed Participation in the Antemortem Database Project for Survivors of Srebrenica' (2000) 5(1) *Health and Human Rights* 68.

<sup>517</sup> *Ibid.*

<sup>518</sup> UNGA Res 61/177 International Convention for the Protection of All Persons from Enforced Disappearance (20 December 2006) UN Doc A/RES/61/177, Art 15.

<sup>519</sup> *The "Srebrenica Cases"*, Decision on Admissibility and Merits, Case No CH/01/8365 et al. (49 applications), 7 March 2007, Human Rights Chamber for Bosnia and Herzegovina, para 4.

### 5.7.2. VICTIM PARTICIPATION

The Extraordinary Chambers allow victims to '[p]articipate in criminal proceedings against those responsible for crimes within the jurisdiction of the ECCC by supporting the prosecution'.<sup>520</sup> This, according to the court rules, is believed to help provide moral and collective reparations. The International Criminal Court also permits victim participation:

[w]here the personal interests of the victims are affected, the Court shall permit their views and concerns to be presented and considered at stages of the proceedings determined to be appropriate by the Court and in a manner which is not prejudicial to or inconsistent with the rights of the accused and a fair impartial trial.<sup>521</sup>

As defined by the Rules of Procedure and Evidence, the term 'victim' encompasses persons who have directly or indirectly suffered harm as a result of crimes within the ICC's jurisdiction.<sup>522</sup> With these provisions in place, it is conceivable that victims will try to argue for their 'right to truth'. Article 21 of the Rome Statute allows for 'applicable treaties and the principles and rules of international law, including the established principles of the international law of armed conflict'<sup>523</sup> to be considered, as long as they are consistent with internationally recognised human rights. Invoking a 'right to truth' will be especially relevant at the investigation phase when victims may in connection with the investigation:

- (a) Present their views and concerns;
- (b) File documents;
- (c) Request the Pre-Trial Chamber to order specific measures.<sup>524</sup>

Through this participation, victims can play a part in elucidating information and facts<sup>525</sup> and may demand to know what happened to missing people closely associated to them. The question then is whether the 'right to truth' could include a 'right to identification' of the missing deceased and whether the ICC should respond accordingly by increasing its investigation efforts into the fate of the missing. One interviewee voiced significant concern regarding this new provision:

once people have an individual axe to grind about identifying what happened to, even a group of people associated with them, you can imagine the way in which the proceedings are going to be de-railed or side-tracked to deal with issues

<sup>520</sup> International Criminal Court 'Rules of Procedure and Evidence' UN Doc ICC-ASP/1/3, Rule 23(1)(a) (hereinafter ICC RPE).

<sup>521</sup> Rome Statute Art 68(3).

<sup>522</sup> Rule 85 (a) of the Rules of Procedure and Evidence defines victims as 'natural persons who have suffered harm as a result of the commission of any crime within the jurisdiction of the Court' (ICC RPE Rule 85(a)).

<sup>523</sup> Rome Statute Art 21(b).

<sup>524</sup> *Situation in the Democratic Republic of Congo*, Decision on the Applications for the Participation in the Proceedings of VPRS1, VPRS2, VPRS3, VPRS4, VPRS5 and VPRS6, 17 January 2006, Case No ICC-01/04-101-Corr, Pre-Trial Chamber, para 42.

<sup>525</sup> *Situation in Darfur, Sudan*, Corrigendum to Decision on the Applications for Participation in the Proceedings of Applicants a/0011/06 to a/0015/06, a/0021/07, a/0023/07 to a/0033/07 and a/0035/07 to a/0038/07, 14 December 2007, Case No ICC-02/05-111-Corr, Pre-Trial Chamber I (Single Judge), para 11.

which, really, at the end of the day, bearing in mind the main purpose of this, are very much secondary issues.<sup>526</sup>

It remains to be seen whether trials could be de-railed, given that decisions concerning victim participation are still a very recent phenomenon. To date it is only in relation to *Prosecutor v. Lubanga Dyilo* that victims are being represented in court. Those victims are former child soldiers as Lubanga stands accused of recruiting children under the age of 15 in the Democratic Republic of Congo.

With the ICC becoming more active, it is both topical and significant to examine whether international criminal procedures will have to pay attention to the 'right to truth' and whether this will impact upon the ICC operations. This opens up a new study area for future research as such a trend may result in the need to rethink international criminal justice provisions. The ICC might be ill equipped to satisfy the 'right to truth' adequately, thus having to defer to administrative and civil proceedings to facilitate the necessary level of truth in order to meet the demand for the 'right to truth' as a 'non-derogable right'.<sup>527</sup> Given that forensic investigations are very costly and the question of identification is likely to arise, the ICC may as a result be careful not to invest in forensic investigations in the first place to guard against such demands.

### **5.8. Summary**

The various contextual elements surrounding and determining the value of forensic science excavations and examination have been identified to include parameters such as the legal system, the physical evidence, the work of NGOs, political situations, psycho-social elements within the affected society and lastly victims' rights. Whilst for prosecution purposes scientific evidence may only be, as one interviewee said, 'a side-story at the very best'<sup>528</sup>, its value has been shown in relation to trials at the ICTY. For many of the survivors, findings from mass graves are more than a side-story in their lives. Yet, the decision as to whether to conduct forensic investigations and whether they are necessary is highly dependent on the context and not always straightforward. It is hoped that the template produced in this research can function as a theoretical framework for decision-makers to help them come to a conclusion as to the benefits of forensic science and the contextual elements that need to be put in place if decisions in favour of forensic science investigations into mass graves are made. The chapter demonstrates how important carefully conducted value and impact assessments are prior to conducting such investigations for prosecution purposes.

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<sup>526</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>527</sup> UNHCR (2006) (n 509) 2 (Summary).

<sup>528</sup> Personal interview with international lawyer # 6 (1 November 2007).

## 6. Law and Science: Theoretical Challenges in the International Context<sup>529</sup>

Expert witness testimonies during international criminal trials at the ICTY have been numerous and are paramount, due to the complexity of cases adjudicated. Often, in order to establish whether the accused is guilty, the context, including political, military and historical information, needs to be explored in court. Thus, expert witnesses are asked to provide clarification on elements relevant to the trial that require specialist knowledge. They are normally allowed to testify on issues about which the judges themselves, based on their personal knowledge and experience, cannot be expected to reach an opinion alone.<sup>530</sup> Introducing expert testimony can increase the complexity surrounding a case, yet simultaneously help reduce that complexity to a level manageable by the judicial fact-finders.

Relying on expert knowledge and the opinions and facts it provides is commonly accepted to be a good strategy to base justice on, as long as the expertise is impartial and truthful. This is particularly the case for science experts presenting their scientific findings and explanations; for science – to many – offers better explanations than non-science.<sup>531</sup> However, increasing dependence on expertise also introduces new uncertainties which are inherent to the scientific discipline to the relationship between science and law.<sup>532</sup>

Whilst the issues surrounding the law-science relationship have been explored within the realm of national legal systems,<sup>533</sup> the mixed system adopted by tribunals such as the ICTY or hybrid tribunals such as the ECCC present an established discussion with a new context. To date, little attention has been paid as to how

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<sup>529</sup> Sections in this chapter follow from and at times reiterate points made in the author's two publications: M Klinkner 'Forensic Science Expertise for International Criminal Proceedings: an old Problem; a new Context and a Pragmatic Resolution' (2009) 13 *International Journal of Evidence and Proof* 102 and M Klinkner 'Proving Genocide? Forensic Expertise and the ICTY' (2008) 6(3) *Journal of International Criminal Justice* 447.

<sup>530</sup> WA Schabas, *The UN International Criminal Tribunals: The Former Yugoslavia, Rwanda and Sierra Leone* (Cambridge University Press, Cambridge 2006) 480.

<sup>531</sup> See A Rosenberg, *Philosophy of Science: A Contemporary Introduction* (Routledge, Florence (USA) 2000).

<sup>532</sup> According to Willmore, introducing scientific evidence based on novel, and potentially unreliable, techniques brings uncertainties to the legal process; it raises questions as to how evidence should be evaluated. See C Willmore 'Codes of Practice: Communicating between Science and Law' in: M Freeman and H Reece (eds), *Science in Court* (Ashgate, Aldershot 1998).

<sup>533</sup> For national settings numerous publications examine the law-science relationship. See e.g. M Freeman and H Reece (eds.), *Science in Court* (Ashgate, Aldershot 1998); S Jasanoff, 'Just Evidence: The Limits of Science in the Legal Process' (2006) 34 *Journal of Law, Medicine & Ethics* 328; S Jasanoff, 'Law's Knowledge: Science for Justice in Legal Settings' (2005) 95 *American Journal of Public Health* 49; DL Faigman and others (eds), *Modern Scientific Evidence. The Law and Science of Expert Testimony* (West Publishing Co, St. Paul (Minnesota) 2002); and M Redmayne, *Expert Evidence and Criminal Justice* (Oxford University Press, Oxford, 2001).

international law interfaces with expert witnesses and forensic science experts in particular. Over the centuries, philosophers of science have tried to answer questions about what makes scientific findings truthful and to formulate standards that would help identify good scientific explanations. They explore whether scientific pronouncements ought to be causal, unified, nomological, statistical, deductive, and inductive or a combination of these.<sup>534</sup> The issue of 'science v. non-science' is further complicated by the recognition that 'despite its obvious value, forensic science has not always merited the term "science."<sup>535</sup> Forensic science is not a discipline as such, but rather the application of a range of sciences, alongside techniques and skills that do not qualify as science. Furthermore, as pointed out in previous chapters, whilst mass grave exhumations has been conducted for humanitarian purposes, the investigation of mass graves for prosecution purposes has been pioneered by the ICTY, posing new challenges for the forensic scientists.

This analysis chapter explores the theoretical underpinnings involved in the 'forensic science-international criminal law interface'. From the data generated through interviews, the following template (Figure 12) has been created outlining the two major themes applicable to the international context: 1) a debate on how scientific forensic science is, and 2) a discussion of how forensic expert evidence is treated within an international criminal justice system. Through drawing on the relevant literature, the chapter briefly discusses the philosophical debates surrounding science, examining whether forensic science, in the context of mass grave excavations, deserves the label 'science' and what elements are in place to ensure the truthfulness of forensic evidence. The chapter then concentrates on the law-science debates relevant to international criminal law and procedures; it examines how international systems aim to distinguish between 'good' and 'bad' (methodologically flawed or unethical) forensic science in the process of proving guilt or innocence beyond reasonable doubt. Given the number of adjudicated cases at the ICTY, it is this Tribunal's work that is used to substantiate and showcase the arguments.

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<sup>534</sup> See Rosenberg (n 531).

<sup>535</sup> PC Giannelli, 'Forensic Science' (2006) 33 *Journal of Law, Medicine & Ethics* 310.



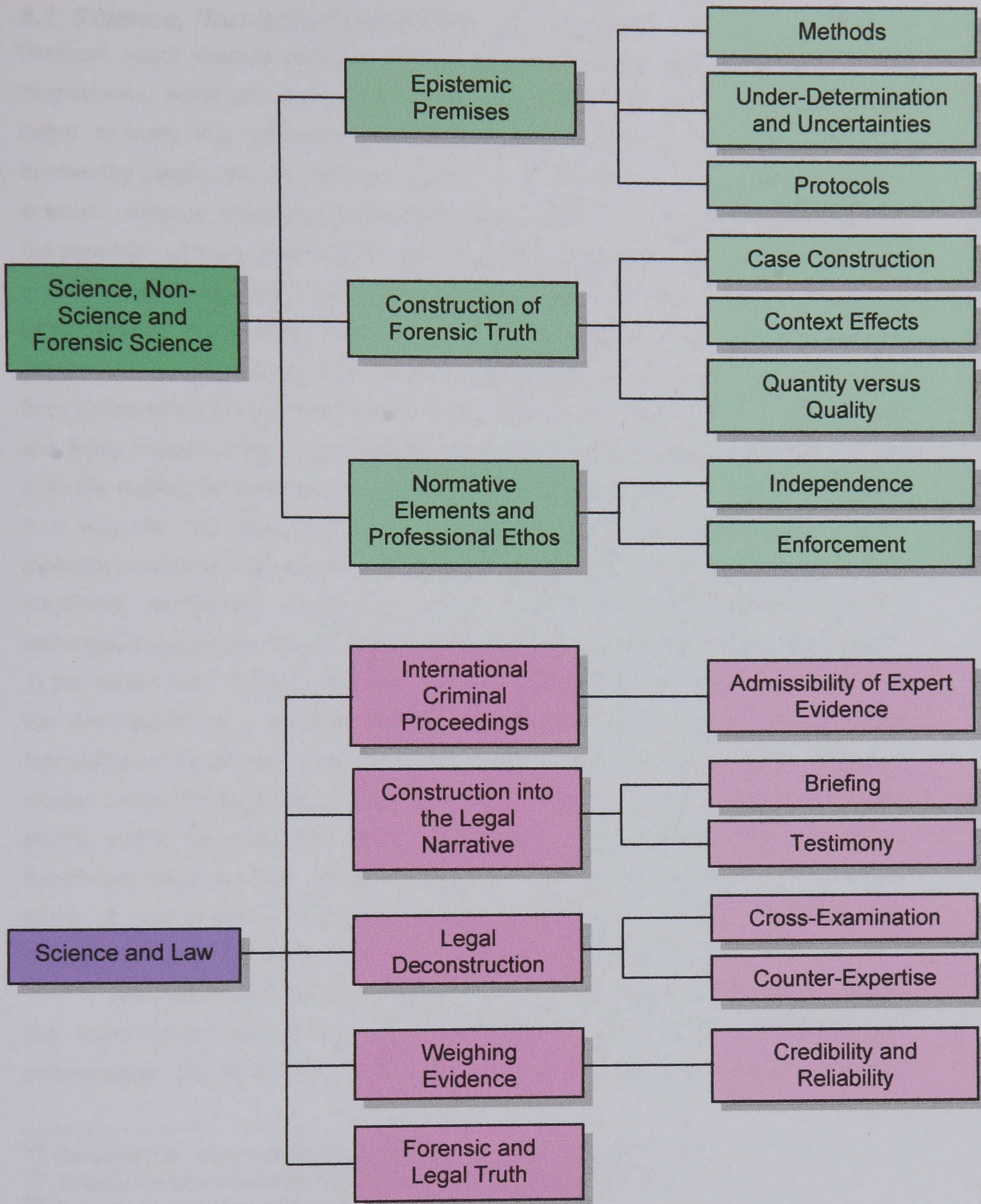


Figure 62: Law and Science Debates within the International Context

### 6.1. Science, Non-Science and Forensic Science

Opinions about science and the merit of scientific evidence were divided amongst interviewees: whilst one voiced real concerns about the validity of science exclaiming rather cynically that '[s]cience isn't impartial!' and that '[s]cientists aren't the most trustworthy people, they're the most dangerous',<sup>536</sup> others were more willing to rely on scientific evidence, sometimes verging on naïve belief in the absolute power of science, the possibility of telling the truth through objective observation<sup>537</sup> and eliminating human error.<sup>538</sup> If we accept that science is a 'valued means of getting to *know* the world',<sup>539</sup> what warrants the scientific adequacy of an explanation and what justifies science's perceived empirical success and claims to objective knowledge? The traditional answer from philosophers of science is that if science relies on the 'right' methods, methods that are firmly rooted in logic and epistemic claims, its results should be sound.<sup>540</sup> The scientific method is concerned with 'the problem of how to observe an empirical problem in a way that will allow one to draw inferences about that phenomenon.'<sup>541</sup> Such methods encompass techniques to investigate a phenomenon and usually aim to collect empirically measurable evidence, through observation, experimentation and the formulation and testing of hypotheses. The process can be summarised in five steps:<sup>542</sup> 1) the observation of the *explanandum* or the phenomenon that needs clarification; 2) the development of a possible *explanans* or theory about the *explanandum*; 3) the formulation of hypotheses that are logically derived from the theory; 4) the design of studies to test the hypotheses, which might disconfirm a hypothesis and the correlating theory; and 5) the formulation of a better theory or more credible *explanans* whose hypotheses have not been falsified. If this scientific activity is based on the scientific ethos of 'universalism, organized scepticism, communality, ethical neutrality, and disinterestedness',<sup>543</sup> adherence to this code should make science value-free.

The forensic sciences employed throughout international criminal investigations into mass graves are, at the site level, predominantly forensic archaeology and anthropology, and in the mortuary, forensic pathology and anthropology.<sup>544</sup> However,

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<sup>536</sup> Personal interview with international lawyer # 6 (1 November 2007).

<sup>537</sup> Telephone interview with forensic expert # 4 (4 June 2007).

<sup>538</sup> Telephone interview with investigator # 1 (30 July 2007).

<sup>539</sup> B Russell, *The Impact of Science on Society* (London, Unwin Books 1968), 73.

<sup>540</sup> See Rosenberg (n 529).

<sup>541</sup> DL Faigman and others, 'Scientific Method: The Logic of Drawing Inferences from Empirical Evidence' in: DL Faigman and others, *Modern Scientific Evidence. The Law and Science of Expert Testimony* (West Publishing Co, St. Paul (Minnesota) 2002).

<sup>542</sup> The five steps are a shortened and modified version of the passage on theory development outlined by Faigman and others (ibid 125).

<sup>543</sup> RA Rothman, 'A Dissenting View on the Scientific Ethos' (1972) 23(1) *The British Journal of Sociology* 102, 102. Rothman expands on the four norms of science (universalism, communism, disinterestedness, and organised scepticism) proposed by Robert K Merton.

<sup>544</sup> This project does not consider other disciplines, despite radiographers, odontologists and support staff being involved in forensic investigations. It is only the senior forensic

before exploring how the prefix *forensic* impacts upon science, it is useful to understand how archaeology,<sup>545</sup> as one of the key disciplines involved in mass grave investigations, defines itself as a science.

In the 1960s, from within archaeology, attempts were made to render the discipline more scientific and rigorous.<sup>546</sup> This development was inspired by the emergence of logical positivism in the 1920s and 1930s which attempted to free science from its superfluous metaphysical baggage and to ground it firmly in logic.<sup>547</sup> Archaeology turned to philosophy of science for guidance as to the method, explanation and confirmation deemed necessary to put archaeology on a sound scientific footing. The debate focused upon inductivism and deductivism as methods of discovery and on deduction (especially Hempel's deductive-nomological model<sup>548</sup>) and induction as tools to justify conclusions drawn from data.<sup>549</sup> Whilst deductive inferences are deemed true, provided the premises are accepted as true, inductive inferences are evaluated according to strengths and are thus a matter of degree of credibility rather than certainty. Although the inductive arguments are not necessarily certain, they make an important contribution to sciences such as archaeology, for archaeology observes particulars and therefore has to justify its claims in this way. Similarly, on a study design level, archaeology's starting point for research is often one case and is an essentially inductive process.

However, archaeology faced criticisms that went beyond the mere debate about its logical reasoning and foundations. Contemporary archaeology, according to Jones (2002), is essentially split into two camps, each with different views as to what the study of archaeology involves: those practising interpretative approaches criticise the positivist stance (and are thus closer to the social sciences), whilst those practising scientific archaeology reject post-positivist views about the world (and fit within the realm of natural sciences).<sup>550</sup>

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archaeologist, anthropologist and pathologist (with the exception of one odontologist) that have given testimony regarding forensic exhumations and examinations in The Hague.

<sup>545</sup> The author treats archaeology as a stand-alone discipline and not, as commonly done in North America, as a sub-discipline of anthropology. Furthermore, it should be noted that the debate presented here is to exemplify the issues regarding the scientific and non-scientific nature of disciplines and not to provide a comprehensive analysis of the theoretical foundations of archaeology as such.

<sup>546</sup> Kelley and Hanen refer to this as the emergence of *New Archaeology* (JH Kelley and MP Hanen, *Archaeology and the Methodology of Science* (University of New Mexico Press, Albuquerque 1988).

<sup>547</sup> Ibid.

<sup>548</sup> Rosenberg describes Hempel's model with the following statements: '1. The explanation must be a valid deductive argument. 2. The *explanans* must contain at least one general law actually needed in the deduction. 3. The *explanans* must be empirically testable. 4. The sentences in the *explanans* must be true' (Rosenberg (n 531) 28).

<sup>549</sup> Kelley and Hanen (n 546) 44-51.

<sup>550</sup> A Jones, *Archaeological Theory and Scientific Practice* (Cambridge University Press, Cambridge 2002).

Post-positivism gained its momentum from Kuhn's classic socio-historical study into science, its theory choice and justifications.<sup>551</sup> Rosenberg observes in relation to Kuhn's study that:

[t]he impact of its doctrines within and beyond the philosophy of science is difficult to overstate. Kuhn's doctrine became the lever with which historians, psychologists, sociologists, dissenting philosophers, scientists, politicians, humanists of every strip, sought to undermine the claims of science to objective knowledge, its claims to greater credence than alternative claims about the world.<sup>552</sup>

Kuhn challenged the logical empiricist view of the history of science as an account of continuous progress and questioned science as the disinterested pursuit of the truth. Instead, he viewed it to be a rather more creative undertaking.<sup>553</sup> This view of science is favoured by those archaeologists concerned with interpreting culture; due to the nature of archaeology, which is concerned with the recovery, interpretation and documentation of human culture, the discipline continues to wrestle with uniting both the relativistic post-positivist approaches and those preferring the logical and methodological rigour of scientific inquiry and its perceived reproducibility.<sup>554</sup> The question here is: which view of science best fits forensic archaeology and forensic sciences in general?

### 6.1.1. EPISTEMIC PREMISES

Forensic science is employed in order to investigate cases or questions that are of interest to the legal system and to help resolve legal disputes. Consequently, 'what forensic scientists do is provide data to the justice sector'.<sup>555</sup> The root in the Latin word *forensis* (meaning publicly, belonging to the market, to the court<sup>556</sup>) implies these legal and social aspects. Forensic science is embedded in the social process of legal inquiry and the social sphere is the reason for its existence: to reconstruct events that happened in the past. For forensic science to be able to stand up in court, the conclusions drawn by two experts when following the same scientific approach should ideally be identical.<sup>557</sup> Furthermore, for forensic evidence to be useful to legal proceedings, the assumption is that there are scientifically accepted methods, protocols and records to allow judges to say: '[t]his is in fact beyond dispute'<sup>558</sup> or the exercise of employing forensic science expertise becomes pointless.

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<sup>551</sup> TS Kuhn, *The Structure of Scientific Revolutions* (2nd enlarged edn International Encyclopedia of Unified Science, The University of Chicago Press, Chicago 1975).

<sup>552</sup> See Rosenberg (n 531) 148.

<sup>553</sup> See Kuhn (n 551).

<sup>554</sup> See Jones (n 550).

<sup>555</sup> Telephone interview with forensic expert # 5 (13 February 2008).

<sup>556</sup> R Hau and E Kulf, *Pons Globalwörterbuch Lateinisch-Deutsch* (Klett, Köln 1991).

<sup>557</sup> Telephone interview with international judge # 2 (27 September 2007).

<sup>558</sup> Personal interview with international judge # 3 (3 October 2007).

The fundamental tools of conducting forensic investigations are objective 'observation and interpretation of physical evidence'.<sup>559</sup> According to Kiely (2006), the bases of forensic science practices are 1) the recognition and understanding as to what information and evidence could be present at the crime scene; 2) the collection procedures during which the scientists collect and record the evidence; 3) the testing phase when the evidence is examined and tested according to current, adequate testing standards; and 4) the aim to meet the evidence requirements of the trial.<sup>560</sup> An approach to fact-finding that engages in the search for evidence that confirms a specific theory is a rather unscientific undertaking, as it relies on the erroneous premise that a theory is confirmed through the accumulation of evidence that is compatible with the theory. The gathering of supporting materials, however, is scientifically insufficient. 'It is the diligent search for inconsistencies, for falsification, that really puts a theory to the test.'<sup>561</sup>

#### 6.1.1.1. Methods

Taking the example of a mass grave investigation and the work of the forensic archaeologist, the mass grave becomes the phenomenon in need of scientific explanation. In other words, it is the *explanandum*. From the *explanandum*, archaeology works towards the *explanans*, the actual explanation of the phenomenon. Archaeology employs observation, recording and collection techniques (such as geophysical surveying) to find its causes. The mass grave is viewed as an anomaly and the initial theory might be related to when it was created, what events it is connected to, and whose bodies it may be concealing (e.g. that it was created in the summer of 1995 to bury victims of mass execution and contains Bosnian Muslim men). This initial theory will then influence the methods and techniques employed to undertake the excavation and examinations, whilst ensuring that the chain of custody is preserved. This is what one interviewee described as 'testing their [the investigator's and prosecutor's] claims'<sup>562</sup>. However, testing as such is limited, due to the invasive nature of archaeological techniques and the fact that exhumations can only be conducted once. Depending on the findings, the scientist revisits the *explanans* as to how and when the grave was

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<sup>559</sup> WG Eckert, 'Introduction to the Forensic Sciences' in: WG Eckert (ed), *Introduction to Forensic Sciences* (2nd edn CRC Press, Boca Raton 1997) 1.

<sup>560</sup> TF Kiely, *Forensic Evidence: Science and the Criminal Law* (2nd edn Taylor & Francis, Boca Raton 2006) 53.

<sup>561</sup> Faigman and others (n 541) 125-126.

<sup>562</sup> Personal interview with forensic expert # 8 (16 May 2007). When asked during cross-examination whether forensic pathologists are expected to prove the theory of the prosecution, pathologist Dr Christopher Lawrence replied:

No. My job as a forensic pathologist in this, along with everything else I do, is to test the information that I have been given to see if it is true. In the course of any investigation that I do, I am given information but it is my job to test that information to see if it is correct (*Prosecutor v Popović et al.*, Expert Witness Testimony by Dr Christopher Lawrence, Transcript, Case No IT-05-88-T, 21 February 2007, Trial Chamber II, 7519).

caused, whether the original grave had been disturbed and how many human remains it contains.<sup>563</sup>

Through this activity, the forensic archaeologists fit better the category of the empiricist as opposed to the post-positivist. They are recording physical objects which they believe were caused by past events. Consequently these objects are a representation of past events and processes. The forensic scientists' work, whilst concerned with anthropogenic or culturally determined processes such as killing, relies on causes and scientific laws. However, experts need to be careful not to fall into the trap of seeking evidence that matches, for instance, the prosecution theory, as that could potentially introduce errors into their conclusions.

Notably, as Jasanoff (2005) points out, it may be that the scientific expertise required by the law is 'unavailable until the legal process itself creates the incentives for generating it',<sup>564</sup> and often the methods and techniques have not been developed, let alone accepted as scientifically sound by the relevant scientific community. In some respects, this is true for the forensic investigations under the ICTY, as it pioneered the use of international multi-disciplinary teams for the criminal investigation of war crimes, genocide and crimes against humanity. The expertise in conducting such investigations grew over time and those called as experts had, initially, little prior experience regarding mass grave excavations and examinations on such a large scale before embarking on forensic missions for the ICTY. The question of a lack of adequate and standardised methods used by experts during forensic missions in Kosovo was raised by Milošević, when cross-examining forensic pathologist Dr Eric Baccard:

Can you explain, in view of the fact that you were in Bosnia, why expert pathologists engaged by this institution, after so many years, still do not have a unified methodology of expert analysis of mass graves?

Dr Baccard, who had been employed by the OTP to summarise, unify and standardise the findings from different forensic teams engaged in Kosovo, gave the following reply.

At the ICTY, we use a single methodology for exhumation operations that took place in Bosnia and in Croatia or in Kosovo. The methodology which was used in 1999 by the various international teams who worked separately, this is methodology which - - their methodology might have varied, and principally that was the reason that the Prosecutor's office asked to prepare this summary report.<sup>565</sup>

This exchange demonstrates the value of standardised methods and protocols in the field of forensic investigations of mass graves (see also section 6.1.1.3.).

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<sup>563</sup> See e.g. R Wright 'Report on Excavations and Exhumations at the Glogova 1 Mass Grave in 2000' (Report) (ICTY, The Hague 2001).

<sup>564</sup> Jasanoff (2005) (n 533) 54.

<sup>565</sup> *Prosecutor v Milošević*, Expert Witness Testimony by Dr Eric Baccard, Transcript, Case No IT-02-54-T, 22 May 2002, Trial Chamber III, 5342.

### 6.1.1.2. Under-Determination and Uncertainties

Do good methods alone make the forensic *explanans* truthful? The *explanans* is a 'relation between theory, fact and context.'<sup>566</sup> Forensic science is the application of science – as opposed to pure science – to a specific context with the aim of answering a specific question. Regarding mass graves, the question may be: what information does the mass grave contain? Based on the evidence at the site, the causes for the existence of the mass grave become clearer and, supported by facts and context, form the final *explanans*. However, there is always the possibility of human error and lack of experience or training which could discredit the *explanans* or render it false.<sup>567</sup> Further issues may include: the causes scientists find that might have resulted in the *explanandum* are indeed prior conditions, maybe necessary conditions, but not always sufficient conditions; and there might be the possibility of other equally possible causes and interpretations. This potential 'under-determination' of the *explanans* reopens the door for the debate about scientific certainties and post-positivist constructivist claims. Bayes' theorem and statistical models have been mentioned under section 5.2.3. as ways of redressing possible uncertainties; section 6.1.2., on the construction of 'forensic truth', will further outline unconscious ways in which scientific work can become compromised.

One interviewee made it very clear that 'you can never be sure you're eliminating controversy'.<sup>568</sup> Theoretically, as another interviewee demonstrated with an example, 'the victims could have died from natural disease and somebody [had] gone up afterward and put a bullet through them'.<sup>569</sup> If such a theory is put to an expert in court, the possibility, despite being improbable, can sometimes not be discounted with complete confidence (unless evidence from the recovery site refutes the theory). And limitations regarding, for example, the osteological analysis of victims in Bosnia-Herzegovina have been reported. Forensic anthropologist Debra Komar (2003) concludes that inaccuracies and errors were due to the use of standards that were incompatible with the local populations, because of methodological inadequacies or extraneous factors, such as time, facilities, resources and information from third parties.<sup>570</sup>

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<sup>566</sup> Kelley and Hanen (n 546) 219.

<sup>567</sup> Forensic anthropologist and ICTY expert witness Dr Bill Haglund acknowledges that depending on the conditions of the graves and the human remains within it, errors might occur regarding the total number of individuals recovered especially during the numbering, removal and storage stages of the forensic investigation. He also points out that the margin of error increases the higher the number of staff involved throughout an investigation (WD Haglund, 'Recent Mass Graves: An Introduction' in: WD Haglund and MH Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (CRC Press, Boca Raton 2002)).

<sup>568</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>569</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>570</sup> D Komar, 'Lessons from Srebrenica: The Contributions and Limitations of Physical Anthropology in Identifying Victims of War Crimes' (2003) 48 *Journal of Forensic Sciences* 713. Furthermore a study into age estimations demonstrated disparities

### 6.1.1.3. Protocols

To offset the threat of subjectivity, bias and differing levels of professional experience, operating procedures, thorough recording and colleague consultation are put in place to achieve the highest possible levels of accuracy, agreement and transparency. Coming to a consensus regarding the interpretation of the findings, as one interviewee explained, is achieved through 'very strong teamwork'.<sup>571</sup> At the ICTY the procedures and protocols (not the scientific techniques) were created, adopted and amended in agreement with the leading forensic expert, prosecution lawyer and investigator to satisfy both scientific and investigative requirements.<sup>572</sup> However, the development of protocols themselves is a bone of contention within the forensic science community, with some advocating very thorough operating procedures,<sup>573</sup> whilst others emphasise the importance of retaining flexibility, as one interviewee explained.

In my view it is very important in this work to set out the objectives and what will be done but not to tie yourself down with a whole lot of procedures that in the real life of the field you might not be able to follow. In other words: you might just have to abandon some of the protocols in order to complete other aspects of the work. And that's very dangerous for the prosecution case because the defence can [...] say: "well if you didn't follow your proper procedures here, how can we guarantee that you did anything properly?" That line of argument can be developed.<sup>574</sup>

The interviewee went on to explain that this is

[b]ecause each archaeological site is unique and new sets of procedures have to be put into place because of the nature of the soil, the preservation of the bodies; and archaeology is quite unlike laboratory-based analysis where you mustn't deviate from protocol.<sup>575</sup>

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between the US and Bosnian populations thus questioning the use of morphological phase indicators when estimating the age of skeletal remains from Bosnia (T Simmons, V Tuco, R Kešetović and Z Cihlarz 'Are morphological phase indicators of age estimations universal? Revising the standards for a Bosnian forensic population' (Meeting Abstract) (1999) *American Journal of Physical Anthropology* 252).

<sup>571</sup> Personal interview with forensic expert # 3 (30 May 2007). Whilst this is designed to avoid bias, it could also result in mutually reinforcing bias.

<sup>572</sup> Telephone interview with forensic expert # 8 (16 May 2007); personal interview with international lawyer # 2 (10 December 2007) and personal interview with investigator # 2 (12 December 2007). An example of such a protocol used at the ICTY can be found in the Appendix P. Wright and Hanson propose that processes and protocols should be kept simple to avoid non-compliance allegations (R Wright and I Hanson, 'How to do Forensic Archaeology under the Auspices of large Organisations like the UN' in: S Blau and DH Ubelaker (ed), *Handbook of Forensic Archaeology and Anthropology* (Left Coast Press, Walnut Creek 2009). The methods employed should, of course, remain unchanged.

<sup>573</sup> M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008). Whilst the Standard Operating Procedures proposed in their book are very prescriptive, the authors still stress the need for adaptation and flexibility.

<sup>574</sup> Telephone interview with forensic expert # 8 (16 May 2007). See also Hunter and Simpson for a discussion about protocols (J Hunter and B Simpson, 'Preparing the Ground: Archaeology in a War Zone' in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Illinois 2007).

<sup>575</sup> Telephone interview with forensic expert # 8 (16 May 2007).



Despite a lack of consensus within the forensic community as to best practices and the absence of internationally recognised standard operating procedures, the importance of evidentiary logs, including photographs, is undisputed. They function as an additional quality control for the forensic work and the chain of custody.

### 6.1.2. 'HOW YOU COME OUT IN A CASE OFTEN DEPENDS ON HOW YOU GO IN'<sup>576</sup> - CONSTRUCTION OF 'FORENSIC TRUTH'

Even if methodological limitations and potential under-determination are counter-balanced by pre-described procedures, recording and logical justifications as to why the forensic experts diverged from procedures, the arguments from the post-positivist thinkers remain valid. As experts are trying to conform to and operate within scientifically accepted methods and protocols, the outcome of scientific analysis is predestined to fit a particular set of thoughts. Despite the sciences' rigour, there are other variables relating to the way in which 'forensic truth' is constructed that are worth considering: 1) how the wider criminal investigation affects the forensic science investigation, 2) how prior knowledge and psychological aspects influence forensic scientists as individuals, and 3) how investigative requirements may be in conflict with forensic working standards.

#### 6.1.2.1. Case Construction

The idea that cases are constructed by police and the prosecution is a well-known metaphor,<sup>577</sup> and it is important to explore whether forensic science results are subject to construction, as this impacts upon the relevance and accuracy of decision-making in court. At the ICTY (and the International Criminal Court for that matter) adversarial investigation procedures are in place 'under which the prosecutor, a party to the proceedings, investigates, collects evidence and decides what matters should be presented for indictment.'<sup>578</sup> As one interviewee explained,

we were only looking for graves related to cases we were running and there were lots of incidences we weren't running cases, so that would be left to the local authorities to do the work.<sup>579</sup>

Boas argues that this adversarial arrangement inevitably limits the reliability of the evidence collection processes and is less trustworthy than investigations conducted under an independent judicial officer as is the case in civil law systems.<sup>580</sup> Yet, this is the

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<sup>576</sup> RJ Aldisert, 'Logic in Forensic Science' in: CH Wechts and JT Rago (eds), *Forensic Science and Law: Investigative Applications in Criminal, Civil, and Family Justice* (Taylor & Francis, Boca Raton 2006) 28.

<sup>577</sup> See e.g. WL Bennett and MS Feldman, *Reconstructing Reality in the Courtroom* (Tavistock Publications, London 1981) and Redmayne (n 533).

<sup>578</sup> G Boas, 'A Code of Evidence and Procedure for International Criminal Law? The Rules of the ICTY' in: G Boas and WA Schabas (eds) *International Criminal Law Developments in the Case Law of the ICTY* (Martinus Nijhoff Publishers, Leiden 2003) 26.

<sup>579</sup> Telephone interview with investigator # 4 (28 June 2007).

<sup>580</sup> Boas (2003) (n 578) 32.

system which the ICTY and the ICC (not the ECCC) operate with and it is for the prosecutor to initiate investigations, not the defence or the judges.

This system brings into focus the arguments from the constructivist literature on science and law which expresses the belief that scientific knowledge is socially constructed. Indeed, the context of the overall criminal investigation, in line with the prosecution strategy, determines what crime scenes to investigate. Previously it was discussed that physical evidence can be retrieved from the grave using scientific methods and systematic processes. So how can this evidence suddenly become subject to construction? Of course, the physical objects themselves are not interacting with the wider investigation. However, the amount of physical evidence to be investigated and the facilities made available to examine them are limited. The mass graves are selected due to their relevance to the case and this limits the scope of what the scientists can discover both at a specific site and in the context of other mass graves.<sup>581</sup> Through the limits set in space and in time, the scene is not the same as in the past and the representation of the actual burial and crime scene is partial. Although the forensic experts' working environment has been determined, it is defined not only by the presence of data and information but also through the absence of potential evidence<sup>582</sup> and shows the limits of scientific and objective information obtainable from such a site before the collection even starts. Furthermore, other operational and institutional constraints such as resources, equipment, health and safety considerations, budget and time limits<sup>583</sup> impact on procedures and consequently on the results; these limitations need to be accounted for.

Despite these constraints, one interviewee stated that he expected 'any professional qualified person in the scientific field to be independent even though employed by the prosecution.'<sup>584</sup> Forensic professionals were adamant that neither investigators nor prosecutors attempted to influence the nature of the investigation.<sup>585</sup>

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<sup>581</sup> Essentially the 'grave sampling' is determined by prosecutorial and investigative strategies as opposed to scientific methods. Lorin de la Grandmaison and his colleagues in their study into ethical considerations of forensic pathologists note that some pathologists were well aware that various mass graves were not investigated, fuelling speculations of bias and misrepresentation of facts (G Lorin de la Grandmaison and others 'The International Criminal Tribunal for the Former Yugoslavia (ICTY) and the Forensic Pathologist: Ethical Considerations' (2006) 48(3) *Medicine, Science and the Law* 208).

<sup>582</sup> Skinner and Sterenberg observe that a crime has no natural boundaries. For a more comprehensive description of scenes connected to crimes and the task of defining these, see M Skinner and J Sterenberg, 'Turf Wars: Authority and Responsibility for the Investigation of Mass Graves' (2005) 151(2) *Forensic Science International* 221.

<sup>583</sup> See section 5.1.1.5.

<sup>584</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>585</sup> For example telephone interview with forensic expert # 8 (16 May 2007).

Forensic science faces a paradox<sup>586</sup> with regard to the best level of briefing and information sharing: whilst more background information implies a greater involvement with the prosecution's strategies, it can underpin the quality of research by raising the experts' awareness of details and potential evidence. Some argue that it is simplistic to believe that forensic experts remain impartial when given little information and point towards the difficulty of separating scientific facts from background information.<sup>587</sup> Particularly in an international context, said one interviewee, the experts need 'to be alerted to some specific point [...] in order to look at those points'<sup>588</sup> because mass graves are the result of complex crimes. As one interviewee explained, forensic scientists 'are not on a fishing exercise',<sup>589</sup> because investigators would usually communicate what their intelligence made them suspect could be found in graves. Another interviewee specified that

they [the experts] could be the best experts on God's earth but at the same time if they don't really know what they are looking for, besides the obvious, I mean, they'd find bodies and they'll find shell casting, but small things they would miss.<sup>590</sup>

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<sup>586</sup> This paradox can be exemplified through an anecdote told by one of the interviewees:

we excavated a grave in Bosnia where lots of pieces of concrete in styrofoam came out. Normally you would have thought: what evidentiary value would have that? But because the investigator immediately said: 'Oh, hang on to those pieces', we started to hang on to these pieces and at some stage he said: 'Well, there is this warehouse where, when the bodies were taken out of the warehouse, it was done with a front loader and it had smashed the entrance of this warehouse and while then taking the bodies out lots of pieces of that insulation material styrofoam and the concrete would be amongst the bodies.' And by finding those pieces and putting them together again, more or less, we could actually reconstruct the entrance to this warehouse and prove that the bodies from that grave came from the warehouse. That was hugely important to the investigation. So if we wouldn't have known, we would have thrown them away. So, but of course can you also claim that maybe we made it up, maybe if we would have, because we did find bits of concrete in another grave before which we did throw away; if we would have kept that and we would have put them together, would they have – what's the likelihood of pieces of concrete actually seem to be mimicking another entrance. So I don't know – it's a tricky question and I think it has to be discussed on a case to case basis (personal interview with forensic expert # 9 (28 March 2007)).

<sup>587</sup> P Roberts and C Willmore, 'The Role of Forensic Science Evidence in Criminal Proceedings', (Royal Commission on Criminal Justice Research Study No 11) (HMSO, London 1993) 36.

<sup>588</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>589</sup> Telephone interview with forensic expert # 8 (16 May 2007).

<sup>590</sup> Telephone interview with investigator # 1 (30 July 2007). That said, through adequate scientific methods, forensic experts were able to collect evidence such as vehicle tracks, tool marks, botanical evidence etc. that investigators did not anticipate.

Given closer involvement with the overall criminal investigation, experts are more likely to lose their impartiality and objectivity.<sup>591</sup> A possible solution to the dilemma has been proposed by Roberts and Willmore (1993). They suggest that procedures, adversarial scrutiny and counter-expertise are the best means available to offset the potentially corrupting influences of background information and partisan instructions.<sup>592</sup>

#### 6.1.2.2. Context Effects

Much of the law and science literature that considers the constructed elements of scientific evidence concentrates on the individual scientist who becomes an expert witness.<sup>593</sup> Some scholars believe that 'scientists are not disintegrated agents but rather are immersed in a web of relations that play an important role in determining the character of truths that emerge from their interaction'.<sup>594</sup> One particular way in which findings can be (unconsciously) affected, is described as context effects which are rooted in the cognitive principles:

that the desires and expectations with which people approach the task of observation measurably affect their perceptions and interpretations of what they observe. The results of observation are, to a degree, a function not only of the characteristics of the things being observed but also of the state of the observer and the context in which the observation takes place.<sup>595</sup>

Some observations that are affected by context and expectations introduce errors randomly to scientific findings (observer errors); others, however, can result in systematic errors (observer bias). An obvious extraneous influence potentially resulting in bias, as discussed above, is the information which forensic scientists receive during an investigation. Redmayne summarises various cognitive phenomena, such as biased

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<sup>591</sup> Redmayne goes so far to suggest that '[b]ias appears to be a universal tendency in forensic science' (Redmayne (n 533) 13).

