



**INDEPENDENT  
CURRENCIES**  
INSIGHTS

**MMXX**

# SECURITY FEATURES

**TRUSTED SECURITY DOCUMENT FEATURES**

*The security of a printed product rests in the quality and unique IP of it's features - manufacturing techniques incorporated in the design that are difficult to replicate, are tamper-evident, and allow for quick and easy validation. Along with the visual quality of design, this is the foundation of creating trust in documents, such as banknotes, cards and certificates. Here are some of the features we use to secure our clients' products...*

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# SECURITY FEATURES

## TRUSTED SECURITY DOCUMENT FEATURES

*We categorize our document security features into five areas: Paper, Printing, Inks, Holograms, and Numbering. Each area contains multiple features that can be combined to secure a printed document.*

*This is a good introduction to fundamental banknote and certificate security features for the private sector.*

*Of course, the art of security document design takes these features and turns them into aesthetic motifs. For more information on our design capabilities, see our [Security Design credentials \(click to link\)](#).*

PAPER  
PRINTING  
INKS  
HOLOGRAMS  
NUMBERING

# PAPER

*Paper is fundamental. The substrate of security documents can be modified and embedded with a range of secure features.*

## EMBEDDED THREAD

*A foil strip can be embedded into paper that is continuous when held to the light.*

## WATERMARKS

*Watermarks can either be generic, or bespoke. Bespoke watermarks are obviously superior, but are also more costly.*

## ULTRA VIOLET FIBRES

*Fibres added to paper that are only visible under Ultra Violet light.*



# PRINTING

*Print techniques are fundamental security features in themselves. The ultra high resolution of security printing distinguishes security documents from 99% of printed media. The two main high resolution techniques of security printing are lithography and intaglio. When used in combination at high resolutions, this creates a document that can be said to be more secure than most other printed material.*

## OFFSET

*Sometimes called lithography, or litho, this method allows for smooth colour gradients and micotexts - two features that are impossible with digital printing.*

## INTAGLIO

*Intaglio is a pressure-based process that accounts for most of the darker areas of a banknote - the portrait and text. Intaglio creates a raised surface texture that can be detected on touch. Intaglio's unique properties cannot be replicated with any other process.*

*This method of printing is inaccessible to all but central banks and government departments. Our unique IP allows us to offer artisan intaglio printing at resolutions that equal public-sector security printers.*



# INKS

*Security inks are an obligatory element. The combination of inks chosen for a project will depend on the use and volume to be produced. Most projects require an aesthetic solution and instant verification, so one or two combined options below are sufficient. Very specific applications may require more complex combinations of inks.*



## INVISIBLE UV

*Most security documents contain an invisible ultra violet ink. UV inks are available in a variety of colours, and are visible under a specific wavelength of UV light.*



## FLUORESCENT

*Strictly speaking, not a security ink, but fluorescent inks can be used effectively in high resolutions to enhance an existing design.*



## IRIDESCENT

*These inks are overprinted on an existing design and are semi-transparent. They can be attractive yet subtle security features that are visible in reflective light.*



## OVI

*Optically Variable Inks shift colours when viewed at different angles.*



## THERMOCHROMIC

*These inks change colour when rubbed - an effective validation tool if the product will be handled.*



## TAMPER EVIDENT

*A diverse range of tamper evident inks are available to aid detection when a document is susceptible to fraud.*



# HOLOGRAMS

*Holograms and foil patches and strips are constantly evolving, incorporating increasing levels of detail, colour contrast and clarity. The hologram market is awash with generic patterns - these are usually sufficient for low-security private sector projects, when combined with other features. But for a high security solution, we highly recommend a bespoke hologram.*

## ENGRAVED FOIL

*Engraving directly on foil transforms a generic feature into a bespoke design.*

## CONCEALED IMAGE

*Holograms can contain latent images that are only visible at one angle.*

## IMAGE FLIP

*Holograms can incorporate shifting images that change at acute angles.*

## NANO TEXT

*While microtext is possible with printing, even smaller textural information can be incorporated in holograms. Nano text measures less than 50 microns and can only be read through a microscope.*



