

Dedicated work solves brutal and sustained murder

In November 2009, Chelsea Platt, an 18-year-old pregnant teenager, grew resentful of her 22-year-old boyfriend, Martin Hyde. Platt knew that two of her friends wanted to confront Hyde over an unpaid £15 debt. Conspiring with those friends, she invited Hyde to her flat in Stockport where he was assaulted.

The court heard how Hyde was beaten in the flat and forced to mop up his own blood. He was then bound with rope and taken to Reddish Country Park where he died after being stabbed repeatedly in the back and neck. Hyde's body was then tossed into the River Tame, where it was found on 1 December 2009. He had also suffered significant brain damage as a result of the 72 separate injuries received.

Greater Manchester Police contacted LGC Forensics and, within approximately one month, our casework team successfully

examined over 200 pieces of evidence. LGC Forensics' role was to undertake the recovery and analysis of blood and fibre samples, footwear analysis, 'wearer DNA' (the suspects' shared clothing) and the interpretation of blood patterns.

As this case involved several suspects at numerous scenes, LGC Forensics' examiners were called upon to effectively manage six separate evidence examination rooms, thereby ensuring the large volume of evidence related to each suspect was stored and worked on in isolated and secure areas. Every piece of



Two bloodied sponges were recovered as evidence from within Platt's flat

material evidence (except for that recovered from washing machines) was fibre taped using LGC Forensics' Tape-it product. Full blood searches and blood pattern analyses were also carried out. LGC Forensics' examiners compared seized footwear to shoe marks found at the murder scene and, as the victim was bound with rope, also performed rope comparison, damage interpretation and fibre analysis.

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Forensic analysis was carried out on the cooking bowl which used to beat the victim with

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This was carried out to identify fibres from a rope found at the murder scene and to cross-match those findings with similar-looking rope found at a suspect's address, as well as with any fibres found on the suspects' clothing.

Platt, who was due to give birth at the time of sentencing, was charged with aiding and abetting murder, while two of her friends pleaded guilty to conspiracy to commit grievous bodily harm. Platt's two other friends who murdered Hyde were sentenced to life imprisonment.

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Assisted by Sharon Haddock, LGC Forensics' Stephen Paddock led a Tamworth-based forensic team which dedicated the entire month of January 2010 to this case. The main challenge for the team was to manage the sheer volume of evidence within the short timeframe set by the case judge.

LGC Forensics was pleased to receive positive feedback from Greater Manchester Police as to how the case was handled. The officer in charge of the investigation said the judge also gave positive comment on the timeliness of the forensic work undertaken.

Familial searching: identifying perpetrators through their relatives

Familial searching is a unique and advanced software tool developed and used by LGC Forensics to match possible relatives to unidentified DNA profiles.

Successful use of DNA profiling in identifying suspects frequently relies on them having their profiles recorded on the National DNA Database (NDNAD) for offences they have committed in the past. Even if the perpetrator is not on the NDNAD, there is a chance of finding DNA profiles on the database that are so close to the evidential profile that they provide the potential of tracing the perpetrator through a relative.

The familial searching tool is an important breakthrough in using unique genetic characteristics

The familial searching tool is an important breakthrough in using unique genetic characteristics to enable the investigating force to rapidly trawl millions of profiles on the database. Our powerful and sophisticated software has been approved by the NDNAD and, based purely on the content of the profile under test, it can search for potentially related profiles on the database and produce a list of close matches for further investigation. Profiles are prioritised in order of those most likely to lead investigators to the subject of the DNA profile under test.

Familial searching was recently used by LGC Forensics' DNA specialists to help solve the murder of Colette Aram, which had gone unsolved for 26 years.



House of Lords customer event a huge success

On 24 June LGC Forensics hosted its first customer event at the House of Lords. The evening showcased our full range of cutting-edge forensic services and techniques to representatives from various UK civil and military police forces, the RAF, the Forensic Regulator, Crown Prosecution Services, Coroner's Office and the private sector.