<sup>592</sup> Roberts and Willmore (n 587). The authors state:

Insofar as the provision of extra background information may pose a threat to the independence of the forensic scientist, this may need to be offset by strengthened procedures to ensure that their work is scrutinized by qualified and experienced defence experts (ibid 36).

<sup>593</sup> See G Edmond, 'Science, Law and Narrative' (1999) 23 Southern Illinois University Law Journal 555; NM Browne, TJ Keeley and WJ Hiers, 'The Epistemological Role of Expert Witnesses and Toxic Torts' (1998) 36 American Business Law Journal 1 and Jasanoff (2006) (n 533).

<sup>594</sup> Browne, Keeley and Hiers (ibid) 50.

<sup>595</sup> MJ Saks and others, 'Context Effects in Forensic Science: A Review and Application of the Science of Science to Crime Laboratory Practice in the United States' (2003) 43 Science and Justice 77, 78. An empirical study in relation to fingerprint experts has shown that contextual information lead to an increase of bias (IE Dror, D Charlton and AE Péron, 'Contextual information renders experts vulnerable to making erroneous identifications' (2006) 156 Forensic Science International 74 and IE Dror and R Rosenthal, 'Meta-analytically Quantifying the Reliability and Biasibility of Forensic Experts' (2008) 53 Journal of Forensic Sciences 900).

assimilation,<sup>596</sup> confirmation bias<sup>597</sup> or belief perseverance<sup>598</sup> that forensic scientists might be vulnerable to, when reviewing the behavioural literature:

We tend to look for confirming, rather than disconfirming, evidence; we may judge evidence of better quality if it agrees with our theory, of worse quality if it does not; and our beliefs can persevere even after being discredited. It also appears that extraneous information supporting a hypothesis will affect our judgement of that hypothesis, and of the evidence for it, even when we know we should not take the extraneous information into account.<sup>599</sup>

Observation, however, remains a key part of forensic practice and in reaching conclusions. As the anecdote in footnote 586 illustrates, at least one interviewee was aware of the danger contextual information holds for the outcome of forensic inquiries. Whilst the level of information provided by the investigator might increase the confidence with which forensic experts come to a decision, it is important to note that 'accuracy does not increase as a function of confidence.'<sup>600</sup>

The solutions proposed by Saks and his colleagues (2003) to prevent these context effects from affecting uncontrolled forensic practitioners in their day-to-day work by unconsciously distorting their results, are 1) to raise awareness, 2) to perform blind tests, and 3) to provide forensic experts only with the information they need to perform their test or examination.<sup>601</sup> Furthermore, seeking separate opinions on interpretations through colleague consultation can be added to this list. Whilst the second and third suggestion might work in a laboratory setting, at a mass grave site, where a number of staff are working towards excavation and examination, blind testing is not an option. It can be a possibility during simulated mass grave workshops for educational purposes, but ethically this is very difficult to justify in a criminal investigative context that involves dealing with human remains. As for the level of information provided to forensic examiners, this leads the discussion back to the paradox as to the level of briefing deemed necessary, and a clear-cut differentiation between necessary and unnecessary information is dependent on the individual case at hand and might have to be negotiated between the forensic practitioners and the employing authorities. Awareness of the context effects on forensic practitioners should, of course, be raised, and curricula at educational institutions should reflect this influence on forensic experts.

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<sup>596</sup> The inclination to accept information that confirms one's belief rather than information that disagrees with one's belief (ibid 78).

<sup>597</sup> The inclination to look for information that confirms one's hypothesis rather than through falsifying it (ibid).

<sup>598</sup> The inclination for conclusions about a hypothesis to persevere despite the fact that information that triggered the hypothesis has been discredited (ibid 81).

<sup>599</sup> See Redmayne (n 533) 15 (footnotes omitted).

<sup>600</sup> Saks and others (n 595) 82.

<sup>601</sup> Ibid 87.

### 6.1.2.3. Quantity versus Quality

One issue relating to forensic investigations of mass graves that was raised during interviews and warrants separate mentioning, is the issue of prosecutor needs versus the needs of the forensic expert. Essentially, due to time pressure during investigations, the prosecutor tends to be more interested in quantity (e.g. number of bodies, and quantity of evidentiary materials) whereas the forensic expert has a duty to conduct his or her examinations towards a certain quality standard. Forensic sciences can thus be seen to be slowing down the investigative process. However, Wright and Hanson (2009) speculate that working under pressure might increase error rates throughout the evidence recovery, recording and examination.<sup>602</sup> Depending on time scales, some advocate that compromises might have to be reached.<sup>603</sup> And one interviewee explained that national quality standards employed on a domestic homicide 'are irrelevant' for international criminal investigations because 'in the context of hundreds [...of bodies], it simply becomes irrelevant to have that kind of detail'<sup>604</sup> – at least from a prosecution point of view. This clash of quantity versus quality and completeness of a forensic investigation may conflict with the professional ethos forensic practitioners subscribe to, a theme that will be considered in the next section.

### 6.1.3. NORMATIVE ELEMENTS AND PROFESSIONAL ETHOS

As will become apparent within section 6.2. on science and law, witness credibility and reliability depends on the experts' conduct and professional ethos. They present important criteria for judges when weighing the evidence. Willmore suggests that codes of practice that are negotiated between the legal systems, scientific disciplines and validated by society, provide useful non-case-specific guidelines to adjudicators.<sup>605</sup> However, no such negotiated code of practice between international law, scientific disciplines and the international community exists. Indeed, an overarching ethical code for practitioners on international missions does not exist.

Despite the lack of international standards, the appeal to the professional ethos and norms is nonetheless relevant, as forensic scientists inherently subscribe to the norms of their profession. One interviewee expressed the view 'that experts are usually bound by the rules of their own profession'.<sup>606</sup> And there is an argument to be made that without adopting a set of specific norms, any system implicitly relies on the notion of professional ethos which binds each expert and transcends national, cultural or individual boundaries. Given the overarching nature of normative values, one interviewee contemplated that '[a] good expert is always a good expert',<sup>607</sup> whether he

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<sup>602</sup> Wright and Hanson (n 572).

<sup>603</sup> Personal interview with international lawyer # 2 (10 December 2007).

<sup>604</sup> Personal interview with international lawyer # 7 (24 July 2007).

<sup>605</sup> See Willmore (n 532).

<sup>606</sup> Personal interview with international lawyer # 4 (25 May 2007).

<sup>607</sup> Telephone interview with international judge # 2 (27 September 2007)

or she testifies in a civil law or a common law court system and that 'there is no need to have [...] specific ethic rules for a specific court or tribunal because [...] the ethical rules should follow the expert [...]. The ethical rules make part of being an expert.'<sup>608</sup> Essentially, the forensic scientists' ethos remains the same for both the domestic and the international justice sectors.

Generally speaking, forensic practitioners' codes of ethics fall into the following categories:

(1) obligations to follow the scientific method in performing examinations and formulating conclusions; (2) requirements concerning the impartial interpretation and presentation of laboratory results; (3) behavior concerning courtroom demeanor and delivery of expert testimony; and (4) obligations to the profession as a whole and maintenance of one's own professional skills.<sup>609</sup>

The UK's Council for the Registration of Forensic Practitioners,<sup>610</sup> in its ethical code, specified that the overriding duty of a forensic professional is to the court and to present evidence and conclusions in 'a fair and impartial manner.'<sup>611</sup> The document emphasises the importance to '[a]ct with honesty, integrity, objectivity and impartiality', to provide evidence and assistance only within the parameters of his or her specific expertise and to inform the relevant authorities of situations that might end in a miscarriage of justice.<sup>612</sup> Furthermore, the forensic scientists are obliged to maintain and develop their professional expertise through keeping up-to-date with the research and developments in the fields of their expertise; to conduct their work through 'using methods of proven validity and appropriate equipment and materials' and to disclose any limiting and restricting factors that might have adversely affected the work.<sup>613</sup> One interviewee said that transparency regarding the work is mandatory, especially when writing reports: '[i]f there is something gone wrong, I mention it, or something that people might question, I'd mention what was done about it.'<sup>614</sup>

Specifically designed for forensic investigations of war crimes, crimes against humanity and extra-judicial killings, the Inforce Foundation in its overarching ethical

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<sup>608</sup> Ibid.

<sup>609</sup> JL Peterson and JE Murdock, 'Forensic Science Ethics: Developing an Integrated System of Support and Enforcement' (1989) 34 *Journal of Forensic Sciences* 753.

<sup>610</sup> As of March 2009 the UK's Council for the Registration of Forensic Practitioners is no longer operational. However, the ethical code it devised retains its merit and is useful for this discussion.

<sup>611</sup> Council for the Registration of Forensic Practitioners, 'Good Practice for Forensic Practitioners' (2007) <<http://www.crfp.org.uk/standards/setting/code/code.htm>> accessed 28 November 2007, 1 (see Appendix Q). See also T Rothwell, 'Presentation of Expert Forensic Evidence' in: P White (ed), *Crime Scene to Court: The Essentials of Forensic Science* (The Royal Society of Chemistry, Cambridge 1998).

<sup>612</sup> See Council for the Registration of Forensic Practitioners, Appendix Q. One interviewee pointed out that the normative requirement of providing truthful evidence that lies within the practitioner's explicit expertise is vital to avoid the expert being tempted by his powerful position as a teacher in court to exaggerate findings (personal interview with international lawyer # 6 (1 November 2007)).

<sup>613</sup> J Clark, 'Pathological Investigation' in: J Payne-James (ed), *Encyclopaedia of Forensic and Legal Medicine* (Elsevier, London 2005).

<sup>614</sup> Telephone interview with forensic expert # 6 (15 September 2007).

principles first and foremost emphasises the importance of respecting human life (1), before mentioning similar points to those made by the Council for the Registration of Forensic Practitioners (2, 4, 8, 9 and 12) Inforce's ethical code pledges

- 1) to at all times uphold respect for human life and dignity
- 2) to act with integrity and honesty in all circumstances
- 3) to be apolitical
- 4) to provide confidential, informed and impartial advice
- 5) to practice within relevant current legal and regulatory frameworks
- 6) to respect the cultural and religious values of the host country, community or society
- 7) to uphold rules of confidentiality and, where appropriate, of subjudice
- 8) to promote the improvement of standards and services through the development and adoption of protocols and standard operating procedures as well as professional bodies, education, research and best practice
- 9) to keep up-to-date with developments in field and/or laboratory techniques as appropriate
- 10) to refrain from issuing statements which appear to represent the position of the organisation as a whole without the specific authority to do so
- 11) to refrain from issuing statements which appear to represent the position of the relevant profession as a whole without the specific authority to do so
- 12) to prevent and outlaw malpractice
- 13) not to accept core or programme funding from any organisation considered to be inappropriate in any given context.<sup>615</sup>

The code draws attention to the ethical pitfalls which forensic experts are vulnerable to when embarking on international investigative missions, and stresses the need to remain apolitical (3), to refrain from making statements that might compromise the mandate of the mission, its authorising body or the mission-itself (10 and 11) and to refuse inappropriate funding (13).

#### 6.1.3.1. Independence

Many of the criteria outlined in the code of practice can be summarised under the theme of independence. Interviewees stressed the importance of expert independence, impartiality and the ability to prove this independence.<sup>616</sup> One interviewee made it very plain that experts

shouldn't be working towards a goal at all. And if they think they are they should give up, stop, go and do another job. They are just providing information. They are not providing a goal. And that is the danger you get with experts who suddenly take it as a cause. And they then start working to a goal and they lose sight of their impartiality. People who should work towards the goal are the prosecutors and the defence.<sup>617</sup>

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<sup>615</sup> Inforce Foundation, 'Overriding Code of Conduct' <[http://www.inforce.org.uk/page/code\\_of\\_conduct\\_0/](http://www.inforce.org.uk/page/code_of_conduct_0/)> accessed 7 January 2009.

<sup>616</sup> For example telephone interview with forensic expert # 8 (16 May 2007) and telephone interview with international judge # 2 (27 September 2007).

<sup>617</sup> Personal interview with international lawyer # 7 (24 July 2007).



As mentioned in the Inforce code, remaining apolitical is part of retaining this independence as is avoiding statements to the media that might jeopardise the mission or be misinterpreted. With reference to the Finnish team leader having expressed her opinions on the incidents in Racak, Kosovo, in a press conference and to the media,<sup>618</sup> one interviewee said that 'it's important that people in that situation don't get tied up with the media. But that's a very difficult thing for people to resist.'<sup>619</sup> Another example mentioned regarding the importance of remaining impartial was the examination and consequent presentation of forensic evidence by US forensic archaeologist Michael "Sonny" Trimble during Saddam Hussein's trial at the Iraqi High Tribunal<sup>620</sup>. Given the American invasion of Iraq, a more independent-looking international team might have added credibility to the forensic mission. Losing one's credibility due to partial behaviour or careless remarks can be very costly for an expert's future career.

#### 6.1.3.1. Enforcement

The difficulty with codes of practice is that they have little binding force and are hard to enforce.<sup>621</sup> As a consequence the scientists may feel that it is at their discretion to decide how much to adhere to the code. But of course, this could mean risking one's reputation within the scientific community, especially if effective complaint mechanisms are in place. Forensic practitioners who took part in the 1996 forensic missions in the former Yugoslavia drew the Prosecutor's attention to deficiencies (see point 12. of the Inforce code) within the operations of the ICTY's forensic team. Forensic anthropologist Dr Haglund and forensic pathologist Dr Kirschner were accused of misconduct. In response to the numerous complaints voiced against the two practitioners throughout the 1996 investigations, the Office of the Prosecutor set up a panel of forensic experts from the United States to review the allegations. The panel met in San Antonio to hear witness statements alleging misconduct. The panel found Kirschner responsible for amending death certificates, but cleared Haglund of allegations of poor judgment, poor managerial skills, seeking media attention and conducting work of poor quality.<sup>622</sup> The

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<sup>618</sup> For more information on Helena Ranta's involvement with the press conference on 17 March 1999 organised by the EU Presidency and a press interview given to a German television station in autumn 2000, see *Prosecutor v Milošević*, Statement of Dr Helena Ranta, Case No IT-02-54-T, 20 February 2003, Trial Chamber III. For further details on Dr Ranta being quoted by the Swiss weekly magazine 'Weltwoche', see *Prosecutor v Milošević*, Court Witness Testimony by Dr Helena Ranta, Transcript, Case No IT-02-54-T, 12 March 2003, Trial Chamber III, 17710-17716.

<sup>619</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>620</sup> Telephone interview with forensic expert # 8 (16 May 2007). See also K Hinman 'CSI: IRAQ Goes to Court' *Riverfronttimes* (St Louis 1 December 2006) <<http://www.riverfronttimes.com/2006-11-29/news/csi-iraq-goes-to-court/>> accessed 21 May 2008.

<sup>621</sup> See Peterson and Murdock (n 609) and Willmore (n 532).

<sup>622</sup> See *Prosecutor v Popović et al.*, Expert Witness Testimony by Dr William Haglund, Transcript, Case No IT-05-88-T, 15 March 2007, Trial Chamber II, 8931. Whilst the author was unable to obtain the original report relating to the San Antonio inquiry, the trial transcripts provide information as to its content; this information is compatible with

longer-term implications which such investigations had on their careers are difficult to assess, although neither of these experts was hired by the Office of the Prosecutor for field work again.

There are those who believe that complaints from within the forensic science community are 'almost certainly unrepresentative and under-representative of the actual problems occurring',<sup>623</sup> suggesting that unethical behaviour might be more widespread. This trend emphasises the need for structural systems within the forensic sciences and the legal process that will expose those who do not abide by professional codes of practice stipulated by the employing organisation.

Evidently, epistemic considerations and valid methodological requirements are contained in forensic experts' professional ethos (see, for example, points 8. and 9. of the Inforce principles). It is the ethical and legal obligation of any expert to provide truthful, impartial and independent assistance to the court. In principle the ICTY's Rules and Regulations of Evidence thus do not need to mirror the normative rules set out by the professions as they are already implicit in the expert status of the forensic scientist, whose duty is 'to bring science to justice'<sup>624</sup> and no more. At the ECCC, however, there are provisions within the Internal Rules that

[a]n expert who agrees to be appointed shall take an oath of affirmation in accordance with his or her religion or beliefs to assist the Co-Investigating Judge or the Chambers honestly, confidentially and to the best of his or her ability.<sup>625</sup>

One interviewee explained that if the experts were found to act dishonestly, provisions are in place that allow authorities to charge this action as a criminal offence.<sup>626</sup>

The above discussion has shown that no matter how scientifically sound the forensic investigations are, the produced evidence cannot be a pure and complete representation of a past external reality, or provide the court with the incontrovertible truth, but that the outcome of forensic investigations and the resulting 'forensic truth' should be treated as any other type of evidence. Nonetheless, forensic experts working on mass grave investigations should aim to put measures in place through which context effects, methodological inadequacies and disagreements regarding best practices are kept to a minimum to facilitate more robust findings for legal processes. Indeed, an employing authority may insist on forensic practitioners having protocols, quality assurance and an ethical code that aim to avoid potential inadequacies and shortfalls. A debate within the relevant forensic sciences regarding the theoretical arguments underpinning these outlined issues might help practitioners agree on how best to

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an account of events given by forensic expert # 1 (telephone interview with forensic expert (17 March 2008)).

<sup>623</sup> MJ Saks, 'Prevalence and Impact of Ethical Problems in Forensic Science' (1989) 34 *Journal of Forensic Sciences* 780.

<sup>624</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>625</sup> ECCC IR, Rule 31(2).

<sup>626</sup> Personal interview with international judge # 4 (25 April 2007).

address them, thus making the 'forensic truth' more robust when entering the legal arena.

## 6.2. Science and Law

Scientific evidence enters the court room because the findings are relevant to the narrative that is presented in court and not because they are proven facts.<sup>627</sup> Some scholars, specifically with reference to the common law system, portray the law and science relationship as 'an uncomfortable alliance'<sup>628</sup> and fear that the legal system might not have the right tools to determine which information is certain and which is not.<sup>629</sup> According to Edmond (2000) there are good reasons why this is the case:

Because the various sciences maintain different approaches, theories, criteria, canons of practice, metaphysics, levels of relevance, levels of abstraction and so on, it would be highly naive to suggest that we could expect some basic or universal criteria which could be applied consistently to determine 'reliability'.<sup>630</sup>

Furthermore, the level of certainty required within the sciences may differ from the legal requirement to prove guilt beyond reasonable doubt.

Despite fundamental problems between law and science, there are also a number of similarities between the disciplines, especially when focusing on *forensic* science.<sup>631</sup> Both the legal system and forensic science aim to produce knowledge, albeit with a functional difference: the legal system gathers and establishes knowledge as the basis for justice, and forensic science produces knowledge for the purpose of assisting the court in providing it with elements of that basis. Both are limited by the context of the criminal case at hand, both are bound by legal procedures or scientific protocols, both belong to professional communities and subscribe to a professional ethos. There are also some structural parallels between their respective approaches to generating accurate knowledge: the law relies on courtroom testimony whereas empirical science is built upon recorded observation; testing the evidence through cross-examination in court in some ways resembles scientific techniques of hypothesis-testing and falsification. However, as Willmore (1998) points out, one major difficulty remains: whilst the sciences are used to uncertainties and un-determined aspects of inquiries and evidence, the 'legal systems demonstrate discomfort with uncertainty'<sup>632</sup> potentially believing that *one* right explanation is to be discovered. Yet the level of proof required for judicial verdicts

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<sup>627</sup> See, for example, Jasanoff (2006) (n 533).

<sup>628</sup> G Edmond, 'Science in Court: Negotiating the Meaning of a 'Scientific' Experiment During a Murder Trial and Some Limits to Legal Deconstruction for the Public Understanding of Law and Science' (1998) 20 Sydney Law Review 361.

<sup>629</sup> See Willmore (n 532).

<sup>630</sup> G Edmond, 'Judicial Representations of Scientific Evidence' (2000) 63 The Modern Law Review 251.

<sup>631</sup> In the subsequent passage I follow partly an exposition by Jasanoff regarding the US legal system and the use of science for trial purposes, adapting the arguments to the international criminal law context and forensic science (Jasanoff (2005) (n 533) 50-53).

<sup>632</sup> Willmore (n 532) 40.

at the ICTY is 'proof beyond reasonable doubt', which is an inherently probabilistic concept and thus not dissimilar to the sciences operating with probability intervals.

### 6.2.1. INTERNATIONAL CRIMINAL PROCEEDINGS

Within the ICTY's Rules of Procedure and Evidence (RPE), Rule 89 outlines the general provisions regarding the regulation of evidentiary matters:

- (A) A Chamber shall apply the rules of evidence set forth in this Section, and shall not be bound by national rules of evidence.
- (B) In cases not otherwise provided for in this Section, a Chamber shall apply the rules of evidence which will best favour a fair determination of the matter before it and are consonant with the spirit of the Statute and the general principles of law.
- (C) A Chamber may admit any relevant evidence which it deems to have probative value.
- (D) A Chamber may exclude evidence if its probative value is substantially outweighed by the need to ensure a fair trial.
- (E) A Chamber may request verification and authenticity of evidence obtained out of court.
- (F) A Chamber may receive the evidence of a witness orally or, where the interests of justice allow, in written form.<sup>633</sup>

The procedural rules regulating proceedings before the ICTY, like those of the ECCC, adopt a flexible approach to the admissibility of evidence. Evidence is admissible if it is relevant, of probative value, not to the detriment of a fair trial and not otherwise excluded on grounds given in Rule 95 of the ICTY's RPE.<sup>634</sup> The provisions 'do not contain a detailed set of technical rules'<sup>635</sup> which reflects the Tribunal's distinctive blend between adversarial and inquisitorial procedural models. A flexible, inquisitorial approach to the law of evidence allows for all information and evidence to be collated in a dossier which is made available to all the parties facilitating a 'collective truth-finding process'.<sup>636</sup> This contrasts sharply with the partisan approach to truth-finding favoured by common law adversarial systems in which

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<sup>633</sup> ICTY RPE, Rule 89.

<sup>634</sup> Rule 95 states that

[n]o evidence shall be admissible if obtained by methods which cast substantial doubt on its reliability or if its admissibility is antithetical to, and would seriously damage, the integrity of the proceedings (ICTY RPE, Rule 95).

<sup>635</sup> *Prosecutor v Delalić et al.*, Decision on the Motion of the Prosecution for the Admissibility of Evidence, Case No IT-96-21-T, 19 January 1998, Trial Chamber II, para 15.

<sup>636</sup> A Zahar and G Sluiter, *International Criminal Law. A Critical Introduction* (Oxford University Press, Oxford 2008) 351.

admissibility is a crucial part of the pre-trial and trial process, and cases can be won or lost on the basis of success in having evidence ruled admissible or inadmissible.<sup>637</sup>

Similarly, at the ECCC, the provisions governing evidence are contained in Rule 87, and '[u]nless provided otherwise in the IRs [Internal Rules], all evidence is admissible.'<sup>638</sup> Given this concept of 'no inadmissible evidence', the laws on admissibility are very short compared to those in common law systems.<sup>639</sup>

Zahar and Sluiter (2008) observe that some jurisprudence has emerged from the ICTY that departs from civil law criminal jurisdiction principles despite the 'admit everything, determine weight later' maxim.<sup>640</sup> Notwithstanding these differences in procedural philosophy (collective versus a subjective, party-driven approach), both adversarial and inquisitorial models of adjudication are rooted in the aspiration to ascertain facts on the basis of evidence, including expert evidence.

The ICTY's RPE allow for generous admission of evidence. However, the fact that judges do not act as gatekeepers against bad science<sup>641</sup> does not mean that scientific evidence will be given much weight by the judges, 'who by virtue of their training and experience are able to consider each piece of evidence which has been admitted and determine its appropriate weight'.<sup>642</sup> The common law rationale to protect members of the jury from unorthodox science is irrelevant as only professional judges elected by the UN General Assembly are appointed. Furthermore, initial admissibility rulings on evidence may be reversed at later stages in the proceedings as and when further evidence and information relating to admissibility questions become available.<sup>643</sup> Despite admitting that the admissibility criteria are indeed slender given that the ICTY allows hearsay evidence, one interviewee still thought that

the rules are adequate and it's a question [of] how you weigh the evidence. Where you are not dealing with a jury and where you have got judges who are able to evaluate evidence objectively and without fear of being influenced by the facts that mass murder involved – I think the rules are adequate.<sup>644</sup>

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<sup>637</sup> Boas (2003) (n 578) 24.

<sup>638</sup> ECCC IR, Rule 87(1).

<sup>639</sup> Personal interview with international judge # 1 (25 April 2007) and personal interview with international lawyer # 5 (24 April 2007).

<sup>640</sup> Zahar and Sluiter (n 636) 384.

<sup>641</sup> In her study on the use of science in the United States, after the *Daubert* ruling, Jasanoff argues that judges were obliged to act 'as gatekeepers, guarding the courtroom door against what some saw as an uncontrolled onslaught of "junk science"' (Jasanoff (2005) (n 533) 50).

<sup>642</sup> *Delalić et al.*, Decision on the Motion of the Prosecution for the Admissibility of Evidence (n 635) para 20.

<sup>643</sup> *Prosecutor v Orić*, Order Concerning Guidelines on Evidence and the Conduct of Parties During Trial Proceedings, Case No IT-03-68-T, 21 October 2004, Trial Chamber II, Guideline on Evidence (iv).

<sup>644</sup> Personal interview with international judge # 3 (3 October 2007).

### 6.2.1.1. Admissibility of Expert Evidence

Standard practice at the ICTY is to tender and admit expert reports through Rule 94 *bis*, which provides a timetable for disclosure and other preliminaries.<sup>645</sup> The opposing party is required to indicate whether it intends to accept the expert witness statement, desires to cross-examine the expert witness, disputes his or her qualifications or challenges the relevance of the witness statement.

One interviewee describes the pre-trial process regarding evidence as follows; once the evidence has been disclosed,

the defence should be asked: Do you accept that or not? Do you have additional questions or not? If he accepts, it is accepted as evidence into the case file; if he has additional questions, the witness, or the expert witness would come only for the additional questions.<sup>646</sup>

The more pro-active the judges are at this stage, the more time can be saved by taking into court only the disagreements regarding evidence.<sup>647</sup>

#### Expert Witness Status

In a 2007 decision concerning the *Prosecutor v. Popović et al.* trial, the judges discussed the qualifications of an expert witness and the admissibility of an expert report. After acknowledging that Rule 94 *bis* of the Rules of Procedure and Evidence does not give explicit guidance on the admissibility of expert witness testimony or their report, the Trial Chamber defined an 'expert witness' as someone who possesses the relevant specific knowledge, experience or skills to help it come to a better understanding and a conclusion on a special issue of a technical nature.<sup>648</sup> The qualifications of an expert, as outlined in the curriculum vitae, distinguish him or her from a mere fact witness,

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<sup>645</sup> See *Prosecutor v Blagojević and Jokić*, Decision on Prosecution's Motion for Admission of Expert Statements, Case No IT-02-60-T, 7 November 2003, Trial Chamber I, para 20. Rule 94 *bis* of the Rules of Procedures and Evidence states:

- (A) The full statement of any expert witness to be called by a party shall be disclosed within the time-limit prescribed by the Trial Chamber or by the pre-trial Judge.
- (B) Within thirty days of disclosure of the statement of the expert witness, or such other time prescribed by the Trial Chamber or pre-trial Judge, the opposing party shall file a notice indicating whether:
  - (i) it accepts the expert witness statement; or
  - (ii) it wishes to cross-examine the expert witness; and
  - (iii) it challenges the qualifications of the witness as an expert or the relevance of all or parts of the report and, if so, which parts.
- (C) If the opposing party accepts the statement of the expert witness, the statement may be admitted into evidence by the Trial Chamber without calling the witness to testify in person (ICTY RPE, Rule 94*bis*).

<sup>646</sup> Telephone interview with international judge # 2 (27 September 2007).

<sup>647</sup> Ibid.

<sup>648</sup> See *Prosecutor v Popović et al.*, Decision on Defence Rule 94 *bis* notice regarding Prosecution Expert Witness Richard Butler, Case No IT-05-88-T, 19 September 2007, Trial Chamber II, para 22-23; see also KD Rutledge, "Spoiling Everything" - but for Whom? Rules of Evidence and International Criminal Proceedings' (2003) 16 Regent University Law Review 177.

qualifying him or her to provide opinions, inferences and conclusions on matters within the realm of his or her expertise.<sup>649</sup> Furthermore, the experiences of a particular expert make him or her an assistant to the Trial Chamber. However, the judges did not find that objectivity and independence were prerequisites for a witness to qualify as an expert.<sup>650</sup> The discussion explains that 'the questions of objectivity, impartiality and independence become relevant to assess the weight to be accorded to that opinion evidence.'<sup>651</sup> During cross-examination such concerns, including the fact that an expert witness might have been employed by a party, should be addressed. Yet, such affiliation with a party does not provide sufficient grounds to disqualify an expert. In fact, in relation to scientific experts, one interviewee explained that they would 'expect any professional, qualified person in the scientific field to be independent even though employed by the prosecution'<sup>652</sup>, and that there was no reason to assume the opposite as qualifications would speak for an expert's good faith. The latter part of the decision is of particular interest to the forensic scientists because they were employed by the ICTY to work for the Office of the Prosecutor and cannot be disregarded as experts because of this affiliation. In fact, without such decisions, few forensic experts could be called to testify and little original evidence would be presented.

#### Admissibility of Expert Reports

From a legal perspective, 'reports should be an adequate vehicle to demonstrate their [the experts'] opinion and their science.'<sup>653</sup> Evidence can be denied admissibility on three grounds. Firstly, according to Rule 95, evidence must be excluded if it has been 'obtained by methods which cast substantial doubt on its reliability';<sup>654</sup> secondly, in line with Rule 89 (D) evidence ought to be excluded if it jeopardises the need to ensure a fair trial; and thirdly, if it is lacking relevance and probative value (Rule 89 (C)). From the three grounds for exclusion (1) method and reliability, 2) fair trial, 3) relevance and probative value) Rule 95 has greatest salience for the work of scientific experts as it directly explores the experts' method of data collection and whether, in light of the way the inquiry was conducted, the results are reliable. Questions of relevance and probative value are the province of lawyers rather than forensic experts.

If no objection to the admission of reports has been filed, they can be admitted without the experts needing to testify, so long as the Trial Chamber is satisfied as to the

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<sup>649</sup> *Popović et al.*, Decision on Defence Rule 94 bis notice regarding Prosecution Expert Witness Richard Butler (ibid). With regards to the presentation of forensic evidence, not only the scientists themselves but also the investigators involved in the overall investigation and overseeing the forensic work, were called to give a summary of the forensic activities.

<sup>650</sup> Ibid para 26.

<sup>651</sup> Ibid.

<sup>652</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>653</sup> Personal interview with international lawyer # 7 (24 July 2007).

<sup>654</sup> ICTY RPE, Rule 95 (see n 634).

relevance and probative value of the report.<sup>655</sup> In fact, according to several interviewees, forensic evidence was very often accepted by the defence teams who would only deny any linkage of their client with the evidence.<sup>656</sup> In the September 2007 decision in *Prosecutor v. Popović et al.*, the judges explain that the general requirement of relevance and probative value apply to the admissibility of expert reports and that Trial Chambers examine

(1) whether there is transparency in methods and sources used by the expert witness, including the established or assumed facts on which the expert witness relied; (2) whether the report is reliable; and (3) whether the contents of the report falls within the accepted expertise of the witness.<sup>657</sup>

Because, in this particular case, the opposing party disagreed with the submission of the report, the decision regarding its admissibility and the examination of the principles outlined above had to be determined after the cross-examination of the witness. Simply because an expert is accepted as an expert to testify does not mean that his or her written statements will be automatically admitted before the Chamber as evidence. It is on the party calling the expert evidence to demonstrate that the report meets the requirements of Rule 89 (C), whilst the accused may challenge the evidence through cross-examination.<sup>658</sup>

#### Admissibility of Summary Evidence and Transcript Testimony (92 bis (D))

To facilitate a better understanding of the forensic scientist's report and expert testimony, summary reports by the investigators, which are based upon the numerous scientific reports created by the forensic experts, can be used to introduce the subject. These compilations give an overview of the forensic activities, thus contextualising and reducing the complexity of the findings.<sup>659</sup> The presentation of summary reports is also an effective way of saving trial time, because, as one interviewee explained, "time is just against exploring it [evidence] in detail to the point of understanding every element of it, but the summaries have been a good source of understanding."<sup>660</sup> In the *Milošević* case, for example, there was little time for lengthy evidence presentation from the Srebrenica crime scene; as a consequence, ICTY investigator Dean Manning testified in relation to

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<sup>655</sup> See *Blagojević and Jokić*, Decision on Prosecution's Motion for Admission of Expert Statements (n 645).

<sup>656</sup> For example, telephone interview with international lawyer # 1 (22 May 2007); personal interview with investigator # 5 (3 October 2007) and telephone interview with forensic expert # 8 (16 May 2007).

<sup>657</sup> See *Popović et al.*, Decision on Defence Rule 94 bis notice regarding Prosecution Expert Witness Richard Butler (n 648) para 30.

<sup>658</sup> *Ibid.*

<sup>659</sup> See for example D Manning (ICTY Investigator), 'Srebrenica Investigations. Summary of Forensic Evidence Execution Points and Mass Graves' (Report) (16 May 2000), available at <[http://www.domovina.net/archive/2000/20000516\\_manning.pdf](http://www.domovina.net/archive/2000/20000516_manning.pdf)> accessed 25 January 2007.

<sup>660</sup> Personal interview with international judge # 3 (3 October 2007).



the forensic investigations.<sup>661</sup> Similarly, in a decision on the admission of expert statements in *Prosecutor v. Blagojević*, Manning's report on forensic evidence from execution points and mass graves relating to the Srebrenica massacre, as used in *Krstić*, was found to be 'highly relevant to the case and admissible under Rule 89'.<sup>662</sup> His report drew on 50,000 pages of autopsy reports, 30,000 photographic images, 11,000 physical exhibits, many of which were subject to further expert examination. However, summaries may be considered as hearsay evidence, thus potentially being of little probative value.<sup>663</sup>

To facilitate efficient trial management, Rule 92 *bis* (D) permits the admission of trial transcripts of evidence previously given by a witness during ICTY proceedings, provided that the evidence does not relate to the acts and conduct of the accused. This includes the admission of expert evidence.<sup>664</sup> In the *Blagojević* case, statements and transcript testimony of numerous experts relating to mass grave exhumations and examination of the exhumed bodies to determine sex, age, cause of death etc. from the *Krstić* trial, were admitted in this way. The Trial Chamber was satisfied that the transcript testimony submitted under Rule 92 *bis* (D) along with the expert reports submitted pursuant Rule 94 *bis* were relevant, of probative value and together provided 'a complete picture of the expert evidence'.<sup>665</sup>

Whilst considerations of reliability are important grounds for exclusion, it is probative value and relevance that are being considered at the admissibility stage as well as qualifications in relation to expert witness status. When assessing the relevance and probative value of evidence, indications as to the reliability of the evidence may implicitly be considered. If the evidence put forward were deemed unreliable, it would cease being relevant or admissible.<sup>666</sup> Similarly, the qualifications of an expert may be a sign of credibility. However, admission of documents into evidence does not mean that

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<sup>661</sup> *Prosecutor v Milošević*, Witness Statement by Investigations Team Leader Dean Paul Manning, Case No IT-02-54-T, 24 November 2003, Trial Chamber III, available at <[http://www.domovina.net/archive/2003/20031124\\_manning.pdf](http://www.domovina.net/archive/2003/20031124_manning.pdf)> accessed 25 January 2007.

<sup>662</sup> See *Blagojević and Jokić*, Decision on Prosecution's Motion for Admission of Expert Statements (n 645) para 30.

<sup>663</sup> *Prosecutor v Milošević*, Decision on Admissibility of Prosecution Investigator's Evidence, Case No IT-02-54-T, 30 December 2002, Trial Chamber III, para 2(i).

<sup>664</sup> Through reviewing 13 adjudicated cases before the ICTY as to the means and methods of establishing proof of death, Jennifer Beatty comes to the conclusion that Trial Chambers rely heavily on 92 *bis* statements as opposed to hearing live testimony on forensic evidence (J Beatty, *Proof of Death: An Analysis of Methods that the International Criminal Tribunal for the Former Yugoslavia used to Establish Death* (MA thesis, Michigan State University 2005).

<sup>665</sup> See *Blagojević and Jokić*, Decision on Prosecution's Motion for Admission of Expert Statements (n 645) para 35.

<sup>666</sup> R Gallmetzer, 'Rules of Evidence Applicable at the International Criminal Court', Marie Curie Top Summer School in International Criminal Law 2008, 30 June-11 July 2008 para 35.

the information therein will be deemed an accurate factual account<sup>667</sup> or free of methodological flaws. Clearly, issues of impartiality, independence and reliability of the expert also require further attention.

Boas (2001) notes that 'while evidence may be excluded because it is unreliable, it need not be shown to be reliable before it is admitted.'<sup>668</sup> In fact, the question of reliability (and reliability of method) seems to be more a concern for judges when attributing weight, rather than of admissibility. As one interviewee explained, the 'reliability is tested by cross examination.'<sup>669</sup> Only through admitting evidence can the context surrounding a case emerge, which will allow judges to view and weigh the evidence as 'a piece of the jigsaw' that 'has to be tied in with other evidence'<sup>670</sup> presented at trial. This is particularly true of forensic evidence from mass graves, as it represents mostly base crime evidence (as discussed at length in section 5.1.1.3.).

### 6.2.2. CONSTRUCTION INTO THE LEGAL NARRATIVE

'Despite the maze of legal jargon, lawyers' mysterious tactics, and obscure court procedures, any criminal case can be reduced to the simple form of a story.'<sup>671</sup> Lawyers select witnesses to create the most plausible narrative, not necessarily the most complete. Regardless of the limits of forensic evidence in its construction, the lawyers' intention is to 'ensure that the court will view the expert as a teacher and will then get the expert to teach the court.'<sup>672</sup> However, despite science's power to persuade, as one interviewee noted,

ultimately science is another form of evidence and it is another form of witness evidence, because it is always the scientist telling you the explanation for what he or she has done. All witnesses are fallible, whether they deliberately lie or whether they are convinced that they are telling the truth but they got it wrong. And the danger is that a scientific witness is as fallible as a normal witness.<sup>673</sup>

The sequence of events in court is as follows: during the examination-in-chief, the party who called the witness aims to demonstrate the reliability and credibility of the witness and his or her evidence. This is followed by cross-examination through the opposing party, and if necessary re-examination by the party who initially called the expert, whilst judges may ask questions at any stage.

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<sup>667</sup> *Delalić et al.*, Decision on the Motion of the Prosecution for the Admissibility of Evidence (n 635) para 20.

<sup>668</sup> G Boas, 'Creating Laws of Evidence for International Criminal Law: The ICTY and the Principle of Flexibility' (2001) 12 Criminal Law Forum 59.

<sup>669</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>670</sup> *Ibid.*

<sup>671</sup> Bennett and Feldman (n 577) 4.

<sup>672</sup> Personal interview with international lawyer # 6 (1 November 2007).

<sup>673</sup> Personal interview with international lawyer # 5 (24 April 2007).

### 6.2.2.1. Briefing

However, prior to giving evidence in court, experts may be briefed as to the nature of their testimony and the proceedings. This enables experts who come from different legal systems to familiarise themselves with the workings of the Trial Chamber. As with any evidence, the lawyers themselves have to read the expert's report and understand its contents before leading the evidence in court. Often this means that the lawyers need to reduce the complexity of the report to a level that is relevant and manageable in the Trial Chamber. Asking the experts relevant questions prior to their testimony will not only enhance the understanding of the lawyers but also prepare the expert for the questions that are likely to be asked by the opposing party or the judges.<sup>674</sup>

Despite the inherent risk that lawyers might abuse briefing sessions to influence the expert witness, one interviewee made it clear that to him it was

absolutely essential that the advocate or the delegated lawyer should talk to witnesses in advance, because otherwise you'd have no way of either a) removing from potential evidence that which was unnecessary or b) finding out in the course of the discussion any additional important matters he might have to offer.<sup>675</sup>

Investigations may have progressed from when the actual forensic investigations had been conducted and the expert may be able to provide additional information previously thought to be of lesser importance.

### 6.2.2.2. Testimony

During the *Kristić* trial, forensic evidence became part of a narrative with over 12 days dedicated to examining forensic exhibits and hearing expert witnesses regarding the examination of place of execution, primary and secondary graves. Once in the Trial Chamber, the expert witness is a 'servant to the court'<sup>676</sup> and an opportunity arises, as one interviewee said, 'to let the science speak for itself'.<sup>677</sup> After the solemn declaration, the witness 'is a witness of truth before the Tribunal and, inasmuch as he or she is required to contribute to the establishment of truth, not strictly a witness for either party'.<sup>678</sup> Whilst Cobb (1998) insists that '[t]he scientist can only give evidence on work carried out personally or under direct supervision', he can comment on and 'interpret factual evidence given by another witness under oath in the light of scientific findings and knowledge'.<sup>679</sup> Cobb specifically emphasises that the forensic scientist is personally responsible for his or her results and analysis, not corporately accountable. Nevertheless, at the ICTY experts testified on behalf of their forensic team because of

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<sup>674</sup> Personal interview with international lawyer #4 (25 April 2007).

<sup>675</sup> Personal interview with international lawyer # 6 (1 November 2007).

<sup>676</sup> Rothwell (n 611) 349.

<sup>677</sup> Personal interview with international lawyer # 4 (25 April 2007).

<sup>678</sup> *Prosecutor v Kupreškić et al.*, Decision on Communication between the Parties and their Witnesses, Case No IT-95-16-T, 21 September 1998, Trial Chamber II, iii.

