

THE IBNS INTRODUCTION TO

BANKNOTES &BANKNOTE COLLECTING



Prepared by members of the International Bank Note Society.

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INTRODUCTION

This guide is an introduction for people pursuing an interest in banknotes and gives the beginner a description of the banknote, its various features and how banknotes are manufactured. Included in this guide is an outline of aspects to be considered when building a collection of banknotes.

While there are many numismatic organizations throughout the world, the International Bank Note Society (IBNS) is the premier organization for people interested in banknotes of the world. Membership of the Society includes collectors, banknote dealers, auction houses, libraries, numismatic publishers and institutions. Membership in the IBNS has numerous benefits, principally bringing together people with a common interest in banknotes. One of the main benefits of membership is receiving the quarterly IBNS Journal—a full colour, 80-page magazine with articles on banknotes and covering aspects of the Society's activities. A web site at www.theIBNS.org offers information on banknotes, the Society's activities and the Society's members. A forum on the website is available for members to discuss matters and ask questions. The IBNS Directory lists all members of the Society, usually with their contact details and their collecting interests; with the Directory distributed to all members. Two annual postal bid auctions are also available for members to sell and buy banknotes. To gain the most from an interest in banknotes, membership of the IBNS is recommended.

Once a collection has commenced, the new collector will find answers to further questions by contacting fellow collectors, reading specialist publications, or obtaining general publications on banks and banknotes. Reference to this guide may also prompt collectors to find out a little more about the banknotes they already possess. We certainly hope your interest in banknotes continues for many years.



WHAT IS A BANKNOTE?

Today, the term "banknote" or "bank note" is used to generally describe paper money issued by various authorities around the world, but banknotes are not always issued by banks.

"Paper money" is another term commonly used to describe banknotes, as this term does not limit items to articles issued by banks, but it also includes items that are not made of paper. In some countries "currency" refers to paper money, but this term usually refers to officially issued notes. (Another definition of "currency" is "That which is current as a medium of exchange; the circulating medium (whether coins or notes); the money of a country in actual use." *Oxford English Dictionary* (OED)) So, despite perceived inaccuracies, the term "banknote" is commonly used to refer to paper money in its various forms.

In most countries banknotes are issued by a central bank, supervised by the government. In some places, banknotes are not issued by a bank, but are issued directly by the government, such as in the British dependencies St. Helena and the Falkland Islands. Similarly, in some countries, banknotes have been issued by the treasury of a government and not by a central bank, but they are nevertheless still regarded as banknotes.

Originally, banknotes were issued by private banks and governments issued only coins. There remain several places in the world where private banks continue to issue banknotes for general circulation, rather than be issued by the government—this still occurs in Hong Kong, Scotland and Northern Ireland.

The earliest banknotes were one of a number of paper money instruments used by individuals and companies to engage in transactions, all of which represented a promise to pay a certain amount of money specified on the banknote, at a certain point in time, and some of which were made payable to the bearer (the person holding the paper money) and some that were payable to a particular person.



A modern banknote from Ethiopia, issued by a central bank—the National Bank of Ethiopia.



This banknote, a post note, was issued by a private company and was payable to an individual, (or order) after a specified period, in this case after 45 days. It was not payable "on demand" as is the case with most banknotes.

The particular features of a banknote, over other types of paper money, is it was usually payable to the bearer and usually payable on demand. Originally, a banknote was "A promissory note given by a banker, payable at a fixed date to a specified payee." (OED) Later, a banknote became "A piece of paper money of a fixed denomination, circulating as currency." (OED) While most types of banknotes now have all details printed during their manufacture, originally they were handwritten, and then partially printed as "forms" to be completed by hand at the time of issue. The items to be completed varied, but usually consisted of the date, the serial number and the signatures. Banknote forms that are not completed are known as "remainders" and modern banknotes that have never been issued can also be referred to as remainders.



The Royal Bank of Scotland is one of three private banks to issue banknotes in Scotland. Although authorized to circulate, the notes issued by the Scottish banks are not legal tender.



Seven Shillings.

BALLINDALLOCH WORKS.

A GUINDA NOTE

Will be paid for an equal Amount of our Checks, if presented at the Works within Tenne Months from this Date.

To the Merchants of Baltron.

Ents.

Above: This banknote was prepared for the state of Biafra, which seceded from Nigeria in the late 1960s. This note has no serial numbers, was never issued, and is thus regarded as a "remainder." Typically, modern banknotes without serial numbers, or signatures, and sometimes the date – items often added after the printing of the note – are considered remainders.

Left: This is a privately issued note for seven shillings. The form was prepared for the Ballindalloch Cotton Works, and promised to pay one guinea (21 shillings) if three of the notes were presented. Most of the form is printed, but several areas of the form had to be completed by hand—the date, the serial number, the signature and the name of the clerk who entered the note into a register.

OTHER PAPER INSTRUMENTS



A hand-written bill from Scotland, dated 1757.

ther types of financial instruments associated with paper money are:

Bill (or Bill of Exchange): A written order by the writer or "drawer" to the "drawee" (the person to whom it is addressed) to pay a certain sum on a given date to the "drawee" or to a third person named in the bill, known as the "payee". (OED)

Note (or Note of hand): A written promise to pay a certain sum at a specified time. (OED)

Bank post bill: Originally a promissory note intended to be conveyed to its recipient by mail, but later used as post-dated bills, or post notes, and were payable at a future date; i.e. post dated.

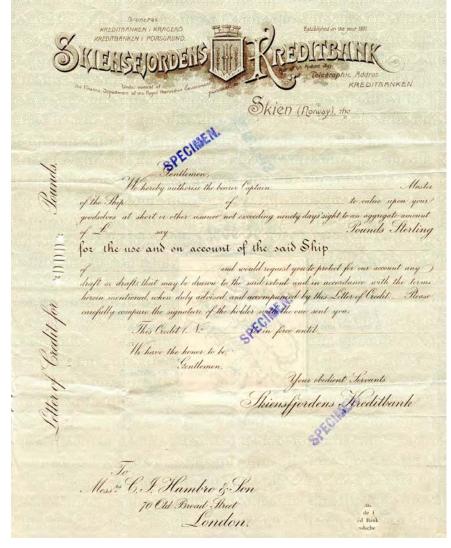


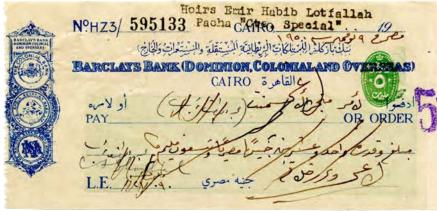
A Bank Post Bill issued by Beresford's Bank, Ireland.