The prestigious event was hosted by Lord Stevens of Kirkwhelpington QPM, a non-executive director of LGC. During the evening, we displayed a wide range of information and held demonstrations, providing details of innovative techniques we have applied to cold cases and have used successfully to identify



Our stands in the Peer's Dining Room at the House of Lords

evidence needed to convict criminals, as well as to exonerate wrongly accused suspects.

Speaking at the event, Lord Stevens commented: "LGC Forensics' dedication to pushing the boundaries of forensic science to solve some of the UK's most renowned historical criminal cases demonstrates its commitment, not only to furthering the development of innovative forensic techniques, but to seeing justice being served, even when the criminal believes he or she has evaded identification".

The event enabled LGC Forensics scientists to highlight the considerable resources and skills required to present reliable forensic evidence in court on behalf of law enforcement agencies, legal teams, government departments and private companies. Our experts were on hand to demonstrate to guests the rich variety of traditional and novel forensic techniques that LGC Forensics employs in the investigation or re-investigation of criminal cases and civil or private disputes.

The evening was the perfect opportunity for our staff and customers to come together to discuss forensic science and for our existing and potential customers to realise the full range of service we provide.

Steve Allen, Managing Director of LGC Forensics, said: "LGC Forensics scientists

LGC Forensics' dedication to pushing the boundaries of forensic science to solve some of the UK's most renowned historical criminal cases



Our stands in the Peer's Dining Room at the House of Lords

use their numerous skills and resources to discover, analyse and present reliable forensic evidence successfully on behalf of our clients, while championing the development of new and innovative forensic methods and technologies.

Our reception at the House of Lords succeeded in bringing together the UK's law enforcement agencies and other stakeholders in the criminal justice system, demonstrating the important link that forensic science has to modern day policing, while illustrating our close working relationships with the UK's police forces".

LGC helps name the Fromelles fallen

The Battle of Fromelles took place in Northern France over 19 and 20 July 1916. During the 24 hour battle, the 5th Australian Division suffered in excess of 5,000 casualties, while the 61st British Division suffered over 1,500 casualties. After the battle, the dead Allied soldiers were buried by their German counterparts in mass graves which were only discovered in 2008.

LGC Forensics was contracted by the Commonwealth War Graves Commission (CWGC) and has been responsible for leading all the DNA analysis on the samples recovered from the site in Fromelles. For the first time, unique modifications of modern day forensic DNA techniques have been used by LGC Forensics to match DNA from potential relatives with samples extracted from soldiers' remains. From 250 recovered bodies, LGC has positively identified just under 100 using

the modified DNA analysis in conjunction with artefacts, anthropological and historical data.

Unique modifications of modern day forensic DNA techniques have been used by LGC Forensics

A ceremony to dedicate the new cemetery and to bury the final soldier was held in Fromelles on 19 July 2010, the 94th anniversary of the battle. The project remains open and continues to look for more identifications.

On 30 June 2010, the CWGC in conjunction with LGC Forensics hosted a press conference at the Imperial War Museum in London, to launch a new exhibition entitled 'Remembering Fromelles'. Due to be on display until January 2011, this free exhibition displays artefacts, historical data and traces the life stories of soldiers who fell at the Battle of Fromelles.



LGC Forensics' Dr James Walker (right) meets HRH The Duke of Kent at the Imperial War Museum, London



Animal DNA solves murder

In 2009 police carried out a murder investigation, in which a dog was used as a weapon. A pit bull-cross had been used to attack and immobilise a 17-year old man before he was stabbed to death by the dog's owner. During the attack, however, the dog was also stabbed, leaving a trail of blood which stretched from the crime scene through the local housing estate to the home of one of the suspect's associates. Forensic scientists were able to recover a dog DNA profile from saliva on the victim's clothing, which matched both the DNA profile from the blood trail and the profile of the suspect's dog.

This canine DNA evidence was crucial in piecing together the events around the murder, leading to a guilty verdict and a sentence of life imprisonment, minimum 24 years in prison, for the perpetrator, whom newspapers described as the first killer in the UK to be convicted "using pioneering dog DNA technology."