<sup>679</sup> P Cobb, 'Forensic Science' in: P White (ed), *Crime Scene to Court. The Essentials of Forensic Science* (The Royal Society of Chemistry, Cambridge 1998) 9.

the vast number of forensic experts employed during the process and the rotational aspect of deployment.<sup>680</sup>

Law and science literature refers to the term 'boundary-work' – an attempt to create a strong image of science by contrasting it favourably to other, non-scientific intellectual activities<sup>681</sup> – as one means of shielding scientific work from challenges. During a trial, prosecution and defence parties operate with the boundary-work notions of *expansion*, *monopolisation*, *protection* and *expulsion* to establish expert credibility or indeed to discredit opposing experts.<sup>682</sup> The parties aim to suggest that their expert's authority and expertise extends into other domains and professions (expansion), or that the expertise of their witness is the most appropriate to be called in relation to the case at hand (monopolisation) or to protect them from outside criticism (protection), or indeed to exclude those who do not belong to the profession, labelling them as 'non-members' (expulsion). All this is done in an attempt to either affirm or discredit the credibility of a witness, the credibility of findings or the credibility of methods and protocols to make a narrative more plausible.

In practice, this means that assessment standards as to the reliability and credibility of the presented forensic evidence can be classified into the following categories: assessing 1) expert status<sup>683</sup>, 2) the scientific methods adopted, 3) norms of practice, 4) acceptance within the scientific community and validation of methods through publications and peer-review processes, 5) whether and how the science is produced for litigation, and 6) the novelty of the scientific evidence presented.<sup>684</sup> According to Schabas (2006), evaluating expert evidence essentially boils down to considering professional competency, methodologies and the credibility of the findings in context.<sup>685</sup> The expert testimony of forensic anthropologist Dr William Haglund presented to the ICTY on 15 March 2007 may serve as a detailed illustration.

Dr Haglund's examination-in-chief began in a conventional way, with discussion of his education and qualification,<sup>686</sup> employment record and relevant experience.<sup>687</sup> Attention then turned to the actual excavation work that he and his team had conducted

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<sup>680</sup> Many team members could only be present for a few weeks at a time depending on their employers' capacity to release them. This was particularly the case for professionals such as police officers, pathologists, odontologists and radiographers (Statement by Margaret Cox (Personal communication 5 July 2007)).

<sup>681</sup> TF Gieryn, 'Boundary-Work and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists' (1983) 48(6) *American Sociological Review* 781.

<sup>682</sup> Edmond (1998) (n 628) 384.

<sup>683</sup> One interviewee voiced his concern regarding the expertise of some of the forensic experts that testified before the ICTY: given their very limited experience at mass grave sites, the interviewee felt, that attributing them expert status was, at times, premature (personal interview with scene of crime officer (8 August 2007)).

<sup>684</sup> See Edmond (2000) (n 630) for a detailed description of 'judicial craft skills' used to evaluate scientific evidence.

<sup>685</sup> See Schabas (n 530) 480.

<sup>686</sup> *Popović et al.*, Expert Witness Testimony by Dr William Haglund (n 622) 8900.

<sup>687</sup> *Ibid* 8901-8908.

at the request of the Office of the Prosecutor. During the examination-in-chief, different grave locations, grave properties, numbers of victims found at each site, positions and conditions of the bodies that were found and cause of death, along with other evidence, such as blindfolds, were discussed.<sup>688</sup> The expert witness report is authenticated by demonstrating its internal logical coherence, external consistency with the views held by the scientific community and confirmation through the expert's oral testimony.<sup>689</sup>

As there was some controversy surrounding the work of Dr Haglund and one of his colleagues, the prosecution aimed to emphasise that Dr Haglund had been cleared of allegations of misconduct. The inquiry conducted in 1997 into the allegations confirmed that despite managerial and logistical shortfalls, the scientific validity of Dr Haglund's archaeological work had not been compromised, and if so, only through the quick pace of recovering human remains, not the methodology itself.<sup>690</sup> Although this was not mentioned explicitly during the *Popović et al.* trial, emphasising adherence to protocols can help argue for a small error margin and create the image of 'proper' science.<sup>691</sup>

In anticipation of further defence attacks on Dr Haglund's credibility, the prosecution gave Dr Haglund the opportunity to defend the anthropological methods he had employed when working in Rwanda, which had been criticised by forensic anthropologist and bestselling mystery novel author Kathy Reichs in the *Rutaganda* case.<sup>692</sup> The judges at the *Rutaganda* trial found that

the Chamber, on the basis of the testimony by Dr. Kathleen Reich [sic], a forensic anthropologist, called by the Defence as an expert witness, is not satisfied that the scientific method used by Professor Haglund is such as to allow the Chamber to rely on his findings in the determination of the case.<sup>693</sup>

### **6.2.3. LEGAL DECONSTRUCTION - 'YOU CAN ALWAYS FIND WAYS TO DISAGREE FUNDAMENTALLY OVER THE SAME RECORD'**<sup>694</sup>

Fairness demands that the opposing party must be given the opportunity to test the truthfulness of submitted evidence. One problem arising from the mixed procedural system of the ICTY is what Boas describes as

the insurmountable argument of an accused that the evidence was collected by a party to the proceedings and must be subject to the right of an accused to test that evidence in the best way possible.<sup>695</sup>

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<sup>688</sup> Ibid 8910-8912.

<sup>689</sup> Telephone interview with international judge # 2 (27 September 2007).

<sup>690</sup> *Popović et al.*, Expert Witness Testimony by Dr William Haglund (n 622) 8921.

<sup>691</sup> Similarly, as one interviewee explained, there may be instances, such as regarding the Racak incident, where the defence would be considering the protocol that was used: 'Was this a bona fide and genuine examination? What are the facilities like at this place for the forensic pathologist to come to the point of view that he did?' (personal interview with international lawyer # 7 (14 July 2007)).

<sup>692</sup> *Popović et al.*, Expert Witness Testimony by Dr William Haglund (n 622) 8922-8930.

<sup>693</sup> *Prosecutor v Rutaganda*, Judgment and Sentence, Case No ICTR-96-3-T, 6 December 1999, Trial Chamber I, para 252.

<sup>694</sup> Personal interview with international lawyer # 4 (25 April 2007).

As a consequence, primary sources of evidence and time need to be made available to the accused to allow for the appropriate level of scrutiny. However, the defence can be in a very difficult position to take issue with the presented evidence, due to the lapse of time between investigations and proceedings in court, prompting one interviewee to say that lawyers, including defence lawyers, rely upon the experts.<sup>696</sup>

One interviewee said there are two ways to challenge and legally deconstruct the presented expertise:

you use your own expert to advise you how to criticise and challenge and tests of the court appointed or prosecution expert or you call your own one to actually give their evidence, to give a different opinion.<sup>697</sup>

To unravel knowledge claims without the presence of another expert, there is no better tool than cross-examination; cross-examination, an adversarial element within the ICTY structure, aims 'to elicit information favourable to the party on whose behalf it is conducted and to cast doubt on the accuracy of evidence given against that party'<sup>698</sup> or indeed to discredit the witness.

#### 6.2.3.1. Cross-Examination

During cross-examination the opposing party can demonstrate the unreliability of an expert as a source of knowledge, present its own counter-report, and challenge the techniques employed, the findings and conclusions.<sup>699</sup> Indeed, during the testimony of Dr Haglund, the defence lawyer dwelt on the allegations of 'sloppy work' allegedly conducted by the expert.<sup>700</sup> Further, defence lawyer Mr Meek pointed out that the *Rutaganda* judgment from December 1999, which found Dr Haglund's work to be unreliable, had preceded Dr Haglund's testimony on 29 May 2000 in the *Krstić* trial. However, the fact that Dr Haglund's work had been discredited in the *Rutaganda* case was not mentioned by either party during the May 2000 session. By referring to Dr Haglund's testimony in *Krstić*, the proofing session that preceded his appearance in court and the findings of the inquiry by the committee of experts, the defence tried to destroy confidence in the truthfulness of Dr Haglund as a witness, the chain of responsibility at the sites and the chain of custody regarding evidence. Furthermore, through confronting the witness with a statement he had made at a seminar in May 2000, the defence tried to demonstrate that Dr Haglund's work was chaotic as Dr

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<sup>695</sup> Boas (2003) (n 578) 32.

<sup>696</sup> Personal interview with international lawyer # 7 (27 July 2007).

<sup>697</sup> Personal interview with international lawyer # 5 (24 April 2007).

<sup>698</sup> EA Martin and J Law (eds), *Oxford Dictionary of Law* (6th edn Oxford University Press, Oxford 2006) 142.

<sup>699</sup> International Criminal Law scholar Schabas believes that '[b]ecause expert testimony consists of the opinion of an individual, it is best answered with counter-expertise, rather than an attempt to deny its validity' (Schabas (n 530) 481).

<sup>700</sup> See *Popović et al.*, Expert Witness Testimony by Dr William Haglund (n 622) 8931.

Haglund himself referred to the four graves he had exhumed in Bosnia as a 'four-ring circus',<sup>701</sup> an idiom playing on the US American use of the term 'three-ring circus' describing confusing activities. In an attempt to discredit the witness further, the defence pointed at his lack of professional memberships as a sign of reduced professionalism, comparing it to the memberships of Dr Haglund's critic: the defence expert Dr Kathy Reichs.<sup>702</sup>

In contrast to Dr Haglund's testimony in the *Popović et al.* trial, in *Krstić* the defence's cross-examination hardly attempted to discredit the forensic evidence provided. Even defence expert Dr Zoran Stankovic, although challenging some of the forensic investigations into cause of death, claiming that some had been killed in combat, 'accepted that the exhumations were conducted by experts with "substantial professional experience and adequate technical, scientific and moral integrity".<sup>703</sup> Experts witness testimony given in *Krstić* by forensic archaeologist Prof Richard Wright,<sup>704</sup> for example, followed the same structural process as that of forensic anthropologist Dr Haglund but without the controversy surrounding the scientific methods and personal behaviour. Forensic evidence presented in *Krstić* and other trials, as discussed in section 5.1.1.3., was relied upon in judgments. Whilst Dr Haglund's testimony may not be the most typical example of how forensic science experts were treated at the ICTY, it provides a very good illustration as to how the defence aims to discredit a witness, sometimes by examining very personal circumstances. One interviewee felt it problematic that 'they [the defence] play the tricks they can' and that 'they want to attack the expert witness. It turns out to be *about* the expert witness' and not about the facts presented, let alone the victims.<sup>705</sup>

### 6.2.3.2. Counter-Expertise

The assessment of scientific merit and reliability is often achieved through the opposing party employing its own expert so that 'the same materials can be seen with other eyes'<sup>706</sup>, as one interviewee put it. If necessary, the Trial Chamber can employ an independent court expert to further explore matters of scientific methods.<sup>707</sup> The court expert evaluates the evidence and reports independently to offer an opinion, which can

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<sup>701</sup> Ibid 8971, line 3. See also: W Haglund, 'From Rwanda to East Timor: Collecting Physical Evidence of War Crimes', *Conflicts and War Crimes: Challenges for Coverage Seminar*, 6 May 2000 <<http://www.crimesofwar.org/seminars/day2-haglund-p3.html>> accessed 8 September 2008).

<sup>702</sup> *Popović et al.*, Expert Witness Testimony by Dr William Haglund (n 622).

<sup>703</sup> *Prosecutor v Krstić*, Judgment, Case No IT-98-33-T, 2 August 2001, Trial Chamber I.

<sup>704</sup> *Prosecutor v Krstić*, Expert Witness Testimony by Prof Richard Wright, Transcript, Case No IT-98-33-T, 25 May 2000, Trial Chamber I, 3633-3642.

<sup>705</sup> Personal interview with forensic expert # 6 (15 September 2007).

<sup>706</sup> Telephone interview with international judge # 2 (27 September 2007).

<sup>707</sup> Forensic odontologist Helena Ranta, for example, was called during the *Milošević* trial as a court witness to provide information on the Racak incident and the work the European Union Forensic Expert Team conducted in cooperation with Serbian experts (see *Milošević*, Court Witness Testimony by Dr Helena Ranta (n 618)).

be utilised by either side or ignored by both. Whilst in the case of mortuary work, re-examinations should be possible unless the human remains were buried, cremated or the sheer scale of re-examination is impractical, as already mentioned, reproducibility of excavation results is a problem, as the original analysis and observation cannot be repeated. Re-investigations of the same crime scenes and mass graves are impossible because archaeology is a destructive process. Experts can thus only provide opinions on their colleagues' work on the basis of the report and visual documentation, such as video recordings and photographs, a process with clear limitations. This is why reports and recordings are very detailed in the first instance.

In any event, reviewing reports and providing counter expertise for the opposing party function as a quality check, justifying or discrediting the scientific methods, process and knowledge. Any epistemological and methodological faults are thus detected from within the scientific community, facilitated by the lawyer and the procedural structures of the Tribunal, rather than safe-guarded by the judges from the outset.

#### **6.2.4. WEIGHING EVIDENCE**

Fact-finders need to attribute the appropriate weight to expert witness testimony and the evidence presented. Throughout the expert witness testimony, they try to establish whether the expert is honest, independent and impartial and whether the work has been conducted according to current scientific standards adopted by the scientific community. According to Zahar and Sluiter (2008), '[c]ross-examination, giving evidence under oath, and the direct perception of the witness's demeanour are key factors in attaching weight to live testimony.'<sup>708</sup> Essentially, judges employ a combination of legal rules, normative values, common sense, and logical consistency when weighing the evidence.

##### **6.2.4.1. Credibility and Reliability**

Of course, simply asserting and establishing that a 'scientific expert' is indeed a scientist according to his or her qualifications, does not answer the question as to how well the work was conducted.<sup>709</sup> Yet one interviewee explained that 'once you know the professional qualifications of a person presenting the evidence, [...] you have no reason to doubt its good faith. And then its reliability is tested by cross-examination.'<sup>710</sup> Given that judges can ask questions in court, this provides a further opportunity for judges to clarify points regarding the expert report and testimony. If there is a choice between two conflicting but, as far as the judges can tell, equally valid opinions, the question arises as to which expert opinion to chose. 'And one of the principal reasons for having greater confidence', as one interviewee described, 'would be total impartiality rather than

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<sup>708</sup> Zahar and Sluiter (n 636) 393.

<sup>709</sup> See DL Faigman (n 541).

<sup>710</sup> Personal interview with international judge # 3 (3 October 2007).



somebody who worked for an organisation that wanted to prove that a massacre took place.<sup>711</sup> Naturally the decision as to which account to believe in is also determined by other complementing evidence, such as eye witness accounts. However, expert independence and impartiality in their presentation of findings as normative requirements are of great importance to the judges and emphasise the need for strict ethical codes within the forensic professions.<sup>712</sup>

Due to the novelty of the mass grave exhumation activities, logistical shortfalls, administrative difficulties and managerial inexperience, the expertise of the forensic scientists testifying can be limited as demonstrated in the example above.<sup>713</sup> A dispute between experts regarding the validity of a chosen method can indeed result in a ruling that expresses its dissatisfaction with the scientific methods employed and refutes the findings.<sup>714</sup> Some scientific uncertainties and probabilities regarding the evidence, however, may be irresolvable.

Nonetheless, given the good track record of scientific explanations, judges seem to have faith in scientific methods as such and if the relevant ethical principles are followed, only in exceptional circumstances can the results be challenged. As science can provide powerful corroboration of other evidence, it helps judges come to a verdict that is beyond reasonable doubt.

In general, forensic evidence 'isn't that controversial'<sup>715</sup> and falls predominantly in the category of crime-related evidence and only occasionally contributes to evidence concerning the guilt or innocence of the accused. As described above, the importance of forensic investigations into mass atrocity crimes rests not so much on finding a single piece of evidence which links the perpetrator to the victim, but rather in recovering evidence regarding the systematicity behind the crime, the identification of the victims as a targeted group and the number of bodies. Whilst the actual work at the grave requires the highest level of attention, accuracy and methodological knowledge, the evidence eventually presented in court depicts a much more broad-brush picture of crime scenes and victims.

#### 6.2.5 'FORENSIC AND LEGAL TRUTH'

The attempt to create a unique international criminal practice through merging civil law and common law traditions has attracted much controversy. A flexible approach towards the admissibility of evidence is routinely justified on the basis that tribunals such as the ICTY operate with professional fact-finders committed to determining objective truth.

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<sup>711</sup> Ibid.

<sup>712</sup> Telephone interview with international judge # 2 (27 September 2007).

<sup>713</sup> Dr Haglund made it clear in his testimony that his report was the first of its kind: 'nobody had ever put together a report on multiple remains like this ever before in history' (*Popović et al.*, Expert Witness Testimony by Dr William Haglund (n 622) 9004).

<sup>714</sup> *Rutaganda*, Judgment and Sentence (n 693) para 257.

<sup>715</sup> Personal interview with international judge # 3 (3 October 2007).

Critics say that this amalgam creates an 'uncertain, obscure, and unworkable body of law that does not expedite proceedings, but offers numerous possibilities for parties to submit motions for the exclusion of evidence'.<sup>716</sup> Others contend that judicial liberality results in the generous admission of evidence which serves only to prolong proceedings and complicate the task of adjudication.<sup>717</sup> This may well be the case for evidence before the ICTY in general and the admission of hearsay evidence without indicia of reliability or documentary evidence without evidence of authenticity in particular. What would the implications of tighter rules of evidence regarding expert evidence, and scientific evidence in particular, be?

Experience in the United States post-*Daubert*<sup>718</sup> amply demonstrates the limitations of rules of admissibility for the purposes of assessing scientific validity.<sup>719</sup> Law-and-science scholar Jasanoff (2005) explains that by introducing a new threshold for the admissibility of scientific evidence '[i]t became a question of law, to be decided by judges, whether expert evidence is sufficiently scientific to merit consideration in legal fact-finding'.<sup>720</sup> In other words, judges were asked to assess science as scientists would, a role that judges are perhaps not really equipped for. Furthermore, tighter rules of evidence, as proposed by *Daubert*, rely on the positivistic assumption that an uncompromising nucleus of scientific methods and techniques exists. This, argues Jasanoff, can result in uncritical reliance on science which may defeat the interests of justice.<sup>721</sup>

The small body of Rules of Procedure and Evidence adopted by the ICTY reflect implicit faith that communication between science as a fundamentally truth-seeking enterprise and the law as a justice-seeking activity is possible and that legal procedure will facilitate accurate truth-finding. The argument that such an approach makes judges appear to be naïve believers in the integrity of forensic scientists, their working systems and employers, is dispelled by the adversarial mechanisms of examination-in-chief, cross-examination, and counter-expertise. The task of truth-finding in relation to

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<sup>716</sup> Zahar and Sluiter (n 636) 394.

<sup>717</sup> P Murphy, 'Excluding Justice or Facilitating Justice? International Criminal Law would Benefit from Rules of Evidence' (2008) 12(1) *International Journal of Evidence and Proof* 1.

<sup>718</sup> *Daubert v Merrell Dow Pharmaceuticals* (92-102), 509 U.S. 579 (1993).

<sup>719</sup> The *Daubert* Guidelines determine whether expert evidence is scientific and therefore admissible under Federal Rule 702 in US courts, as summarised by Christensen:

1. The content of the testimony can be (and has been) tested using the scientific method.
2. The technique has been subject to peer review, preferably in the form of publication in peer reviewed literature.
3. There are consistently and reliably applied professional standards and known or potential error rates for the technique.
4. Consider general acceptance within the relevant scientific community (AM Christensen, 'The Impact of *Daubert*: Implications for Testimony' (2004) 49(3) *Journal of Forensic Sciences* 427, 428).

<sup>720</sup> Jasanoff (2005) (n 533) 57.

<sup>721</sup> *Ibid.*

scientific evidence avoids judges having to think like scientists; yet it allows them to weigh the evidence in light of scrutiny by counter-experts, cross-examination and normative elements, many of which are linked to the professional ethos of forensic scientists. As discussed, Rules 94 *bis* and 95 of the ICTY's RPE provide for the qualifications of experts and the reliability of evidence to be considered. While evidence obtained by methods which result in unreliable findings is to be excluded, it does not have to be excluded before being discussed in court. Questions of methodology, reliability, credibility, independence and impartiality are addressed through the process of live testimony in court, and evidence can be excluded or weighed accordingly thereafter. It is through the forensic scientists themselves, facilitated by the legal procedures, that any epistemic and methodological problems or questions of conduct come to light.

During atrocity crime investigations, forensic science successfully creates evidence within a legal context. Forensic evidence from mass graves is from the outset inherently limited in its construction through its link with the prosecution, practitioners' vulnerability to context effects and the forensic disciplines' limits as applied sciences. Unlike pure science, forensic science applies techniques and principles derived from science on specific legal contexts with the aim to provide information. Yet forensic investigations yields vital expert information for the court where it is used to bolster legal narratives. The chapter has identified that a consensus and a coherent methodological, procedural and ethical approach within the disciplines involved in mass grave exhumations would enhance the rigour of the forensic findings and make forensic practitioners less prone to attacks.

Despite important and relevant concerns by philosophy of science about the epistemological foundations of science, and forensic science in particular, and the many debates regarding the law-science interface, the reality is that confidence in scientific method is not misplaced. Or, as philosopher Blackburn puts it, '[t]here may be rhetoric about the socially constructed nature of Western science, but wherever it matters, there is no alternative.'<sup>722</sup> Whilst the limits of 'forensic truth' are apparent, evidence generated through forensic science increases the independence and impartiality of facts. Despite the constructed nature of 'forensic truth', it is invaluable to international criminal justice because it produces a truth of its own which helps with effective fact-finding and adjudication. The presentation of physical evidence from mass graves in court makes it very difficult to deny that hundreds of Bosnian Muslim men were executed.<sup>723</sup>

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<sup>722</sup> S Blackburn, *Truth: A Guide for the Perplexed* (Penguin, London 2006) 196.

<sup>723</sup> Even if the forensic account and the judgment had come to different conclusions, as Nelken asks, would that have been a failure of either forensic or legal operations or rather 'an unavoidable and even desirable result of having correctly working institutions?' (D Nelken, 'A Just Measure of Science' in: M Freeman and H Reece (eds), *Science in Court* (Aldershot, Ashgate 1998) 13). Could they not have produced legitimate but different versions of the same facts? It would be worth examining the communication and discourses between law and forensic science, whether there is a

It comes as no surprise that judges, when concerned with legal fact-finding, assess the value of forensic science on a case-specific basis and are more concerned with normative principles as opposed to methodological foundations of scientific evidence. And in many respects, this position resembles philosophical pragmatism. It holds the view that thinking processes include doubts and beliefs, but ultimately have to guide action. In the words of Rorty (1991), the core of pragmatism is 'to replace the notion of true beliefs as representations of "the nature of things" and instead to think of them as successful rules for action'.<sup>724</sup> Fact-finders are required to weigh the evidence and render justice. This pragmatic position

rejects the positivist belief in an unchanging, objective, universal truth while at the same time rejecting the skeptical or relativist proposition that there is no truth. Pragmatism recognizes the tentative and context-dependent quality of knowledge, but posits that practical action is possible and necessary in the face of this uncertainty. Pragmatism embodies respect for the power of argumentation and persuasion in producing such action.<sup>725</sup>

The forum for argumentation, discussion and persuasion between the parties, along with their respective forensic science experts, is provided by the ICTY. The output could be described as 'legal truth'. Indeed, replacing a quest for 'the truth' with the more modest aim of establishing 'a truth', may be more appropriate, especially since all legal systems, including the ICTY, are also socially constructed and rely on political will. A study into the perception of justice, accountability and social reconstruction amongst Bosnian judges and prosecutors suggested that 'a historical record with a legal imprint'<sup>726</sup> in the manner of the ICTY is not always acceptable to them. The study's finding states that

[a]lthough international trials render verdicts based on an examination of "facts," the responses of our participants indicate that their perception of truth may outweigh the facts as determined by an international body.<sup>727</sup>

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need for a platform to debate the contrasts and potential conflicts between law and science, and whether they really exist or not. (For a starting point to this debate see D Nelken, 'Are Disputes between Law and Science Resolvable?' in: JF Nijboer, CR Callen and N Kwak (eds), *Forensic Expertise and the Law of Evidence* (North Holland, Amsterdam 1993)).

<sup>724</sup> R Rorty, 'Pragmatism without Method' in: R Rorty, *Objectivity, Relativism and Truth. Philosophical Papers Vol. I* (Cambridge University Press, Cambridge 1991) 66.

<sup>725</sup> EA Scallen and WE Wiethoff, 'The Ethos of Expert Witnesses: Confusing the Admissibility, Sufficiency and Credibility of Expert Testimony' (1998) 49 *Hastings Law Journal* 1143, 1148.

<sup>726</sup> Y Naqvi, 'The Right to the Truth in International Law: Fact or Fiction?' (2006) 88(862) *International Review of the Red Cross* 245, 246.

<sup>727</sup> The Human Rights Center and the International Human Rights Law Clinic, the University of California, Berkeley, and the Centre for Human Rights, University of Sarajevo, 'Justice, Accountability and Social Reconstruction: An Interview Study of Bosnian Judges and Prosecutors' (2000) 18 *Berkeley Journal of International Law* 102, 151. When questioned whether genocide had happened anywhere in Bosnia-Herzegovina, all Bosniak legal professionals agreed that genocide against Bosniaks had occurred, while Bosnian Serb respondents' answers were more mixed: some acknowledged that genocide had happened against all sides, others said they had no knowledge of crimes qualifying as genocide or that genocide had not happened.

Those directly involved in Yugoslavia's violent disintegration are often dissatisfied with the legal truth emerging from the ICTY, because they want what one interviewee described as 'moral truth':<sup>728</sup> an account of why these atrocities happened. However, this type of truth, whilst part of the transitional justice mix, is not achievable through 'legal truth' and 'forensic truth' alone.<sup>729</sup>

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Bosnian Croat legal professionals, again, acknowledged that genocide had happened but that all three sides had been subjected to it (ibid 147-148).

<sup>728</sup> Telephone interview with researcher/academic # 2 (10 September 2007).

<sup>729</sup> Other transitional justice mechanisms working towards truth, such as truth commissions, may therefore be necessary to achieve a level of truth desired by victims.

## 7. Interaction and Exchange between Forensic, Investigative and Legal Practitioners

In domestic contexts, the structures and working procedures between forensic scientists, the police and the use of forensic evidence in court are defined and adhered to.<sup>730</sup> In international contexts, however, although the roles may be defined, the interplay is less well understood, the mandates can be unclear and the whole process is bound to be 'leavened by ad hocery'.<sup>731</sup> Forensic scientists involved in exhumations in the former Yugoslavia have indicated shortcomings in interaction and procedures: Steadman and Haglund (2005) note a lack of standard reporting measures.<sup>732</sup> Skinner and Sterenberg (2005) seem unclear as to who is ultimately accountable for investigations and their results. They assume that responsibility lies with the authorities who commissioned forensic investigations.<sup>733</sup> Stover and Shigekane (2002) voiced concerns that some experts may not be adequately prepared for international investigations and requested appropriate training.<sup>734</sup> In response to these potential shortfalls, scholars demand that applicants be scrutinised before working for human rights causes<sup>735</sup> and urge forensic experts to remember their obligations to legal institutions as well as the families of the missing.<sup>736</sup> With reference to a number of international experiences of forensic mass grave exhumations, anthropologists Haglund and Sirkin (2001) identified that better

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<sup>730</sup> See J Hunter and M Cox, *Forensic Archaeology: Advances in Theory and Practice* (Routledge, London 2005) and T Rothwell, 'Presentation of Expert Forensic Evidence' in: P White (ed), *Crime Scene to Court: The Essentials of Forensic Science* (The Royal Society of Chemistry, Cambridge 1998).

<sup>731</sup> M Skinner and J Sterenberg, 'Turf Wars: Authority and Responsibility for the Investigation of Mass Graves' (2005) 151(2) *Forensic Science International* 221, 222.

<sup>732</sup> DW Steadman and WD Haglund, 'The Scope of Anthropological Contributions to Human Rights Investigations' (2005) 50 *Journal of Forensic Sciences* 23.

<sup>733</sup> Skinner and Sterenberg (n 731).

<sup>734</sup> Referring to the International Committee of the Red Cross, they demand that the forensic staff

- be qualified and competent to work in the process of exhuming and conducting post-mortem examinations of the remains of missing persons;
- advocate the development of a process to identify the dead and observe and record all crime scene and post-mortem information potentially relevant to identification
- refrain from destroying material that may be used for future identification purposes;
- consider the families' rights and needs before, during, and after exhumation;
- be familiar with the pertinent provisions of international humanitarian and human rights law, and promote their incorporation in forensic training programmes; and
- know the ethical boundaries of their work (E Stover and R Shigekane, 'The Missing in the Aftermath of War: When do the Needs of Victims' Families and International War Crimes Tribunals Clash?' (2002) 84 *International Review of the Red Cross* 845, 864).

<sup>735</sup> E Stover and M Ryan, 'Breaking Bread with the Dead' (2001) 35(1) *Historical Archaeology* 7, 23.

<sup>736</sup> Stover and Shigekane (2002) (n 734).

psychological preparation, support and debriefing for forensic teams is necessary.<sup>737</sup>

Furthermore they paint a bleak picture of the strains the forensic missions in 1996 exerted on the forensic staff:

The work was grim. The hours were long and arduous with added stresses associated with living conditions, exhaustion, security, and deadlines, always deadlines. The rainy season arrived, then the cold weather, yet we had not completed the work. The mud was so deep in the floors of later Bosnian graves that a step would plunge ones wellies into the mud and, when trying to extract oneself for the next step, the wellie would remain stuck as one stepped out of it. Many were drained physically and psychologically.<sup>738</sup>

These comments suggest that improvements in the way forensic investigations of mass graves are planned, organised and scientifically executed can be made. Insufficient cooperation and a lack of dialogue between lawyers, investigators and forensic scientists can have a negative effect not only upon the investigation but also upon the trial itself:

If the prosecutor is unaware of what information can be derived, from a scientific point of view, from a cadaver or bloodstain at the discovery site, it may be difficult to know whether the expert examination presented in court is complete.<sup>739</sup>

Thematic analysis of the interviews systematically identified the areas in which the interaction between forensic experts, investigators and lawyers is suboptimal. The analysis concentrates on aspects that could be improved without reporting positive remarks that interviewees made about their forensic investigative experiences under the auspices of the ICTY. After defining the nature of interaction between the forensic, investigative and legal professions during mass grave investigations, exchange theory is introduced, the tool through which this study analyses the interaction. The purpose of this chapter is:

1) to provide a brief overview of the interaction during the three key stages of forensic mass grave investigations:

- pre-investigation stage (section 7.2.);
- investigation stage (section 7.3.); and
- trial stage and beyond (section 7.4).

A separate template will be introduced at the beginning of each of the three stages to thematically outline the structure of the discussion that follows.

2) to identify issues or potential issues at each stage.

3) to offer solutions to the issues emerging during the interaction.

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<sup>737</sup> WD Haglund and S Sirkin, 'Surviving with the Dead: Forensic Investigations in the Service of Human Rights' in: Y Danieli (ed), *Sharing the Frontline and the Back Hills: International Protectors and Providers: Peacekeeping, Humanitarian Aid Workers and the Media in the midst of Crisis* (Baywood, New York 2001).

<sup>738</sup> Ibid 263-264.

<sup>739</sup> L Fondebrider, 'Reflections on the Scientific Documentation of Human Rights Violations' (2002) 84 *International Review of the Red Cross* 885, 890.

- 4) to synthesise the recommendations into a model of interaction, issues and solutions to facilitate improved future interaction.

### **7.1. Exchange Theory**

The first question that needs clarification relates to the nature of interaction that occurs during mass grave investigations. Terms such as cooperation and collaboration are often mentioned to describe ways of social interaction; cooperation, for example, can be defined as a procedure in which individuals, groups or organisations come together to form relationships that give each party reward or benefit.<sup>740</sup> No matter whether cooperation is vertically or horizontally linked, formal or informal, loosely aggregated or organised, task-oriented or relationship-focused, cooperation, at any level, can ultimately be reduced to individual interaction.<sup>741</sup> Another definition, that of collaboration, is offered by Huxham and Vangen (2005):

In generic terms, the broad purposes of collaboration may be concerned, at one extreme, at the strategic level with advancement of a shared vision, or, at the other extreme, with the delivery of a short-term project. They may require, at one extreme, considerable joint investment or, at the other, merely the development of a relationship and some exchange of information.<sup>742</sup>

This definition is useful for this study as the level of interaction during the forensic missions in the former Yugoslavia is best described through short-term projects that resulted in the production and exchange of evidence and information, whilst demanding considerable investment by the persons involved in such projects, as it required them to work away from home under extreme working and living conditions.<sup>743</sup> Forensic staff were contracted by the United Nations to embark on these missions and the actors exchanged knowledge, with the aim of reconstructing and understanding past events.

Given that the interaction between forensic experts and representatives of the OTP can ultimately be reduced to individual interaction and the exchange of valued goods (information, evidence and knowledge), this chapter uses exchange theory to facilitate and structure the analysis. Exchange theory<sup>744</sup> – a theoretical research perspective<sup>745</sup> – illuminates the nature of these interactions which form the basis for

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<sup>740</sup> KG Smith, SJ Carroll and SJ Ashford, 'Intra- and Interorganizational Cooperation: Toward a Research Agenda' (1995) 38 *The Academy of Management Journal* 7.

<sup>741</sup> *Ibid.*

<sup>742</sup> C Huxham and S Vangen, *Managing to Collaborate* (Routledge, London 2005) 5.

<sup>743</sup> For a (literary) account of the way forensic staff live and work during mass grave investigations, see C Koff, *The bone woman: a forensic anthropologist's search for truth in the mass graves of Rwanda, Bosnia, Croatia, and Kosovo* (Random House, New York 2004).

<sup>744</sup> Exchange theory within sociology has its origins in the 1960s - its main advocates are Georg Casper Homan, Peter M Blau, Richard M Emerson and Karen Cook.

<sup>745</sup> Smith and his colleagues identify exchange theories, attraction theories, power and conflict theories, modeling theories and social structure theories to be the most popular approaches to studying cooperation (Smith, Carroll and Ashford (n 740)).



cooperation between lawyers, investigators and forensic scientists at various stages of forensic missions. Exchange theory derives from rational choice theory in economics and the analysis of relationships and exchanges.<sup>746</sup> In particular, social exchange theory (as opposed to purely economic exchanges) relates to many disciplines such as anthropology, sociology and psychology. In general terms, exchange theorists

advance a basic image of social structure as a configuration of social relations among others (both individuals and corporate), where the relations involve the exchange of valued items (which can be material, informational, symbolic, etc.).<sup>747</sup>

Based on the assumption that most interpersonal relations are exchange relations, the theory relies on the following premises:

- Actors, and as a consequence their behaviour, are motivated by interests, rewards or punishments.
- Interactions are based on the exchange of valued items.
- Social interaction and its outcomes satisfy some of the interests of the actors.

Over the years, many variations of exchange theory have evolved and concentrate with differing degrees on exchange structures such as: 1) *direct exchange* between two actors; 2) *generalised exchange* with more than two actors and indirect dependence, and 3) *productive exchange* when two actors both need to engage and work together in order to benefit.<sup>748</sup> However, core analytical concepts and their meaning have remained the same.

- Exchange actors: individuals or groups;
- Exchange processes: interactions in which exchange occurs;
- Exchange resources: the valued items that are exchanged;
- Exchange structure: dependent relations which sustain the exchange; and
- Exchange networks: more than two *connected* dyadic exchange relations. A connection exists where the frequency and value in one exchange process affects the frequency and value in another.<sup>749</sup>

Exchange theorists believe that if a social relationship is balanced, if the benefits and costs of the 'give-and-take' process are equal, then the relationship is stable and likely to continue. This, in many respects, is a trivial claim: if the process of 'give-and-take' between representatives of the OTP and forensic experts satisfies most of the actors' interests and motivations to participate, then the cooperation is likely to be perceived to be smooth. If, however, exchanges are predominantly unilateral, and the relationship becomes one of power and dependence, then the relationship can become contentious and unsatisfactory for at least one party or group. Social exchange theories have been employed to explore and explain themes of power, commitment, trust, risk, uncertainty

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<sup>746</sup> H Hall, 'Borrowed Theory: Applying Exchange Theories in Information Science Research' (2003) 25 *Library & Information Science Research* 287.

<sup>747</sup> KS Cook and JM Whitmeyer, 'Two Approaches to Social Structure: Exchange Theory and Network Analysis' (1992) 18 *Annual Review of Sociology* 109, 110.

<sup>748</sup> Hall (n 746).

<sup>749</sup> *Ibid* 289.

and knowledge sharing which have been identified as critical elements for successful relationships.<sup>750</sup>

The author acknowledges that to examine the interaction occurring during investigations through exchange theory does not necessarily account for intra-group dynamics that may emerge during such interactions.<sup>751</sup> Nonetheless, when interviewees articulated conflicts of interest arising between the various professions, these have been integrated into the analysis. It is through the lens of exchange theory that interactions are explained and issues arising from the interaction become apparent.<sup>752</sup> Adopting this approach enables an alternative and complementary view to that expressed by lawyers and forensic scientists and helps address questions of relations such as knowledge exchange, communication and understanding between the actors.

## **7.2. Pre-Investigation Stage**

Prior to taking the decision to conduct forensic investigations and to plan for them adequately, many factors need to be taken into consideration (as discussed in chapter five). The following section will examine the processes involved during this pre-investigation stage and the template (Figure 13) provides an overview of the themes covered.

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<sup>750</sup> Ibid.

<sup>751</sup> M Zafirovski, 'Some Amendments to Social Exchange Theory: A Sociological Perspective' [2003] *Theory & Science* <[http://theoryandscience.icaap.org/content/vol004.002/01\\_zafirovski.html](http://theoryandscience.icaap.org/content/vol004.002/01_zafirovski.html)> accessed 9 February 2007.

<sup>752</sup> It is worth clarifying that the author does not intend to contribute to the advancement of exchange theory as such which can be seen to be 'content empty' (ibid 349), but rather to use this theory to propose solutions and recommendations that will improve the interaction between the professions during international criminal investigations of mass graves.

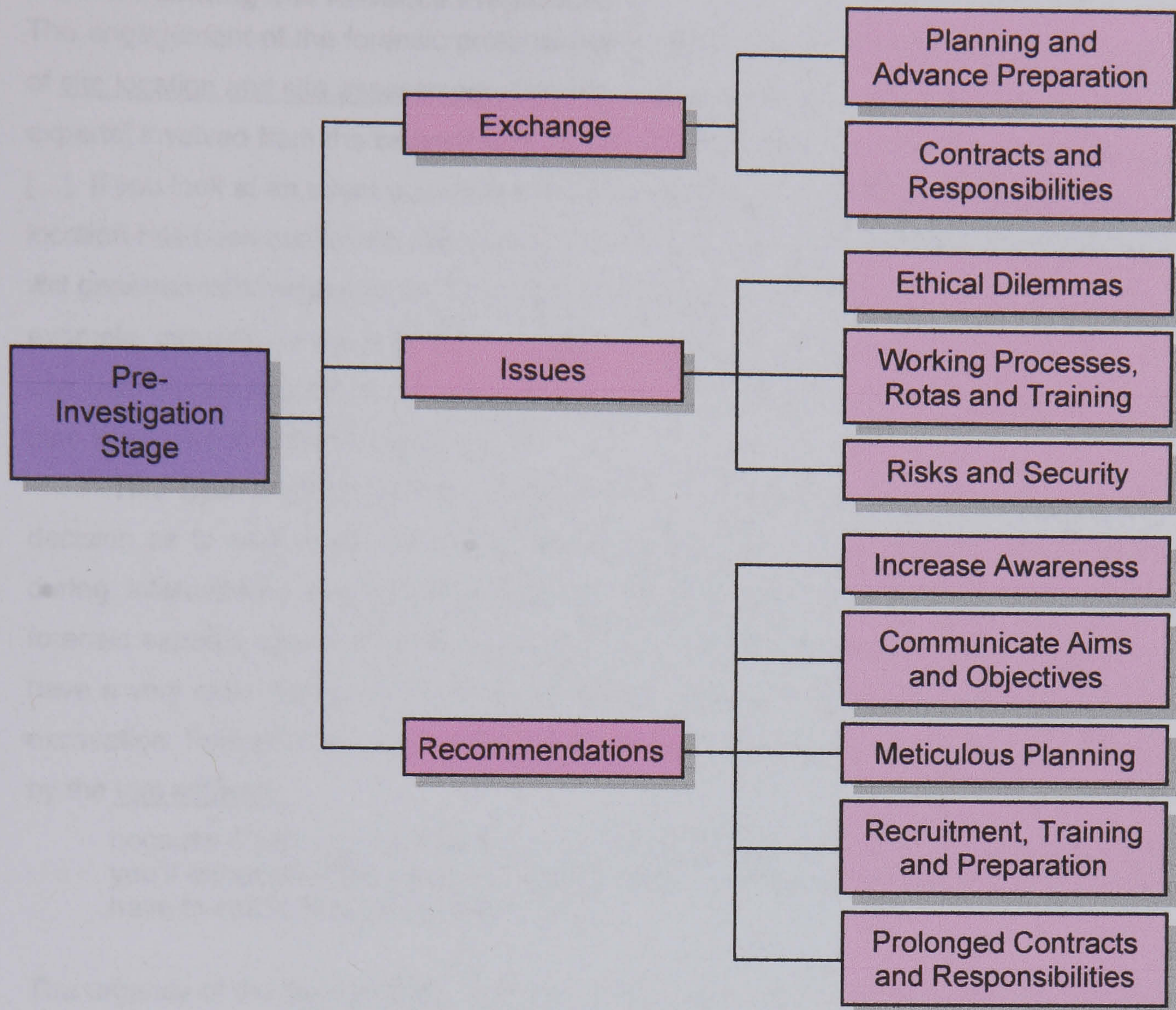


Figure 73: Pre-Investigation Stage

### 7.2.1. EXCHANGE

The actual cooperation and exchange only occurs once the prosecutor has identified that forensic evidence is required to present a particular case. It is then that 'work should commence to build up a working relationship with the forensic side.'<sup>753</sup> It is not the forensic professionals approaching the OTP – it is the OTP actively seeking the services of forensic experts. The following sub-themes 1) planning and advance preparation and 2) responsibilities and contracts have emerged from the data; the various exchange processes will be examined for each of these themes before the issues arising during such interaction are discussed and recommendations presented.

<sup>753</sup> Telephone interview with international lawyer # 1 (22 May 2007).