Cheque (check): A written order (on a printed form or otherwise) to a banker by a person having money in the banker's hands, directing him to pay, on presentation, to bearer or to a person named the sum of money stated therein. (OED)

Letter of credit: A letter or document, especially one issued by a bank or other financial organization, authorizing a named person to draw money to a specified amount from the issuer's agents or business associates in another place. (OED)

Circular note: A letter of credit addressed by a banker (e.g. in London) to several bankers in other countries, in favour of a certain person named therein, usually a person on a tour.





Above: A specimen letter of credit issued by "Skiensfjordens Kreditbank" in Norway, for the provisioning of a ship.

Left: A cheque drawn on the Cairo branch of Barclays Bank (Dominion, Colonial and Overseas).

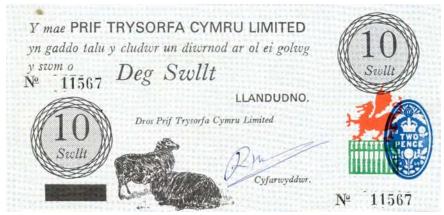
THE ELLY.	BANK, limited, London.
NO Pillet	le Change Circulaire pour L 20 Ster pondants designes dans la Lettre d'Indicatu Londres ce 18
Dis Journa	ie Thuringe Armunite pour L 20 Mer
a Messieurs les corres	pondants designes dans la Lettre d'Indicati
de cette Banque No	Londres in 18
Messieurs.	Quareste 10
Cette Le	ttre vous sera remise par M
don	t vous trouverez la signature dans notre Lett
a Phateaton sus actes	Se vous prie de lui fournir sans deduction de fr
ja moins qu'extraoraine	aires) la valeur de VINGT Livres sterl, "au cours
change à usance sur Li	indres contre sa traite ci jointe sur cette Banqu
0	Sail honneur d'être Messieurs,
Enregistre	Votre très humble serviteur.
	GERAN

Left: A specimen Circular Note (Billet de Change Circulaire) prepared for The City Bank, Limited, London.

Travellers Cheque: A cheque for one of several specified amounts of money, that can be cashed at a bank in most countries, or used in payment for goods, on the holder's endorsement against his original signature. (OED) **Bearer Security**: An unregistered security the title to which is vested in its possessor and is transferred by simple delivery. So bearer bond, bearer stock, bearer warrant. (OED)



A specimen travellers cheque for two pounds, issued by the District Bank, Manchester, England.



A private note issued by the Chief Treasury of Wales, established by eccentric Welshman, Richard Williams.



A fantasy issue for the Chatham Islands. This is one of several issues which were ultimately banned by the government of New Zealand because they purported to be legal tender on the Islands, which they were not.

Private Issues: While most banknotes are official issues, by a government or by a central bank, there are many private banknote issues. Some of these were issued by owners of factories or by store merchants, but there have famously been individuals who have attempted to issue their own banknotes.

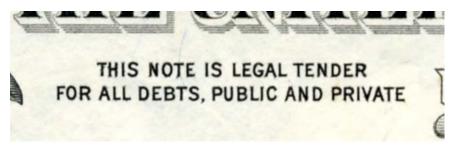
Fantasy Issues: Because of the general interest in banknotes, it is now common for people and companies to produce banknotes which have no value, but which imitate banknotes. Some of these are very professionally manufactured and some are poorly produced.

Notgeld: Also described as "emergency money", "local currency," "token money" or "necessity money". Notgeld is typically issued during and after wars and economic upheavals, due to the lack of sufficient official currency, or high inflation, or the disappearance of coinage. Notgeld has been issued by local town authorities, municipalities, chambers of commerce, goldsmiths, militias, railroads, charitable organizations, asylums, factories, stores, cooperatives, corporations, private banks, occupying military forces, and others. Most Notgeld served as "small change" to replace coinage, which tends to disappear in times of financial crisis; but occasionally it served as the primary currency.

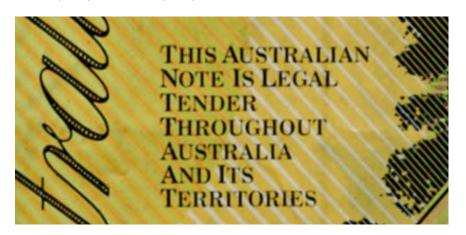
Scrip: A substitute for legal tender, issued for limited circulation. Issue might occur in a closed environment, such as on a ship, a "company town" or in a mining camp. Scrip can also be a substitute for legal tender when none is available; issued by companies that run out of cash, or by governments during a budget impasse.

WHAT IS LEGAL TENDER?

These days, most officially issued banknotes in a country are considered legal tender. Under the laws of a country the circulating banknotes and coins are usually declared to be legal tender for all debts, both public and private. This means people must accept the banknotes and coins in payment for goods and services. Public debts are those incurred by the government and its agencies, and private debts are between individuals or companies. In the law declaring legal tender, restrictions may be imposed. Often, small denomination coins and banknotes are declared legal tender up to a certain amount; for example, a 1-cent coin might be legal tender up to 1 dollar—meaning if someone wants to pay a 2-dollar debt with more than 100 1-cent coins, the person receiving the payment is not legally obliged to accept the payment. Laws on legal tender vary from country to country and in times of emergency, particularly during war time or during the conversion of a currency, there may be more than one currency declared legal tender in a country or territory.



Although not commonly used, declarations of legal tender appear on banknotes from the USA (above) and Australia (below).



