

# Digitised diamonds battle to defy thieves

Blockchains Could new technology have stopped a country house robbery? *Jessica Twentyman reports*

When Lord March described a violent robbery at Goodwood House, his stately home, in January as "challenging", this was a very particular kind of English understatement. He and Lady March had been attacked by a burglar in the middle of the night, forced to open their safe and tied up for two hours.

More than 40 items were stolen from their 18th-century house near Chichester, south-west of London, including a diamond tiara dating back to 1820 and an emerald and diamond ring given by Charles II to his mistress Louise de Kéroualle, duchess of Portsmouth. Earrings, bracelets, necklaces and antique Rolex and Girard Perregaux watches were also part of the £700,000 haul.

If the theft were not bad enough, with every week that passes the prospect of recovering any of the heirlooms grows bleaker. The last public update from Operation Forster – the investigation into the Goodwood House robbery – came on January 27, when it was announced that a "substantial" reward for information leading to the jewels' recovery was being offered; since then, nothing.

However, as a range of new security measures emerge, future victims may

tinctive, easily recognisable items of "estate" jewellery, says Mr Higgins, a smart thief wouldn't even attempt to sell on a piece in its intact state.

Precious metal, after all, can be melted down. Diamonds, once liberated from their settings, are eminently portable, thus easy to transport abroad on a commercial flight, stashed in a piece of carry-on luggage, for example, and then sold on in a foreign market.

Enter the blockchain. This is perhaps best known as the underlying technology for the bitcoin digital currency, but it is becoming clear it has applications for diamonds too. Blockchain is, in essence, an online recording system which can be used to track where a diamond comes from and can keep strict details of how and when it passes from owner to owner. (See box for a more detailed explanation.)

That, at least, is the idea behind Everledger, a London-based start-up that is using blockchain technology to replace the current paper-based and fraud-prone processes that surround diamond ownership.

For a start, explains the company's chief executive Leanne Kemp, a blockchain-based ledger like Everledger is not stored in one place, but is distributed across a potentially vast number of computers belonging to participants in a network. In Everledger's case, these are owners, insurance companies, diamond certification bodies and law enforcement agencies.

Every member of that network has access to the most up-to-date version of the ledger, making it transparent. Each record on the ledger, meanwhile, is immutable – so the transaction history of a specific diamond can only be added

go undetected. An Everledger-registered diamond which had been falsely claimed for would be much harder to sell on, assuming the buyer checked out its provenance.

The big drawback is the unique identifying number laser-engraved on a diamond's girdle that links a physical stone to the "digital copy" held on Everledger.

As Vartkes Knadjian, chief executive of Backes & Straus, the world's oldest diamond company, points out, removing such an engraving is an easy job for an experienced diamond polisher. Ms Kemp says that this process often depletes a diamond's value, by removing weight – but that may well be a sacrifice that a determined fraudster or thief is prepared to make.

Technology needs to catch up with thieves. "As an industry, there's a problem here with traceability that technology really should be helping us to solve – and I still believe that it will, but we're not there yet," says Mr Knadjian. Any he says is yet to see, for example, in



Goodwood House was robbed in January  
*Simon Margerson/Travel Albany*

kind of technology based on a global positioning system (GPS) that is small enough to be incorporated into one of his company's diamond-set watches without compromising its aesthetics.

And there are additional problems with which the industry must contend, mainly around its largely paper-based documentation processes: one is the issuing of fraudulent certificates, another is the altering of genuine ones. Transaction histories are often incomplete, or a stolen gemstone may be traded multiple times in swift succession in Dubai or India, for example, in

order to create a convincing new transaction history.

This technology, of course, would only work on "estate" jewellery, such as that owned by the Marches, if the owners were prepared for pieces to be dismantled, to get the individual diamonds laser-engraved, and then reassembled.

With antique items, there's a considerable risk of damage to the settings, which might be almost impossible to repair without devaluing the item. In other words, Lord and Lady March may in future still have to rely on old-fashioned detection, rather than up-to-the-minute technology.

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