### 7.2.1.1. Planning and Advance Preparation<sup>754</sup>

The engagement of the forensic professional begins in the planning phase with the task of site location and site assessment. One interviewee explained that 'you want them [the experts] involved from the beginning to identify potential sites that fit within your strategy [...]. If you look at an event you want that site to be linked to that event.'<sup>755</sup> Once a grave location has been confirmed, the experts are asked to conduct a site assessment as this will generate information for the planning of the mission. The accessibility of the site, for example, impacts on the amount of logistics required, the 'condition of the remains', as one interviewee described, 'is going to be a primary variable in estimating how much time it will take to exhume the grave.'<sup>756</sup>

This type of information is provided by the forensic expert and will influence the decision as to what sites are to be exhumed and which fit the cases best. Ultimately during international criminal investigations site selection is a decision beyond the forensic expert's control and investigators, from their preliminary investigations, should have a very clear idea of what evidence will be found in the grave before proposing its excavation. Furthermore, the decision when to excavate a particular grave is influenced by the trial schedule

because if you've got a trial starting and you haven't done your exhumations, then you'll either lose the evidence, which could be critical or alternatively you might have to ask for the trial to be put off.<sup>757</sup>

The urgency of the task impacts upon the number of forensic staff required to complete the work. However, before each excavation season, the senior forensic scientist in charge would meet investigators and prosecutors to discuss the feasibility of the proposed forensic missions. Ultimately, said one interviewee, 'a programme was drawn up of what we would do, what our objectives would be for the field season which normally ran from April through to the end of October.'<sup>758</sup> During these meetings forensic experts can take the opportunity to explain what forensic sciences such as forensic

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<sup>754</sup> The following section focuses predominantly on the planning of forensic missions after 1997, because the interaction between Physicians for Human Rights and the Office of the Prosecutor is not representative of the work that was conducted between 1997 and 2001. The cooperation between PHR and the OTP was, according to one interviewee,

very, very poorly organised. You had the UN and PHR and this kind of odd relationship in that PHR was [...] serving as a consultant or a contractee [sic] for the UN, the prosecutor [...] to do the work both in Rwanda and in the former Yugoslavia (telephone interview with forensic expert # 1 (17 March 2008)).

<sup>755</sup> Personal interview with international lawyer # 4 (25 April 2007).

<sup>756</sup> Telephone interview with forensic expert # 6 (15 September 2007).

<sup>757</sup> Personal interview with investigator # 5 (3 October 2007).

<sup>758</sup> Telephone interview with forensic expert # 8 (16 May 2007).

archaeology and anthropology can achieve given the circumstances.<sup>759</sup> One interviewee summed up the decision-making procedure as

a process where there was consultation and no dictatorial attitude. It was a case of anyone who had something to say was given the opportunity to say it, but ultimately it was the prosecutor's decision and those decisions were made on advice. In that sense [...] it's the prosecutor who had the responsibility of making the decision and giving the order.<sup>760</sup>

Then, the actual planning of logistics, resources and equipment can commence. Furthermore, insurance as well as a risk assessment with appropriate health and safety mitigation provisions need to be discussed and put in place, given that many of the forensic missions in relation to Srebrenica were conducted on Bosnian Serb controlled territory. Sites had to be examined for unexplored ordnance, military escorts to and from the site had to be organised and often simple provisions such as fresh drinking water or power supplies at the mortuary were lacking.<sup>761</sup> These elements of planning, whilst crucial, can be 'difficult [...] in a war situation, when there is actually fighting going on; the best plans can change very quickly.'<sup>762</sup>

Forensic team leaders responsible for the scientific work, such as the Chief Forensic Archaeologist or Chief Forensic Anthropologist, ought to be included in the planning process to provide advice from the forensic point of view. They can be given the responsibility for some of the planning, including the identification of suitable forensic team members. This two-way communication ensures that forensic staff know

what it was that the prosecution was after so that the forensic team was just not following its own agenda but rather that they were meeting a need that had been identified and passed to them.<sup>763</sup>

#### 7.2.1.2. Contracts and Responsibility

After the excavation season in 1996, during which forensic missions were outsourced to Physicians for Human Rights, in consecutive years the OTP had its forensic teams work as UN employees.<sup>764</sup> The UN agreement terms for contractors state briefly the generic rules and regulations for the duration of their work:

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<sup>759</sup> One interviewee mentioned that 'the prosecutors, the lawyers, really didn't know much about the forensic science, what could be done and how fast it could be done and things of that sort' (telephone interview with forensic expert # 1 (17 March 2008)).

<sup>760</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>761</sup> R Wright and I Hanson, 'How to do Forensic Archaeology under the Auspices of large Organisations like the UN' in: S Blau and DH Ubelaker (eds), *Handbook of Forensic Archaeology and Anthropology* (Left Coast Press, Walnut Creek 2009).

<sup>762</sup> Telephone interview with researcher/academic # 2 (10 September 2007).

<sup>763</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>764</sup> See section 4.1.2. This, of course, changed again for the Kosovo missions, when in 1999 states sent gratis teams to the region. One interviewee said that those missions were 'not really coordinated forensic operation. They just followed the action of NATO troops' (personal interview with forensic expert # 2 (3 October 2007)). Forensic practitioners were working under the umbrella of the ICTY, but were actually seconded by their home governments and not employed by the ICTY.

On arrival in the mission area, you will be briefed on ICTY regulations regarding both professional conduct and media policy and will be expected to comply with these. You will not be permitted to take private photographs or video at the exhumation or morgue site.<sup>765</sup>

In addition, the duties of the individual contractor are specified; the example provided in Appendix R states that the forensic expert was responsible for

- Global positioning to document location of site
- Survey site-grid system to be laid out
- Surface evidence mapped on grid system
- Reports to Chief Archaeologist.<sup>766</sup>

Furthermore, as one interviewee asserted, declarations had to be signed by the contractors to the effect that they would be willing to give evidence in court.<sup>767</sup> One interviewee mentioned that once the OTP created its own forensic team, it was established

what they could tell the press and what they couldn't [...]. And there were standard operating procedures and protocols about how they'd do the examination, how they record the results, so we had a whole standard process in place.<sup>768</sup>

However, these operating protocols that the experts were meant to adhere to were designed by senior forensic staff in conjunction with representatives of the OTP.

For the duration of the mission, the overall mandate from the Security Council allowing the ICTY to both investigate and prosecute was applicable and therefore the legality of the forensic investigation was assured.<sup>769</sup> Within the parameters of the mass grave or the morgue, the senior forensic expert was in charge with other members<sup>770</sup> of the team accounting to him or her. Whilst this system within the forensic team seems to have worked well, it appears that it was less clear whom the forensic team leader was ultimately answerable to.<sup>771</sup> As far as contracts and responsibilities are concerned, the interaction between forensic science and OTP staff is shaped by Human Resource requirements which can be reduced to a relatively simple one-way communication from the ICTY to the forensic experts. Wright and Hanson (2009) do, however, suggest that at

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<sup>765</sup> UN, Special Service Agreement, courtesy of Ian Hanson, Appendix R.

<sup>766</sup> Ibid.

<sup>767</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>768</sup> Telephone interview with investigator # 4 (28 June 2007).

<sup>769</sup> The literature suggests that forensic staff want to be re-assured that legal issues are resolved, mandates are clear and permission is obtained to conduct forensic investigations (see for example H Ranta and KT Takamaa, 'Crimes against Humanity and Other War Crimes' in: T Thompson and S Black (eds), *Forensic Human Identification: An Introduction* (CRC Press, Boca Raton 2007) and J Rainio and others, 'Practical and Legal Aspects of Forensic Autopsy Expert Team Operations' (2001) 3 *Legal Medicine* 220).

<sup>770</sup> According to one interviewee, junior members of staff were recruited only for excavations once they had been part of an internship programme where they would spend four weeks in the field and four weeks in the mortuary (personal interview with forensic expert # 9 (28 March 2007)).

<sup>771</sup> Telephone interview with forensic expert # 8 (16 May 2007).

this pre-investigation stage the forensic expert should ask the future employer whether insurance issues, accident and emergency provisions and other forms of protection have been taken into account and are guaranteed by the authority.<sup>772</sup>

### 7.2.2. ISSUES

Striking the right balance of communication when engaging with forensic staff can be problematic (see section 6.1.2.1. on case construction) and this was clearly expressed by one of the interviewees:

you have to make sure that you don't interfere with their sphere of competence and you have to make sure that they know what they're supposed to do or not do in terms of legal framework. So you don't tell them how to do it but you tell them what they need to do.<sup>773</sup>

The following section will concentrate on the three main themes that have emerged from the data as potentially causing issues during the interaction at the pre-investigative stage: 1) ethical dilemmas, 2) rotas and training, and 3) personal safety.

#### 7.2.2.1. Ethical Dilemmas

The fact that the scope of forensic missions is governed by pragmatic prosecutorial and investigative purposes can clash with the forensic experts' ethical principles. The three main areas where an ethical dilemma may arise are site selection, identification and liaison with the local people. In a study on ethical considerations of forensic pathologists involved in ICTY missions, the authors distinguish between 'conviction ethics' and 'responsibility ethics'.<sup>774</sup> In their discussion they propose that some forensic experts subscribe to conviction ethics: they believe in the need for and value of international criminal justice. To those experts, tribunals have the potential to bring justice to the victims and their families whilst holding those who committed heinous crimes accountable. Responsibility ethics, on the other hand, demand that forensic experts act neutrally, independently and impartially. Furthermore, responsibility ethics require that forensic professionals are critical about the goals of international criminal justice, knowing that the outcomes of their forensic investigations might not result in the proper interpretation of events.<sup>775</sup> What the authors do not clarify, but is worth noting, is where these two concepts of conviction ethics and responsibility ethics originate from. Ethics of conviction or ethics of good inclination comes from Max Weber's (1919) concept of *Gesinnungsethik* in a political context and pertains to a person's faithfulness to principles

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<sup>772</sup> For a detailed catalogue of questions the forensic expert may ask, see Wright and Hanson (n 761).

<sup>773</sup> Personal interview with international lawyer # 4 (25 April 2007).

<sup>774</sup> G Lorin de la Grandmaison and others, 'The International Criminal Tribunal for the former Yugoslavia (ICTY) and the Forensic Pathologist: Ethical considerations' (2006) 48 *Medicine, Science and the Law* 208, 208.

<sup>775</sup> *Ibid.*

as intentions. Ethics of responsibility, or *Verantwortungsethik*, specifically relate to ethics that take into account the political consequences of (armed) force.<sup>776</sup> True to the findings of this study, it is appropriate to use terms that have less political connotation to describe the ethical dilemmas arising during the pre-investigation stage, which, generally speaking, spring from a division between those forensic experts engaging in investigations for humanitarian purposes (*humanitarian ethics*) and those who are used to working in a criminal justice context (*ethics of criminal justice*).

Some experts see their work as contributing towards a wider sense of justice, including the alleviation of victims' suffering through the achievement of humanitarian goals. In the literature, many forensic scientists engaged in international investigations explicitly refer to their work as contributing to human rights investigations and the advancement of justice<sup>777</sup> rather than emphasising the advancement of forensic science and research.<sup>778</sup> Reasons to engage in exhumations and subsequent examinations are to assist in establishing accountability, raise awareness, help identify the victims, create an account that is immune to revisionism and to render dignity to victims, their families and human life in general.<sup>779</sup> These forensic scientists actively seek to achieve the ulterior values of forensic science, thus subscribing for the sake of this discussion to *humanitarian ethics*. According to Cordner and McKelvie (2002), during any forensic investigations, experts are keen to seek assurance

- that procedures are in place to inform and return remains to families;
- that procedures are in place to inform and, if necessary, return the remains to the authorities;
- about the way in which their findings may be used in the domestic and international criminal justice system and how their work will affect the political process;
- that they and the families understand the legal framework within which they will be working.<sup>780</sup>

Whilst these requests are laudable, understandable and appropriate for the engagement of forensic experts during humanitarian missions such as those undertaken

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<sup>776</sup> J Verstraeten, 'The Tension Between 'Gesinnungsethik' and 'Verantwortungsethik'' (1995) 3 *Ethical Perspectives* 180.

<sup>777</sup> E.g. Steadman and Haglund (n 732); Haglund and Sirkin (n 737); RH Kirschner and KE Hannibal, 'The Application of the Forensic Sciences to Human Rights Investigations' (1994) 13 *Medicine and Law* 451 and EH Kimmerle, 'Cause of Death: The Role of Anthropology in the Enforcement of Human Rights' (Report) (April 2004) <[http://www.aaanet.org/committees/cfhr/rpt\\_kimmerle.htm](http://www.aaanet.org/committees/cfhr/rpt_kimmerle.htm)> accessed 23 October 2006 and Fondebrider (n 739).

<sup>778</sup> There is, of course, a very good reason for this: it is unethical to conduct research on murder victims and to capitalise in any shape or form from mass atrocities (M Skinner, D Alempijevic and M Djuric-Srejjic, 'Guidelines for International Forensic Bio-archaeology Monitors of Mass Grave Exhumations' (2003) 134(2) *Forensic Science International* 81). Informed consent would be needed for research to be conducted; whether these ethical provisions can be guaranteed in post-conflict environments is questionable.

<sup>779</sup> WD Haglund, 'Recent Mass Graves: An Introduction' in: WD Haglund and MH Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (CRC Press, Boca Raton 2002).

<sup>780</sup> S Cordner and H McKelvie, 'Developing Standards in International Forensic Work to Identify Missing Persons' (2002) 84 *International Review of the Red Cross* 867, 880.



by the International Committee of the Red Cross, the demands may be less suitable during international criminal investigations where the forensic experts' duty, as one interviewee described it, is to 'bring science to justice and that's all'.<sup>781</sup> Experts will be relieved to know that identification and repatriation are ultimately catered for (and of course as part of their own standard operating procedures they contribute towards possible future identification). To some practitioners, however, this is beyond the forensic experts' remit during purely criminal investigations. The latter view is strictly aligned with the deontological principles outlined in the codes of ethics for forensic practitioners (see section 6.1.3.) and subscribes to the inherent values of forensic science for the achievement of justice, or *ethics of criminal justice*. Their contribution to justice is strictly through the provision of neutral and objective collection and examination of evidence.<sup>782</sup>

As one interviewee pointed out, site selection can conflict with the aims of those forensic experts who are keen to fulfil the humanitarian demands and would like to exhume all graves to return the victims to their families.<sup>783</sup> Similarly, although forensic professionals should be clearly informed about the scope and the legal requirements of the mission (such as why certain graves are exhumed and others not<sup>784</sup> or why personal identification of the victims may not be needed), this may be difficult to accept for those forensic scientists who would like to be, as one interviewee said, 'social engineers',<sup>785</sup> these experts want to alleviate the families' suffering by identifying and returning their missing loved ones.

One interviewee expressed his desires as to what he would like to know before embarking on a mission as follows:

I want to know the cultural problems. I want to know what is happening to the bodies after they are done with, if they are not identified or if they are identified, I want to know about death certification, I want to know about any religious conflicts or concerns that we're going to have. I want to go to the families; [...] I want to know who the players are I have to deal with.<sup>786</sup>

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<sup>781</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>782</sup> Interestingly, a similar split regarding ideological beliefs was expressed by interviewees from the legal profession, who felt 'they can help bring a measure of justice' (personal interview with international lawyer # 4 (25 April 2007)) to people who have been affected by heinous crimes. But some interviewees expressed the opinion that they were not in the business 'to save the world', (personal interview with international lawyer # 6 (1 November 2007)) with one interviewee believing it would be dangerous for lawyers to have a 'bigger purpose' when engaging in this line of work, and that they ought to 'do their job in a professional way' (personal interview with international lawyer # 5 (24 April 2007)).

<sup>783</sup> Telephone interview with forensic expert # 6 (15 September 2007).

<sup>784</sup> According to Lorin de la Grandmaison and his colleagues three unspecified respondents out of 25 pathologists surveyed 'claimed that there were mass grave sites knowingly not investigated by the ICTY, especially mass graves of Serbian victims' (Lorin de la Grandmaison and others (n 774) 210). However, it should be noted that the sample size comprised pathologists working in Bosnia and Kosovo who were employed by non-governmental organisations, a medical association, the ICTY or on request of their government. Therefore the significance of this survey result is unclear.

<sup>785</sup> Telephone interview with researcher/academic # 2 (10 September 2007).

<sup>786</sup> Telephone interview with forensic expert # 6 (15 September 2007).

However, another interviewee saw his obligations as an employee of the ICTY differently, saying that 'there was no question of communicating with relatives or survivors because it was not part of the moral contract'.<sup>787</sup> In fact, a further interviewee felt that contact and discussions with local relatives, sometimes advocated by those subscribing to the *ulterior values* view, would have compromised the experts' independence.<sup>788</sup> More realistically, forensic professionals had to rely on investigators to liaise with the local community and families:

the criminal investigator, when they planned the excavation, would go there [to the local community] before [... the forensic team] would arrive. And often during the time there was de-mining going on, they would then talk to the local mayor and the community and so on and sometimes it was done well, sometimes it wasn't.<sup>789</sup>

#### **7.2.2.2. Working Processes, Rotas and Training**

The second issue arising during the pre-investigation stage relates to working processes, rotas and training. Only very few forensic staff were on contracts lasting longer than a few weeks or months at a time.<sup>790</sup> Therefore, people from various international backgrounds and used to differing professional requirements came to the field for short periods of times.<sup>791</sup> Although this rota system was due to the short spans of availability of many experts, who have to fit international investigations into the requirements of their day-to-day jobs, this does not provide for efficient forensic missions. Efforts were made to keep these teams international, with one interviewee explaining that there was 'a continually mixing team'.<sup>792</sup> Whilst this demands a high level of coordination, the interviewee went on to say that, once discipline was established through the senior team leader who was employed on a six months basis, 'everybody knew what their role was and everybody cooperated and it was very productive'.<sup>793</sup> Employing more permanent members of staff ensures continuity in management and helps make the forensic teams more balanced in terms of a continuous level of expertise. Especially at the mass grave level, as several interviewees admitted, staff

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<sup>787</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>788</sup> Telephone interview with forensic expert # 8 (16 May 2007).

<sup>789</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>790</sup> A core team of forensic experts was present in Bosnia between 1997-2000 ensuring continuity in methods, standards and processes (Statement by Ian Hanson (Personal communication 14 April 2009)).

<sup>791</sup> One interviewee explained that practitioners came into the field for very short periods of time:

And literally some people would come into Zagreb on a bus or a plane, leave the next night for Srebrenica, but they'd have two weeks. But it takes two or three days just to get down to Zagreb those days, and then in packing and repacking on the bus trip to the grave sites in Bosnia, they would be down there for two to four days and then they had to turn around and come back (telephone interview with forensic expert # 1 (17 March 2008)).

<sup>792</sup> Personal interview with forensic expert # 3 (30 May 2007). It was the ICTY's policy that no local person would be employed at any level on the field work team.

<sup>793</sup> Ibid.

'had very little experience with [mass] graves'.<sup>794</sup> This meant that the learning curve, both from an administrative and practical point of view, was steep. PHR, for example, is alleged to have brought inexperienced students into the field without the necessary capacity to supervise their activities.<sup>795</sup> This illustrates the initial lack of experience and management. It also demonstrates that protocols are vital to enable at least some continuity in working procedures despite frequently rotating team members. Indeed, clear working processes are one of the key tools to enhance effective collaboration practice.<sup>796</sup>

### 7.2.2.3. Risks and Security

Personal safety and security are naturally of great concern to both employers and employees, especially when entering a war-torn country. For the forensic professionals during international missions, the working environment is often out of their control and this poses an inherent risk.<sup>797</sup> If advance planning does not put in place sufficient measures to ensure the creation of a safe working environment through protection and the necessary equipment, distrust is likely to arise amongst the contractors, potentially jeopardising the mission before it even commences. Despite difficulties in characterising the notion of trust, a widely held definition of trust is expressed as follows: 'a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another.'<sup>798</sup> Building trust in the early stages of cooperation is fundamental to ensuring successful interaction.<sup>799</sup> In the initial pre-investigation phase described here, this trust is established predominantly between the employing organisation and the individual contractor, as opposed to interpersonal trust. Careful planning, communication and organisation on behalf of the OTP and the

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<sup>794</sup> Telephone interview with forensic expert # 6 (15 September 2007).

<sup>795</sup> Telephone interview with forensic expert # 1 (17 March 2008). From 1998 to 2000 two students at a time with suitable graduate training were accepted on a mentored internship involving field and mortuary work (Personal interview with forensic expert # 9 (28 March 2007) and Statement by Ian Hanson (14 April 2009)).

<sup>796</sup> See Huxham and Vangen (n 742). The Guidelines for the Conduct of United Nations inquiries into allegations of massacres, containing a Model Protocol for a Legal Investigation of Extralegal, Arbitrary and Summary Executions (also known as Minnesota Protocols), served as the starting point for working processes at mass graves sites (UN Office of Legal Affairs, 'Guidelines for the Conduct of United Nations Inquiries into Allegations of Massacres' (UN Office of Legal Affairs, New York 1995).

<sup>797</sup> J Hunter and B Simpson, 'Preparing the Ground: Archaeology in a War Zone in: R Ferllini (ed), *Forensic Archaeology and Human Rights Violations* (Charles C Thomas, Illinois 2007).

<sup>798</sup> DM Rousseau and others, 'Not So Different After All: A Cross-Discipline View of Trust' (1998) 23 *Academy of Management Review* 393, 395.

<sup>799</sup> RJ Lewicki, DJ McAllister and RJ Bies, 'Trust and Distrust: New Relationships and Realities' (1998) 23 *Academy of Management Review* 438, 438.

employing organisation are crucial to avoid attitudes such as high distrust or ethical conflicts, as described above, from arising.<sup>800</sup>

### 7.2.3. RECOMMENDATIONS

The above section has shown that there is a consensus about the need for exchange between forensic professionals, investigative personnel and prosecutorial staff at the pre-investigation stage. This need for interaction was summarised by one interviewee:

Obviously you want people to be, from the beginning of their relevance or of their work's relevance, to be involved, to be listening, to be understanding the whole process and the finality of their work and its importance. And you have to be able to listen to them as well: What can be done, what cannot be done. And they have to understand within their sphere, within their responsibility what might threaten or jeopardise the validity of the process. Some questions will not be asked; certain things will not be done and if they did that might threaten the whole integrity of the process.<sup>801</sup>

The first, rather obvious, recommendation, therefore, is to engage senior forensic staff in the mission planning process to enhance each profession's understanding of the mission and its implications whilst managing expectations and feasibility. However, more specific lessons can be learnt from the ICTY's experiences which will benefit future investigations, be that at the ECCC or the ICC. To pre-empt contentious issues such as misunderstanding, distrust and inadequate working procedures at this early stage, the following recommendations are proposed.

#### 7.2.3.1. Increase Awareness

The employing authority, especially when seeking staff for purely criminal investigations, should be mindful of the ethical dilemmas that might affect the forensic practitioners. Employers should also be aware of those forensic professionals who advocate that, prior to any excavations, ante-mortem data collection projects need to be in place. As one interviewee said,

you can't just go up to a mass grave and start digging. You have to do your homework; you've got to do your work with the families and it [...] may take many more years and it may take much more money.<sup>802</sup>

Furthermore, it should be clear that through conducting forensic missions, expectations may be raised on behalf of the family that humanitarian needs, such as identification and repatriation of the exhumed bodies, will be met (see section 5.6.2.). To ensure that

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<sup>800</sup> Lewicki and his colleagues define distrust as 'confident negative expectation regarding another's conduct' (ibid 439). A rational level of distrust can be useful during interactions as it may lead to individual actors querying some working processes or provisions, thus drawing attention to areas affecting successful cooperation that might have otherwise been overlooked.

<sup>801</sup> Personal interview with international lawyer # 4 (25 April 2007).

<sup>802</sup> Telephone interview with forensic expert # 1 (17 March 2007).

employers understand the concerns expressed by forensic practitioners, consultation and communication with key actors is paramount so that potential problems can be anticipated and avoided; this will help to ensure that the recommendations that follow are executed successfully.

#### **7.2.3.2. Communicate Aims and Objectives**

To prevent those believing in the ulterior motives of forensic investigations from being disappointed and frustrated during the mission, it is vital to communicate well what the scope and limits of the forensic mission are going to be and what is expected of the forensic staff. This includes discussions about the legal framework (civil law or common law), identification provision and other humanitarian goals linked to the mission. This will help forensic practitioners at the recruitment stage to evaluate whether they can reconcile their personal ethical beliefs with the aims and objectives of the mission.

#### **7.2.3.3. Meticulous Planning**

The authority should put provisions for effective liaison with the local population in place, to ensure that the human remains are, once the examination phase is over, directly handed over to organisations that can provide identification should this be important to local people. Furthermore such liaison will make sure that information about graves is shared with teams who excavate and examine victims for humanitarian purposes. Forensic practitioners are keen to know that all phases of a forensic mission including the 1) public awareness phase; 2) site assessment phase; 3) excavation phase; 4) postmortem phase; and 5) repatriation phase are thoroughly planned. Hunter and Simpson (2007) believe that '[t]here is a strong logistical and ethical argument to suggest that unless the practicalities of all five can be met securely, then the mission should not take place at all.'<sup>803</sup> Furthermore, the better planned a mission is, the more efficiently it will run and the more valued and protected the forensic contractors will feel. Wright and Hanson (2009) have therefore prepared a catalogue of points relating to predominantly administrative and bureaucratic matters that should be raised and considered by the forensic contractor before embarking on a mission. These points range *inter alia* from insurance questions, fresh water provision, health and safety standards to the pay and contact details of authorities and decision-makers.<sup>804</sup>

Therefore, a plan that agrees from the outset all the strategic and practical aspects of forensic missions, including cooperation and communication practices with other organisations and the local population, needs to be devised. One interviewee

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<sup>803</sup> Hunter and Simpson (n 797) 275.

<sup>804</sup> See Wright and Hanson (n 761).

suggested that a permanent member of the forensic investigative team should have community liaison duties to ensure that the local community is kept informed.<sup>805</sup>

#### 7.2.3.4. Rigorous Recruitment, Training and Preparation Practice

It is understandable and indeed at times desirable to have international forensic teams without local involvement to avoid bias. A lack of standardised experience and training levels of forensic contractors should be balanced through clear working processes and, as one interviewee suggested, prior training: 'ideally, what would have helped, would have been to have time to bring teams together, to go through a whole training period [...] before they were dispatched into the fields.'<sup>806</sup> Some scholars suggest that training programmes for individual staff members to prepare them for the experiences and emotions they can expect to encounter helps prevent negative psychological effects.<sup>807</sup> Furthermore, some knowledge of the local language as well as cultural and religious awareness is helpful. Interviewees proposed more thorough recruitment processes to help ensure that the right people are contracted, a group of people who would understand that the science is for prosecution purposes. Haglund and Sirkin (2001) describe PHR's recruitment and preparation efforts

PHR attempts to screen for those deemed most able to stand up to the strains and stresses of such interventions. We seek persons experienced with travel and accustomed to minimal living comforts and those whose personal security thresholds are not so restrained that they are incapacitated by military presence and post-war environments of heightened security. We try to prepare our experts both physically and emotionally for what they will encounter, professionally and personally.<sup>808</sup>

Whilst this level of preparation has been designed by an NGO which engages in humanitarian missions, where interaction with the traumatised local population is higher,

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<sup>805</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>806</sup> Telephone interview with researcher/academic # 2 (10 September 2007). The following anecdote makes it clear how more thorough recruitment, training and mental preparation would have helped some experts to realise what lay ahead of them during field work. According to one interviewee, a member of the forensic staff was a

brilliant archaeologist, but the last job he'd been doing was 12,000-year-old Nordic burials and the next minute his thumb's driven through the side of a human being. It smells horrifically. And it is hard work and at the end of it you're tired and you've worked eight hours in the grave and then I drive you in a convoy for four hours at 35km an hour smelling. And when you get there, there is no hot water for a shower. And you go to the local restaurant and you ask for a salad and they give you cabbage (personal interview with investigator # 2 (12 December 2007)).

<sup>807</sup> ED Williams and JD Crews, 'From Dust to Dust: Ethical and Practical Issues Involved in the Location, Exhumation, and Identification of Bodies from Mass Graves' (2003) 44 *Croatian Medical Journal* 251. Stover and Ryan would like to see the training to be interdisciplinary and to include subjects such as history, international humanitarian law, human rights law, forensic sciences, physical evidence gathering protocols, military weaponry and strategy, psychosocial aspects of death and funerary rituals (Stover and Ryan (n 735) 24).

<sup>808</sup> Haglund and Sirkin (n 737) 265.

these points are relevant to international criminal investigations, too. Investing time early on in the cooperative process to provide the right level of training and preparation can help prevent personal disappointment, inaccurate findings and differing evidence handling processes during the actual mission.

Therefore, the employing organisation should hire only staff with the appropriate skills, experience and preparation, including awareness of the legal and local context. Depending on the availability of trained and prepared staff, investing time in standardised training and preparation sessions will help improve competence levels and successful interaction.

#### **7.2.3.5. Prolonged Contracts and Responsibilities**

Similarly, it was identified that issuing long-term contracts to senior forensic staff members helps to establish a continuous working process both in the morgue and in the field. One interviewee mentioned that due to a lack of permanent team members in Kosovo, forensic staff had to 're-invent the wheel periodically'<sup>809</sup> which slowed their efforts and performance down significantly. Furthermore, longer contracts allow for a trust relationship to be built between contractors and the contracting party. Contractors and employers have the possibility of demonstrating their reliability and dependability, giving rise to heightened confidence in the positive intentions on behalf of each other. Research on trust has shown that issuing contractual obligations is one way in which the employing organisation can control contractors' actions when trust is lacking.<sup>810</sup> However, having control mechanisms which are too tight can be perceived as an absence of trust and hinder the development of trust, thus fuelling a feeling of distrust.<sup>811</sup> Hiring staff for prolonged periods of time through contracts that clearly communicate what is expected from them as forensic scientists, in terms of both responsibilities and professional conduct, demanding impartiality and objectivity at all times, will help foster mutual trust in the long run.

### **7.3. INVESTIGATION STAGE**

Within the investigation stage, the various exchanges, issues and recommendations that emerged from the data will again be discussed in detail. The template (Figure 14) provides a thematic overview, outlining the structure for the debate.

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<sup>809</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>810</sup> Rousseau and others (798). Rousseau and his colleagues refer to this as 'deterrence-based trust' (ibid 398).

<sup>811</sup> Ibid.

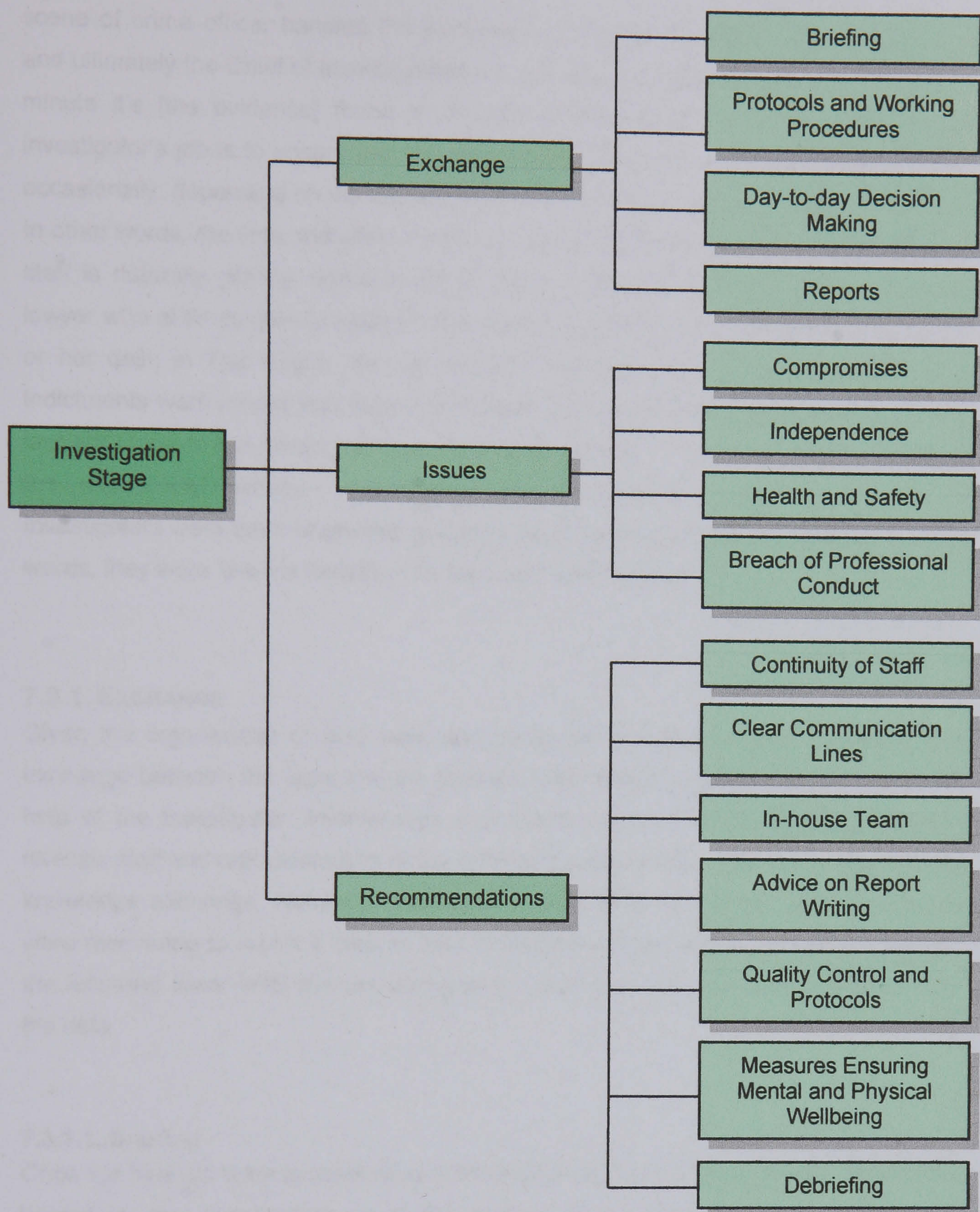


Figure 8: Investigation Stage

At the ICTY, forensic missions were broadly separated into three areas: 1) the management of operations and logistics; 2) the science, which encompasses the process of exhuming and examining *in situ* as well as in the mortuary by forensic teams; and 3) the maintenance of evidentiary standards and the chain of custody, which comprises logging, packing and photographing the evidence. A site manager, and ultimately the Chief of Operations, was responsible for the smooth logistical operation of the site, whilst the senior forensic expert<sup>812</sup> was in charge of the forensic work and a

<sup>812</sup> One interviewee mentioned that it was unclear whether the senior forensic archaeologist was answerable to the Chief of Investigations or the Chief of Operations (telephone interview with forensic expert # 8 (16 May 2007)).



scene of crime officer handled the evidence to ensure continuity<sup>813</sup>. The investigator, and ultimately the Chief of Investigations, was overseeing the entire process: '[f]rom the minute it's [the evidence] found to the minute it's presented in court, the on-site investigator's job is to ensure that the process is implemented and adhered to.'<sup>814</sup> Only occasionally, depending on the investigation team formation, would a lawyer be present. In other words, the time and effort investment on behalf of the forensic and investigative staff is naturally greater during forensic missions into mass graves than that of the lawyer who at times merely waits for the relevant evidence and information to reach his or her desk in The Hague. As the forensic missions were conducted before many indictments were issued and trials commenced, no interviewee mentioned that defence lawyers came to the scene, not even to monitor events.<sup>815</sup> One interviewee described the relationship between investigators and the forensic teams as 'intense'.<sup>816</sup> Investigators were there to provide guidance as to what the prosecutor needed. In other words, they were 'the link between the field work and the case.'<sup>817</sup>

### **7.3.1. EXCHANGE**

Given the organisation of field work and personnel involved in those processes, the exchange between the legal and the forensic side occurred predominantly through the help of the investigator. Interviewees describe the interpersonal interaction between forensic staff and representatives of the OTP as communication, information sharing and knowledge exchange. Naturally, investigators were keen to find out what the experts were recovering to report it back to their investigation team and prosecutor; in addition the following lower-level themes during which exchange occurred have emerged from the data.

#### **7.3.1.1. Briefing**

Once the forensic team is assembled in the field or at the mortuary, forensic experts are briefed by the investigators as to the context of the crime and what findings are

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<sup>813</sup> During the exhumations conducted by PHR, decisions regarding evidence handling and preserving the chain of custody were partly left to PHR, and it was Dr Haglund himself who personally took DNA samples to the United States for further analysis and took care of developing photographs to avoid the order being compromised (telephone interview with forensic expert # 6 (15 September 2007)).

<sup>814</sup> Telephone interview with investigator # 4 (28 June 2007).

<sup>815</sup> One interviewee mentioned that during mass grave exhumations in Croatia in early 2000 a Croatian judge and her assistant were present during the excavation representing the Croatian judicial system, but that nobody represented the defence (telephone interview with forensic expert # 8 (16 May 2007)).

<sup>816</sup> Telephone interview with international lawyer # 1 (22 May 2007).

<sup>817</sup> Telephone interview with investigator # 4 (28 June 2007).

expected.<sup>818</sup> Interviewees emphasise that the information they are given is of generic nature. One interviewee offered the following example: 'this is a mass grave where we suspect [...] military aged men from Srebrenica have been killed.'<sup>819</sup> Investigators would provide a short history of the case and ask the forensic experts to look out for specific material evidence that would link the bodies to primary graves and execution sites. This, for example, was particularly important for excavations at one of the Srebrenica graves called Glogova 2, which investigators believed to be linked to an execution site at the Kravica warehouse. Therefore, the forensic team was told to look out for concrete and building debris when the bodies were removed from the warehouse, thus-linking the grave to the alleged execution site.<sup>820</sup> At times, when specific evidence was needed urgently, experts were asked to accommodate those prosecutorial needs by prioritising the examination of those human remains. However, interviewees made it clear that investigators did not try to influence forensic investigations as such by telling experts to ignore certain evidence that did not fit the initial brief.<sup>821</sup> This would have been detrimental to the whole operation as it could have jeopardised the independence of the experts. As one interviewee said, 'cooperation is a two-edged sword in this sort of work and can be turned against you by the defence'<sup>822</sup> – it would mean taking an unnecessary risk as to the successful outcome of the interaction. Therefore, effective communication is the preferred exchange currency whilst being careful to avoid allegations of case construction as discussed in section 6.1.2.1.

### 7.3.1.2. Protocols and Working Procedures

As there was no precedent for the forensic missions conducted in the former Yugoslavia for international criminal prosecutions, the way they were conducted and the format in which the evidence was presented progressed over the years. One interviewee admitted that through the process

[w]e've developed and learnt. At the end of the exhumation process we had the most experienced exhumation team in the world; certainly the most experienced and the best at doing it quickly.<sup>823</sup>

Similarly, in the mortuary, working processes evolved until models were found that functioned well, especially when limited resources created bottle necks.<sup>824</sup> Protocols

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<sup>818</sup> Ibid. However, one interviewee noted that some investigators seemed to believe that forensic experts do not need context information, thus rendering the examination process more difficult (personal interview with forensic expert # 2 (3 October 2007).

<sup>819</sup> Telephone interview with investigator # 1 (30 July 2007).

<sup>820</sup> For a detailed description of the Kravica warehouse investigation, see D Manning (ICTY Investigator), 'Srebrenica Investigations. Summary of Forensic Evidence Execution Points and Mass Graves' (Report) (16 May 2000), available at <[http://www.domovina.net/archive/2000/20000516\\_manning.pdf](http://www.domovina.net/archive/2000/20000516_manning.pdf)> accessed 25 January 2007, Annex A, 4-5. For a description of the findings from the Glogova 2 mass grave, see *ibid* 48-51.

<sup>821</sup> Telephone interview with forensic expert # 8 (16 May 2007).

<sup>822</sup> Ibid.

<sup>823</sup> Personal interview with investigator # 2 (12 December 2007).

were introduced by the senior forensic staff to meet certain scientific and evidentiary standards<sup>825</sup> and were principally agreed before embarking on the missions. But they too evolved and were amended in consultation and discussion with the investigator and lawyer to suit different situations, benefiting from accumulated experience.<sup>826</sup>

### 7.3.1.3. Day-to-day Decision-Making

Despite protocols, a number of decisions have to be made on a daily basis as to how to handle certain types of evidence or how to treat security issues. The difficulty in the early stages of forensic missions was that the ICTY's admissibility rules were in flux with few decisions available to help guide the process of rendering forensic evidence admissible, thus forcing investigators to make decisions as to the utility of evidence in a court room.<sup>827</sup> Similar practical decision-making, such as the documenting of evidence, was needed, as one interviewee explained when trying to record spent cartridges fired from an automatic weapon at a grave site: 'the discharges from the automatic weapons were clusters and then the question is, do you plot every single cartridge or do you plot the clusters?'<sup>828</sup> Another interviewee said that at times it was important to try and speed up the exhumation and examination processes to allow the evidence to be recovered in time for a specific trial.<sup>829</sup> When, for example, scientific examinations, such as dendrochronology, were not needed because the events had already been dated by other means (e.g. satellite images), the investigator would communicate this to the forensic team leader to avoid unnecessary workloads and delays with the forensic investigation. Similarly, the investigator would advise the forensic team leader to ensure that the forensic staff were not taking their own personal records or photographs as these could be admissible in court and potentially contradict the team leader's opinion. Those decisions were largely made through consultation between the investigator, crime scene officers and forensic experts; sometimes the lawyers would be contacted to confirm that the right route of action was chosen. Furthermore, work could only be

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<sup>824</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>825</sup> See Appendix P for an example protocol.

<sup>826</sup> Personal interview with investigator # 2 (12 December 2007). During 1999 in Kosovo, as one interviewee explained, a different approach was adopted when various national forensic teams were deployed to help the ICTY:

Because it was put together at such short notice, what we [the OTP] asked them to do was to adopt the procedures and protocols they would normally use in their home country rather than trying at short notice to impose different protocols when we didn't really have the opportunity to ensure they were fully understood. So we would insist that they would be operating under the protocols admissible in the countries that they came from (telephone interview with investigator # 4 (28 June 2007)).

The following year, however, protocols were issued to forensic teams to continue the work in a more structured manner.

<sup>827</sup> Personal interview with investigator # 2 (12 December 2007).

<sup>828</sup> Telephone interview with forensic expert # 6 (15 September 2007).

<sup>829</sup> Personal interview with investigator # 2 (12 December 2007).

conducted when the security situation allowed it. If the security of staff at the graves could not be guaranteed, operations had to stop until it was safe to continue.