The status of a banknote generally goes through three phases:

- 1. Banknotes become legal tender on being issued.
- 2. Once the banknote is no longer in use, generally because a new issue of banknotes replaces an earlier issue, they lose their legal tender status. These banknotes can be redeemed at banks for the new legal tender banknotes, and sometimes, often for a period of many years, they can be redeemed at the central bank that issued the banknotes.
- 3. The banknotes are demonetized. This means they completely lose their value and can no longer be redeemed anywhere. This usually happens after many years, but sometimes it happens quickly, especially if there is a civil war or if there has been widespread forgery of the note issue. In some countries, the banknotes are never demonetized and their value can always be redeemed by the issuing authority.



The banknotes of the Bahrain Currency Board used Arabic text on the front of the note and English text on the back of the note.



Although the banknotes of many countries have the name of the issuing authority in two languages, Switzerland (see above) uses its four national languages on its notes (two on the front and two on the back): German, Romansh, French and Italian.

FEATURES OF A BANKNOTE

B anknotes have a front and a back. Various terms are used to refer to the front and back of a banknote, with no terms being universally recognized; the front is also known as the obverse or face, and the back is also known as the reverse. While older banknotes were uniface, having only a printed front and a blank back, all modern banknotes are printed on the front and the back.

Banknotes throughout the world have common features, although not every banknote has each of the following features.

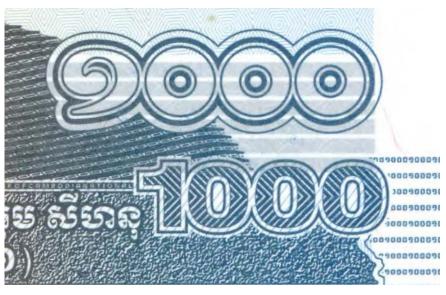
Name of the issuing authority:

The name of the issuing authority, usually the central bank of a country, generally appears at the top on the front of the note. Sometimes the name is also on the back of the note, frequently in English if the name of the issuing authority is not rendered in English on the front.

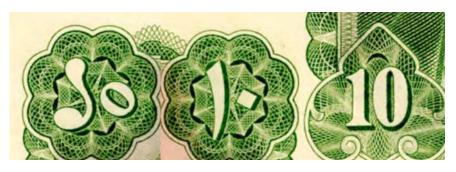
Denomination: The denomination of the note is always on the note, almost universally in numerals and often written in text. Where more than one language is used in the areas where the note circulates, the denomination is often presented in multiple styles of numerals and sometimes in multiple languages.

Promise to pay: When banknotes were first issued, there was usually a phrase written on the banknote with a promise to pay the bearer the value of the note on demand. This was at a time when banknotes were backed by coins, usually made of silver or gold. For many years, banknotes have no longer been backed by coins and are now regarded as "fiat money," that is, the value of the note is decreed by law, and the promise to pay does not exist on most modern banknotes.

Date of issue: Frequently a date of issue is included on the banknote, but many modern issues do not include a date. Sometimes the date of issue is a complete date—with day, month and year—and sometimes just the year. In some countries the date is given according to more than one calendar, such as in Muslim countries where the Hejira calendar is used. Sometimes the date is hidden in the serial number.



Banknotes in Cambodia declare their denomination in Khmer numerals and western numerals.



In the 1960s and 70s Pakistan used Bengali, Arabic and Western Numerals on its banknotes.

FIVE POUNDS STERLING in Bills on the Right Honourable the Lords Commissioners of His Majesty's Treasury.

Date of law authorizing issue: The law authorizing the issue of the banknote is occasionally referred to on the banknote and this often includes the date of the law. This date should not be confused with the date of issue.

Series number: In numbering banknotes, a series number is often assigned, usually in a one- or two-character format using either letters or numerals, or a mix of letters and numbers. In some cases serial numbers are not used on banknotes, with only a series number used. This usually occurs in emergency issues or on notes with very little value.

Serial numbers: Banknotes have carried serial numbers since banknotes were first used. The serial numbers originally allowed staff in the bank to match an issued note against a counterfoil from which the note was cut, or match the note against a ledger in which issued notes were recorded allowing verification of the note's issue. Today, banknotes almost universally carry one serial number and usually a repetition of the serial number; although banknotes have been known to repeat up to six serial numbers. Sometimes serial numbers are presented in more than one character set; and if this is done, it is usually once with a Latin character set and once with a non-Latin character set, such as Arabic, Bengali, Hebrew, Urdu, et cetera. In modern banknotes it is common to find non-Latin character sets used for all repetitions of a serial number.

Signatures: Banknotes, from their inception, usually carried at least one

signature, and often two. Modern banknotes usually have one or two signatures, although throughout history as many as 14 signatures have appeared on a banknote. Typically, the signature of the head of the issuing authority appears on the banknote, but the title of the signatories varies greatly, from a member of the staff of a bank, such as the Chief Cashier on the banknotes issued by the Bank of England, to the leader of the country issuing the banknote, such as the President on the banknotes issued in the Philippines and the sultans of Oman and Brunei who sign the notes issued in their countries.

Illustrations: The earliest banknotes carried no illustrations, but from early times vignettes began to appear on banknotes. Over time, the size of the vignettes grew to become a dominant feature of a banknote. Now, illustrations commonly appear on the back of banknotes as well as on the front. The subject of the illustrations often tells much about the history and culture of the country in which the banknotes are issued.



On this banknote from Bahamas, the series is identified by a year.



On the note from Russia the series number is two letters and a number, and there is no serial number.

Although not commonly used on modern banknotes, the promise to pay the bearer on demand was usually found on older banknotes, such as the note from Sierra Leone (above). The promise still exists on some modern banknotes, as on the note from Guernsey (below).









Above: Examples of dates depicted on banknotes: (top) day, month and year on a banknote from Brunei, (centre) month and year on a banknote from Angola, and (bottom) year only on a banknote from Norway.



The year in two calendars – Gregorian and Hejeira – appears in Arabic numerals on banknotes issued in Oman.



The date of the law authorizing the issue of the note; on a banknote from Bolivia.