Cell site analysis:

Team launches Emerging Technologies course

Cell site and call data analysis is used to look for evidence of the behaviour, interactions and whereabouts of suspects and victims by analysing their mobile phone usage. Our Cell Site Analysis Team, based in Bromsgrove, has recently launched an Emerging Technologies training course, with the aim of assisting law enforcement agencies in their fight against serious and organised crime.

Subjects covered within the course include:

- Evolutions of existing cellular networks, 2G (E-GPRS), 3G (HSPA+)
- 4G systems - LTE and WiMAX
- Skype/H3G phone
- MSN, Yahoo, GoogleVoice
- Non-cellular mobile systems – WiFi
- Access point identification (using SSID)
- Likely/actual billing/session management data available from Internet comms companies
- Session information available from ISPs and mobile phone operators
- Live trace and cell site analysis opportunities with these new echnologies

For further details please call:
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Industry news:

Orange and T-Mobile Merger

The European Union has ruled the merger between Orange and T-Mobile in the UK can go ahead. The tie up between the two would create the biggest mobile network provider in the UK, overtaking O2 with Vodafone taking third place.

How does this affect the use of cell site in investigations?

The integration of the two businesses would include the decommissioning of phone masts thereby saving money. This emphasises the need to perform network readings as soon as possible after an incident or offence. The purpose is to secure the network information and prevent the possibility that by the time cell site is required evidentially, that vital site would no longer be there.

Team focus

Imagery and Audio (part of Digital and Document Forensics), St. Neots

In February 2009 LGC Forensics acquired Kalagate, the UK's leading independent provider of imagery interpretation services. Kalagate had an unmatched reputation for the range of analytical and technical skills it offered, and this vital addition to LGC Forensics' existing portfolio of digital and document forensics services has created the Imagery and Audio team based in St. Neots, Cambridgeshire.

The team is now fully integrated into LGC Forensics' Digital and Document Forensics business unit. Business Manager and Lead Investigator Clive Burchett commented "We have continued to provide the high quality services Kalagate customers came to expect, with the added support of our wider digital and document forensics units enabling us to offer a fully integrated approach to new and existing customers."

Services offered by the Imagery and Audio team include facial/body mapping and other comparative and chronological analysis, the technical assessment of CCTV systems and the electronic presentation of evidence and expert opinion in support of criminal, civil and private cases. We work from a range of imagery, photographic and audio sources including



Imagery and Audio team, St Neots

■ The UK's leading independent provider of imagery interpretation services

satellites, CCTV and more traditional camera systems. Our customers include the majority of police forces and an increasing number of solicitors across the UK, Northern Ireland and overseas.

For more information on the work of our Imagery and Audio team, please get in touch by emailing d&df@lgcforensics.com or by calling +44 (0)844 2641 999.

Out and about

Conferences and events are a great opportunity for us to meet our customers and showcase our full range of services.

Recently attended:

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|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 8 June 2010 | The Forensic Science Society's 'In the Round - A Day Aimed at Firearms Experts' <i>The Royal Armouries, Leeds</i> |
| 9 September 2010 | South East Region Senior Investigating Officer's Day <i>Branksome Place, Haslemere Surrey</i> |
| 14 - 15 September 2010 | SPSA/SIPR Conference, <i>University of Dundee</i> |

Look out for us:

| | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 - 8 October 2010 | Scottish Senior Investigators Conference, <i>Tulliallan Castle</i> |
| 12 - 13 November 2010 | Lancashire SAFE Centre Conference, <i>Old England Hotel in Windermere</i> |
| 12 - 14 November 2010 | Forensic Science Society Autumn Conference and AGM Children and Crime: Victims or Villains? <i>The Robinson Executive Centre, Wyboston Lakes</i> |
| 1 December 2010 | The Investigator Second Cold Case Review Conference, <i>Rothley Court Hotel, Leicester</i> |

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