#### 7.3.1.4. Reports

Findings from the excavation site and mortuary were summarised in individual reports prepared by the Chief Anthropologist, Chief Archaeologist and Chief Pathologist and by those responsible for other scientific investigations.<sup>830</sup> They contain information on the minimum number of individuals located in the exhumed graves, the sex of the deceased, the cause of death as well as on the presence of blindfolds and ligatures.<sup>831</sup> The scientists attribute value to the data and decide what level and detail of analysis to include or exclude – they essentially have to be selective in their report-writing. In this sense, the report is an act of selected knowledge exchange and contains the version of ‘forensic truth’ that is ultimately admitted into evidence and discussed in court. The report makes this ‘forensic truth’ accessible to others and needs to be intelligible, clear and unambiguous whilst explaining all the important scientific findings.<sup>832</sup> One interviewee described the process for the pathology reports as follows:

We have our initial pro-forma for the note taking in the mortuary [...] and we would record all our findings in that. From that will be generated a formal PM [post-mortem] report, usually about three pages long and that was the formal PM report for that case. And that was what was submitted to the folk in The Hague. From that, then I extracted a court report – a final court report which would be anything up to about 30 pages or so, condensing all the information from all these cases.<sup>833</sup>

This final report would be the one examined in court; only occasionally would questions in court relate to individual post-mortem reports.

At times the investigators could provide assistance to the experts as to what practical information was needed in court, by double-checking certain pieces of information or through providing additional data. In exceptional circumstances, experts were based in The Hague during report-writing for confidentiality and documentation purposes.<sup>834</sup> This enabled them to consult the senior trial lawyer to ensure that the right level of information for prosecutorial purposes was included. According to one

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<sup>830</sup> For the Srebrenica investigations, six additional scientific examinations of recovered materials were conducted, analysing mineralogical and pollen samples, self-winding watches (located in the mass graves) blood and tissue samples, suspected explosive residue, shell cases as well as cloth blindfolds and ligatures (see Manning (n 821) 12-15).

<sup>831</sup> *Ibid.*

<sup>832</sup> Skinner *et al.* provide a description of what a report should contain (Skinner and others (n 778) 91-92).

<sup>833</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>834</sup> This was particularly the case when preparing reports that tried to synthesise the work conducted by various teams in Kosovo (See *Prosecutor v Milošević et al.*, Medico-legal Analysis and Synthesis Report about the Forensic Expertises Missions Conducted in Kosovo during the Year 1999 (31 January 2002), Case No IT-02-54-T, submitted by the Prosecution on 4 February 2004, Trial Chamber III).

interviewee, this greatly helped with the report-writing process as the lawyer provided guidance as to how to improve a certain section of the report. Similarly, when investigators were asked to write summary reports of all the forensic activities relating to a particular set of crime scenes, they were able to consult the prosecutors as to the level of detail and style required.

Whilst prosecution and investigation empower as well as limit, through their decision-making and the process of information-sharing, the forensic experts in their pursuit of evidence, the report, created for a purpose beyond the forensic scientists' control, empowers and limits the prosecution's claims in court.

### 7.3.2. ISSUES

Interviewees were generally very positive about the exchange and interaction they had with one another during forensic missions. Issues or tensions sprang mostly from personality differences and clashes: One interviewee reported that some people with University degrees looked down upon those who had no such qualifications and that they were reluctant to accept advice on the evidentiary needs in court by those less qualified but with higher levels of experience.<sup>835</sup> This perceived superiority is linked to a higher degree of knowledge and status, which in turn might suggest a higher degree of power. And knowledge-related perception of power is inherent in and typical of many interpersonal relationships.<sup>836</sup> Similarly, a higher status of power could be associated with the investigator due to his knowledge of the case, the Tribunal's operation and links to the Office of the Prosecutor. However, one interviewee stressed that '[t]here were no more difficulties that would come about from personal aggravation after you have been in the field with someone for a long time',<sup>837</sup> suggesting that these interpersonal problems were natural to most working environments. Long working hours combined with living together in cramped accommodation can result, as another interviewee put it, in 'cabin fever',<sup>838</sup> but this phenomenon is not unique to forensic missions.

From an operational point of view, the following themes, potentially leading to dissatisfaction during the interaction, synthesise the issues reported throughout the interviews. These identified themes are intrinsic to different professions working together on forensic missions for prosecution purposes.

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<sup>835</sup> Personal interview with investigator # 5 (3 October 2007).

<sup>836</sup> Foucault, as a prominent thinker on power/knowledge relationships, believed that this type of power is to be found throughout society and human relationships (C Paechter, 'Power, Gender and Curriculum' in: C Paechter and others (eds), *Knowledge, Power and Learning* (Paul Chapman Publishing, London 2001); see also M Foucault, *Power/Knowledge - Selected Interviews and Other Writings 1972-1977* (Prentice Hall, New York 1980).

<sup>837</sup> Telephone interview with forensic expert # 8 (16 May 2007).

<sup>838</sup> Telephone interview with forensic expert # 1 (17 March 2008).

### 7.3.2.1. Compromises

Perhaps the biggest cause for concern is the fact that forensic experts were expected to make compromises during investigations in order to accommodate the need for speedy evidence recovery. Whilst one interviewee said that no one was ever told: 'you must do 40 cases a day',<sup>839</sup> others reported that lawyers were very anxious that the work should be conducted 'at about twice the pace' that staff could work at if they wanted to collect evidence in line with the necessary standards. This pressure on a forensic mission meant that some staff were pushed hard to finish the tasks at hand, resulting in an 'extreme amount of stress'<sup>840</sup> which can easily result in a higher error rate. Furthermore, exerting time pressure causes the debate surrounding quantity versus quality of forensic evidence (see section 6.1.2.3.). Whilst the forensic experts principally want to err on the side of quality, the quantity of evidence may be more important for the legal proceedings; this can potentially result in a power struggle. The type of power usually related to exchange and cooperation refers 'to an individual's or group's ability recurrently to impose his or its will on others, not to a single instance of influencing a decision of theirs, however important.'<sup>841</sup> Arguably, this form of power lies ultimately with the Office of the Prosecutor as the final decision-maker, but none of the interviewees referred to such domination. Because it is in the interest of the prosecution that forensic experts maintain operation standards as well as their independence, and due to the fact that within the scientific parameters of the operations the senior forensic staff are in charge, the development of a power asymmetry was less likely. However, constantly working towards and arguing for compromises can cause friction between the actors, thus rendering an open relationship between them more difficult. Dissatisfaction with the process may especially be felt when it becomes impossible to complete a mass grave exhumation, leaving the work to be continued by other organisations.

### 7.3.2.2. Independence

As already discussed, the independence of forensic experts and thus the quality of work they produce might be jeopardised by too much information. For completeness, this point is mentioned here again as it is an important element of the forensic practitioners' code of conduct. Furthermore, experts are expected and employed to retain their independence and therefore it would be a breach of the trust which the employing organisation has in the experts if this independence were to be compromised. This type of trust on the part of the employing organisation is indicated by reputation and status, such as the forensic scientist's credentials, and can be described as calculative-based

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<sup>839</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>840</sup> Telephone interview with forensic expert # 1 (17 March 2008).

<sup>841</sup> PM Blau, *Exchange and Power in Social Life* (Wiley, New York 1964) 117. Power in this context is often associated with and reinforced through punishment and results in an asymmetric cooperation practice.

trust.<sup>842</sup> The analysis in the previous chapter has, however, shown that inflated confidence in science and scientific experts can be misplaced. Despite protocols, a lack of quality from within the forensic disciplines and inappropriate behaviour of individuals is a possible danger.

### 7.3.2.3. Health and Safety

Health and safety concerns remain of great importance during these missions including the psychological welfare of the entire forensic team. Field work during forensic missions in the former Yugoslavia was described by one interviewee as follows: 'we did our work at the point of a gun, either an American gun, or Russian guns, or Portuguese guns, whoever happened to be the SFOR group in charge of the particular area [...] we were working in.'<sup>843</sup>

Other stress levels that do not result from the interaction and exchange between the actors as such, but rather from the nature of work at hand, can also affect the team's wellbeing and ultimately any efficient exchange. Individuals react differently when exposed to the consequences of atrocity crimes on such a scale. Referring to the experiences from PHR exhumations, Haglund and Sirkin (2001) say that despite experts' initial assurance that they would not need psychological support because as professionals they would not be emotionally overwhelmed by their experiences, traumatic responses can and did occur months after leaving the field.<sup>844</sup> The emotions felt by those handling human remains can range 'from sorrow, regret, and repulsion to disgust, anger and guilt, to overwhelming feelings of anxiety, to futility.'<sup>845</sup> However, during interviews, nobody from the ICTY teams complained about a lack of psychological support, nor any such feelings. Whether this is due to their actual professional preparation or personal perception and desire to be psychologically prepared, is difficult to assess. One interviewee clarified that a lack of surprise and emotion

doesn't mean [...] that you are not troubled [...] by the awfulness of what you're looking at. But you are not shocked and I think there is an important distinction between the two in terms of stress.<sup>846</sup>

All interviewees seemed professionally prepared as to what to expect during their work and this level of professionalism was probably the reason for their prolonged experiences or multiple contracts with the ICTY.

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<sup>842</sup> RJ Lewicki, EC Tomlinson and N Gillespie, 'Models of Interpersonal Trust Development: Theoretical Approaches, Empirical Evidence, and Future Directions' (2006) 32 *Journal of Management* 991.

<sup>843</sup> Telephone interview with forensic expert # 8 (16 May 2005).

<sup>844</sup> Haglund and Sirkin (n 737).

<sup>845</sup> Williams and Crews (n 807) 253.

<sup>846</sup> Telephone interview with forensic expert # 8 (16 May 2005).

#### 7.3.2.4. Breach of Professional Conduct

In addition to the allegations of unprofessional conduct voiced against Dr Haglund and Dr Kirschner (as discussed in section 6.1.3.2.), one interviewee said that he reported dishonest behaviour to the ICTY and was interviewed at length regarding his observations.<sup>847</sup> Another interviewee stated that, whilst working in Kosovo, forensic experts were collecting bio-samples which they initially thought were for identification purposes, but then they were under the impression that they were used for research purposes without the informed consent of the relatives.<sup>848</sup> This behaviour would constitute a breach of professional conduct and may be of questionable legality. Again, those allegations were brought to the attention of the prosecutor.<sup>849</sup>

#### 7.3.3. RECOMMENDATIONS

The general consensus is that the extent of cooperation at the investigative stage should be limited to communication, information and knowledge exchange, mostly between the investigators and the forensic experts as opposed to between the forensic experts and lawyers. The management during forensic missions has to be more collegial than hierarchical in order to foster open communication and allow room for the professions to work efficiently. Given the difficult extrinsic circumstances under which some of these missions are conducted, it is most important for everybody involved to acknowledge, as one interviewee remarked, that during forensic missions there is no place for egos.<sup>850</sup> Instead a cooperative attitude on the part of all actors is needed as this, according to cooperation expert Morton Deutsch (1960), will 'lead to predictable and trustworthy behaviour'.<sup>851</sup> At a more specific level, the following recommendations can be inferred from both the analysed data and the forensic science literature.

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<sup>847</sup> Personal interview with scene of crime officer (8 August 2007).

<sup>848</sup> Telephone interview with forensic expert # 7 (8 January 2008).

<sup>849</sup> It is reported that US forensic anthropologist Tal Simmons sent a letter of complaint to then-Deputy Prosecutor Graham Blewitt about research papers presented at the American Academy of Forensic Sciences (AAFS) that were based on bone samples collected in Kosovo and Bosnia. This use and storage of human remains is deemed unethical unless it is required as proof for criminal prosecutions. In Simmons' view the collection is unethical if no consent from relatives has been obtained and the collection is scientifically worthless if no identification was achieved (See C Banning and P de Koning, 'Without the Consent of Next-of-Kin in Bosnia and Kosovo - Tribunal Collected Bones' (2004) <[http://www.kan-ks.org/lexo\\_lajmet.php?id=485&kategoria=218&gjuha=english](http://www.kan-ks.org/lexo_lajmet.php?id=485&kategoria=218&gjuha=english)> accessed 22 April 2009 and C Banning and P de Koning, 'Researchers kept Pieces of Bone from Victims of the War in Bosnia and Kosovo. A Stain on their Profession, claim Anthropologists' (2004) <[http://www.kan-ks.org/lexo\\_lajmet.php?id=485&kategoria=218&gjuha=english](http://www.kan-ks.org/lexo_lajmet.php?id=485&kategoria=218&gjuha=english)> accessed 22 April 2009).

<sup>850</sup> Telephone interview with investigator # 1 (30 July 2007).

<sup>851</sup> M Deutsch, 'The Effect of Motivational Orientation upon Trust and Suspicion' (1960) 13 Human Relations 123, 138.



### **7.3.3.1. Continuity of Staff**

In accordance with the recommendation regarding prolonged contracts for forensic staff, it appears that the exchange between forensic experts and the OTP would also benefit from more continuity of investigative staff. As investigators play such a pivotal role in the success of a forensic mission, it is important that oversight relating to the crime scene and the evidence be kept at all times and that the communication link between the field and the Office of the Prosecutor be preserved. Assigning investigators to a forensic team for prolonged periods helps to keep variability in communication and instructions between the professions to a minimum.

### **7.3.3.2. Clear Communication Lines**

When trying to agree compromises and to facilitate efficient day-to-day decision-making, clear communication lines are vital as they enable actors to know whom to contact regarding a particular query, action or decision. One interviewee said that at times, it would have been helpful to have a direct communication link with the prosecutor to provide an opportunity for thorough discussion about issues and problems relating to evidence handling.<sup>852</sup> Cutting out the investigator as the 'middle man' can ensure that scientific matters are correctly understood by the lawyer prior to decision-making, as decisions can have implications for the admissibility and validity of evidence in court. Establishing clear communication lines between forensic experts, investigators and lawyers thus facilitates efficient communication and better decision-making.

### **7.3.3.3. Assemble In-house Team**

The experiences from 1996 and from Kosovo in 1999 demonstrate that having a team assembled by the ICTY for the purposes of mass grave excavation and examination reduces conflict regarding the purpose of the mission, as this may clash with an NGO's agenda or the scientific operating standards practised by different national teams. The added benefit of such an ICTY coordinated arrangement is that the risk of overlooking certain pieces of evidence or information is minimised. If the process is not fully owned by the employing party, evidence provided by other third parties may easily be overlooked or disregarded despite its relevance.<sup>853</sup> To give the employing organisation the necessary control over investigative activities, the hiring of a bespoke, multi-disciplinary in-house team of experts is recommended.

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<sup>852</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>853</sup> Personal interview with international lawyer # 6 (1 November 2007).

#### 7.3.3.4. Advice on Report-Writing

One interviewee expressed the wish that feedback on the reports should be provided<sup>854</sup> whilst another suggested that the reports should be short, to the point and not too elaborate.<sup>855</sup> Communication at this level between the lawyer and the forensic expert would be beneficial and ensure that prosecutorial requirements are met whilst reassuring the expert, who is not used to producing such large documents on such a complexity of cases, that the reports contain the right level of detail and information. This said, detailed reports are required in order to prepare a prosecutor for presenting the evidence appropriately weighted and simply to educate such lay persons. Guidance and feedback on report writing should therefore be given; positive and negative report examples from the ICTY exhumations should showcase the preferred level of analysis and detail required.

#### 7.3.3.5. Quality Control and Protocols

Until unifying protocols for international forensic missions have been adopted, the topic of consistency and quality of operating procedures will inevitably arise.<sup>856</sup> One interviewee mentioned that 'no standardised quality control measures [were] in place'<sup>857</sup> and that there was little double-checking:

If you describe a body, [...] I would probably call trousers trousers, another person would call it pants or jeans or something like that so there is already a problem with consistency in recording. Some people are good in drawing a stick figure, some people are not very good at drawing stick figures – people would excavate bodies to different standards, state of cleanliness and they had to be standardised. Sometimes grave supervisors would do that, sometimes they wouldn't. The only proper quality control, strangely enough, was the photographer in the field because he had to see every single body of course.<sup>858</sup>

The need for consistency in operating procedures becomes evident through this account and is supported by many interviewees: 'The more that you can have uniform guidelines

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<sup>854</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>855</sup> Personal interview with international lawyer # 2 (10 December 2007).

<sup>856</sup> Cox and her colleagues make it clear that

[i]n a judicial context, such [forensic] work, all of which may be well intended and conducted by able professionals, is limited by the lack of any commonly adopted approach, standards, and consistency to the process and methodology required to maximise safe evidence recovery. This potentially threatens legal cases because the confidence of a court in the forensic evidence may be weakened and challenged by the defence (M Cox, A Flavel and I Hanson, 'Introduction and Context' in: M Cox and others (eds), *The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures* (Cambridge University Press, Cambridge 2008).

<sup>857</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>858</sup> *Ibid.* According to Ian Hanson, however, there was quality control ensuring that all evidence and bodies were surveyed *in situ* and given an evidence number; anything relevant was recorded, photographed and sealed (Statement by Ian Hanson (Personal communication 14 April 2009).

– the better.<sup>859</sup> It is hoped that the ICC will provide technical and conceptual leadership relating to this field through insisting on a framework for forensic investigations during international criminal prosecutions.<sup>860</sup> This framework should take into account and integrate ICRC guidelines on dealing with missing people. In many respects this would ensure that considerations are given towards an integrated multi-disciplinary and multi-purpose approach to investigating gross human rights' violations.

The hope was also expressed that through a unifying, quality-controlled process and methodology, disputes during future trials as to the reliability of forensic science evidence from mass graves could be minimised.<sup>861</sup> Whilst this latter point suggests an inflated and perhaps unrealistic confidence in science, nonetheless a unified framework would not only standardise the investigation stage, but also work towards avoiding unnecessary controversy in court.

#### **7.3.3.6. Complaint System**

To avoid breaches of professional conduct and help enforce the ethical and contractual obligations of members of staff, an efficient complaint system – accessible to every stakeholder – should be established. As one interviewee explained, structural systems that expose those who engage in wrongdoing will constrain unethical behaviour.<sup>862</sup> Complaint systems rely on witnesses and whistle blowers to come forward and report their observations of breaches of professional conduct. They place emphasis on professional integrity and imply that professionals fear the consequences such as exposure, sanctions, loss of trust and professional standing. Thus, effective complaint systems enhance the detection risk, reporting risk and sanction risk, creating an incentive to abide by professional codes of ethics and operating procedures.<sup>863</sup>

#### **7.3.3.7. Measures Ensuring Mental and Physical Wellbeing**

The single most effective way of ensuring that staff members are able to cope with investigations is preparation for the sight, smells, experiences and feelings they are likely to come across (see recommendation 7.2.3.4.). Forensic experts seem to disagree as to whether counselling and psychological support are needed during these missions. Haglund and Sirkin (2001) believe that 'a need for follow-up months and even years

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<sup>859</sup> Telephone interview with researcher/academic # 2 (10 September 2007) and telephone interview with forensic expert # 5 (13 February 2008).

<sup>860</sup> The author is aware that the ICC's forensic coordinator is keen to establish such standards for ICC missions.

<sup>861</sup> Personal interview with international judge # 3 (3 October 2007).

<sup>862</sup> Personal interview with international lawyer # 6 (1 November 2007).

<sup>863</sup> SD Beets and LN Killough, 'The Effectiveness of a Complaint-Based Ethics Enforcement System: Evidence from the Accounting Profession' (1990) 9 *Journal of Business Ethics* 115.

after a project is completed and “interveners” return to their home countries<sup>864</sup> exists. In contrast, Wright and Hanson (2009) argue that counsellors can have detrimental effects:

In fact counsellors can be a disruptive nuisance when managers inflict them on a professional forensic team. Their very presence implies that members of the team have undergone some sort of appalling stress.<sup>865</sup>

In their view, for true professionals the analysis of human remains and evidence is detached and in itself stress-free. The presence of a counsellor would encourage feelings of guilt and distress on the part of the professionals. To accommodate those differing views, the employing authorities should take advice from psychologists specialising in this area and make mental health resources such as counselling available to its staff without imposing a ‘one size fits all’ attitude.<sup>866</sup>

By drawing on experiences from Bosnia and the aftermath of 9/11, Williams and Crews (2003) recommend that employers have a duty to protect staff and reduce potential stress factors as best as they can through

- 1) providing them with good equipment;
- 2) encouraging experts to share feelings and experiences with one another;
- 3) ensuring staff to get enough rest and recreational time;
- 4) providing them with healthy, regular meals; and
- 5) encouraging practitioners to engage in stress reducing activities.<sup>867</sup>

Furthermore, some scholars argue that media presence and interest in graves can increase safety risks at the site, portray working processes without the necessary sensitivity and publicise the faces and names of forensic staff who would prefer to remain anonymous.<sup>868</sup> Media visits should thus be kept to a minimum and carefully managed if they occur.<sup>869</sup>

#### **7.3.3.8. Debriefing**

On completion of a forensic mission, one interviewee suggested that a ‘formal debriefing’ with the prosecutors and investigators would have been beneficial. Given the novelty of the forensic missions, both parties could have learnt valuable lessons about the way in which the operations were executed. Furthermore, during a debriefing

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<sup>864</sup> Haglund and Sirkin (n 737) 260.

<sup>865</sup> Wright and Hanson (n 761) 10.

<sup>866</sup> It should, however, be noted that the literature suggesting the need for psychological support and training programmes that incorporate awareness of potential emotional distress, is written predominantly by forensic experts involved in forensic missions that encompass ante-mortem data collection and identification provisions which have a much greater exposure to the trauma and suffering of victims. This has not been the case for forensic experts involved in the post-96 criminal evidence oriented forensic missions this research concentrates upon.

<sup>867</sup> Williams and Crews (n 807).

<sup>868</sup> Wright and Hanson (n 761).

<sup>869</sup> Ibid.

session forensic staff should be reminded of the value of their work for the prosecutors but also for humanitarian purposes, thus alleviating any feelings of frustration to have contributed so little towards achieving transitional justice or left many mass grave investigations unfinished.<sup>870</sup> It should be made clear to forensic staff that they may 'experience a range of emotions rooted in their work'<sup>871</sup> and that they should seek support if this is so.

#### 7.4. Trial Stage and Beyond

Looking at the forensic investigation stage, it emerges that the actors empower each other in a circular fashion throughout the investigation process to enable the efficient collection of evidence. During the trial stage, the evidence is then presented in court and sometimes the experts are asked to testify. The following section will concentrate on the exchange between actors that occurs in court and beyond, what issues can arise during this exchange and what strategies can be employed to facilitate a better interaction. The template (Figure 15) outlines the structure of the debate.

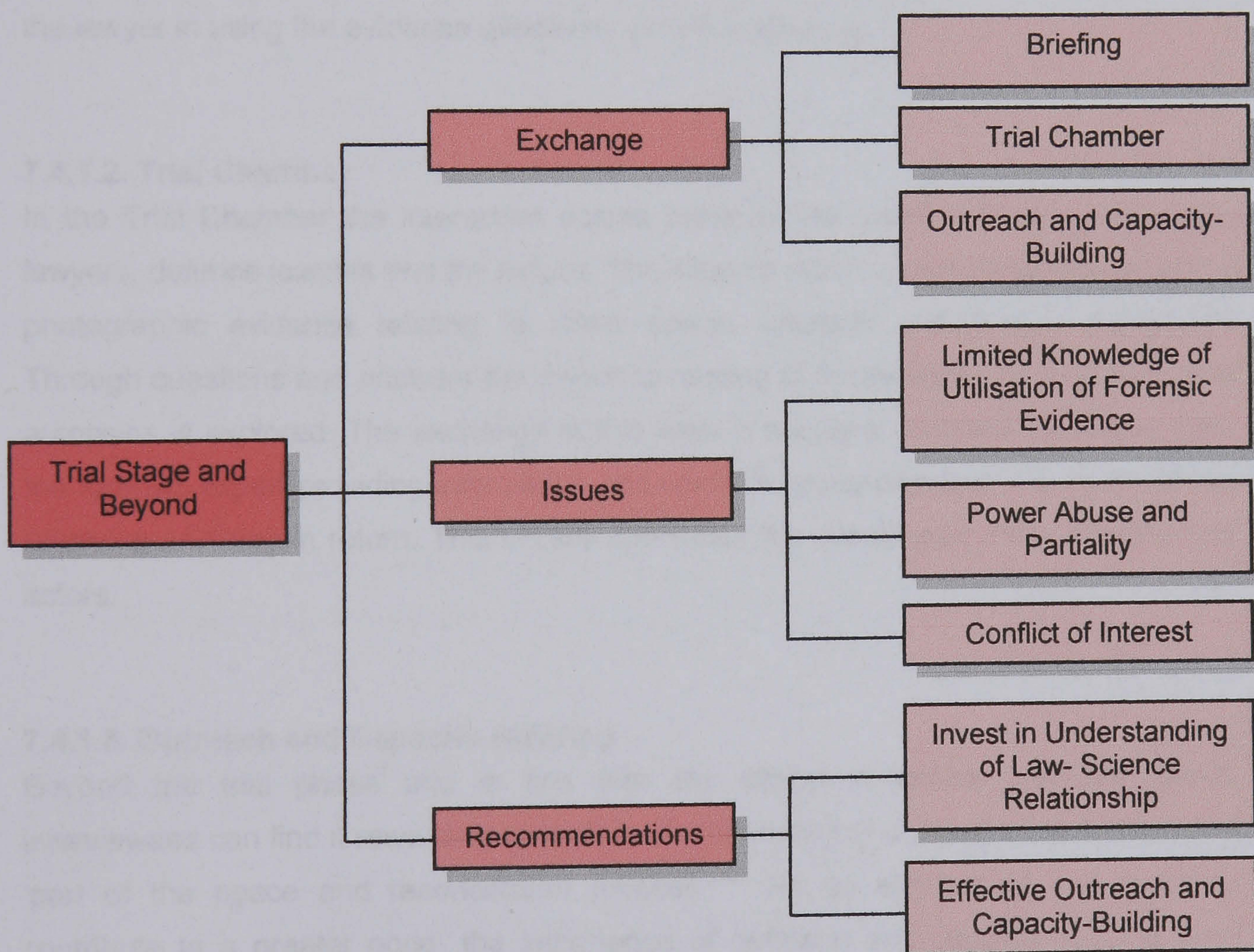


Figure 95: Trial Stage and Beyond

<sup>870</sup> See Haglund and Sirkin (n 737).

<sup>871</sup> Williams and Crews (n 807) 253.

### 7.4.1. EXCHANGE

The exchange at the trial stage is predominantly between lawyers and the senior forensic experts. It is the lawyers who lead the evidence in court, therefore at this stage the investigator 'becomes secondary'.<sup>872</sup> One interviewee described the exchange as follows:

I would be contacted by the legal people to say: "Look, this trial is going to come up. Are you available in May?" – or something like that. There would be a little bit of correspondence between us, perhaps; maybe the odd clarification of some reports or some other information. And prior to the trial I would go over and spend a few hours with the lawyer going over my evidence. And then the next day giving evidence in court – and that's about the extent to it.<sup>873</sup>

#### 7.4.1.1. Briefing

Under the heading 'Briefing' (section 6.2.2.1.) it has already been described how lawyers and expert witnesses discuss the relevance of the forensic evidence by going through the expert report and the type of questions that might be asked in court. This interaction is designed to help both parties prepare for the testimony and eliminate any misunderstandings: it will assure the expert witness as to their role in court and assist the lawyer in using the evidence effectively to its full potential.

#### 7.4.1.2. Trial Chamber

In the Trial Chamber the interaction occurs between the expert witness, prosecution lawyers, defence lawyers and the judges. The expert's report is discussed as well as the photographic evidence relating to crime scene, artefacts and human remains.<sup>874</sup> Through questions and answers the evidence relating to excavations, examinations and autopsies is explored. The exchange at this level is mainly a unilateral exchange, with the forensic expert providing information and scientific explanations to the court without receiving anything in return. This usually concludes the overall interaction between the actors.

#### 7.4.1.3. Outreach and Capacity-Building

Beyond the trial phase and in line with the ethical principles analysed above, interviewees can find it rewarding to work in 'the international context' because they feel 'part of the peace and reconciliation process'.<sup>875</sup> As an element of this desire to contribute to a greater good, the importance of outreach and capacity-building were mentioned during the interviews. One interviewee explained that '[g]enerally we would

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<sup>872</sup> Personal interview with forensic expert # 2 (3 October 2007).

<sup>873</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>874</sup> One interviewee mentioned that during the *Krstić* trial only two physical exhibits, one ligature and one blindfold, were presented in court (personal interview with investigator # 2 (12 December 2007)).

<sup>875</sup> Personal interview with forensic expert # 2 (3 October 2007).

keep them [the public] informed and [...] as soon as we finished [a grave], there would be some brief saying: Look, we've done these graves, but the results are still outstanding.<sup>876</sup> Especially for hybrid tribunals, such as the ECCC, where local and international staff work side by side, a capacity-building component forms part of the envisaged legacy. However, as part of the ICTY engagement, no cooperation between investigators, forensic experts and lawyers occurred at an outreach or a capacity-building level.

Some interviewees had, however, been involved in training and capacity-building exercises that were unrelated to the ICTY. During some of these training sessions, lawyers and forensic experts taught international law and forensic science, showing the link between the two disciplines.<sup>877</sup> At the ECCC, an outreach programme has been developed and considerations have been given as to how testimonies, photographic evidence and displays might impact on victims' and survivors' psyche.<sup>878</sup>

#### **7.4.2. ISSUES**

Whilst giving testimony in court is not necessarily a pleasant experience, expert witnesses are used to being questioned in court. In fact, one interviewee said 'it would be kind of disappointing [...] if you produced all this work and nobody starts questioning'.<sup>879</sup> Potential issues arising from the interaction during the trial stage and beyond are threefold:

##### **7.4.2.1. Limited knowledge of the Use of Forensic Evidence in Court**

Unless briefing sessions are conducted, experts might have a misunderstanding as to the workings of the court. According to the findings by Lorin de la Grandmaison and his colleagues (2006), 18 out of 25 surveyed pathologists apparently 'did not know how the medico-legal data was exploited by the ICTY',<sup>880</sup> indicating little knowledge as to the specific mandate of their mission or the workings of the Tribunal.

##### **7.4.2.2. Power Abuse and Partiality**

In any court setting, there is potential for power abuse on the part of the forensic expert. Expert status and knowledge give the impression of power and, if the expert has a particular conviction, the opinion expressed may go beyond the expert's competency. Of course, the professional ethos should prevent such inappropriate action, but lawyers and judges are wary that experts 'come in and try and bend the truth' as the exercise of

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<sup>876</sup> Telephone interview with investigator # 1 (30 July 2007).

<sup>877</sup> Personal interview with forensic expert # 9 (28 March 2007).

<sup>878</sup> Personal interview with researcher/academic # 1 (24 April 2007).

<sup>879</sup> Personal interview with forensic expert # 3 (30 May 2007).

<sup>880</sup> Lorin de la Grandmaison and others (n 774) 209.

power is 'enormously alluring'.<sup>881</sup> A rational element of distrust can therefore be very appropriate to guard against the illusion that with professional status and expertise trust levels increase.<sup>882</sup>

Similarly, there is the danger of partial and incomplete representation of the evidence on the part of the lawyers; in which case the expert will feel that the 'forensic truth' has not been portrayed accurately, leaving him or her feeling involuntarily complicit in a particular narrative.

#### **7.4.2.3. Conflict of Interest**

In relation to outreach and capacity-building, a conflict of interest may manifest itself when forensic experts engage with the local community or offer training sessions, as they might be perceived to have lost their independence, impartiality and neutrality by cooperating with a tribunal beyond the actual forensic investigation.

### **7.4.3. RECOMMENDATIONS**

Once more, it is communication above all that is valued between forensic experts and lawyers during the latter stage of the cooperation. If the recommendations on appropriate training levels are followed, most of the issues that can arise during the trial, capacity-building and outreach stages are avoidable. In concrete terms, however, the following recommendations can be formulated:

#### **7.4.3.1. Invest in Understanding of Law-Science Relationship**

Experts, especially those giving testimony, should understand the workings of the court and the processes in which the forensic evidence is used. Furthermore, as actors are aware of the theoretical differences between law and science, as outlined in the previous analysis chapter, it becomes clear that admissibility rules and adherence to professional ethos on the part of each party should regulate behaviour in court. Those involved in the interaction should invest the time to gain a real understanding of the law-science

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<sup>881</sup> One interviewee expressed the view that the wish for power can be endemic to the legal system:

Don't forget the exercise of power [...] is enormously alluring and you will find for example in the ICTY that investigators would squirrel away evidence, not tell other people about it. Lawyers would do the same thing. Because as long as they hang on to that piece of evidence, it gives them the little bit of extra power (personal interview with international lawyer # 6 (1 November 2007)).

<sup>882</sup> In fact, research on trust has shown that without denying the importance of trust as a crucial ingredient for efficient cooperation, a 'contemporary perspective on social relationships must allow for simultaneous trust and distrust' (RJ Lewicki, McAllister and Bies (n 799) 440).



relationship within a particular legal setting and of its implications for expert witness testimony.

#### **7.4.3.2. Effective Outreach and Capacity-Building**

As for outreach efforts, it was mentioned during interviews that the following is worth considering:

if you are going to go into communities where exhumations are taking place or about to take place to have a forensic scientist there who can explain step by step the process. [...] They could say what complications could arise, they may warn that it might take much longer than you would think and also explain the techniques that are being used.<sup>883</sup>

The findings on informed participation in the Bosnian Antemortem Database Project suggest that community involvement and disclosing information with cultural and psychological sensitivity was beneficial to survivors.<sup>884</sup> Such open communication during forensic investigations for criminal justice purposes might have similarly positive effects and would contribute to the survivors' 'right to truth'.

Capacity-building, on the other hand, seems to depend on circumstances. As already mentioned, the ECCC, due to its hybrid system, is intended to help build capacity in Cambodia. For the International Criminal Court with its investigations in different countries but without concentrated long-term efforts this is, however, much more difficult to realise and beyond the mandate of the ICC. Whilst the ICC engages in outreach in the areas where its investigations affect the population, training local staff is beyond the complementarity design of the institution: investigations are conducted solely by the ICC without the help of local investigators. Formulating effective outreach and capacity-building strategies will, where appropriate, involve those who have an interest in the processes, assure professionals that the objectives, potential and risks relating to forensic investigations are communicated and that efforts are made to empower the local community.

### **7.5. A Model for Improved Interaction**

This chapter has critically analysed the key stages of forensic investigations for criminal justice purposes, the interaction and exchanges that occur. Such interaction is a result of interdependence 'where the interest of one party cannot be achieved without reliance

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<sup>883</sup> Telephone interview with researcher/academic # 2 (10 September 2007).

<sup>884</sup> ME Keough, S Kahn and A Andreievic, 'Disclosing the Truth: Informed Participation in the Antemortem Database Project for Survivors of Srebrenica' (2000) 5 Health and Human Rights 68. The authors of the study recommend that

[i]nformation should be gathered and disclosed in a manner that will minimize the potentially negative impact of the interaction. Unavoidable negative consequences of disclosing painful material should be openly acknowledged and discussed (ibid 86).

upon another.<sup>885</sup> To achieve the effective investigation of mass graves and human remains, it has been shown that a high level of communication and mutual understanding between the actors is necessary to avoid multiple potential issues from arising.

Figure 16 synthesises the exchanges, potential issues and strategies these issues as discussed above. The model functions as an instructional model to rectify past problems that were discovered in the course of the study and is designed to prepare for future investigations of mass graves. Analysis has demonstrated that incompatible principles and overall aims can be a source of conflict, especially when the aims are closely linked to ethical beliefs. It is therefore paramount for the employing organisation to be aware of the ethical rules that govern the different professions, whilst the contractors need to know about their employer's legal mandate and requirements. Similarly, practical matters such as planning, training, recruitment and contracts need careful consideration in order to foster trust between the actors. During the investigations themselves, the more continuity there is regarding staffing, protocols, decision-making and measures to ensure the wellbeing of all actors, the greater the chances of effective communication and fruitful interaction, and the less difficult it is to accept working processes, acknowledge the need for compromise, avoid power struggles, cope with limited resources, enhance willingness to trust and evade unnecessary risk-taking. If these recommendations are realised in practice, cooperation should not become dysfunctional. Once the forensic report, which contains what has been referred to as 'forensic truth', is handed over, the experts can be called to give evidence. Issues of power abuse and trust can hamper effective communication and the representation of the forensic truth, to the detriment of justice. The outreach and capacity-building activities, if they are an option as part of international criminal justice provisions, can create a platform where both lawyers and forensic scientists could operate at the same level without power or trust issues. Figure 16 outlines these exchanges that occur, the issues that may arise and the solutions or strategies that have been inferred from the analysis. The proposed solutions should therefore inform and facilitate effective implementation during future forensic investigations for international criminal prosecution purposes such as those undertaken by the International Criminal Court and inform missions conducted by organisations such as the International Commission on Missing Persons or Inforce.

In the model, the exchanges listed above the arrow represent the type of exchange occurring during each stage of the forensic mission between the two groups of actors, legal and investigative professionals on the one hand, and forensic science professionals on the other. The arrow does not indicate a continuum, but represents the exchange actions that take place between the parties.

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<sup>885</sup> Rousseau and others (n 798) 395.

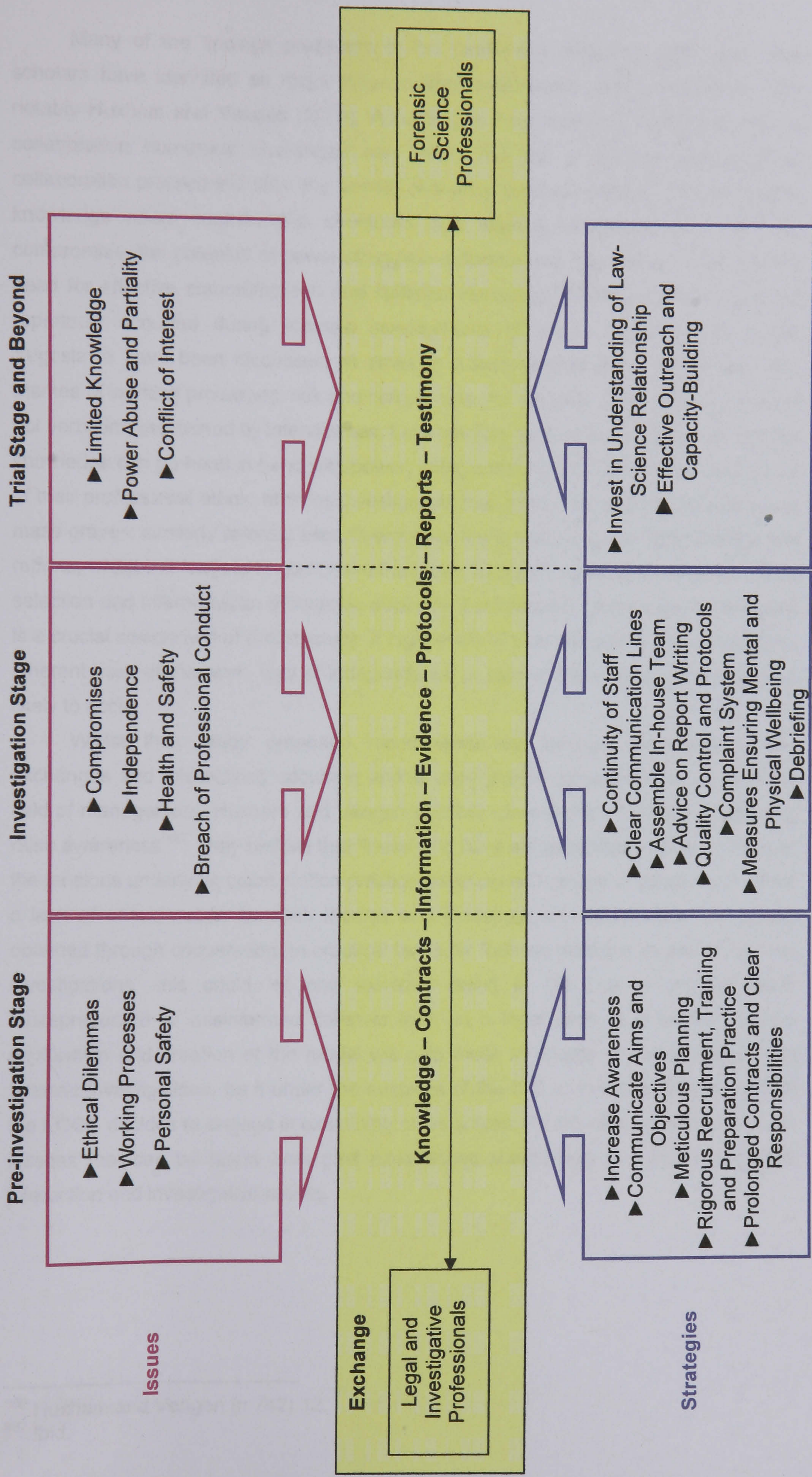


Figure 10: Exchange, Issues and Strategies Model

Many of the findings presented in the model are congruent with what other scholars have identified as major issues within collaboration and cooperation, most notably Huxham and Vangen (2005). According to their research, during any type of collaboration numerous challenges can arise. The list of themes arising during collaboration practice includes: the benefit of sharing common aims and fostering trust, knowledge about membership structures and working processes, the need for compromise, the potential of power struggles, reduction and awareness of risk and the need for effective communication and sufficient resources.<sup>886</sup> Many of the issues that reportedly occurred during forensic investigations of mass graves in the former Yugoslavia have been discussed, at times in a less abstract form, in the text. The themes of working processes, risk and compromise, for example, have been explicitly (if not verbatim) mentioned by interviewees. Less tangible concepts also emerged: superior knowledge can go hand in hand with power, luring actors to prove this power at the cost of their professional ethos: at times investigators hold power due to their intelligence on mass graves; similarly forensic experts empower the prosecution with their findings and reports, whilst the lawyers in court have the power to create narratives based upon their selection and interpretation of forensic evidence. Furthermore, trust between the actors is a crucial component of relationships. If high levels of trust are achieved, worries about inherent risks of the work, loss of independence or lack of future employment are less likely to occur.