The official most likely to sign a banknote is the governor of the central bank, as seen in the image at top left from a banknote issued in Barbados. The signature at the top right is of the Sultan of Brunei, the head of state, on a banknote issued in Brunei.

The banknote issued by Guinea-Bissau (below) was first issued with three signatories, but was soon re-issued with the titles, and signatures, of two signatories changing. (The font for the serial number also changes.)





Above: A vignette from an Australian Bank Post Bill, typical of nineteenth century vignettes.



Above: The claim to copyright on a German banknote.

Security features: The earliest banknotes carried very few security features, but today there are many types of security features, all designed to make counterfeiting of banknotes more difficult. See the "Security Features" section for more details.

Warning to counterfeiters: On some banknotes, a warning to counterfeiters is included. It is a short section of text, sometimes referring to a law and sometimes stating the penalty for counterfeiting. Occasionally a banknote will carry the copyright symbol (©) and who is claiming copyright. This is not specifically aimed at forgers, although copying the note adds to their crime, but is aimed at protecting the design from being used on souvenir items such as tea towels and mugs.



WER BANKNOTEN NACHMACHT
ODER VERFALSCHT
ODER NACHGEMACHTE ODER VERFALSCHTE
SICH VERSCHAFFT
UND IN VERKEHR BRINGT,
WIRD MIT FREIHEITSSTRAFE
NICHT UNTER ZWEI JAHREN
BESTRAFT

Warnings to counterfeiters on banknotes from Haiti (top) and Germany.



This image, after a painting by John Trumbull, shows the presentation of the United States of America's declaration of independence by its drafters, a famous historical event, depicted on a banknote issued in the United States of America.

WHY ARE BANKNOTES INTERESTING?

There are many reasons why banknotes are interesting and each person may develop an interest in banknotes for a different reason. Some of the common reasons banknotes are of interest are listed here.

A Record of Culture: The banknotes of many countries carry images relating to the culture of the country of issue. For example, an issue of notes might carry the fauna and flora of the nation; the notes might display portraits of famous people; and important monuments or buildings may be depicted. By understanding why these images are used, much is learnt of the country of issue.



The back of this two-dollar note from Belize shows the "Mayan Ruins of Belize" and Mayan patterns are incorporated in the design of the note, all depicting the important cultural heritage of the nation. Additionally, the native flora and fauna of Belize are depicted in a panel towards the left. Thus aspects of the country's culture are portrayed on the banknote.



The banknotes of Iraq are a good example of being able to follow its modern history. From the top, we have a Currency Board issue with King Faisal I; then a World War II emergency issue with King Faisal II; a National Bank issue; a Central Bank issue follwing the formation of the republic; a modern Central Bank issue; an emergency issue, depicting Saddam Hussein, following the First Gulf War; and a note issued by the Central Bank following the overthrow of Saddam Hussein.

A Record of History: While aspects of a nation's history might be depicted on a banknote, such as famous battles, famous treaties, and famous events, it is more often the change in the banknotes over a course of time that portrays aspects of a country's history. For example, a colony may develop into a nation, and then undergo political upheavals, sometimes leading to a new nation or a short-lived secession. These events can be seen in the banknotes, reflecting the changes in the country. Sometimes an issue of banknotes causes controversy itself, or specific events are linked to an issue of banknotes, and the story behind these issues or events can be more interesting and exciting than any book or movie.

The Beauty of a Banknote:

Banknotes are frequently small works of art. Some people collect banknotes just because they are beautiful items, highlighting the skills of the artists and engravers who created the work. Some people assemble a banknote collection based on the engraver who created the artwork on a banknote. **Themes**: Many people collect banknotes along a particular theme, such as butterflies on banknotes or bridges on banknotes. Others might collect banknotes with musical themes or animal themes. Some people collect banknotes of countries that no longer exist and some collect banknotes used by occupying

armies. There are many themes from

which to choose and each can be a

source of interest to the collector.







Beauty is in the eye of the beholder, but above are some banknotes which are works of art in their own right—from Estonia, Algeria and The Bahamas. The third banknote could also be a target of people who collect fish depicted on banknotes.







Some collecting themes are: Queen Elizabeth II on banknotes (top), scientists on banknotes (middle), and castles on banknotes.

HOW IS A BANKNOTE MANUFACTURED?

There are two basic processes to manufacturing a banknote: the manufacture of the banknote material and the printing of the material.

The Banknote Material

Banknotes have historically been made of paper, but the manufacture of the paper has varied over the centuries. The earliest known banknotes are Chinese banknotes that were printed on paper manufactured from the bark of mulberry trees—which made grey or purple paper. In the western world, paper was made from cotton or flax, or a mixture of these fibres. The paper was thus of high quality, enabling the banknotes to circulate for a long period without deteriorating. Paper manufactured from timber pulp is not as strong or as durable as paper manufactured from cotton and flax, but it has been used for banknotes—usually for emergency issues.

In recent years banknotes have been made from plastic. The first plastic banknotes were manufactured of Bradvek™ by Bradbury Wilkinson and Company, utilizing a product usually sold as Tyvek™. A polymer substrate developed for Note Printing Australia is now used by many note issuing authorities.

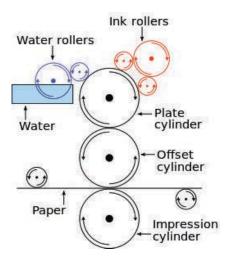
Banknotes have also been manufactured from other materials, such as silk, but these are considered oddities and such materials have not generally been used.



A banknote manufactured from silk; issued in the Khorezmian People's Soviet Republic in 1920.



Notgeld (emergency money) issued by the Lautawerk factory in Lauta (Germany), manufactured from aluminium foil.



A diagram illustrating the offset printing process. (Courtesy Wikimedia Commons.)



A banknote for 3 taels, issued by the Khotan District Administration in China around 1935–36. It is block printed, which is a type of relief printing.

Below left: Detail of a 500-franc note of the Comoros, manufactured with intaglio printing.

Below right: The same note was later issued with lithographic printing. Note the flat colour.

