



Questioned Documents Section – 2006

J18 The Authentication of the Questioned Documents By Using a Commercial Digital Camera - Starting From the Questioned Banknotes

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The goal of this presentation is to impact the forensic community and/or humanity by introducing an ordinary way to authenticate questioned banknotes by using a commercial digital camera with properly controlled light and filters as a secondary source.

Since the printing of banknotes is a very complicated technique which involves much state-of-the-art technology, so the authentication of banknotes might be more challenging than for other kinds of questioned documents. Using optical analyses, professional document examiners can find the differences between authentic and counterfeit banknotes. However, for the general public or members of front-line agencies, it is rather difficult to identify those notes from simple observation.

The author studied an ordinary way to verify without specialized equipment the 'Counterfeit Deterrence' or 'Security Features' on banknotes. Such methods could be helpful to authenticate counterfeits. This alternative procedure applied tungsten light and IR filters for the IR 'Security Features' check, macro shooting function for the intaglio prints, and security thread check. These procedures were verified by specialized questioned document examination thereafter. This experiment is suitable for almost all banknotes in the world, and seems to be more convenient and inexpensive.

These secondary methods were verified against the techniques used by document examiners and were determined to be a valuable, inexpensive and convenient screening method for identifying fraudulent banknotes. This was suitable for almost all banknotes from around the world and, in fact, is not limited to banknotes alone.

Questioned Banknotes, Banknote Authentication, Commercial Digital Camera