Whilst their study proposed recommendations tailored specifically to the exchanges and interactions occurring and is underpinned by scholarly work from the field of management, Huxham and Vangen's (2005) main solution to those issues is to raise awareness.<sup>887</sup> They believe that 'those who have a sophisticated understanding of the tensions underlying collaboration practice generally do manage to collaborate'; whilst a lack of consideration for such themes and processes can compromise the results obtained through cooperation. In practical terms for forensic missions as part of criminal investigations, this could, at one extreme, result in the use of misinterpreted, misrepresented or misinformed 'forensic truth' in a legal case. It is hoped that the exploration and creation of the model will help those in charge of coordinating future forensic investigations, be it under the auspices of the ICC or in the unlikely event that the ECCC decides to engage in examining mass graves. An increased awareness of the lessons that can be learnt from past experiences should help to facilitate improved interaction and investigative results.

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<sup>886</sup> Huxham and Vangen (n 742) 12.

<sup>887</sup> Ibid.

## 8. Conclusion

This research demonstrates that the interaction between forensic science from mass graves and international criminal law is multi-dimensional and multi-faceted. Through a combination of case study material, primary data, literature, trial transcript and jurisprudence, the study identified three major aspects of this interaction worthy of this detailed examination: 1) the value of mass grave evidence dependent on the context, 2) the 'forensic science-international criminal law relationship' from a theoretical point of view and 3) the practical exchanges and interaction between the professions. From each of these discussions a number of lessons both for theory development and application to practice can be learnt.

Whilst the first chapter provides an overview of the transitional justice, international criminal law and forensic science contexts in which this research is anchored, the second chapter outlines the aims and objectives of the study. The methodology chapter explains the epistemological premises (critical realism), qualitative methods for generating primary data (case studies and interviews) and qualitative analysis tools (thematic analysis and template analysis) employed by the research. A detailed description of and the reasons for selecting the Yugoslavian and Cambodian case studies are presented in chapter four.

Chapter five concentrates on the value of forensic science from mass graves for prosecution purposes. During the analysis it transpired that in the Yugoslavian context, forensic evidence from mass graves has contributed significantly to investigations and successful prosecutions. Specifically in relation to proving the base crime, mass grave evidence has been presented during trials and featured in judgments adding the important component of physical evidence to mere witness and documentary evidence. The scope of what forensic sciences, especially forensic anthropology, archaeology and pathology, can contribute to criminal investigations is discussed, outlining the areas that are most likely to be of interest for investigation, prosecution and defence within the international criminal context. Furthermore, through contrasting the differing case studies it became clear that a value assessment of forensic science for criminal prosecutions needs to take into consideration the political situation, work of NGOs and, most importantly, the views and wishes of the local population itself. Investigating mass graves can have a huge impact on communities as a whole, families and individuals. Given that international criminal trials are designed to render justice, the impact assessment of mass grave investigations, and investigations in general, needs to consider the ramifications for communities: identification, cultural, religious and commemorative issues relating to the treatment of human remains may arise. For future forensic missions, it is clear that developments in international human rights law, and the provision of a 'right to truth' in particular, are likely to become increasingly important for international criminal trials. As victim participation during the proceedings has become

possible, forensic investigations and the identification of deceased victims may be demanded.

Chapter six engages in a theoretical debate on the 'forensic science-international criminal law relationship'. Through the example of forensic archaeology, the forensic disciplines involved during mass grave investigations are scrutinised to see how scientific they actually are because forensic sciences encompass scientific and non-scientific methods, techniques and skills. The creation of and adherence to protocols has been acknowledged to be paramount in providing uniform standards and bringing transparency to the process of forensic investigations into mass grave contexts. However, no such standardised protocols have yet been accepted within the forensic community. The necessity for such protocols as well as strong normative elements governing forensic practitioners is further stressed as forensic investigations conducted under the ICTY (and future missions under the ICC) follow the partisan truth-finding approach of adversarial legal models. Therefore, the 'forensic truth' created during forensic investigations is prone to attack from those suspecting case construction and other forms of bias resulting from forensic practitioners' involvement with one party to the proceedings. Whilst the system of examination-in-chief, cross-examination and counter-expertise is designed to detect flaws in scientific methods, potential malpractice and misconduct, few provisions are in place to guard against the admission of questionable scientific evidence in court.

Chapter eight focuses on the practical aspects involved during the interaction between forensic practitioners, legal and investigative personnel when working for international forensic missions. With the help of exchange theory and the knowledge generated as part of the Yugoslavian case study, this section examines the various exchanges that occur during the phases of forensic missions: the pre-investigation stage, investigation stage, trial stage and beyond. From these exchanges, through analysis and synthesis of data and literature, a number of issues were identified and recommendations proposed to enhance cooperation between the professions involved during such investigative missions in order to avoid such issues during future missions (see Figure 16).

The research findings not only impact upon academic and theoretical debates surrounding the use of forensic science experts during international criminal proceedings, but also inform policies regarding the conception, organisation and execution of forensic missions for criminal investigative purposes by institutions such as the ECCC or ICC. In addition, the research findings should help to inform training curricula of forensic practitioners, international criminal lawyers and investigators.

### ***8.1. Implications for Theory***

All three analysis chapters have built theoretical bridges between the disciplines to increase and improve the understanding between practitioners. The created templates

thematically summarise the theoretical and conceptual elements relevant to each of the debates. The template outlining the major themes impacting upon the value of forensic science during international criminal investigations, for example, is designed to function as a guideline for future decision-making processes. Through analysing the ways in which forensic evidence from mass graves was used during international criminal trials, forensic practitioners' knowledge as to the relevance of the recovered evidence should increase. Whilst the ways and level of detail in which forensic practitioners recover and record evidence may be necessary to satisfy methods and agreed procedures, they ought to bear in mind that this level of detail might not necessarily feature in court or be relevant to proceedings. The evidence presented during international trials is likely to be very diverse and complex; forensic evidence will only provide one piece of the jigsaw. Similarly, outlining the potential contribution of forensic evidence from mass graves will raise awareness on the part of international lawyers and investigators as to what forensic sciences, such as forensic archaeology, anthropology and pathology, can provide.

Despite the argument that international criminal investigations are conducted for the sole purpose of rendering justice, it was outlined in the introduction that investigations and prosecutions are part of the wider transitional justice mix. The *Ecological Model of Response to Social Breakdown* (see section 1.1.) proposed by Fletcher and Weinstein<sup>888</sup> (2002) identified that much social reconstruction relies on community-oriented interventions. Similarly, the discussion within chapter five concentrates on how psycho-social considerations relating to the local population may impact-upon the usefulness of forensic science from mass graves. The Cambodian case study with its complex historical, cultural, religious and educational background emphasised how important it is to consider how Western science (and justice) paradigms can be perceived by local communities. Such impact assessments are an important planning element for decision-making, and it is the duty of the overall investigative body to ensure the impact assessments of investigative missions upon local or affected communities are conducted. This requires the investigating authorities to seek cooperation with other organisations that will help to ensure that the value of forensic science investigations is not diminished by adversely affecting the relevant communities and, more importantly, that no further distress is caused through investigations.

International criminal law and forensic science from mass graves provide the classic law-science debate with a new context thus posing new challenges for an established scholarly discourse. Clarifying the theoretical differences and similarities between forensic science from mass graves and international criminal law should ensure that at a conceptual level, academics, practitioners and aspiring practitioners understand

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<sup>888</sup> LE Fletcher and HM Weinstein, 'Violence and Social Repair: Rethinking the Contribution of Justice to Reconciliation' (2002) 24 Human Rights Quarterly 573, 624.

how and why the relationship between law and science can result in tensions. Providing an explanation of the way in which the two disciplines interact has also shown that a lack of consensus within the forensic science community as to how to regulate its practitioners and unify its standard operating procedures, whilst aspiring to the best use of scientific methods and quality assurance, results in uncertainties regarding evidence and expert witnesses. Just as international criminal justice requires a debate about penal justice (see section 1.3.), forensic science relating to mass graves needs agreements and a unified theory to help produce generally accepted best practices for those operations.

The theoretical output from chapter seven is summarised in the *Exchange, Issues and Strategies Model* which brings together the three separate templates introduced for the three different phases of criminal investigations into mass graves. The issues arising from the various exchange processes during forensic missions were categorised as follows:

- ethical dilemmas arising when the goals of forensic investigations clash with moral principles;
- lack of transparent and accepted working processes;
- concerns regarding personal safety;
- need on part of the professions to arrive at compromises;
- risk on the part of the forensic practitioners of losing independence;
- health and safety issues at the site;
- breach of professional conduct;
- limited knowledge of the other disciplines and the wider legal context;
- power abuse and partiality, particularly during the trial stage; and
- conflict of interest between the professions.

Theoretically understanding why such issues arise led to the formulation of strategies which will inform the planning, preparation and operation of future forensic missions.

Providing a comprehensive theoretical basis underpinning the 'forensic science-international criminal law interaction' and relationship will help to increase the likelihood of improved forensic investigations into mass graves under the International Criminal Court. Emerging theory from this interdisciplinary study creates an informed starting point for those disciplines and their practitioners to create theory and practice within their own subject areas that are aware of other disciplines and bear in mind the specific context in which they will operate.

## **8.2. Implications for Practice**

The main practical achievements of this thesis are to capture and preserve experiences from forensic missions under the ICTY, to compare and contrast them with other potential opportunities for forensic investigations (Cambodia), and ultimately to ensure that lessons are learnt. Overall, the research is geared towards advancing knowledge



and best practice of the processes involved in forensic missions during international criminal investigations.

From chapter five it became clear that a value assessment relating to forensic science will help to determine the need and value of forensic evidence and whether strategically it is deemed a priority area as part of criminal investigations. Whilst 'cost-benefit' analysis did not lend itself to establishing the value of forensic evidence,<sup>889</sup> it has been shown how forensic science evidence from mass graves has been used to facilitate prosecutions. Furthermore, the wider context surrounding international criminal prosecutions has been taken into account, outlining the challenges associated with conducting mass grave excavations and examinations. It transpired that an effective outreach strategy that communicates widely and regularly with the local populations is paramount. This will ensure that the local population understands the objectives and processes involved in investigations. Furthermore, for forensic missions as part of international criminal prosecutions to fit into the wider aims and objectives of transitional justice mechanisms, the employing authorities must systematically consult with other organisations that work alongside them to fulfil tasks resulting from mass grave investigations that are beyond the respective tribunal's remit. This requires effective communication with other organisations involved in the transitional justice process.

The theoretical debates within chapter six outline the importance of putting mechanisms into place that will minimise accusations of case construction (dependent on the legal system), bias and lack of standardised procedures. Whilst forensic practitioners can work towards improved quality assurance and standardised operating procedures, it is through strong ethical and normative elements that case construction claims can be avoided. It is advisable for the employing organisation to insist on pre-established protocols and code of ethics whilst agreeing briefing strategies to ensure that all investigative teams operate with the same policies.

Through examining the practical processes involved during forensic investigative missions, chapter seven proposed a number of strategies that should make forensic missions more efficient. First and foremost, effectively communicating the goals and objectives of the investigation, creating and outlining a strategic, yet flexible, plan are key to successful interaction. At a more specific level, recommendations include

- raising the awareness levels of what forensic investigations into mass graves can achieve;
- communicating clearly the aims and objectives of the mission;
- engaging in meticulous planning (involving legal, investigative, managerial and forensic advisers);

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<sup>889</sup> Comparing tangible figures with intangible variables is a difficult task to undertake and would have required a very different methodological approach. Comparing the money spent on forensic missions with the benefits such as how the evidence informed investigations, how many trials relied on forensic evidence and how it helped working towards identifications is just as difficult as trying to establish whether the costs spent on the ICTY are justified given the level of justice its trials brought to the former Yugoslavia.

- having rigorous recruitment, training and preparation practices in place to ensure that competent staff are employed;
- issuing prolonged contracts and communicating clear responsibilities will help to improve the level of trust within the forensic team;
- ensuring continuity of staff at the graves to facilitate continuity in working practices;
- providing clear communication lines to enable staff to contact the right person in charge when queries and problems arise;
- assembling an in-house forensic team as opposed to sub-contracting to NGOs;
- giving forensic experts guidance on report writing;
- ensuring adequate quality control and agreeing protocols;
- providing a complaint system through which staff can confidentially voice their concerns about elements of the forensic missions;
- offering various measures to ensure the mental and physical wellbeing of those involved;
- debriefing of staff on completion of a mission;
- investing time in understanding the law-science relationship which will help prevent misunderstandings and misconceptions; and
- formulating and engaging in effective outreach and capacity-building

It is suggested that adhering to the outlined recommendations will improve legal, investigative and forensic practice for future forensic missions.

### **8.3. Scope and Limitations of the Research**

The interdisciplinary nature of the study is its greatest strength and possibly its weakness. Whilst interdisciplinary studies have the advantage of crossing disciplinary boundaries, engaging different disciplines in dialogues that are relevant to them because the disciplines intersect and interact, they tend not to result in *sui generis* exhaustive intra-disciplinary debates. Furthermore, purist intra-disciplinary studies are anchored in well-established scholarly traditions, whereas interdisciplinary research needs to create and justify a platform of its own, making it effortless for the different disciplines to follow the discourse.

The audience that this research project addresses is diverse and encompasses:

- legal practitioners involved in the international criminal justice sector, especially those with prosecutorial and/or defence duties;
- law students interested in entering or seeking to enter the field of international criminal law;
- forensic practitioners involved in the excavation and examination of human remains from mass graves, notably forensic archaeologists, forensic

anthropologists and forensic pathologists but also other support staff such as radiographers and odontologists;

- institutions offering forensic science courses which incorporate investigations of human rights violations, as the outputs academically underpin the development of course curricula;
- forensic science students interested in transitional justice and the working processes of forensic missions for international criminal prosecutions; and
- investigators, police officers and scenes of crime officers who are engaged in international criminal investigations and/or seek training in the field of investigations of mass graves.

Although the research was able to identify areas where theories and practices in relation to forensic investigations into mass graves need further development, some of the issues arising during the interaction do not spring from disagreement between the three types of practitioners (forensic, legal and investigative) but from within the forensic profession *per se*. This is due to the fact that to speak of 'forensic sciences' involved in these forensic missions already blends differing forensic professions with their own methods, protocols and training. To do these individual forensic disciplines justice is beyond the scope of this research. Similarly, debates as to whether and how international criminal justice needs or wants to reconcile purist views on justice with a more holistic transitional justice framework need to take place.

Nonetheless, the research clarifies many important aspects of the 'forensic science-international criminal law relationship' which will be of particular interest to the International Criminal Court and any mass grave investigations it wishes to undertake in the future. This increased knowledge will enable lawyers, investigators and forensic practitioners to make better strategic decisions regarding the necessity of forensic investigations and the presentation of forensic evidence in court.

#### **8.4. Directions for Future Research**

Apart from research within the forensic sciences or international criminal law, future research in this interdisciplinary area will inevitably need to consider the activities and decisions undertaken by the International Criminal Court. As part of the value assessment the issue of victims' rights was discussed. Further research into the importance of a 'right to truth' on behalf of the victims follows naturally from this study and poses interesting areas for future research:

Firstly, what implication has a 'right to truth' as an internationally recognised human rights provision for transitional justice measures in general?

Secondly, what consequences would a 'right to truth' have for identification efforts of the missing and is this a right that can be legally, let alone practically, invoked?

Thirdly, what does a 'right to truth' mean within philosophical, legal and scientific thinking traditions? How do these concepts differ from one another and from the way in

which the concept of truth is conceived by victims, and is a scientifically ascertained 'truth' perceived differently by survivors than a 'legal truth'?

Fourthly, what are the ramifications of victims' participation, perhaps in conjunction with the 'right to truth' for criminal justice mechanisms, most importantly the International Criminal Court as it permits victims to participate in the proceedings? With the ICC becoming more active, it is both topical and significant to examine whether international criminal procedures will have to pay attention to the 'right to truth' and whether this will impact upon the ICC's operations. Furthermore, an area that has been neglected so far as part of the above debate relates to the rights of the deceased and whether any such rights are compatible with the right of survivors to know the truth. These questions, once again, provide new areas for interdisciplinary research in which philosophical, humanitarian, legal and, to some extent, forensic science considerations overlap.

Finally, expanding on the theoretical debates on the 'law-science' relationship, it would be interesting to explore how 'weighing of evidence'<sup>890</sup> in international criminal proceedings compares with 'attributing value to findings' within the forensic sciences from mass graves. Research in that area might find further conceptual and operational similarities or differences between the disciplines.

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<sup>890</sup> See S Krimsky, 'The Weight of Scientific Evidence in Policy and Law' (2005) 95 *American Journal of Public Health* 129.

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## 10. Glossary

**Ante-mortem data:** Comprehensive collection of information about a missing person to help identify them.

**DC-Cam:** Documentation Center of Cambodia.

**DNA:** Deoxyribonucleic acid; contains genetic information of all living organisms (and some viruses).

**ECCC:** Extraordinary Chambers in the Courts of Cambodia.

**Forensic Anthropology:** branch of applied physical anthropology and human osteology concerned with identifying skeletonised human remains for legal purposes.

**Forensic-Archaeology:** the application of archaeological methods, techniques and principles within a legal context.

**Forensic Pathology:** a branch of pathology concerned with determining the cause of death through autopsy and examination of bodily remains in a legal context.

**Geneva Conventions:** four international treaties formulated or revised in Geneva (1949) setting out standards for international law for humanitarian concerns. A further three additional amendment protocols to the Geneva Conventions have since been formulated.

**Genocide Convention:** convention adopted in 1948, entered into force in 1951 to prevent and punish the crime of genocide.

**Hague Conventions:** international treaties formulated at two peace conferences at The Hague in 1899 and 1907 setting out formal statements of the laws of war and war crimes.

**ICC:** International Criminal Court.

**ICJ:** International Court of Justice; judicial body of the United Nations located in The Hague; it hears disputes between states (based on the consent of both parties) and provides advisory jurisdiction.

**ICL:** International Criminal Law; law which considers crimes as international crimes when the international community recognises them not only as a violation of ordinary state criminal law, but as a crime which is so serious that it becomes a matter for international concern.

**ICMP:** International Commission for Missing Persons.

**ICRC:** International Committee of the Red Cross.

**ICTY:** International Criminal Tribunal for the Former Yugoslavia.

**ICTR:** International Criminal Tribunal for Rwanda.

**IR:** Internal Rules (Extraordinary Chambers in the Courts of Cambodia).

**IHL:** International Humanitarian Law; law which applies in times of armed conflict; its purpose is to protect civilians and those not participating in conflict from the effects of warfare.

JNA: Yugoslav National Army.

JPAC: Joint POW/MIA (Prisoners of War/Missing in Action) Accounting Command.

KLA: Kosovo Liberation Army.

MNI: Minimum Number of Individuals; fewest possible number of skeletal remains in a mass grave.

NATO: North Atlantic Treaty Organization.

NGO: Non-Governmental Organisation.

OMPF: Office on Missing Persons and Forensics (in Kosovo).

OTP: Office of the Prosecutor.

PHR: Physicians for Human Rights.

RPE: Rules of Procedure and Evidence (ICTY and ICC).

SFOR: NATO-led Stabilisation Force in Bosnia and Herzegovina.

SOP: Standard Operating Procedures.

UN: United Nations.

UNCHR: United Nations Commission on Human Rights.

UNGA: United Nations General Assembly.

UNMIK: United Nations Mission in Kosovo.

UNPROFOR: United Nations Protection Force.

UNSC: United Nations Security Council.

VRS: Bosnian Serb Army.

## 11. Appendices

## Post-conflict reconstruction and peace-building: where forensic scientists and lawyers meet

Melanie Klinkner<sup>1</sup>

### Roles in post-conflict reconstruction and peace-building

Both lawyers and forensic scientists have been, and continue to be, involved in post-conflict reconstruction processes and are instrumental in establishing a record of the past. Through bringing those responsible for serious violations against human rights and international humanitarian law to justice, lawyers help to render justice and dignity to the victims and aim to contribute to the restoration of peace. Forensic scientists gather, examine and interpret evidence to reconstruct events, which contribute to the achievement of justice and identification of victims.

### Where do they meet and do they work together?

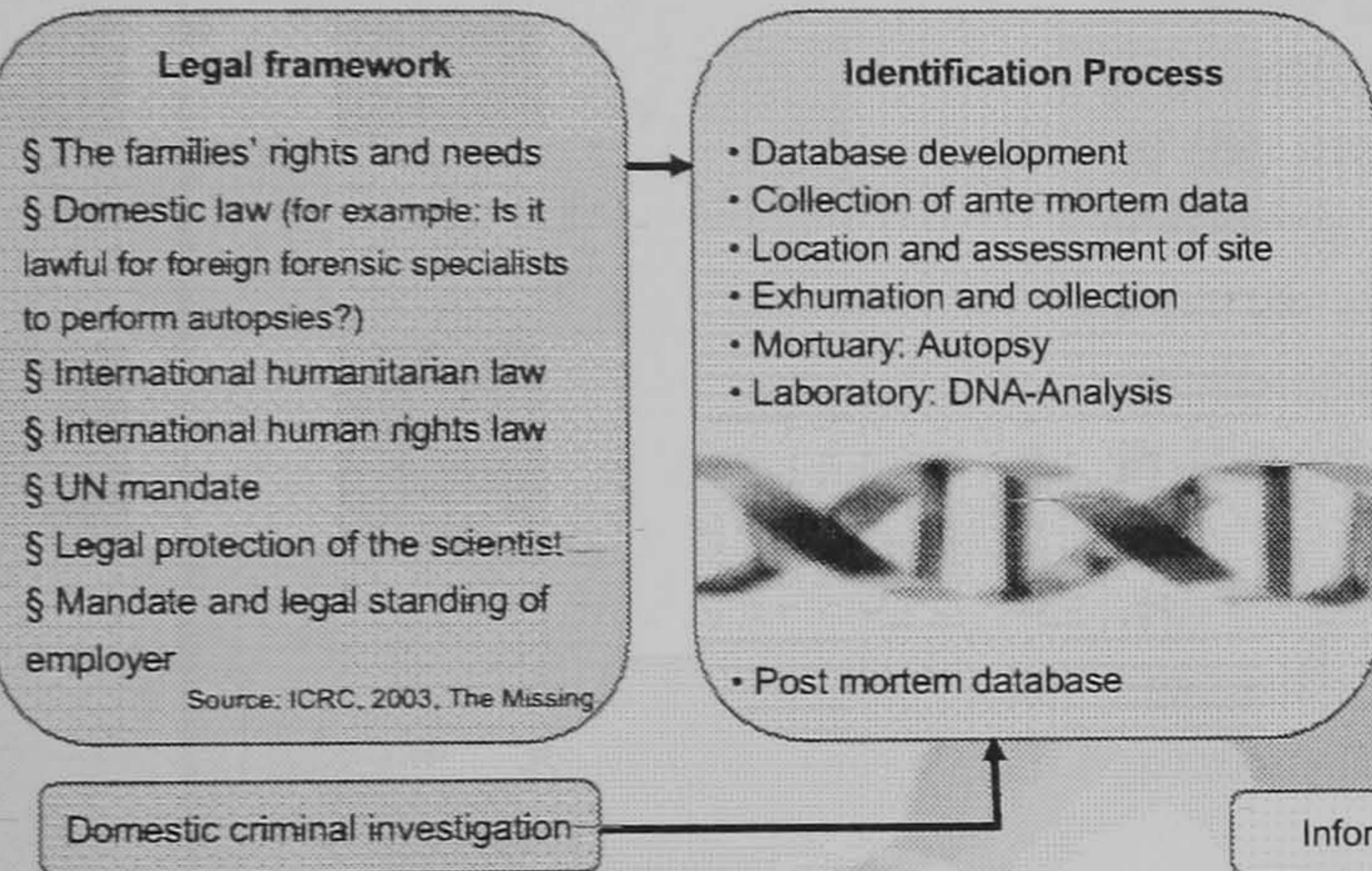
Asking where forensic scientists and lawyers are likely to meet is the first step in a study that aims to establish if, how and why cooperation contributes to the post-conflict reconstruction and peace-building process.

#### Humanitarian needs

Article 32 of Protocol I Additional to the Geneva Conventions relating to the Protection of Victims of International Armed Conflict states "the right of families to know the fate of their relatives" (United Nations, 1977). Armed conflict and outbreaks of political violence claim many lives and leave families behind with the uncertainty of what happened to their relatives.

Without adequate proof of death, relatives of a missing person cannot mourn and address the past. It is the forensic scientists who collect, exhume and identify the remains and this process may be very time consuming. Whilst this need for information may not be met by formal judicial procedure, the right of family, domestic legal norms and local customs remain to be observed.

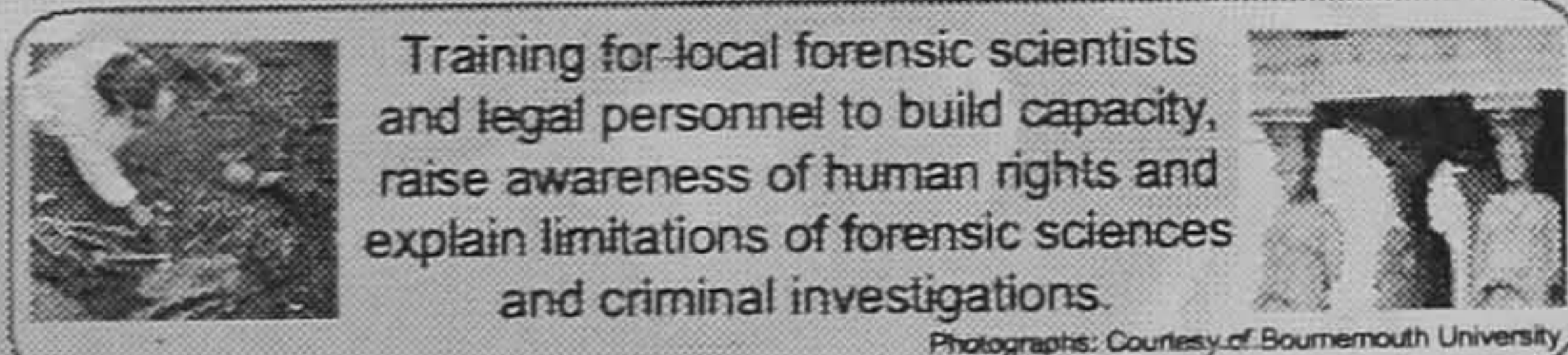
Identification as a humanitarian necessity – a case for cooperation?



#### Capacity building

The overall aim of post-conflict reconstruction and peace-building is to create a secure self-sustaining environment; capacity building is an integral part of this strategy.

Capacity building through cooperation?

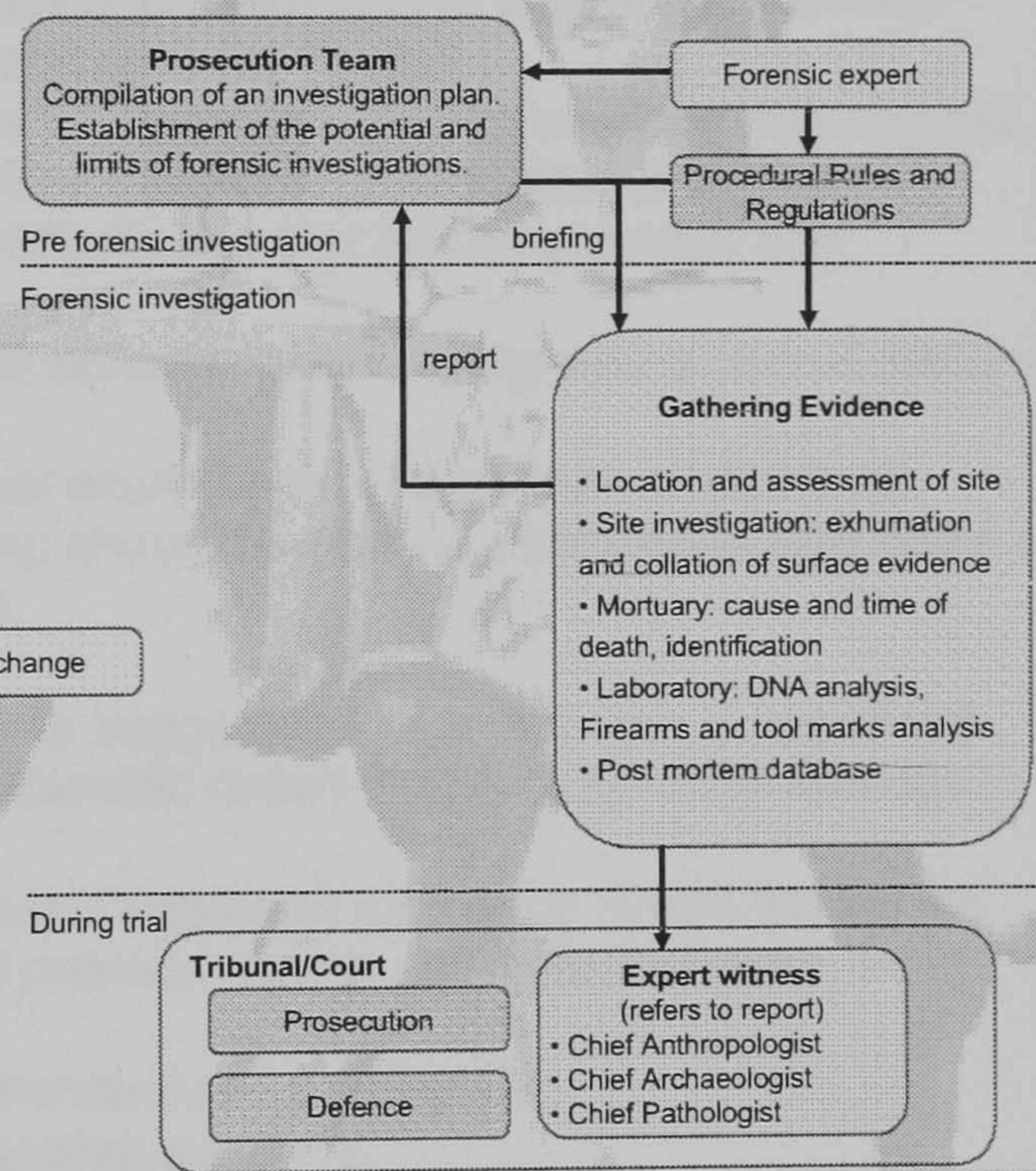


#### Legal needs

The intention behind criminal investigations, specifically at international tribunal level, is to build domestic capacity for peace through "breaking the cycle of violence, hatred and extra-judicial retribution" (ICTY-website). The International Criminal Tribunal for the former Yugoslavia, for example, is to trial grave breaches of the 1949 Geneva Conventions, violations of the laws or customs of war, genocide and crimes against humanity.

Through forensic investigations and exhumations witness statements can be corroborated, injuries documented, and causes and date of death identified. It provides a picture of the patterns of crimes committed, helping the prosecution to establish the intention (*mens rea*) behind the crimes as well as the extent of the actual crimes.

Criminal Investigation – cooperation through lack of resources.



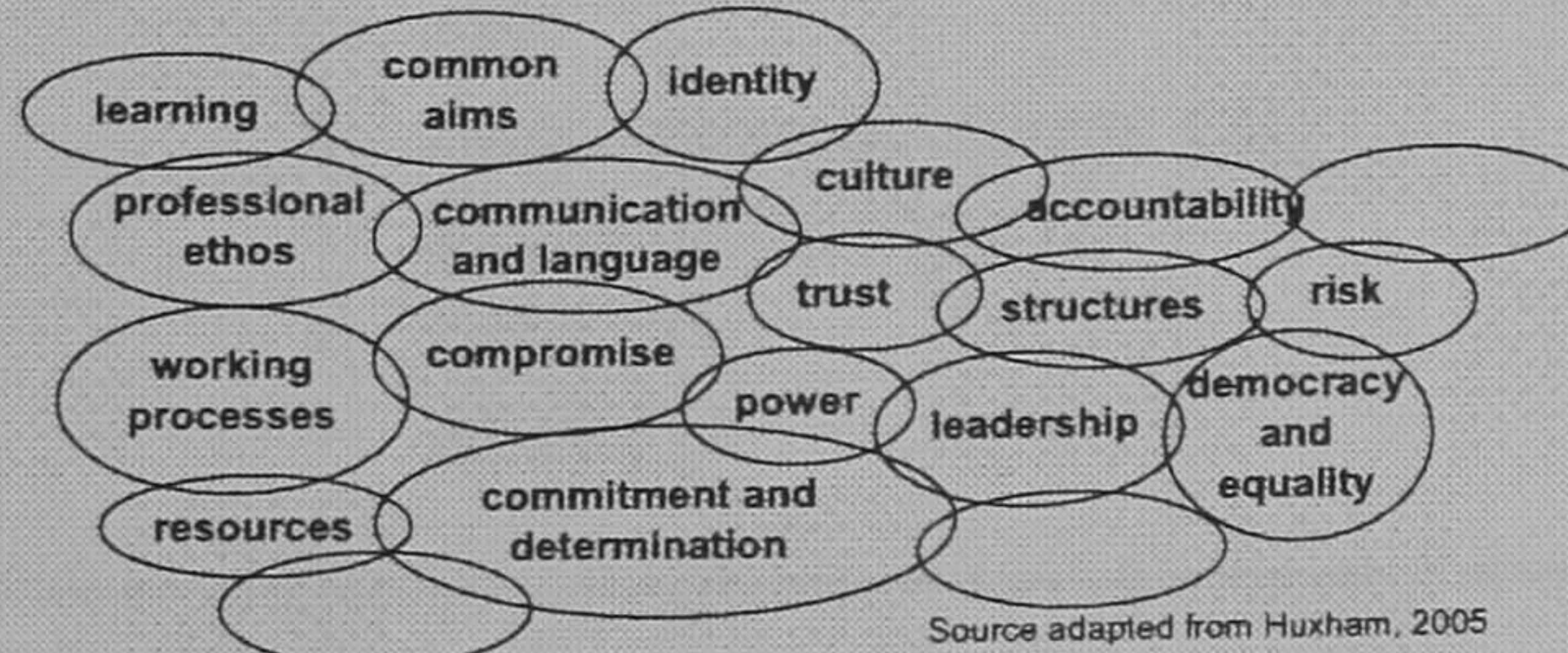
### The importance of cooperation

**Cooperation:** acting together in a coordinated way in pursuit of the same overall goal.

1. Where and how did forensic scientists and lawyers work together in the past?
2. What are the motivations and preconditions for cooperation?
3. What type of cooperation is most suitable?

Forms of Interaction: Communication flow (low) ← Dialogue → Advice → Strategic Alliance → Partnership (high) Degree of Cooperation

4. What are the difficulties within cooperation?



5. What are the intentional and unintentional outcomes of cooperation?

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### Findings from the Scoping Study

Discussion points	Expressed views and thoughts
1. Motivations for Cooperation	<p>The following points were raised:</p> <ul style="list-style-type: none"> <li>▪ <i>to facilitate law enforcement and justice through evidence recovery (5);</i></li> <li>▪ <i>to increase knowledge (1);</i></li> <li>▪ <i>to provide families with human remains, identification and closure (4);</i></li> <li>▪ <i>to meet interesting people (1);</i></li> <li>▪ <i>to work for human rights purposes (1);</i></li> <li>▪ <i>to further research and development (1);</i></li> <li>▪ <i>to provide the right level of specialist support (1).</i></li> </ul>
2. Level of Cooperation	<p>Some forensic experts were uncomfortable with terms such as cooperation or strategic alliance and avoided answering this question.</p> <p>However, those who did respond indicated that</p> <ul style="list-style-type: none"> <li>▪ <i>at the pre-investigation stage some form of interaction (mainly communication and advice) was needed to help plan missions and draft SOPs (7);</i></li> <li>▪ <i>at the investigative stage little interaction was needed (and if mainly communication and dialogue)(3), with one interviewee strictly stating that NO cooperation was preferable;</i></li> <li>▪ <i>at the trial stage some-level of briefing was deemed useful (4);</i></li> <li>▪ <i>working together would benefit identification efforts (3);</i></li> <li>▪ <i>capacity building should be done in partnership with other professions (2).</i></li> </ul> <p>Additional comments suggested that interaction is beneficial</p> <ul style="list-style-type: none"> <li>▪ <i>to explain the scientific nature and validity of the findings (3);</i></li> <li>▪ <i>to give the forensic expert an idea as to where he/she fits into the overall process and to meet the mission's objectives (2);</i></li> <li>▪ <i>to facilitate better decision making (1);</i></li> <li>▪ <i>to enhance planning stage (1).</i></li> </ul>
3. Difficulties with Cooperation	<p>The following responses were given:</p> <ul style="list-style-type: none"> <li>▪ <i>language (3);</i></li> <li>▪ <i>lack of precision (1);</i></li> <li>▪ <i>too busy (1);</i></li> <li>▪ <i>issues arising from evidence production such as consent (1);</i></li> <li>▪ <i>lack of understanding as to what professions want and do (3);</i></li> <li>▪ <i>misunderstandings (1);</i></li> <li>▪ <i>inadmissibility (1);</i></li> <li>▪ <i>bias (1);</i></li> <li>▪ <i>trust (1).</i></li> </ul>

Discussion points	Expressed views and thoughts
4. Intentional Outcomes of Cooperation	<p>The following suggestions were made:</p> <ul style="list-style-type: none"> <li>▪ <i>truth (both scientific and legal) (1);</i></li> <li>▪ <i>enhanced understanding (5);</i></li> <li>▪ <i>training and education (1);</i></li> <li>▪ <i>production of admissible and accurate evidence (2);</i></li> <li>▪ <i>justice (1);</i></li> <li>▪ <i>closure for families (2);</i></li> <li>▪ <i>improved processes (1).</i></li> </ul>
5. Unintentional Outcomes of Cooperation	<p>Only five out of ten participants discussed this point and the following views were expressed:</p> <ul style="list-style-type: none"> <li>▪ <i>realisation that they have the same mutual goal: justice for victims (1);</i></li> <li>▪ <i>training (1);</i></li> <li>▪ <i>build professional relationships (1);</i></li> <li>▪ <i>miscommunication (1);</i></li> <li>▪ <i>inherent risks (1).</i></li> </ul>
6. Role of Investigator	<p>The following views were expressed:</p> <ul style="list-style-type: none"> <li>▪ <i>must be aware of evidence collection, preservation and continuity (4);</i></li> <li>▪ <i>to provide advice and context (1);</i></li> <li>▪ <i>to act as a link between science and the legal framework (1);</i></li> <li>▪ <i>responsible for chain of evidence (1).</i></li> </ul>

*Image of a Mass Grave at Potočari, Srebrenica, Bosnia and Herzegovina*



Source: the author (11 July 2007)



The Business School

An assessment of the importance of cooperation between lawyers and forensic scientists in post-conflict reconstruction and peace-building

INTERVIEW CONSENT FORM

1. I hereby agree to be interviewed by Melanie Klinkner for the purpose of her study into cooperation between lawyers and forensic scientists.

Project outline:

The goal of the study is to evaluate the importance of, and identify the obstacles to, cooperation, and to produce a set of recommendations for future investigations. The research relies on semi-structured interviews to reflect on past and current levels of cooperation and probe opportunities for future enhancement in order to generate advice and recommendations.

2. The purpose and nature of the interview have been explained to me.

3. I grant Melanie Klinkner permission to document - through audio recording and transcription - our interview.

4. The information I agree to share with the interviewer is to be used solely for the purposes of her studies.

5. The knowledge contained in the oral account will not be given to any non-project staff.

6. Confidentiality and anonymity in analysis are assured. The content of the interview may be read, quoted, or cited from and disseminated for educational and scholarly purposes only.

Signature interviewee: .....

Name of interviewee: .....

Date: .....

I have explained the research project and nature of the interview. I believe that the consent is informed and that he/she understands the implications of participation.

Signature interviewer: .....

Name of interviewer: .....

Date: .....