Printing

Printing on banknotes mostly follows one of three principal methods, but usually a mix of these methods is used. The three printing methods are: relief, lithography, and intaglio.

Relief printing: The text or image to be printed is created as a raised area that is inked and applied to the paper. This type of printing was used in many ways by the printing industry over many centuries. Block printing, letterpress and stereotype printing are all types of relief printing. Banknotes have infrequently used this style of printing but the early Chinese banknotes and the banknotes of Tibet were printed using relief printing.

Serial numbers, however, have almost universally been printed on banknotes by relief printing.

Lithography and Offset: Using lithography, the printing surface or printing plate is treated to create two textures, one that absorbs water and one that holds the oil-based ink. When the ink is applied to the whole printing surface, the areas that hold the water repel the ink and only the surface that holds the ink transfers an image to the paper.

Lithographic printing was developed in 1796 and originally used a type of stone as the printing surface; this was etched to generate the area holding the water. Modern lithography uses a polymer coating applied to a metal or plastic surface and only the polymer surface holds the ink to be printed.

Offset printing transfers (or offsets) the image from a printing plate to a rubber roller that then applies the ink to the paper. In modern printing, one or more printing plates are commonly prepared to use the lithographic process. Most modern banknotes use the lithographic and offset processes to print the background of the banknote and sometimes these processes are used to manufacture the entire banknote.

Intaglio printing: The image to be applied to the paper is etched onto a metal plate that then has ink applied to it before it is wiped clean. After being wiped clean, the ink remains in the etched areas and when paper is applied to the printing plate under high pressure the ink is transferred to the paper.

The etching is achieved in one of two ways and sometimes a combination of these methods is used.





The first method is to use tools to engrave the design directly onto the printing plate. The second method sees the printing plate covered in a "ground" and the designer then draws the design in the ground. The plate is subjected to acid, which etches the plate where the ground has been removed.

The intaglio method was generally used from the introduction of banknotes in the late 17th century and remains in use today. However, the methods of utilizing this process have developed significantly over the years. Many modern banknotes use intaglio printing for the principal design elements, with lithographic and offset printing for the background.

N.B. Sometimes a banknote is printed with its background using lithographic and offset printing methods and the principal design features use intaglio printing. Then a later issue of the banknote is made by using only lithographic and offset printing. Therefore collectors need to know the difference between the type of printing on the banknotes.

- Lithographic and offset printing renders sharp borders and edges on a printed line or a printed shape
- Intaglio printing shows, under magnification, lines and edges to be "furry." Additionally, intaglio printing usually has a gloss finish, as opposed to the dull finish to lithographic and offset printing.

Colour

Most early banknotes were printed in black ink and in only one colour. Two-colour printing was introduced in the 1820s, by using multiple printing processes, and the complexity of colour printing progressed over the years. Modern printing techniques allow multiple colours to be printed in one pass of the printing press.

Security Features

Because of the problem of forgery over many years, much attention has been given to security features that impede the successful imitation of banknotes. The security required for banknotes, along with share certificates, bonds and passports, has led to companies specializing in security printing and, as technology develops over the years, there have been increased and innovative features added to banknotes to deter counterfeiting attempts. While there are specific security features that can be clearly identified, there are many aspects of security not always apparent; these include the colour and features of the ink—including ink that can hold a magnetic field and inks that fluoresce and patterns used on banknote designs—that cause photocopies of banknotes to be rendered useless and software packages that do not allow printing of scanned images. In older banknotes, sometimes intentional mistakes were made so the errors looked like poor printing, so when the features were perfectly rendered in a forgery, they could be identified.

Each year new security devices are added to banknotes throughout the world, as security printers attempt to introduce a feature that gives them a marketing advantage. Details or summaries of these features are commonly published on the Internet and for people interested in security features, there is an amazing array of features to discover. Although not comprehensive, the following security features are identified, particularly as changes to these items can determine a variety of a banknote.

Varieties of security thread



A typical windowed or segmented security thread.



A wide windowed security thread with micro-printing.



Detail of a security thread using the MOTION technology.



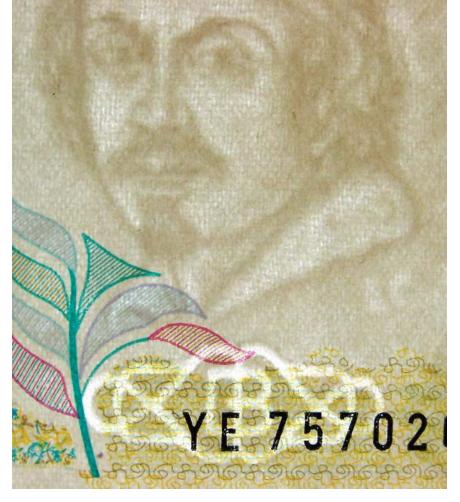
Detail of a RollingStar* security thread, developed by Louisenthal.



Detail of the RollingStar* Cube security thread, developed by Louisenthal.



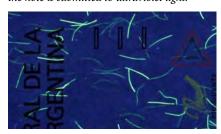
Micro printing of "Bangladesh Bank" on an otherwise clear security thread.



Above: A traditional watermark and an electrotype watermark (partially covered by the serial number) on an Italian banknote. (A perfect registration device of stylized leaves is at the lower left.)



Detail from an Argentinian banknote showing (above) colour fibres embedded in the banknote and (below) the same detail when the note is submitted to ultraviolet light.





Planchettes embedded in a Canadian banknote.

Watermark: Watermarks were used in paper manufacture long before the issue of the first banknotes. The watermark is introduced during the manufacture of the paper and was originally produced by raised images in the paper moulds that impressed the image of the watermark into the paper, affecting the moisture levels in the paper during the drying process. Watermarks with shadows are achieved by distorting the screen on which the paper pulp is laid, creating different thicknesses of paper that dry unevenly. Early watermarks for banknotes were specifically designed to suit individual notes. This practice is still wide spread, but with the use of sheets of paper to print banknotes, watermarks can be evenly distributed over the entire sheet, or by producing a continuous (or banded) watermark. Watermarks are usually, but not universally, found in a white or lightly coloured area of the banknote.