# NUMBERING

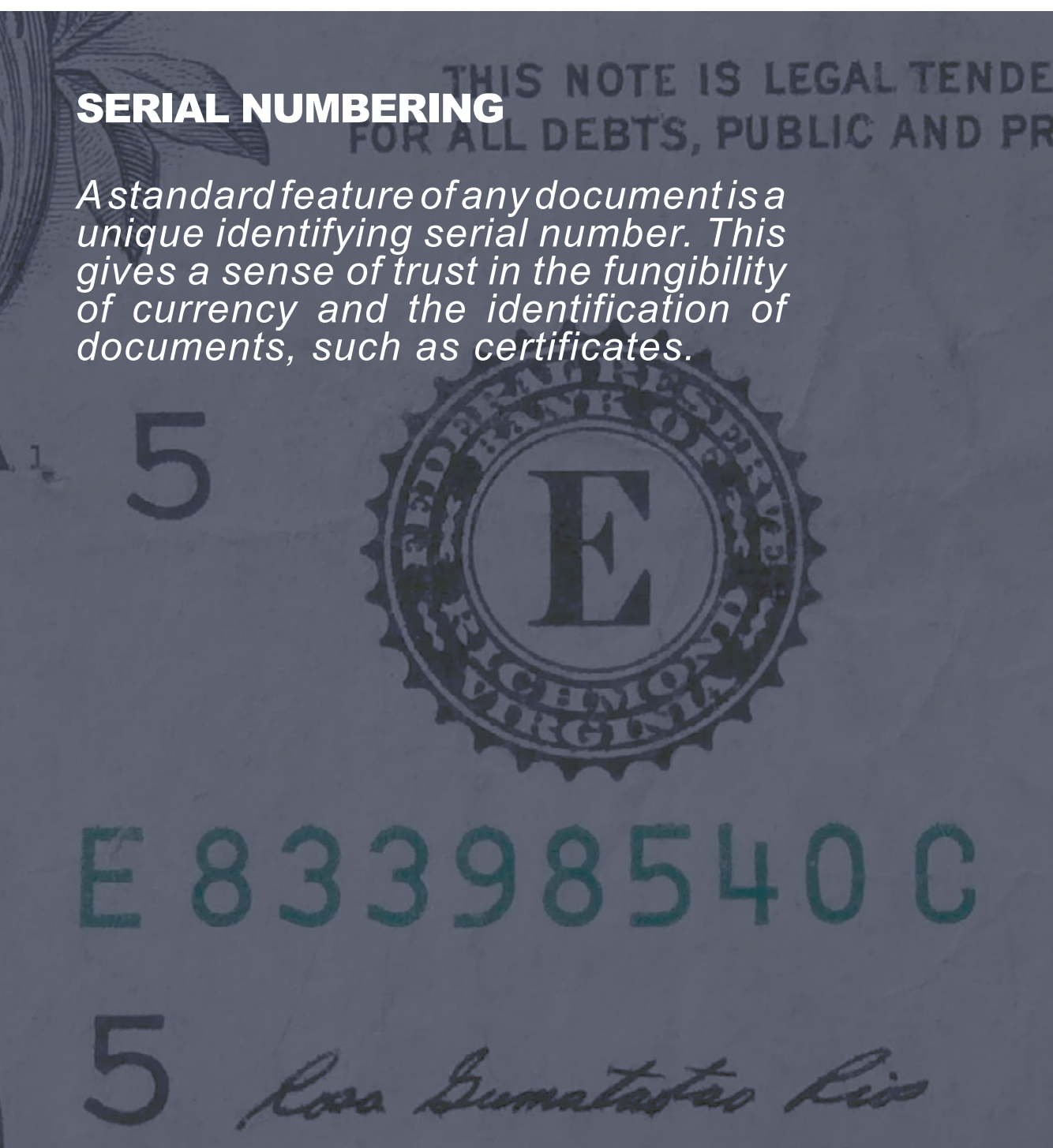
*We use the term 'Numbering' to refer to any personalized feature that changes from unit to unit. This could be serial numbers, names, information, or machine-readable features. Any form of sequential text can be incorporated on security documents, either digitally, or by letterpress.*

## SERIAL NUMBERING

*A standard feature of any document is a unique identifying serial number. This gives a sense of trust in the fungibility of currency and the identification of documents, such as certificates.*

## READABLE DATA

*Non-textural data can take the form of QR codes, barcodes, or any data that is to be read by a machine.*







# INDEPENDENT CURRENCIES

PROFILE



Tom Badley, Creative Director

Tom has over a decade of experience as a designer and brand strategist. He uses his unique combination of credentials to help clients around the world.

Originally from an art background, Tom moved into design and marketing after graduating from UCL, London. His detailed illustration work led him to be headhunted by the security printing industry, where he gained invaluable insights into the highest end of print design.

Tom collaborates with trusted providers at the cutting-edge, to provide a full design package to bold organizations.

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## FOUNDATIONS

OVER

**10**

years of design experience

ACROSS

**22**

countries

MORE THAN

**250**

million people interacting with our clients' brands and products

## SECTORS

### BANKS

Currency Design  
Banknote Manufacture  
Cash Cycle Solutions  
User Interface Design

### BRANDS

Discovery and Visual Identity  
Product Design  
Packaging Design  
Product Authentication

### BLOCKCHAIN

Wallet Solutions  
Cash-like Product Design  
Blockchain Empowered Money  
DLT Consultancy



# SECURITY FEATURES

TRUSTED SECURITY DOCUMENT FEATURES



CLICK IMAGE TO LINK



CLICK IMAGE TO LINK