Forensic Scientists	Researcher/Academic	Prosecution/Investigation	Defence Lawyer
<p><i>Professional Values &amp; Motivations:</i></p> <p>Why did you engage in Khmer Rouge mass grave mapping investigations?</p> <p>Of what value is your work?</p> <p><i>Forensic investigations:</i></p> <p>Would you describe the work you conducted and when you were working on the project?</p> <p>What were your findings?</p> <p>Who were you working for?</p> <p>Who was accountable for your work?</p> <p>What was the main purpose of your work?</p> <p>What conditions were you working under?</p> <p>What procedures and standards were applicable?</p> <p>What ethical and legal obligations were applicable?</p>	<p><i>Professional Values &amp; Motivations:</i></p> <p>What work has been conducted in relation to the Khmer Rouge trials and forensic investigations?</p> <p>Of what value is your work?</p> <p><i>Forensic investigations:</i></p> <p>Would you describe the forensic work conducted and when this took place?</p> <p>What were the findings?</p> <p>Who were the forensic scientists working for?</p> <p>Who was accountable for this work?</p> <p>What was the main purpose of the forensic work?</p> <p>What procedures and standards were applicable?</p> <p>What ethical and legal obligations were applicable?</p>	<p><i>Professional Values &amp; Motivations:</i></p> <p>Why did you engage in work for the Khmer Rouge trials?</p> <p>What is the value of your work?</p> <p><i>Forensic investigations:</i></p> <p>Would you describe the forensic work conducted and when this took place?</p> <p>What were the findings?</p> <p>Who were the forensic scientists working for?</p> <p>Who was accountable for this work?</p> <p>What was the main purpose of the forensic work?</p> <p>What procedures and standards were applicable?</p> <p>What ethical and legal obligations were applicable?</p>	<p><i>Professional Values &amp; Motivations:</i></p> <p>Why did you engage in work for the Khmer Rouge trials?</p> <p>What is the value of your work?</p> <p><i>Forensic investigations:</i></p> <p>Would you describe the forensic work conducted and when this took place?</p> <p>What were the findings?</p> <p>Who were the forensic scientists working for?</p> <p>Who was accountable for this work?</p> <p>What was the main purpose of the forensic work?</p> <p>What procedures and standards were applicable?</p> <p>What ethical and legal obligations were applicable?</p>

Forensic Scientists	Researcher/Academic	Prosecution/Investigation	Defence Lawyer
<p><i>Role:</i></p> <p>What role do you think will forensic experts play for the Khmer Rouge trials?</p>	<p><i>Role:</i></p> <p>What role do you think will forensic experts have for the Khmer Rouge trials?</p>	<p><i>Role:</i></p> <p>How would you describe your role within the Khmer Rouge trials?</p>	<p><i>Role:</i></p> <p>How would you describe your role within the Khmer Rouge trials?</p>
<p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the prosecution for the Khmer Rouge trials?</p> <p>What, in your opinion, is the role of the defence for the Khmer Rouge trials?</p>	<p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the prosecution for the Khmer Rouge trials?</p> <p>What, in your opinion, is the role of the defence for the Khmer Rouge trials?</p>	<p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the forensic scientist for the Khmer Rouge trials?</p> <p>What ethical and legal obligations do the forensic experts have?</p> <p>What procedures and standards were/are forensic scientists required to work towards?</p>	<p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the forensic scientist for the Khmer Rouge trials?</p> <p>What ethical and legal obligations do the Forensic experts have?</p> <p>What procedures and standards were/are forensic scientists required to work towards?</p>
<p><i>Relationships:</i></p> <p>Are you in contact with the prosecution lawyer regarding forensic evidence?</p> <p>Are you in contact with the defence regarding forensic evidence?</p> <p>What are the intended outcomes of working with lawyers?</p> <p>What are the difficulties in working together?</p>	<p><i>Relationships:</i></p> <p>Are you in contact with the prosecution lawyer regarding forensic evidence?</p> <p>Are you in contact with the defence regarding forensic evidence?</p> <p>What are the intended outcomes of working with lawyers?</p> <p>What are the difficulties in working together?</p>	<p><i>Relationships:</i></p> <p>Are you in contact with forensic experts regarding the use and value of forensic evidence?</p> <p>What are the intended outcomes of working with forensic scientists?</p> <p>What are the difficulties in working together?</p>	<p><i>Relationships:</i></p> <p>Are you in contact with forensic experts regarding the use and value of forensic evidence?</p> <p>What are the intended outcomes of working with forensic scientists?</p> <p>What are the difficulties in working together?</p>

Forensic Scientists	Researcher/Academic	Prosecution/Investigation	Defence Lawyer
<p><i>The Use of forensic sciences:</i></p> <p>How important will forensic science be for the Khmer Rouge trials?</p> <p>Do you think prosecution and defence understand the relevance of your work?</p> <p>Do you think forensic science will be used adequately and fairly during the trials?</p> <p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists regarding forensic investigations at the following stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During the trial</p> <p>Beyond the forensic investigation?</p> <p>How would you implement this ideal scenario?</p>	<p><i>The Use of forensic sciences:</i></p> <p>How important will forensic science be for the Khmer Rouge trials?</p> <p>Do you think prosecution and defence understand the relevance of your work?</p> <p>Do you think forensic science will be used adequately and fairly during the trials?</p> <p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists regarding forensic investigations at the following stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During the trial</p> <p>Beyond the forensic investigation?</p> <p>How would you implement this ideal scenario?</p>	<p><i>The Use of forensic sciences:</i></p> <p>How important is forensic science for the Khmer Rouge trials?</p> <p>How will forensic evidence be used in the trials?</p> <p>Do you seek any help to fully understand forensic evidence?</p> <p>Do you think forensic science will be used adequately and fairly during the trials?</p> <p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists regarding forensic investigations at the following stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During the trial</p> <p>Beyond the forensic investigation?</p> <p>How would you implement this ideal scenario?</p>	<p><i>The Use of forensic sciences:</i></p> <p>How important is forensic science for the Khmer Rouge trials?</p> <p>How will forensic evidence be used in the trials?</p> <p>Do you seek any help to fully understand forensic evidence?</p> <p>Do you think forensic science will be used adequately and fairly during the trials?</p> <p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists regarding forensic investigations at the following stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During the trial</p> <p>Beyond the forensic investigation?</p> <p>How would you implement this ideal scenario?</p>

<b>Forensic Scientists</b>	<b>Researcher/Academic</b>	<b>Prosecution/Investigation</b>	<b>Defence Lawyer</b>
<p><i>Beyond the Khmer Rouge trials:</i></p> <p>What impact has your work on the local population?</p> <p><i>Demographic Questions:</i></p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p><i>Beyond the Khmer Rouge trials:</i></p> <p>What impact has forensic work on the local population?</p> <p><i>Demographic Questions:</i></p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p><i>Beyond the Khmer Rouge trials:</i></p> <p>What impact has forensic work on the local population?</p> <p><i>Demographic Questions:</i></p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p><i>Beyond the Khmer Rouge trials:</i></p> <p>What impact has forensic work on the local population?</p> <p><i>Demographic Questions:</i></p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>



*Transcript Extract, example 1:*

*Start of transcript: page 5 line 23*

*End of transcript: page 8 line 11*

Q: You were working for the ICTY. Who was ultimately accountable for the work you were doing?

R: That was an unresolved issue. I was always confident that I was answerable to the Chief of Investigations; there was a person who had the title Chief of Investigations, but ultimately I was responsible to that person. Below him in the hierarchy was a Chief of Operations; and the Chief of Operations kept changing and was very unsatisfactory. And when I had problems of a logistical nature or personnel nature I would contact the Chief of Investigations in the first place. So I regarded the Chief of Investigations as ultimately my boss, but the Chief of Operations I think also regarded himself as my boss and this actually worked to my advantage because I was able to use whoever I thought was more appropriate and not to tire out one individual with the succession of requests. So the system worked well but from a formal point of view it was a bit unsatisfactory because I was never told in the contract who I was answerable to. Peculiar thing.

Q: And this Chief of Investigations would he always be based in The Hague?

R: He was based in The Hague.

Q: And the Chief of Operations?

R: They were both based in The Hague but the Chief of Operations would come sometimes come down and have look at the work. But, that was the role [...].

But sometimes on big policy – And on only two occasions I had to go to the Deputy Prosecutor, Graham Blewitt, on matters that were of a personnel nature which required – which had become paralysed and which I felt were so important that if they weren't resolved I couldn't continue with the work. And Graham Blewitt was a fantastic solver of problems. [14 lines redacted to ensure anonymity of interviewee]

I mean, we had problems with the team not being paid on time by Admin members and things like that. And personnel problems wanting to get rid of a person who was absolutely critical to the logistics of the team because they decided that [...] this person wasn't any good. In fact the person was excellent and I needed him and that was resolved by going privately behind the scenes. It's the type of relationship that you mustn't abuse but at times you can just play the card because the work has to be completed.

Q: And what conditions, in general, were you working under? Obviously you know that Margaret Cox is my supervisor so I have to ask about procedures and standards of operations you were working towards.

R: There was – eh. Our procedures were set out in a two page document which described the chain of command at the excavation and who was responsible for what and essentially what would be done. I can send you a copy of that if you haven't already got it.

Q: I don't think I have – so that would be wonderful.

R: All right [...]

Q: So, is two pages satisfactory?

R: Yes, for two reasons: One was they were – In my view it is very important in this work to set out the objectives and what will be done but not to tie yourself down with a whole lot of procedures that in the real life of the field you might not be able to follow. In other words: you might just have to abandon some of the protocols in order to complete other aspects of the work. And that's very dangerous for the prosecution case because the defence can get – can say: “well if you didn't follow your proper procedures here, how can we guarantee that you did anything properly?” That line of argument can be developed. So, when you read the protocols you will see that they cover every aspect of the work but they don't go into very fine detail and they were backed up by two very important evidentiary records one was the log of items that were recovered, the bodies, the body parts and the artefacts from the grave and they were all put onto a paper log which was supervised by the Scene of Crime Officer. So the integrity of the evidence was guaranteed at the normal prosecution standard. And then there was a photo log which was similarly guaranteed by Tim Lovelace because he was the photographer for four years. And the third thing were [...] field notes.

[6 lines redacted to ensure anonymity of the interviewee]

The logs and the general procedures for surveying and what's to be recorded and photographed also had listing pages.

Q: And who drafted these two pages?

R: Oh, well, we – they grew. When I say grew— they were modified over the years and what I will send you is the generic version which was used in 2000.

Q: So everybody contributed to it?

R: Yeah, that's right. I always said that in my view this sort of work should be done a bit like a seminar environment. Ultimately you are in charge you can take responsibility but it would be crazy if you don't ask your team – a lot of them have specialised knowledge – what they think should be done. Because each archaeological site is unique and new sets of procedures has to be put into place because of the nature of the soil, the preservation of the bodies; and Archaeology is quite unlike laboratory based analysis where you mustn't deviate from protocol. If you are going to do a blood-type analysis you mustn't deviate – everything has to be done the same way. But that's not the case with an archaeological site where I think a hierarchical approach to management is bad. You have to take responsibility – the chief archaeologist has to take responsibility and make a decision and then that's that, once the decision is made. But it needs, particularly in the early stages of working on the site, how to plan the approach, and how to get it done in time the tension [?] of evidence – all this needs to be discussed with people, all of them had had a hell of a lot of experience.

Q: Were there any ethical or legal obligations specified by the ICTY?

R: They were what you might call professional ethical obligations – the standards of the work. But there were no – ehm. We were not dealing with relatives because we were working in a hostile, I mean a militarily hostile environment. We were working in Republika Srpska and this was an environment that was hostile to us. And all the relatives of the people we were seeking had already been driven out of that countryside. So we did our work at the point of a gun, either an American gun, or Russian guns, or Portuguese guns, whoever happened to be the SFOR group in charge of the particular area, zone which we were working in. So those ethical considerations of dealing with relatives were not part of our Agenda. Dealing with the local wasn't part of our Agenda. We were operating under a Security Council resolution. ICTY was set up under Security Council resolution. And SFOR – you know what SFOR is? – they were enjoined by the Security Council to look after ICTY to let it get on with its work. So our responsibility towards the relatives were not there and towards the locals weren't there. The – I think that the ethical responsibility – as I said – were more professional ones.

*Transcript Extract, example 2:*

*Start of transcript: page 9 line 6*

*End of transcript: page 11 line 21*

Q: How do you weigh forensic evidence?

R: Yeah, I give you this explanation: Eh, look, normally as I said, the forensic evidence is provided in different fields but coming now to the exhumations, eh, I feel that in relation to, if I can say, the witness, the common witness, the expert witnesses report of testimony is very well, if I can say, considered from this point of view, because, we are dealing with scientific approach of the offence. So, but there we have also taking into account if the expert – this is the reality. The reality is that normally the defence presents an expert, or the prosecution presents an expert, my opinion is that the expert to be a real expert, should be always independent and impartial, in accordance with scientific standards, meaning that the same subject seen through the same methodology should arrive to the same conclusion. This would be the ideal. But so we have to take it and it's for that that we have the expert from the prosecution and the expert from the defence. We have a third category of expert: what we call the independent expert, called by the court, sharing in a way the independency or impartiality of the court. So for me it's some kind of point to find, in a way, something eh in relation to the other question of ethical and legal obligations. But in my view, in my view, you cannot or I cannot consider an expert as a real expert if it's, if the expert is partial, or if he is selective in a way, he is selecting from the scientific approach only the aspects which can favour the party for which he is working. So this is in my view the ethical issue, for me it's the main point when you speak about expertise. Mainly eh, so when we have this different approach from the defence or prosecution. So in way, but, in sum, the expert witness is, if I can say, well considered in my view.

Q: So in a way, to a certain degree it is problematic that the Office of the Prosecutor says: We need a big team of forensic experts because they are only working on graves that have been selected by the prosecution and have been briefed by the investigators?

R: Yes, but it's true that it's up to the prosecutor to start the first approach to the facts. So it's not up to the defence to start.

Q: Sure.

R: But nothing forbids that the defence asks for counter-expertise if I can say. Meaning that the same materials can be seen with other eyes and if it's the case the court can go for independent expertise. But in a way what I want to stress is that we should avoid this tennis-table, if I can say, game. When an expert is performing the task of glorifying some method, he should do it under the ethical and legal obligation of impartiality and independence, meaning that only in exceptional circumstances, this conclusion could be challenged. Because we would start from the point that another expert is not necessary is losing some kind of resources because he'll, or the other expert will reach the same conclusions. Because following the same scientific approach the conclusions will be the same. For me, let me say one thing, when I speak of expertise I am focusing on scientific approach, you know. Using a discipline which is mainly governed by the scientific aspect or preoccupation. It's not, I think we are, before something eh, an expert it's not really an expert, it's kind of specific witness to consider some kind of issue.

Q: How do you make sure they are scientifically 'sound'?

R: That's the question: How do you establish whether the evidence provided is scientific in nature? First of all, I think that, as you know, the first questions-put to an expert, is the CV. So the scientific qualifications of the expert. After, it's the report in itself, if the report is consistent, is logical, logically consistent, if it's logically consistent internally and externally, meaning if it is consistent in the report and if this knowledge expressed, is consistent with other knowledge held by the community, the scientific community. And the third point is mainly the cross-examination, or the counter-report when we have another report. Because, as you know, the cross-examination even if made by a lawyer who is not an expert, normally the lawyer discuss the issue with other persons before cross-examining the expert.

[11 lines redacted to ensure anonymity of the interviewee]

So I think at least we have three main criteria and after you have to count, sometimes people don't speak so much about that, but it is necessary, not being an expert, but at least be aware, the body language as you know, speaks louder than the report. When they have some kind of experience where you feel if it's consistent or not if the report is presented sided or taking part in the discussion or something like that. And, yes, after that you have the other: How do you decide whether the testimony given is truthful?

I think it is mainly, starting with my last one: is mainly common sense, experience, cross-examination and the consistency, admissible and normal contradictions. Because there are contradictions, as you know, are perfectly normal, but there are contradictions which

are difficult to understand. In a way it falls, and the criteria are applicable also to other witness. It has to do with what we call the intimate conviction or the proof you have beyond, beyond reasonable doubt. So you start, if I can say, all the evidence of the trial with a doubt, meaning the presumption of innocence and when you overcome some kind of brie [? 13.43] and you fall on the other side when you have a reasonable doubt that this was done. You know in the decisions in the legal proceedings we can never say that they are the truth; it means that we find the truth when following the procedural proceedings which are equally shared by the parties playing the game and by the community where they play the game. So, as you can understand, when a court is, the court is bound by the indictment in a way that the prosecutions selected already.

When cross-examining, when pleading guilty or not-guilty and so on these kind of selection of this truth, but it is enough for the needs of, the living to have in a community, in my view. But I don't believe that it's possible if I can say to repeat in court-room what happened in reality. Persons who live, who are candidly convinced that this happened, I think that they live in another world, not that one.

Q: So you would say that the judgments that are pronounced are one aspect or one way of describing what happened but are not...you are not trying to find the truth?

R: You know, everybody, even the expert witnesses, the expert witnesses make some conclusions and I have no reason to conclude that they are not truthful. But sometimes, as you know, people are faithful convinced that what they are – the surge of the conviction is not true. So it's, but it's up to the, as you know, as I said in the frame of this, if I can say, rules, the truth comes out and we have to consider the truth because it's a legal truth.

*Transcript Extract, example 3:*

*Start of transcript: page 12 line 17*

*End of transcript: page 14 line 18*

Q: What I was interested in: How with all these exhumations you make sure that the stuff – having in mind that this is the first time you are doing this, this has never been represented in any court in this form – how do you make sure that the evidence you are getting out of the grave is admissible?

D: Exactly, and remember that when we started that, we didn't know the rules of admissibility for the court, for the chamber because you've got – that, we made it up as we went along. And the chamber was saying, good example.

[4 lines redacted to ensure anonymity of the interviewee]

We presented some cases where we had organised a plea, presented it to the Trial Chamber and they were most upset because, particularly civil law judges: How dare you tell us that you will plead guilty. How dare you as the prosecution and defence – we are the arbiters of not only fact but process; you cannot do this and it was towing and throwing and if you had a mixed chamber, that was ok. Just that, how do you do a plea –

it has been worked out at the tribunal. Our processes in exhuming have changed. We've developed and learned. At the end of the exhumation process we had the most experienced exhumation team in the world. Certainly the most experienced and the best at doing it quickly. We are still getting good results. But I've - fell back on what's admissible, how will I process it? In the way I would do it at home. I adapted it almost every day because it was different, but I was responsible for bringing most of the evidence back from the exhumation and deciding what to bring back, with some consultation. But effectively it was – it's straight forward really, because some of it was logistics, but I was responsible for saying: what are we going to use in The Hague, what are we going to do with it? Eh; clothing for instance, which shows bullet tracks, would be examined by the pathologists, photographed and recorded in the autopsy report. What is the utility in taking that back to The Hague? Why would we take that evidence where we could return it to the Bosnian authorities; they might use it for identification. And also, I do regress, but I interviewed some widows in a mission and I had some photographs from the Petrovic video [recommends that I see that, filmed during fall of Petrovic and the group of men that was captured at Potocari]. We then took still images from that video and we had the man's face and I identified the widow and I went to take a statement from the widow: This is your husband, he's dead, please tell me about your life. So the photos that I had of the grainy colour photo taken from the video taken by the people who killed her husband or father or son, mostly husband. And the first widow I showed a photograph to and we discussed it and she said: Can I have that photograph? And I thought: Why do you want this photograph? This is your husband's execution photo. I gave it to her and she said that's the only photograph she has of her husband. And every other one, almost every other widow in that 2 week period, we were doing 2 a day, asked for the photograph. When I went to one of their homes later on, that photograph had been enlarged and was on the mantelpiece. That's your grandfather... So, I don't know how I got onto that. [...] you are returning the clothing to them and the same, if we have a piece of jewellery which would assist in identifications, it's no good in The Hague. There were agencies here working on identification. Identification is very, very important to have a license, a Blishni-card [phonetic spelling], but and I did consult McCloskey, Peter McCloskey in relation to this. Why take all the identifications to The Hague, we've got photographs, we've got details of what's in them. We took a representative sample, I picked, I think 10 from one year and x from another year. But if we had taken them to The Hague, and this is a purely practical decision, that meant that PHR that were doing identifications couldn't use that and also it couldn't be returned to the family.

Q: And you would have death certificate issues as well?

D: And I took that decision in that respect, bullets we did keep and I took back to The Hague, but really, what are the bullets going to show us? We haven't got the forensic capability with the weapons, because even if we had the physical weapon who fired the

bullet, it takes a long time to do a rifling comparison. We did the shell-case-ejectoma comparisons. And we certainly kept all the shell-cases; and in the end that was very successful for linking but not successful for identifying the weapons. And a lot of the decisions were taken on that utility base: What can we do in The Hague, what will we get out of it and how fast.

Forensic Scientist	Lawyer	Investigator	Defence Lawyer	Judge
<p><b>Professional Values &amp; Motivations:</b></p> <p>Why did you engage in the exhumations and work for the ICTY?</p> <p>Of what value is/was your work?</p> <p><b>Specific Role:</b></p> <p>Would you describe your role within the ICTY?</p> <p>What investigations were you working for?</p> <p>How long did you work for the ICTY?</p> <p><i>If applicable:</i> Why did you stop working for the ICTY?</p> <p>Who were you working for?</p> <p>Who was accountable for your work?</p> <p>What was the main purpose of your work for the ICTY?</p>	<p><b>Professional Values &amp; Motivations:</b></p> <p>Why did you engage in work for the ICTY?</p> <p>Of what value is/was your work?</p> <p><b>Specific Role:</b></p> <p>Would you describe your role within the ICTY?</p> <p>What prosecutions/investigations were you working for?</p> <p>How long did you work for the ICTY?</p> <p><i>If applicable:</i> Why did you stop working for the ICTY?</p> <p>Who were you working for?</p> <p>Who was accountable for your work?</p> <p>What was the main purpose of your work for the ICTY?</p>	<p><b>Professional Values &amp; Motivations:</b></p> <p>Why did you engage in work for the ICTY?</p> <p>Of what value is/was your work?</p> <p><b>Specific Role:</b></p> <p>Would you describe your role within the ICTY?</p> <p>What investigations were you working for?</p> <p>How long did you work for the ICTY?</p> <p><i>If applicable:</i> Why did you stop working for the ICTY?</p> <p>Who were you working for?</p> <p>Who was accountable for your work?</p> <p>What was the main purpose of your work for the ICTY?</p>	<p><b>Professional Values &amp; Motivations:</b></p> <p>Why did you engage in work for your clients at the ICTY?</p> <p>Of what value is/was your work?</p> <p><b>Specific Role:</b></p> <p>Would you describe your role within the ICTY?</p> <p>What clients were you working for?</p> <p>Who were you working for?</p> <p>Who was accountable for your work?</p> <p>What was the main purpose of your work for the ICTY?</p>	<p><b>Professional Values &amp; Motivations:</b></p> <p>Why did you engage in work for the ICTY?</p> <p>Of what value is/was your work?</p> <p><b>Specific Role:</b></p> <p>Would you describe your role within the ICTY?</p>



Forensic Scientist	Lawyer	Investigator	Defence Lawyer	Judge
<p>What conditions were you working under? What procedures and standards were applicable?</p> <p>What ethical and legal obligations were applicable?</p> <p>Was there adequate protection both physically and psychologically?</p> <p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the investigator?</p> <p>What, in your opinion, is the role of the lawyer?</p>	<p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the forensic scientist?</p> <p>What ethical and legal obligations does the forensic scientist have?</p> <p>What procedures and standards were forensic scientists required to work towards?</p> <p>What, in your opinion, is the role of the investigator?</p>	<p>Was there adequate protection both physically and psychologically?</p> <p><i>Understanding other professions:</i></p> <p>What, in your opinion, is the role of the forensic scientist?</p> <p>What ethical and legal obligations does the forensic scientist have?</p> <p>What procedures and standards were forensic scientists required to work towards?</p> <p>What, in your opinion, is the role of the lawyer?</p>	<p><i>Understanding other professions:</i></p> <p>What role did forensic science play in your job at the ICTY?</p> <p>What ethical and legal obligations does the forensic scientist have?</p> <p>What, in your opinion, is the role of the forensic scientist in international criminal investigations?</p>	<p><i>Understanding other professions:</i></p> <p>What ethical and legal obligations does the forensic scientist have?</p> <p>What, in your opinion, is the role of the forensic expert within international criminal investigations?</p>

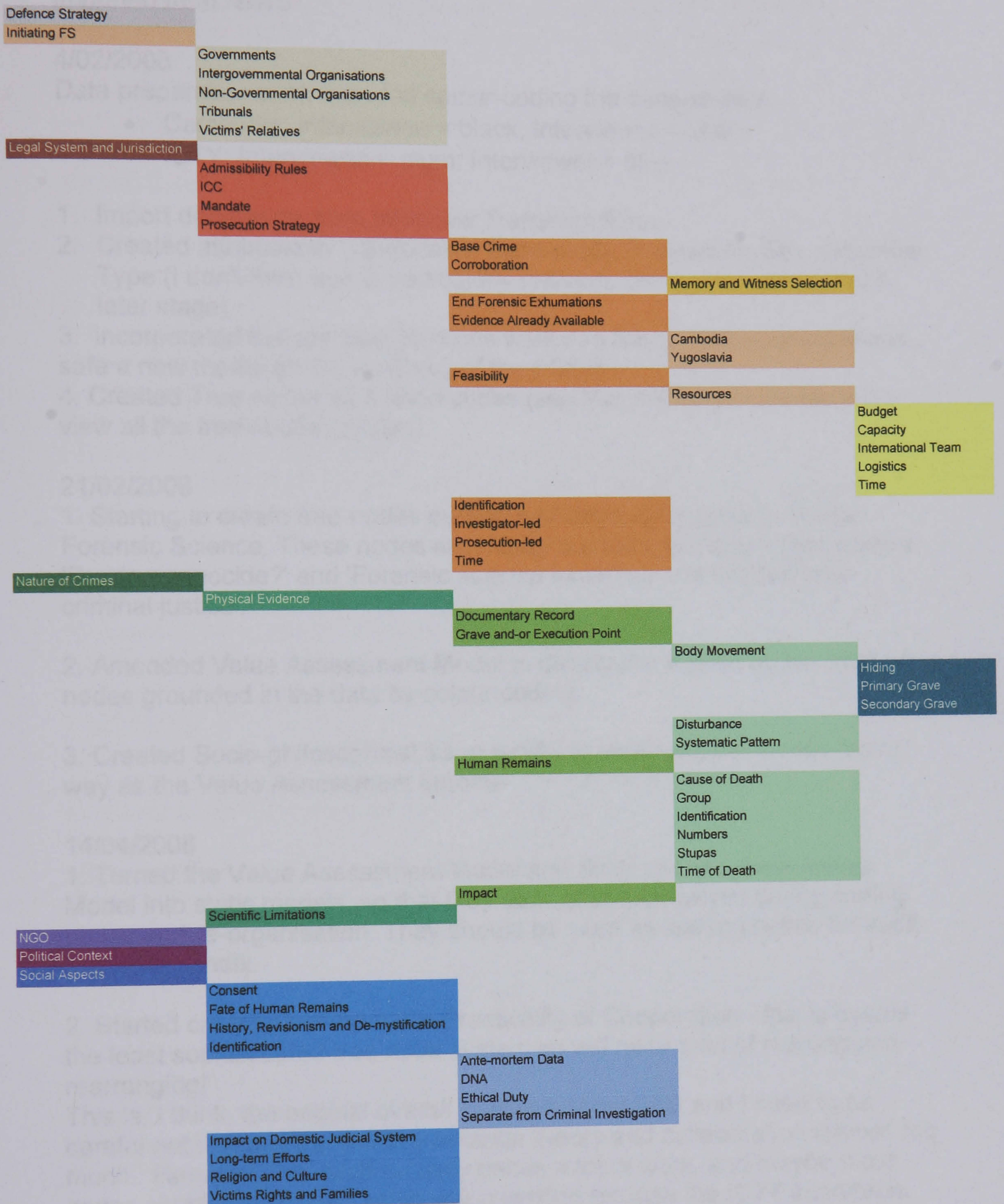
Forensic Scientist	Lawyer	Investigator	Defence Lawyer	Judge
	<p>What knowledge of international criminal law should forensic scientists have to do their job well in the context of the ICTY?</p>	<p>What is the role of the Scene of Crime Officer during forensic missions?</p> <p>What knowledge of international criminal law should forensic scientists have to do their job well in the context of the ICTY?</p>	<p>What knowledge of international criminal law should forensic scientists have to do their job well in the context of the ICTY?</p>	<p>What knowledge of international criminal law should forensic scientists have to do their job well in the context of the ICTY?</p>
<p><i>Relationships:</i></p> <p>Could you describe your relationship with the investigator?</p> <p>Could you describe your relationship with the prosecution lawyer?</p> <p>Could you describe your relationship with the defence lawyer?</p> <p>What are the outcomes of working with lawyers and investigators?</p> <p>What are the difficulties in working together?</p>	<p><i>Relationships:</i></p> <p>Could you describe your relationship with the forensic scientists?</p> <p>Could you describe your relationship with the investigator during forensic missions?</p> <p>What are the outcomes of working with forensic scientists?</p> <p>What are the difficulties in working together?</p>	<p><i>Relationships:</i></p> <p>Could you describe your relationship with the forensic scientists?</p> <p>Could you describe your relationship with the lawyer during forensic missions?</p> <p>What are the outcomes of working with forensic scientists?</p> <p>What are the difficulties in working together?</p>	<p><i>Relationships:</i></p> <p>Could you describe your relationship with the forensic scientists?</p> <p>What are the outcomes of working with forensic scientists?</p> <p>What are the difficulties in working together?</p>	

Forensic Scientist	Lawyer	Investigator	Defence Lawyer	Judge
<p><i>The Use of forensic sciences:</i></p> <p>What is the use of forensic science?</p> <p>Do you think investigators and lawyers understand the relevance of your work?</p> <p>Do you think forensic science is used adequately and fairly during the trials (from prosecution and defence perspective)?</p>	<p><i>The Use of forensic sciences:</i></p> <p>What is the use of forensic science?</p> <p>How important is forensic science for ICTY trials?</p> <p>Do you seek any help to understand forensic evidence?</p> <p>Do you think forensic science is used adequately and fairly during the trials?</p>	<p><i>The Use of forensic sciences:</i></p> <p>What is the use of forensic science?</p> <p>How important is forensic science for ICTY trials?</p> <p>Have you given testimony in court regarding the forensic investigations?</p> <p>Do you think forensic science is used adequately and fairly during the trials?</p>	<p><i>The Use of forensic sciences:</i></p> <p>What is the use of forensic science?</p> <p>How important is forensic science for ICTY trials?</p> <p>Do you seek any help to understand forensic evidence?</p> <p>Do you think forensic science is used adequately and fairly during the trials?</p>	<p><i>The Use of forensic sciences:</i></p> <p>What is the use of forensic expertise?</p> <p>How important is forensic expertise for ICTY trials?</p> <p>Do you feel admissibility of forensic evidence is clearly determined through the ICTY's Rules of Procedure and Evidence?</p> <p>Do you seek any help to understand forensic evidence?</p> <p>How do you weigh the forensic evidence provided?</p> <p>How do you establish whether the evidence provided is scientific in nature?</p> <p>How do you decide whether testimony given is truthful?</p> <p>Has forensic evidence influenced your verdict on a case?</p>

Forensic Scientist	Lawyer	Investigator	Defence Lawyer	Judge
				Do you think forensic expertise is used adequately during the trials by both parties?
<p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with lawyers and investigators? Taking it in stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During Trial</p> <p>Beyond forensic investigation?</p> <p>How would you implement this ideal scenario?</p> <p><i>Beyond the ICTY:</i></p> <p>What impact has your work on the local population?</p>	<p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists? Taking it in stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During Trial</p> <p>Beyond forensic investigation?</p> <p>How would you implement this ideal scenario?</p> <p><i>Beyond the ICTY:</i></p> <p>What impact has your and forensic work on the local population?</p>	<p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists? Taking it in stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During Trial</p> <p>Beyond forensic investigation?</p> <p>How would you implement this ideal scenario?</p> <p><i>Beyond the ICTY:</i></p> <p>What impact has your and forensic work on the local population?</p>	<p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists? Taking it in stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During Trial</p> <p>Beyond forensic investigation?</p> <p>How would you implement this ideal scenario?</p> <p><i>Beyond the ICTY:</i></p> <p>What impact has your and forensic work on the local population?</p>	<p><i>Ideal Scenario:</i></p> <p>In an ideal world, what kind of cooperation/interaction would you like to have with forensic scientists? Taking it in stages:</p> <p>Pre-investigation Forensic investigation Pre-trial conference During Trial</p> <p>Beyond forensic investigation?</p> <p>How would you implement this ideal scenario?</p> <p><i>Beyond the ICTY:</i></p> <p>What impact has your and forensic work on the local population?</p>

Forensic Scientist	Lawyer	Investigator	Defence lawyer	Judge
<p>Demographic Questions:</p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p>Demographic Questions:</p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p>Demographic Questions:</p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p>Demographic Questions:</p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>	<p>Demographic Questions:</p> <p>Gender: Title: Age: Nationality: Education (subject &amp; place):</p>

Appendix H: Value Assessment of Forensic Science



*PhD Project Journal  
Imported from Nvivo*

4/02/2008

Data preparation work included colour-coding the case-studies:

- Cambodia: Interviewee = black; Interviewer = blue
- ICTY: Interviewee = plum; Interviewer = blue

1. Import documents from Interview Transcript files.
2. Created attributes in Casebook: - Case-study; Profession; Sex; Interview Type (i don't think age is particularly relevant, but can incorporate at a later stage).
3. incorporated memos from previous work into this project as annotations, save a new memo on the progress of the ECCC.
4. Created Tree-nodes as a priori codes (see Value Assessment Model to view all the tree-nodes created).

21/02/2008

1. Starting to create tree-nodes on Socio-philosophical aspects of Law-Forensic Science. These nodes are mostly a priori and draw on two papers: 'Proving genocide?' and 'Forensic science expertise and international criminal justice'.

2. Amended Value Assessment Model to distinguish a priori nodes from nodes grounded in the data by colour-coding.

3. Created Socio-philosophical issue model to represent tree nodes (same way as the Value Assessment Model)

14/04/2008

1. Turned the Value Assessment Model and Socio-philosophical issues Model into static models, so that they don't alter themselves during coding phase and re-organisation. They should be seen as starting points for audit trail in Appendix.

2. Started creating tree node for Practicality of Cooperation - this is to date the least sophisticated tree node system so will need a lot of revising and rearranging!

This is, I think, the original overall question of my PhD and I need to be careful not to lose the link to exchange theory and collaboration themes too much... However, this section really needs a lot of work, and maybe most nodes should be created again when looking through the ICTY interviews.

3. Created a static model for Practicality of Cooperation as a third template and printed it out.

15/04/2008

1. Imported all the remaining transcribed interview material. Case studies have now all the data and should be complete.

2. Also created a new attribute date and inserted the relevant dates of interviews. Also assigned the relevant other attributes to the imported documents.

3. Read the article on thematic analysis, so I am now confident that template analysis and thematic analysis are the same; it only appears as if the codes are more subsumed under themes in thematic analysis, whereas template analysis, seems to consider the sub-levels as relevant items/themes within a template that should be displayed.

17/04/2008

1. I have incorporated more *a priori* codes from Rainio #475 to the Practicality of Cooperation: Planning and advance preparation and in it: Equipment & Resources; Health & Safety; Insurance; Responsibility; Team Formation, Training

Also und Initiating FS: Governments, intergovernmental organisations, victims' relatives; also under Legal Mandate I have inserted legal issues (maybe that category will only be filled by literature as opposed to data).

## **2. Practicality of Cooperation:**

Decided to restructure the whole node into the 4 phases as identified right at the start of the study:

- pre-investigation
- investigation
- trial stage
- beyond

This means there will be some repetition of sub-themes, but I think it is neater and the recommendations can then follow that structure.

**Note for PhD write-up - I think the exchange discussion should take place at the end of each section.**

18/04/2008 17:31

Today I started coding the first transcript. First I read it through completely, made annotations and then I started coding.

The coding process, actually takes very, very long, probably because of the complex coding schema I designed. I got to the point:

Q: And you mentioned quality, so what procedures & standards were you actually working towards?

21/04/2008

Continued coding until Q [I say this...] 2/3 of the text

24/04/2008

On the 23/04/2008 finished coding two interview.



I have created some free nodes, just as historical reminders and further info. e.g. role of investigator, science of crime officer, local exhumation activities in Bosnia etc.

Especially re. local exhumation team Eva-Elvira Klonowski's chapter is very useful #476.

Finished coding another interview, whom I liked talking to...  
Again, my structure changes with the coding a lot. Sometimes I have too much detail and sometimes I haven't got enough detail...

01/05/2008

Started coding the next transcript which is very difficult and again, some new codes, such as Speed and Pressure and Liason with Local Commissions has been created.

It is also interesting because there are constantly decisions to be made, which maybe haven't all been pre-planned in The Hague before starting exhumations, so I have created a **relationship link** between: Decision Making during investigations and Planning and advance preparation in the pre-investigation stage.

12/05/2008

Over the last weeks, more transcripts have been coded.

Today, I inserted a new **relationship link** between: Resources and Protocols and Procedures and the latter is adapted depending on Resources. I have also created a memo reminding me that there is no way to put description in the relationship property section...

Over the past weeks I have also created a number of new **free nodes** that might help in writing up the PhD - they clearly distinguish between shortcomings in various contexts, the role of the actors, which does not strictly speaking fit into the coding scheme I had developed. But the information is still useful and should not be lost.

13/05/2008

Created a new **relationship link** called: recommended, so that I can link transcripts to transcript outlining who recommended whom, thus showing the snowball sampling effect. Not sure this will be very useful and I will have to re-visit each document already coded to ensure it has the necessary link to other participants.

I have discovered a **problem with section B. where I think the codes esp. forensic truth might have to change...**

14/05/2008

Today I have created a new code in section C b) practicalities entitled "**External Communication**" to subsume the all the activities outside the strictly speaking exhumation and mortuary work or outside the ICTY remit. I think this might help keep a better structure.

Also the code **Site Assessment** really seems to become more and more relevant, as it helps anticipate many problems that can arise during exhumations and facilitates better preparation. At the same time, I also think that the TRUST issue or lack of trust due to poor organisation has been a big issue for PHR due to their NGO status and subcontractor status. The pressure on somebody like Haglund must have been immense. I guess this changed dramatically in 97. In the Chapter "Forensic activities in the ICTY" I have inserted a note saying that different phases of activities need to be distinguished!

I created a new code: **Recommendation** in B) b) and I probably have to revisit the other transcripts to pull the recommendations all together into this one, but maybe this can be done when each section is looked at individually.

19/05/2008

I have changed the coding template and moved the **initiating forensic science** into the Value assessment/Forensic Science Context, because at the Practicalities level that I am talking about, e.g. the ICTY investigations, it was obviously the Tribunal that initiated the forensic investigations. However, to give the bigger picture as to the value of forensic in criminal investigations, it might be worth mentioning the different reasons / organisations that might invoke forensic exhumations. (Hope this is clear...)

20/05/2008

I have made some changes to the coding template in B) Socio-philosophical aspects of Law-Forensic science. And I have moved **Forensic truth** under Science - Non Science/Forensic Science. And then I have subsumed **Construction of Forensic Truth** under the node Forensic Truth (which seems more logical. At the moment I am also thinking that really the science-non science debate (the node is currently empty!) should probably happen underneath Forensic Science - this is something I need to look at carefully when just analysing, re-coding, and re-organising this section only.

Coded the next transcript which was quite difficult, because, whilst he contributes a lot of context information, he is not really the professionals my study is looking at. So I had to be careful not to give too much weight to his interview, and also when writing up to be mindful of this.

Checked out following transcripts:

*Jon Sterenberg: 11 Dec 2006*

*Jose Pablo Baraybar: 6 March 2007 (unavailable on 20/05/2008 18:12)*

*Alonso A.: 16 November 2006 (DNA analysis from Batajnica in Serbia and ICMP)*

*Eric Baccard: 19/20 Feb 2007*

*Loshi Li (filmmaker) 26 Oct 2006 (found clip on you tube entitled: Sa Shqiptarë u vranë më 28 mars 1999 në Izbicë / Skenderaj )*

*Gordona Tomasovic 21 Nov 2006 (not the right date...)*

*Dundic Dusi 25 Oct 2006*

*Aleksander Baminir 25 Oct 2006*

21/05/2008

Merged node **Independence** in the Practicality/Investigation section with the Independence node under Professional Ethos to avoid duplication.

Created a new node entitled: **Quality v Quantity** both in the philosophical debate under Construction of Forensic truth and in the Practicality section under Time, as the debate seems to be relevant on different levels.

To give a snapshot of how the coding template has changed over the past weeks, I have created the **static model: Value Assessment v2**. It is not as sophisticated as Value assessment v1 in terms of colours and levels, but it gives an impression of the complexity that has developed and which might have to be reduced for the final template used in the PhD write up. However, the template doesn't capture the whole complexity so I have saved screenshots in **Mei PhD/Nvivo Mei PhD all data Archive/Audit Trail** entitled: Value Assessment template 21-04-08; Socio-philosophical template 21-04-08; Practicality - pre-investigation template 21-04-08 and Practicality - investigation-trial-beyond template 21-04-08.

There are also now a number of free nodes, that provide either interesting context or just don't fit into the coding scheme, but I don't want to lose sight of them.

27/05/2008

Coding process continues.

Think that the node **Time** might eventually have to be subsumed under Pressure??? not sure yet...

28/05/2008

Have included a new node called: **Trial Schedule** under C) Practicalities of Cooperation/a) Pre-investigation/Legal Mandate/Strategy. The more transcripts I code, the messier I feel the template becomes and I really look forward to scrutinising each section and sort out the template and the relevant codes!

Just finished coding one transcript, and noticed that whilst the interview was very interesting, the things said actually were far less relevant to the study than I anticipated... Often with other transcript the reverse is true. However, for the first time really, the importance of working with local commissions for the missing was mentioned. Again, I think this can be matched with the Klonowski publication, however, I really don't think it is that relevant to the study and the ultimate PhD because it has rarely featured in the court, and if only to estimate/corroborate numbers of victims.

30/05/2008

The more I think about the work, especially the Value-assessment regarding forensic science, the more I believe it ought be anchored in the notion of transitional justice far more than in the notion of peace-building perhaps...(see figure Transitional Justice Approaches).

Maybe this is something to keep in mind for future discussions regarding the title of the PhD

### **HUNCH !!!**

Looking at the Value Assessment Forensic Science-Context again, I believe that the Nature of Crimes is the key of explaining the value of forensic evidence.

So, once everything is coded, it would be useful to then create a few nodes entitled:

Genocide; Crimes against humanity; ethnic cleansing; massacre (link to Cheoung EK numbers problem!) etc. to show what forensic science contributes to each e.g.: ethnicity/belonging to group; widespread/systematic attacks; exodus trail and cause of death...

In line with this idea, I have created two more nodes under Human Remains entitled **Group** and **Numbers** to reflect this effort and to accommodate the Cambodian case-study!

02/06/2008

Just contemplating the correctness of node name: **Prosecution Strategy**, when actually in the case of Cambodia, due to the system, it is much more an investigating strategy because of the co-investigating judges making the decision re. the use of forensic science...So maybe it should be renamed: **Investigation/Prosecution Strategy**.

Think about clustering the Social Aspects nodes and creating a **psycho-social** node that would encompass: Religion and Cultures; Identification; History, Revisionism and De-mystification; as well as Fate of human remains.

Again, looking at the Value Assessment - it seems clear that the **Feasibility** node under Prosecution Strategy ought to be linked to Resources, so I moved the node under Feasibility. Evidently, two nodes for the issue of **Time** is probably irrelevant, so will have to assess how to merge at a later stage.

06/06/2008

Finished coding process!

Have discovered a much better way of displaying the tree-codes than by doing Screenshots and saving in Audit-trail file. Instead I can **export the Treenodes into an Excel spreadsheet**. I have done this today and saved a copy in the Audit trail file as well as in a newly created folder entitled **Value Assessment Codes**. All the tree nodes comprised under the Value Assessment code will be imported as word documents into that file and printed out so that I can check that codes have been put into the appropriate place and analyse the data more thoroughly.

At this stage I will also print off a copy of the journal so that I can see why nodes were created/alterred and what suggestions need to be implemented!

Just ran a query looking at how the professions link to recommendations. Results are saved in the Results file.

When taking a closer look at the Practicalities of Cooperation, I should try and put as much into the recommendation node as possible to facilitate a better analysis of how the differing professions perceive the success of the missions and what they feel needs changing!

16/06/2008

Having printed out all things coded under the first tree-node and looked at the overall node structure, I have made some changes to the order which are saved as **Tree nodes conceptual changes 16-06-08** in **NVivo Me! PhD all data Archive** file. This will help me now look through each and every node checking that the coding is accurate and logical. In this new node structure, I have left aside the node **Initiating FS**, because the context I am looking at, really is concentrating on courts/tribunals initiating the process, which is then made explicit under Prosecution/Investigation strategy.

Once I have gone through all the papers cross-checking each code, I will make amendments in NVivo!

17/06/2008

Have been going through coded sections under nodes and have had a few ideas regarding the presentation of the data:

Firstly under Legal System and Jurisdiction it will be worth having a table with ICTY/ECCC/ECC in the columns and Legal System; Mandate; Rules of Procedures and Evidence (as opposed to Admissibility Rules) to encapsulate the differences between the system that are **relevant** to decisions regarding FS.

