



Tracking Counterfeit



Forensic Science

Introduction

- Counterfeit money has always been a nuisance and a problem worldwide. Criminals in charge of organizations that produce counterfeit money use home computers and printing yards to produce very real looking, convincing counterfeit copies of currency.

The Currency

- All currencies are vulnerable and subject to currency forgery, but the most susceptible are the currencies that circulate around the world and are able to be used globally. This makes the US dollar the most commonly and easily reproduced currency, and unfortunately, currencies that are easily reproduced tend to attract the most illegal counterfeiters.

Note Creation

- In the past, notes have been created using intricate imprinted designing techniques and featured difficult to replicate watermarks, a design imprinted into the note and only visible when a light is shone on it.
- They also had specific numbering patterns and fine metal threads imbedded in the note. However, it became easier for counterfeiters to forge currencies towards the end of the 1980's as higher quality colour photocopiers and printers made copies look extremely convincing.
- Today's bank notes have new improved aspects to stop the forgery of currency. These include words that only appear when the note is heated by a copier lamp, colour-changing ink that turns from green to black when the note is turned over, print that is only visible when viewed through a magnifying glass, machine readable only bar codes, shimmering ink, and holograms.

Tracking The Forger

- Finding the currency forger involves combining clues found in the paper type, printing techniques and the ink variety used. Paper banknotes are now printed on material that is of a high quality and is economically impossible to mass reproduce. Microscopes are used to recognise substituted paper forms and using this information, investigators may then be able to find the supplier.
- UV lights can show the metal security threads in true banknotes and reveal attempts to fake them in fake notes. X-rays show watermarks and make them clearer.
- The printing process can also reveal the counterfeiter, as they usually use laser and inkjet printers that are easily distinguishable against the extremely high quality methods used on authentic banknotes.
- Chemically analysing the ink can be traced back to the counterfeiters using a computer database that matches the ink's characteristics.