Electrotype watermark: Similar to a traditional watermark, but the image is created by a flat metal device, or wires, spot welded to the screen on which the paper is laid.

Security fibres: Banknotes can have coloured fibres embedded in their paper, introduced at the time of paper manufacture. The fibres are either evenly spread over the paper or they are formed in a strip at a certain section of the paper. Frequently these coloured fibres fluoresce under ultraviolet light. Variations on the inclusion of coloured fibres in the paper, are the inclusion of small coloured strips with writing on them or planchettes—small metal, plastic or paper discs—embedded in the paper. **Security threads**: This is perhaps the most wide spread of modern security features and a feature that has been adeptly modified over many years. Initially, the security thread was a simple metal thread embedded in the paper and was, to some extent, a modification of embedded security fibres. From this simple thread, we now see threads that appear to weave in and out of the paper, threads with micro-printing on them, thin threads, wide threads, threads with iridescent effects, and threads that have optical effects showing movement of images.

Embossing: The traditional security feature of using a blind stamp for embossing paper is now largely out of use, although it is occasionally found in modern banknotes. Tactile features are now being embossed on banknotes to assist sight-impaired people, but this is not intended as a security feature.





Embossing (front and back) on an Iraqi banknote. Embossing was used on many early banknotes and sometimes to affix a duty stamp.

Serial numbers: Although necessary for practical purposes, serial numbers have commonly been used as a security device by: using fonts not available to the public, printing serial numbers vertically and horizontally, printing the characters in ascending sizes, printing the numbers in different character sets, printing them with fluorescing inks, and even printing a single serial number in different colours.



DG172693535

Sample variations in serial numbers, showing (from the top): the serial number in two character sets; each serial number in different colours; one serial number printed in two colours; a serial number where two colours are used, but the colours are spread across the numerals; Arabic prefix and numerals; Arabic prefix with western numerals; Bengali prefix and numerals; Bengali prefix and western numerals; a serial number with no apparent prefix; two letters in the prefix; three letters in the prefix, a fractional prefix; two vertical serial numbers; a letter as a prefix and numerals in ascending size; a letter as a suffix, with the numerals in ascending size; and a serial number with the date embedded, that is, the first two numerals "17" identify the date of manufacture: 2017.



Perfect registration device: Because modern banknotes are printed on the front and back at the same time, images on the front and back can be perfectly aligned, or perfectly registered. This allows a partial image to be printed on the front of the note and a partial image on the back, and when the banknote is held to the light the two partial images form a single crisp image.

Fluorescent devices: The use of fluorescent inks is widespread in modern banknotes. Commonly used for coloured inks and in serial numbers that fluoresce under ultraviolet light, there are often devices printed on the banknote that are not apparent in normal light, but that become apparent when submitted to ultraviolet light.

Micro-printing: To the naked eye micro-printing looks like a line or a pattern on the banknote, but when magnified it can be clearly read. Most attempts to photocopy or photograph the note will not succeed in copying the micro-printing with the necessary clarity. Micro-printing is almost exclusively executed with intaglio printing. While micro-printing usually appears with the words printed in intaglio ink, it also appears where the background is the intaglio ink and the micro-printing is the absence of ink.

Commonly, micro-printing consists of a word or phrase repeated many times, but sometimes it is a length of text, such as a poem.

Latent images: These are used in banknotes where intaglio printing is used. Within a pattern of intaglio printing is an image, commonly the Above: Three images showing a perfect registration device on a 5-afghani banknote from Afghanistan. The first image shows the printing on the front, the second shows the image on the back, and the third shows an Arabic 5 when the images are combined by holding the note to the light.



Detail of a Danish 1000-kroner viewed in normal light (above) and the same detail when submitted to ultraviolet light (below); where a fluorescent device of a man on a horse becomes apparent, as well the serial number and signatures fluorescing.



UROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYPREUROEYP

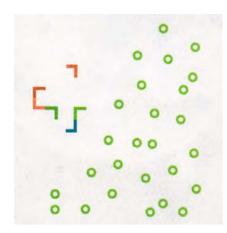
Above: Micro printing on a 10-euro note, showing three lines of EURO in Latin and Greek characters. In the top left and top right of the image the number "10" is formed repeatedly by the absence of ink.





Left: Detail from a Brazilian 10-reais note, showing the use of SPARK Origin™ colourshifting ink.

Right: Detail from an Australian 5-dollar note showing the rolling colour effect.



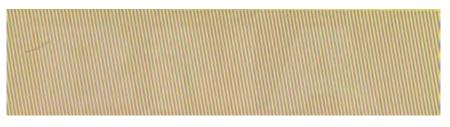
The EURion Constellation of small circles is recognized by modern devices to inhibit or limit the copying of a banknotes.



To counter the advantage of a clear window on polymer notes, manufacturers of paper notes created banknote paper with holes in them, then covered them with plastic strips, creating a clear window. These became known as "hybrid" notes, as seen on this detail in a banknote from Bermuda.



The latent image (above) of "100" (in Bengali numerals), shows how the image is created by lines of intaglio ink being printed in two directions. Below is a latent image of "BNA" from a banknote issued by the Banco Nacional de Angola.



denomination as numerals or the initials of the name of the bank, that can be seen only if the banknote is turned and viewed at a low angle, across the note.

Under magnification, lines at the vertical and horizontal can be seen to form the latent image. On some high-denomination notes, a double latent image is used, so when viewed from one angle an image appears, but at a different angle another image appears.

See-through panels: The introduction of polymer banknotes saw the innovation of clear windows, which has been copied in paper banknotes by the application of clear strips of a plastic over holes in the banknotes.

Variable devices: Many highdenomination notes carry a foil device that has peculiar features. These range from an incised foil swatch which reflects an iridescent light, to holograms with images showing depth. There are also inks that change colour when viewed from different angles and these are usually printed as a swatch of intaglio ink. Devices printed on banknotes continue to improve, such as the introduction of reflective images that can display two images, depending on the angle the device is

Colour-shifting Inks: Many devices on modern banknotes contain colour-shifting inks. SPARK technologies are one of the preeminent colour-shifting technologies used on banknotes.