Similarly under Nature of Crimes, it will be worth mentioning the ones I am most likely to cover: e.g. crimes against humanity, genocide and maybe ethnic cleansing, but that the base crime is essentially: murder and killings and torture.

The first column of the Excel spreadsheet **Tree nodes conceptual changes 16-06-08**

could be labeled: GENERIC CONTEXT, the second column: DECISION INFLUENCING CONTEXT and then the rest of the levels: FORENSIC CONTEXT.

Consider moving **Anticipated Defence Strategy** either as a separate node at the Prosecution/Investigation Strategy level, or subsumed under Prosecution/Investigation Strategy.

Furthermore under the node **Prosecution/Investigation Strategy** the debate ought to encompass the following topics that determine the way strategies are devised from which the forensic needs can be inferred:

- Documentary Evidence
- Eye Witness
- Perpetrator/Indictment (linked to Mandate)
- Time Frame (linked to Mandate)
- Why and What
- Links

Under generic context node **Victims Rights** developments within ICRC, the ICC and of course all the other UN conventions and guidelines should be considered!

At the moment, I am also contemplating whether the node **Need for Forensic Science** is really necessary in light of labelling the level FORENSIC CONTEXT (see above) and in case Defense Strategy moves across... But I guess that decision should be made once I come to re-analyse the coded data under those nodes.

20/06/2008

I have decided to subsume nodes **Investigator-led** and **Prosecution-led** under Prosecution strategy without giving them separate nodes because I think the forensic science relevant debate is essentially: Do we prosecute high level or low-level perpetrators. This in turn has implications for how much base crime you need to prove, but I think that is better explained through high-level / low-level perpetrator and investigator or prosecution led really only confuses the issue as it is more a managerial shift within the OTP and investigators lost their status a little...

The node **Time** has also been subsumed under the **Prosecution Strategy** node to outline time constraints at the Tribunals. However, the node **Time** under **Resources** should remain and really concentrate on the time issues related to the use of forensic science, including the tension between scientific and investigative/prosecution needs!

Under the node **Feasibility** it should be mentioned that there are two types of feasibility: scientific feasibility and court determined feasibility which both impact on the amount of resources you need!

22/06/2008

It should say **cause and manner of death** on one node as opposed to cause of death only!

Contemplate for actual PhD write up to split NGO into Cambodia and Yugoslavia as the NGO presence is a very different one!!!

Political Context has been split into: domestic and international nodes, as that makes a difference regarding the view of forensic science, which is greatly endorsed by the UN (quote docs!)

Psycho-social Aspects: I decided not to have a node named consent, but instead to create a separate node for **Commemoration**. I was thinking

whether commemoration comes under religion and culture, but I am not sure, so I leave it separate for the moment.

Also, under Identification I have deleted the node: long-term effort as there was not enough material in the node and it can be discussed in the overall identification efforts.

A big change has happened to **Victims' rights**, not only has the node been moved to be a stand-alone node, but also it has 3 child-nodes:

- **Victim participation**
- **Conventions**
- **Right to truth**

to explore how these 3 things impact on whether forensic science is to be used!

02/10/2008

After having printed out all the coded text for nodes under the Value Assessment, I have gone through them all and come up with a new, more sophisticated template (see above).

I have then re-coded text passages that I felt were not coded in their optimum place. However, I have **not** merged nodes ICC/Admissibility Rules and Mandate into the node Legal System and Jurisdiction yet, just in case it is better to keep them separate for writing up.

I have now started to do the same for the second set of nodes or themes under the philosophical/theoretical aspects of the international law - forensic science relationship. These nodes were exported as word files on 25 June 2008.

29/12/2008

I am now playing with the second template (exported from Nvivo into Excel) and am refining the template so that themes make most sense in relation to the coded data. It is very helpful to have written the piece for the International Journal of Evidence and Proof. Much of the structure in the article comes from the Nvivo tree node template, but of course was much refined when writing up the journal article.

04/01/2009

As I am writing up (with the great help of the article I have written) and reviewing all the various nodes, a more sophisticated template was created. From there I manually created in word the template that will appear in the final PhD.

15/01/2009

Over the past days I have been busy looking at the third template and all the coded data... The list of nodes is endless and I really need to get this down to a manageable size...

17/02/2009

Finally I have managed to find a way to structure and organise the nodes (and it at times different to what I originally anticipated when reading through this journal). This meant that not one but 3 separate little templates were created, but I feel that this helps the reader (and myself) to keep track of what is being said in the chapter.

The three templates look at

- **Pre-investigation stage**
- **Investigation stage**
- **Trial stage and beyond**

So this structure that I used during the interviews and on my poster presentation is still useful for the write-up.

For each template I followed the same pattern (in line with Exchange theory) categorising sub-themes into

- Exchange occurring
  - Problems and Issues arising during the interaction/exchange
- and finally Recommendations.

04/03/09

After feedback from Jeff, I created a new additional model that brings all three practicalities templates together in such a way that problems, solutions and exchanges during each stage are displayed in one model...

I couldn't do that with the model making functions in Nvivo (too complex) so ended up working in Word.



Map of the Former Yugoslavia



Source: Yale University Genocide Studies Program: the former Yugoslavia  
<[http://www.yale.edu/gsp/images/yugoslavia\\_base\\_map\\_large.gif](http://www.yale.edu/gsp/images/yugoslavia_base_map_large.gif)> accessed 8 February 2007.

# Tracking Chart for the Former Yugoslavia

6 July 2007

## Blood Samples Collected



The total number of blood samples collected and processed to obtain DNA profiles, which are subsequently loaded onto the ICMP DNA database.

**83,978**

## Number of Missing Individuals as Represented by Blood Samples



The total number of individual cases of missing persons represented by the samples collected. A minimum of one blood sample is necessary to make identification; however, the probability of making a precise identification increases if two or more relatives donate blood, therefore the number of blood samples collected must exceed the number of cases of missing persons to which they correspond.

**28,096**

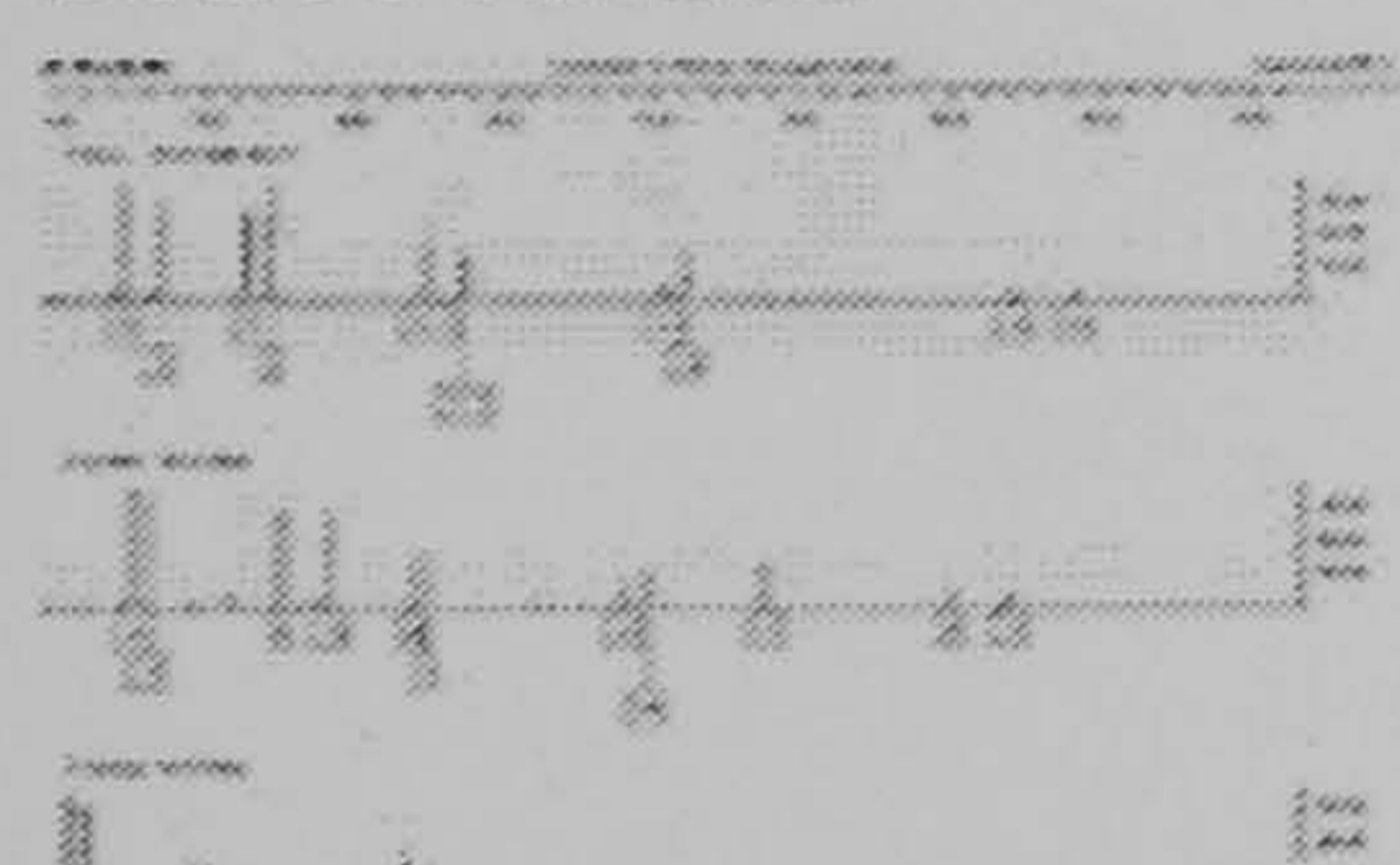
## Number of Bone Samples Analyzed



The total number of bone samples for which ICMP has successfully obtained DNA profiles.

**22,018**

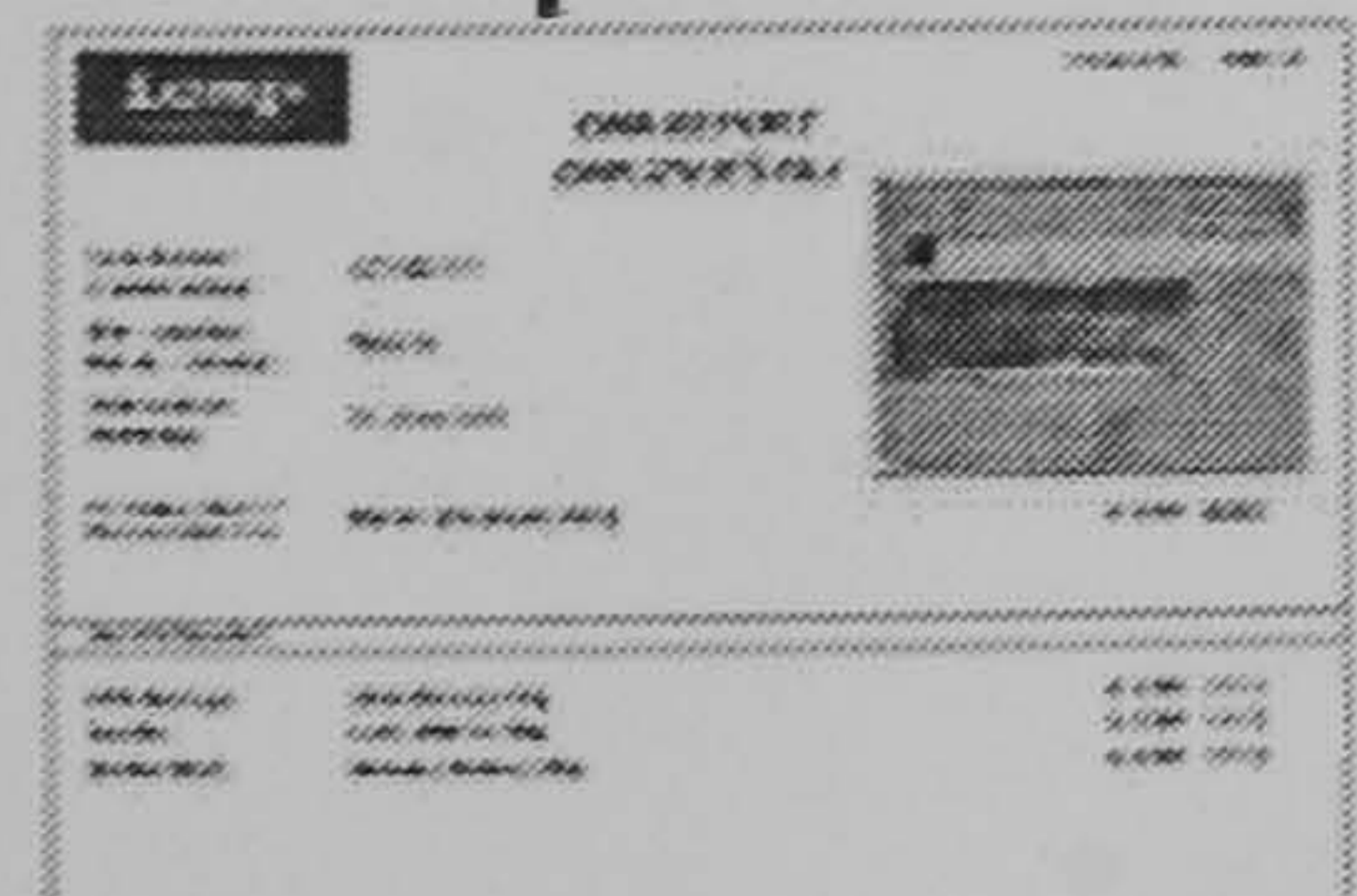
## Number of Unique DNA Profiles



The number of DNA profiles from bone samples representing individual missing persons. This number is smaller than the number of bone sample DNA profiles obtained, because in many cases, due to the commingling of remains in "secondary" grave sites, more than one bone sample is taken from the same individual.

**15,697**

## Number of Matching DNA Reports



A matching report is used to report the results of a DNA match between a bone sample obtained from exhumed remains and blood samples of their relatives. A matching report is issued only when the statistical probability of the family link is at least 99.95%.

**18,177**

## Number of Individuals Represented in DNA Reports



This number is smaller than the number of matching reports, also because of commingling of remains in "secondary" grave sites. DNA matching reports are submitted to local pathologists, who make the official identification, inform family members and close the cases.

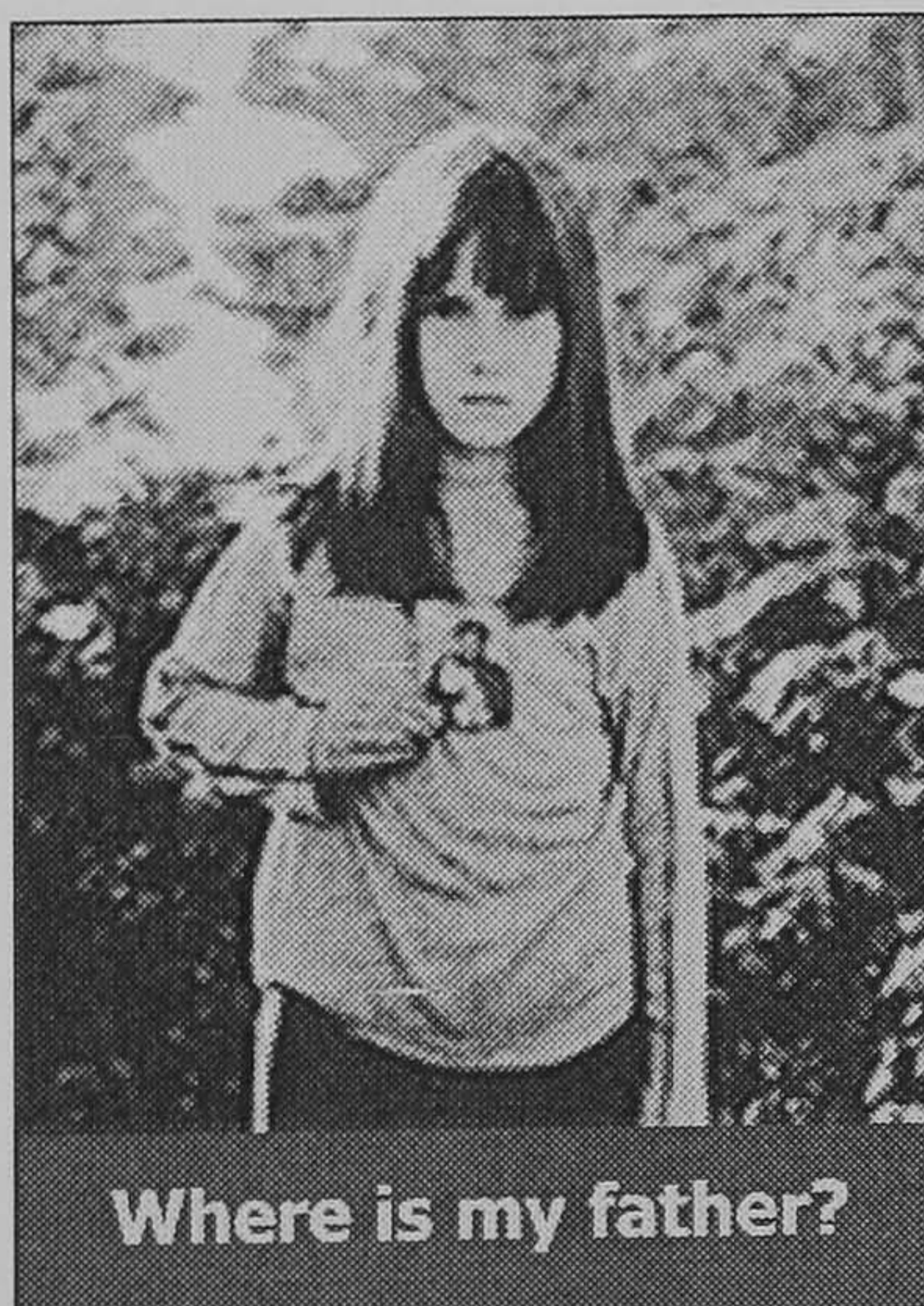
**11,936**

## Tracking Chart by Conflict and Area of Disappearance

6 July 2007

	<b>BiH</b> (1992-1995)	<b>Kosovo</b> (1998-1999)	<b>Serbia</b> (1998-1999)	<b>Croatia</b> (1991-1992 and 1995)	<b>Total</b>
<b>Blood Samples Collected</b>	66,410	14,035		3,533	83,978
<b>Number of Missing Individuals as Represented by Blood Samples</b>	22,688	4,136		1,272	28,096
<b>Number of Bone Samples Analyzed</b>	18,237	2,831	950	0*	22,018
<b>Number of Unique DNA Profiles</b>	12,885	1,995	817	0*	15,697
<b>Number of Matching DNA Reports</b>	15,073	2,116	905	83*	18,177
<b>Number of Individuals Represented in DNA Reports</b>	9,818	1,267	768	83*	11,936

\***Croatia:** This chart does not reflect all figures from the Croatia conflicts or overall progress to date in Croatia. ICMP has launched a joint project on DNA identifications with the Croatian Ministry of the Family, Veterans' Affairs and Intergenerational Solidarity.



**In the area of former Yugoslavia  
11,936 DNA Matches for Missing Persons**

*Reports obtained by the ICTY's Investigation Division*

*Exhibited during Prosecutor v Krstić, Case No IT-05-88*

D Manning 'Srebrenica Investigations: Summary of Forensic Evidence from Mass Graves exhumed in 2000. Lazete 1, Lazete 2C, Ravnice, Glogova 1' (February 2001) Exh. No 897/a.

F Peccerelli 'Lazete 1, Bosnia and Herzegovina: Excavation and Exhumation Report' (without date) Exh. No 896/a.

R Wright 'Report on Excavations and Exhumations at the Glogova 1 Mass Grave in 2000' (9 February 2001) Exh. No 895/a.

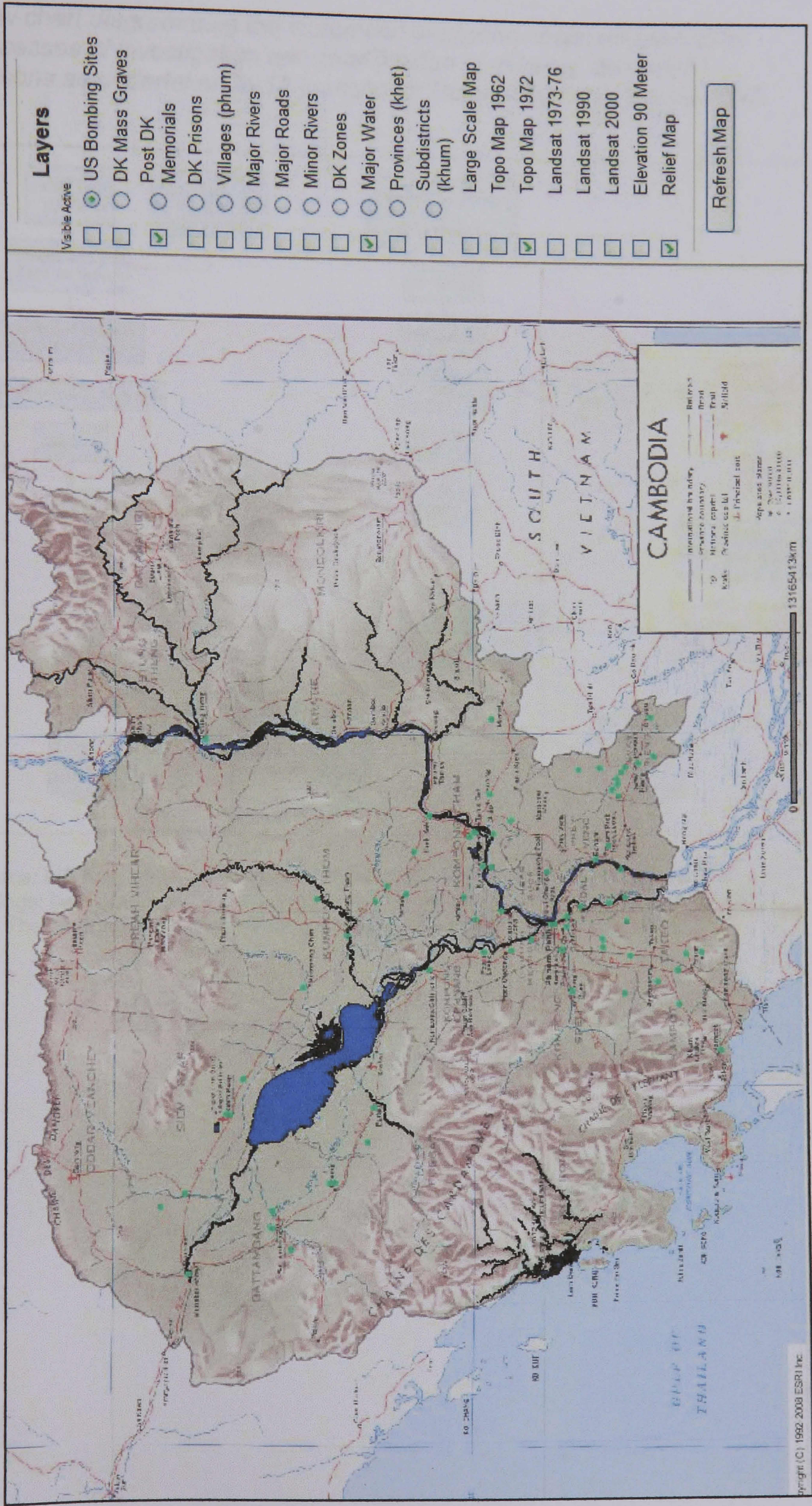
JP Baraybar 'Report on the Anthropology Examination of Human Remains in Eastern Bosnia in 1999' (8 December 1999) Exh. No 233.

JP Baraybar 'Report on the Anthropology Examination of Human Remains in Eastern Bosnia in 2000' (2 February 2001) Exh. No 893/a.

JP Baraybar 'Report on the Exhumation of Mass Gravesites in Eastern Bosnia, August-October 1999' (8 December 1999) Exh. No 234.

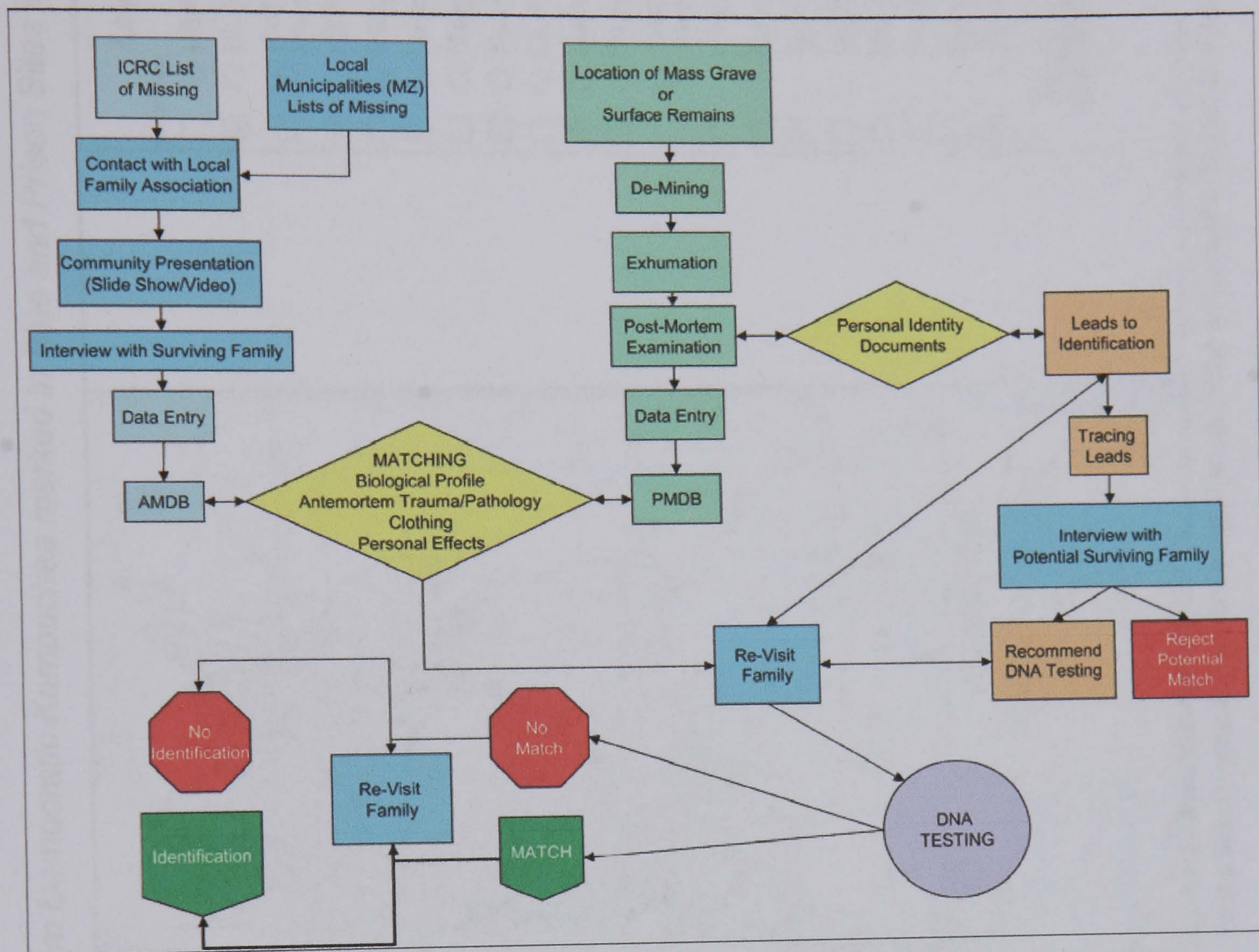
J Clark 'ICTY Operation in Bosnia-Herzegovina, 2000 Season: Report of the Chief Pathologist, Srebrenica related Grave Sites' (24 February 2001) Exh. No. 894/a.

Topographical Map of Cambodia with Democratic Kampuchea Memorials marked in Lime Green.



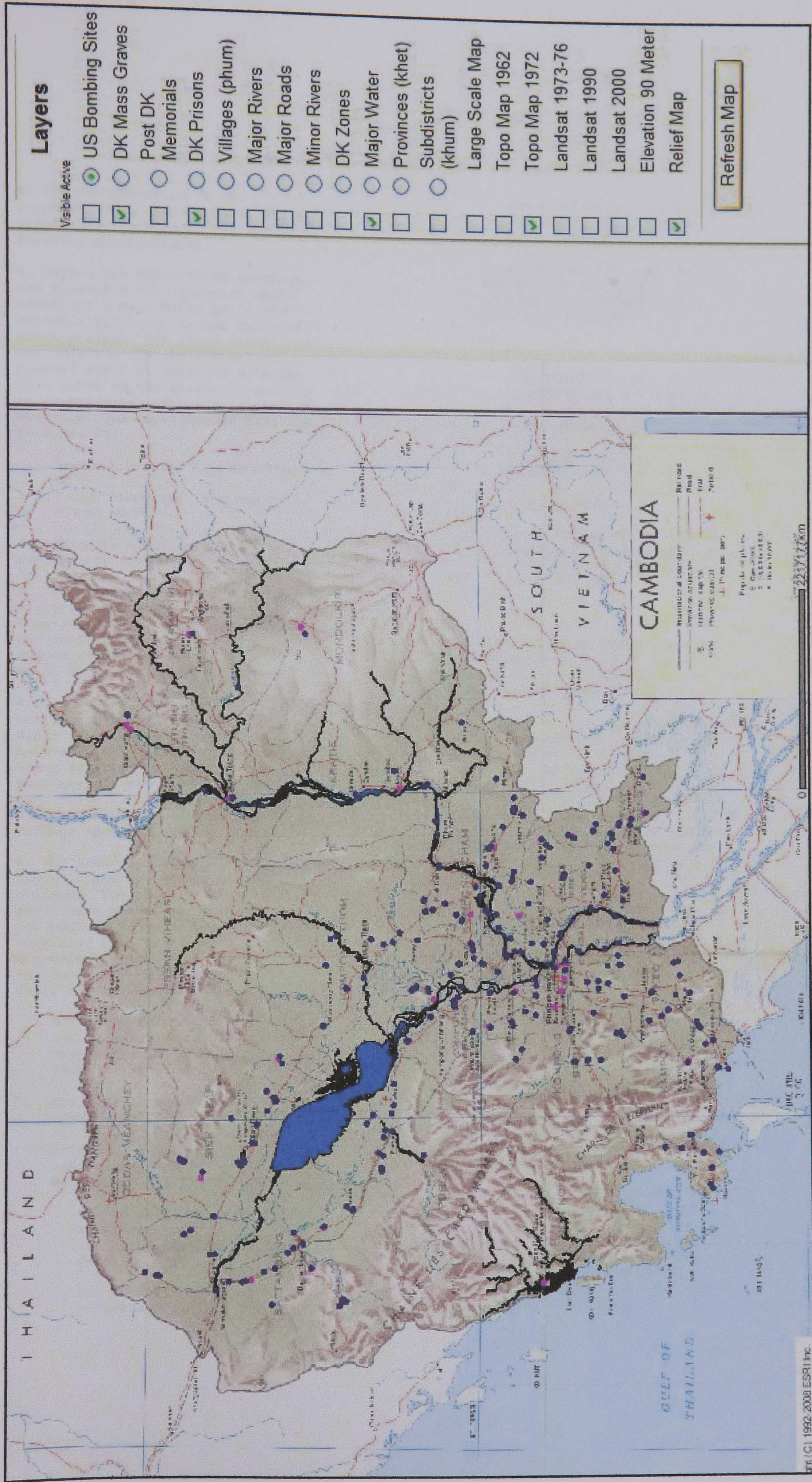
Source: Yale University Genocide Studies Program: Cambodia <<http://maps.library.yale.edu/website/cgp/viewer.htm>> accessed 4 November 2008.

Flow chart diagramming the integration of psycho-social and scientific processes of investigation and identification of missing, deceased persons as undertaken by Physicians for Human Rights in Bosnia 1997-99



Source: ME Keough, T Simmons and M Samuels, 'Missing persons in post-conflict settings: best practices for integrating psychosocial and scientific approaches' (2004) 124 The Journal of the Royal Society for the Promotion of Health 272.

Topographical Map of Cambodia with Mass Grave Sites from Democratic Kampuchea marked in Blue and Prison Sites in Pink.



Source: Yale University Genocide Studies Program: Cambodia <<http://maps.library.yale.edu/website/cgp/viewer.htm>> accessed 4 November 2008.

### General Procedures for Exhumations of Mass Graves

1. The investigation of the suspected mass grave/s shall proceed under the direction of the Senior Forensic Archaeologist.

the elucidation of other matters relevant to the investigation.

2. Before the exhumations commence, the Surveying Archaeologist shall establish a main datum point and select a secondary target datum of known bearing. The three dimensional co-ordinates for the exhumation process shall be recorded with the main datum as the origin, resulting in co-ordinates that are 'global' to the site. The co-ordinates shall be recorded as:

Rectangular (X, Y, elevation)  
or  
Polar (distance, bearing, elevation)

depending on which system is more appropriate for a particular task.

3. The archaeological team shall use a global positioning device to locate the site. They shall survey the surface of the de-mined area and suspected mass grave/s. The site shall be photographed and videoed.

4. The Senior Forensic Archaeologist shall appoint an Exhumation Supervisor, who will coordinate between the archaeologists, the Scene of Crime Officer, the photographer and the surveyor. The Exhumation Supervisor shall also direct the archaeologists and the machine operator, within the grave.

5. The Scene of Crime Officer, shall assign a number to each item of evidence. The Scene of Crime Officer shall keep a written main site log for each grave with information regarding type of evidence, location and description of the item collected. The items of evidence shall incorporate:

the human remains (with sequence numbers annotated by the letter 'B' for body and 'BP' for body part;

the artefacts (with sequence numbers annotated by the letter 'A'), that shall record such objects as documents, bullets, casings, and any other artefacts that may assist in:

the identification of cause and manner of death;  
the identification of the dead;

the identification of perpetrators;

As a minimum, the logs shall contain the following information together with pertinent remarks:

site

item number (with qualification B, BP or A),

description

roll and frame if photographed

storage place

names of the finder and of the Scene of Crime Officer receiving item and making entry in log

date

The Scene of Crime Officer shall supervise the copying of the log into an electronic database, for transmission to the mortuary.

6. If artefacts that are considered to be of evidentiary significance (e.g. bullets, blindfolds, ligatures, and documents) are left with a body they shall not be assigned an artefact log number. Where seen by the excavator they shall be noted on the body sheet. A remark about the existence of the artefacts shall be entered in the log.

7. Where the Investigator deems it advisable to remove an artefact (e.g. a document) from a body, the Scene of Crime Officer shall annotate the log entry with a cross reference to the artefact number, and annotate the artefact log entry with a cross reference to the body number.

8. The Scene of Crime Officer shall appoint a person to attend at the edge of the grave. That person will be ready to give log numbers, provide labelled bags and other materials when requested by the Exhumation Supervisor.

9. The Surveying Archaeologist shall survey items of evidence at the request of the Exhumation Supervisor, using the evidence number assigned by the Scene of Crime Officer. The Surveying Archaeologist shall also map the grave and its surrounds.



## Appendix P: General Site Procedures

10. The following attention shall be given to bodies and body parts:

a. In the case of a fairly complete body, the excavator shall complete the *Checklist for Location, Attitudes and Properties of a Body* (or *Skeleton*, as appropriate) before removal.

b. In the case of bodies and body parts, The Surveying Archaeologist shall survey the major anatomical landmarks.

c. Where a photographic record is deemed useful for the mortuary examination, (e.g. in cases where a ligature is in place or broken bones are evident in situ) a digital or 'instant' photograph may be attached to the checklist.

11. At the request of the Exhumation Supervisor or the Scene of Crime Officer, the Exhumation Photographer shall photograph items of evidence in situ. The photograph shall include both a scale (to show dimensions of the item to be collected) and an arrow pointing to the north. The Exhumation Photographer shall keep a log with roll and frame numbers, showing the evidence number and a brief description of the item photographed. Print film shall be used. Following the completion of a roll of film, the Exhumation Photographer shall inform the Scene of Crime Officer of the roll number and hand the film and relevant log to the Scene of Crime Officer.

12. Each collected shell case shall be surveyed and photographed, until a total of ten has been so recorded. After that, each shell case shall be surveyed but not (except in special circumstances) photographed.

13. Where parts of the exhumation process are documented on video, the video technician shall orally dub the video footage with a description of what is being videoed. The technician shall also ensure that the name of site, date and time are incorporated into the filming. Once videotape has been completed, it shall be labelled with the time and date of footage; site name and sequence number and initialled by the technician. It shall then be signed over to the Scene of Crime Officer.

14. Once recorded, each item of evidence shall be removed under the direction of the Exhumation Supervisor. It shall be transferred to the Scene of Crime Officer, who

shall ensure that the package is secure and correctly labelled with its log number and date of removal. Bodies and body parts, together with artefacts such as documents (i.e. all items that may deteriorate) shall be stored in a refrigerated container.

15. Isolated bones from disturbed areas shall be collected in a general bag. That bag shall be labelled with a BP number.

16. Isolated items of clothing shall be collected in a general bag. That bag shall be labelled as an item of artefact evidence (i.e. assigned a number annotated with an 'A'). In cases that may be of evidentiary significance, an isolated item of clothing may be logged as an individual artefact.

17. In disturbed areas of the site, isolated bones that may assist identification (e.g. a mandible or foot in a shoe) shall be logged and annotated with a 'BP'.

18. When a small number of bones are found that are associated (e.g. three ribs or vertebrae, a tibia/fibula) but which are unlikely to assist in personal identification or cause and manner of death, they shall be not be photographed or surveyed. They shall be put together in a bag within the appropriate general bag.

19. After the collection of all surface evidence, and prior to and during the excavation, a metal detector shall be used to locate items not easily visible and lightly buried (e.g., shell casings). Before their placement in storage, bodies and clothing shall also be checked for ordnance by the Scene of Crime Officer with, if necessary, advice from EOD personnel.

20. The Scene of Crime Officer shall be responsible for the chain of custody of the bodies and artefacts.

21. Following the collection, logging and packing of the evidence, it shall be inventoried by the Scene of Crime Officer and the Investigator. This chain-of-custody transaction shall be documented by both parties signing the appropriate place on the evidence log.

22. Additional logs shall include a duty log of personnel working, a log of major events, and a log of personnel not from the team entering the site.

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## Good Practice for Forensic Practitioners

CRFP is the Council for the Registration of Forensic Practitioners.

CRFP is an independent regulatory body. Our objective is to promote public confidence in forensic practice in the UK. We are achieving this by:

- publishing a register of competent forensic practitioners
- ensuring through periodic revalidation that forensic practitioners keep up to-date and maintain competence
- dealing with registered practitioners who fail to meet the necessary standards.

*Registration with CRFP, which is voluntary, carries both privileges and responsibilities. The public accepts your registration as proof of your competence. Your responsibility is, in return, to maintain and develop your professional performance, adhering at all times to the standards in this code.*

### **As a registered forensic practitioner you must:**

1. Recognise that your overriding duty is to the court and to the administration of justice: it is your duty to present your findings and evidence, whether written or oral, in a fair and impartial manner.
2. Act with honesty, integrity, objectivity and impartiality
3. Not discriminate on grounds of race, beliefs, gender, language, sexual orientation, social status, age, lifestyle or political persuasion.
4. Comply with the code of conduct of any professional body of which you are a member.
5. Provide advice and evidence only within the limits of your professional competence and only when fit to do so.
6. Inform a suitable person or authority, in confidence where appropriate, if you have good grounds for believing there is a situation which may result in a miscarriage of justice.

### **In all aspects of your work as a provider of forensic advice and evidence you must:**

7. Take all reasonable steps to maintain and develop your professional competence, taking account of material research and developments within the relevant field and practising techniques of quality assurance.
8. Declare to your client, patient or employer if you have one, any prior involvement or personal interest which gives, or may give, rise to a conflict of interest, real or perceived; and act in such a case only with their explicit written consent.

9. Take all reasonable steps to ensure access to all available evidential materials which are relevant to the examinations requested; to establish, so far as reasonably practicable, whether any may have been compromised before coming into your possession; and to ensure their integrity and security are maintained whilst in your possession.
10. Accept responsibility for all work done under your supervision, direct or indirect.
11. Conduct all work in accordance with the established principles of your profession, using methods of proven validity and appropriate equipment and materials.
12. Make and retain full, contemporaneous, clear and accurate records of the examinations you conduct, your methods and your results, in sufficient detail for another forensic practitioner competent in the same area of work to review your work independently.
13. Report clearly, comprehensively and impartially, setting out or stating:
  - a. your terms of reference and the source of your instructions;
  - b. the material upon which you based your investigation and conclusions;
  - c. summaries of your and your team's work, results and conclusions;
  - d. any ways in which your investigations or conclusions were limited by external factors, especially if your access to relevant material was restricted; or if you believe unreasonable limitations on your time, or on the human, physical or financial resources available to you, have significantly compromised the quality of your work;
  - e. that you have carried out your work and prepared your report in accordance with this Code.
14. Reconsider and, if necessary, be prepared to change your conclusions, opinions or advice and to reinterpret your findings in the light of new information or new developments in the relevant field; and take the initiative in informing your client or employer promptly of any such change.
15. Preserve confidentiality unless:
  - a. the client or patient explicitly authorises you to disclose something;
  - b. a court or tribunal orders disclosure;
  - c. the law obliges disclosure; or
  - d. your overriding duty to the court and to the administration of justice demand disclosure.
16. Preserve legal professional privilege: only the client may waive this. It protects communications, oral and written, between professional legal advisers and their clients; and between those advisers and expert witnesses in connection with the giving of legal advice, or in connection with, or in contemplation of, legal proceedings and for the purposes of those proceedings.

*When you register with CRFP, you accept these as the principles that must govern your professional practice. They are the standards against which CRFP would judge any information that called into question your fitness to stay on the register. You must therefore always be prepared to justify, in the light of this code, the actions and decisions you take in the course of your professional work.*

*In considering a complaint against a registered forensic practitioner, CRFP will be guided primarily by the provisions of this code. But we reserve the right to take action where a practitioner's fitness to practice is questioned for other reasons. This would include circumstances such as a criminal conviction or an allegation of behaviour which, while not specifically addressed in this code, might be regarded as bringing forensic practice into disrepute.*

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