Anti-reproduction patterns:

Because it is so easy to scan the image of a banknote, then print it, technology companies have cooperated with security printers in recognizing patterns on banknotes which allow copying devices (such as photocopiers) and software (such as scanning programs) to reject or limit options in images being copied. The most common pattern used to identify a banknote is the EURion Constellation of small circles (also called Omron rings).

In conclusion, this overview of security features, although limited in its scope, shows the continued development of security features and, for the collector, highlights the need to be able to identify changes in security features to identify different varieties of banknotes. Perhaps unsurprisingly, while catalogues will differentiate varieties according to changes in some security devices, others are not recorded. For example, there are few varieties of banknotes defined by the change in fluorescent features on a banknote. So a collector should always take time to investigate the features of a banknote as there are many uncatalogued varieties in some areas of collecting.



A Kinegram[™] from a German 200-mark note.



Above: A holographic patch on an Albanian note.

Right: An incised foil strip with variable images on a note from Botswana.

Far right: A series of variable devices in a transparent window on a note from Australia.



ESSAYS, TRIALS, PROOFS AND SPECIMENS

uring the design and production processes of manufacturing a banknote, several artefacts can be generated, before the circulating banknote is produced.

An essay ("essai") or trial is any piece generated during the design phase, leading to the final banknote. When compared to the final banknote, there might be significant variation and the essay may bear no resemblance to the final issue.

Colour trials typically have the final design, but varying colours. These are generated to show the issuing authority possible colour choices.

Proofs are generated for the approval of the issuing authority.

Specimen notes are usually the final design, overprinted for distribution to banks and institutions to show what a new banknote looks like. Specimen notes are also produced as presentation pieces.

Facsimile notes (sometimes called "pulls") are items printed from the original printing plates, or copies using modern technology, usually produced many years after the original notes were issued.









The three Bank of Scotland notes illustrated above show the issued note (top left), a colour trial with the blue and brown colours reversed (top right), and a similar colour trial with blue margins (bottom left). The Bank sought the colour trials in the early 1960s due to criticism in identifying the reduced-size banknotes they had issued.

Bottom right: An essay or trial piece prepared for Ethiopia. This design was never adopted.

CATALOGUES

henever a collector contemplates starting a collection, acquiring a catalogue specific to one's collecting interest is highly recommended – dare we say essential! There are many catalogues describing and recording banknotes, usually ascribing a numbering system to the notes and giving estimated values for the notes in one or more grades of condition. Catalogues are available that cover the world of banknotes,

some address one country, some address old issues, and some address a theme, such as banknote errors or replacement notes. (Replacement notes are banknotes that are inserted into bundles of notes to replace banknotes damaged during production; ensuring the first and last serial numbers in a bundle of banknotes indicate a sequential 100 banknotes. Replacement notes are usually identified by special serial numbers.)





TYPES AND VARIETIES

B anknotes are usually catalogued by types and varieties, and these are the way in which banknotes are sold and collected. Not every collector wants to collect every variety, but for someone who specializes in a series of banknotes, the aim is usually to collect every variety. A "type" note is a specific design for which there may be several varieties. Usually the differences between types and varieties are straightforward, but occasionally one source will designate a banknote a "type" while another source will designate it a "variety." As long as collectors can determine the differences to their own satisfaction. they can collect the banknotes as they wish.

Types

Type banknotes are generally determined by the design of the banknote, taking into account the principal features of a banknote. The features that generally determine a type are:

- The denomination
- A new design
- A change in issuing authority
- The name of the currency unit
- Size of the note
- A major change of colours





The banknote above was issued by Pakistan prior to the civil war, which led to East Pakistan becoming Bangladesh; while the note below was issued after the civil war. Only the colour changed, making a new "type" of the note.

Varieties

Varieties are usually determined by the following features:

- Minor adjustment to the design
- With and without the name of a designer or engraver
- A change of printer
- A note with or without the printer's imprint; the printer's imprint being the name of the printer, which was commonly printed in the lower margin (front or back) on older banknotes and is occasionally found on modern banknotes.
- A change in the printing usually from partial lithography and partial intaglio to all lithography
- A change in signatory
- A change to the title of a signatory
- A change in date
- A change in the style of the serial numbers
- A change in the serial number font
- A change to the security features
- A minor variation to colours

While these lists are not exhaustive, they contain the principal determinants of types and varieties.



The printer's imprint from four issues of the Bolivian 20-bolivanos banknote, showing different imprints (and slight changes of colour). At top is "TDLR" (Thomas De La Rue), then "F.C. Oberthur", then "CBN" (Canadian Bank Note), and finally "Oberthur Fiduciaire" (the new name of the former F.C. Oberthur). Each printer's imprint is a "variety" of the banknote.



The Algerian note above was initially issued with a windowed (segmented) security thread; then reissued with a foil strip, causing two varieties of the banknote.



The backs of these two ten-dollar notes from New Zealand show minor variations to the colour, with the first (top) note having a blue-green back and the second (lower) note a predominantly blue back. The front of each note is the same, but the change to the back creates two "varieties."



Three dates used on a 25,000-dinar note from Iraq. The banknotes are identical, except for the dates which are in the Gregorian and Hejira calendars, from the top, 2010 – 1431, 2008 – 1429, and 2006 – 1427. Each note is a "variety."

GRADING BANKNOTES

G rading banknotes is important for the collector, as the grade, the rarity, the face value, and the demand for a banknote determine its price. A summary of the International Bank Note Society's grades for banknotes is listed below, but the full grading standard, with the introduction, can be found on the Society's web site. One of the skills a collector must acquire is to grade a banknote correctly. While many people can disagree on the grade of a banknote, collectors must part with their money in the assurance they know what they are buying, no matter what grade a seller has ascribed to a banknote.

It is important to understand that the following terms are grading terms and not absolute terms. Many collectors misunderstand the term "Uncirculated," mistakenly believing the term can be used only if the note has never entered circulation. A bank note can enter circulation and still be in "Uncirculated" condition. As we do not think of a note graded "Good" as a note that is not evil, on the same theme, do not confuse the use of the grading term Uncirculated with the identification of a note that has never circulated.

Standard International Grading Terminology and Abbreviations

Terms	Uncirculated	About Uncirculated	Extremely Fine	Very Fine	Fine	Very Good	Good	Fair	Poor
Abbreviations	UNC	AU or aUNC	EF or XF	VF	F	VG	G	Fair	PR



UNCIRCULATED

(UNC)

A perfectly preserved note, never mishandled by the issuing authority, a bank teller, the public or a collector. Paper is clean and firm, without discoloration. Corners are sharp and square, without any evidence of rounding. (Rounded corners are often a tell-tale sign of a cleaned or "doctored" note.) An uncirculated note will have its original natural sheen.

ABOUT UNCIRCULATED (AU or aUNC)

A virtually perfect note, with some minor handling. May show evidence of bank counting folds at a corner or one light fold through the centre, but not both. An AU note cannot be creased, a crease being a hard fold that has usually "broken" the surface of a note. Paper is clean and bright with original sheen. Corners are not rounded.

EXTREMELY FINE (EF or XF)

A very attractive note, with light handling. May have a maximum of three light folds or one strong crease. Paper is clean and bright with original sheen. Corners may show only the slightest evidence of rounding. There may also be the slightest sign of wear where a fold meets the edge.

VERY FINE (VF)

An attractive note, but with more evidence of handling and wear. May have a number of folds both vertically and horizontally. Paper may have minimal dirt, or possible colour smudging. Paper itself is still relatively crisp and not floppy. There are no tears into the border area, although the edges do show slight wear. Corners also show wear but not full rounding.

FINE (F)

A note that shows considerable circulation with many folds, creases and wrinkling. Paper is not excessively dirty, but may have some softness. Edges may show much handling with minor tears in the border area. Tears may not extend into the design. There will be no centre hole because of folding. Colours are clear but not bright. A staple hole or two would not be considered unusual wear in a Fine note. Overall appearance is still on the desirable side.

VERY GOOD (VG)

A well-used note, abused but still intact. Corners may have much wear and rounding, tiny nicks, tears may extend into the design, some discoloration may be present, staining may have occurred, and a small hole may be seen at centre from excessive folding. Staple and pinholes are usually present, and the note itself is quite limp but NO pieces of the note can be missing. A note in VG condition may still have an overall not-unattractive appearance.

GOOD (G)

A well-worn and heavily used note. Normal damage from prolonged circulation will include strong multiple folds and creases, stains, pinholes, and/or staple holes, dirt, discoloration, edge tears, centre hole, rounded corners and an overall unattractive appearance. No large pieces of the note may be missing. Graffiti are commonly seen on notes in Good condition.

FAIR (Fair)

A totally limp, dirty and very well used note. Larger pieces may be half torn off or missing, beside the defects mentioned under the Good category. Tears will be larger, obscured portions of the note will be bigger.

POOR (PR)

A "rag" with severe damage because of wear, staining, pieces missing, graffiti, larger holes. May have tape holding pieces of the note together. Trimming may have taken place to remove rough edges. A Poor note is desirable only as a "filler" or when such note is the only one known of that particular issue.

PAPER NOTES

The notes below are appropriately graded, but any graded note has several features which contribute to its grade and the notes below may not have every possible attribute which determines a grade. For example, a note with a stain will be graded VG, but a VG note might not have a stain.

UNCIRCULATED (UNC)



EXTREMELY FINE (EF or XF)











VERY FINE (VF)





VERY GOOD (VG)







50

GOOD (G)



FAIR (Fair)





POOR (PR)





POLYMER NOTES

The IBNS Grading Standards were drawn up for paper notes and the attributes they describe do not suit polymer notes perfectly. The polymer notes below are graded to reflect the IBNS grades for paper notes.

UNCIRCULATED (UNC)

ABOUT UNCIRCULATED (AU or aUNC)

EXTREMELY FINE (EF or XF)











S.P.COMOGO.

VERY FINE (VF)

FINE (F)

VERY GOOD (VG)











Conada 5

GOOD (G)

FAIR (Fair)

POOR (PR)











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The Canadian Banknotes reproduced with the permission of the Bank of Canada.

FOR USE IN NAAFI CANTEENS ONLY BRIESHARMED FORCES USE IN FOR USE IN NAAFI CANTEENS ONLY

Above: A fraudulent inkjet "overprint" (top) applied to raise the value of the underlying military note. The L extending under the left arm of the Y in ONLY could be done only digitally, not with conventional printing type.



Above: Inkjet printing. Note the stair steps on the diagonals and curves. Digital processes do not always handle angles well. Note also the left arm of the Y extending into the L's space at right.

Below: Genuine (letterpress) printing. No stair steps, and the arm of the Y does not extend into the right side of the photograph.



FORGERIES

rom the time printers commenced manufacturing banknotes until the current day, forgeries have been executed. There is a saying "What one man can make, another can copy!" To overcome this, various measures have been taken by banknote manufacturers to make it more difficult for their notes to be counterfeited. This has led to the creation of specialist security printers.

However, even with specialist techniques, forgers have continued to ply their trade. The types of forgers vary. While it is common to think of criminal gangs and individuals creating forgeries, sometimes governments forge the banknotes of their enemies—the French under Napoleon forged the banknotes of Russia, and during World War II the Germans forged the banknotes of the Bank of England. Some forgeries are done on a small scale, such as creating an individual note, some forgers seek to generate a large amount of banknotes, and sometimes security printers have been unwittingly tricked into producing very large orders of banknotes that are passed to criminal elements.

In the world of today, forgeries continue to be produced to defraud issuing authorities, but there are now forgeries being produced specifically to fool collectors. Many notes with overprints on them are being counterfeited by obtaining the cheaper original notes and adding false overprints. Sometimes spurious overprints are being created and sold as uncatalogued varieties. People also go to the extent of printing notes that look exactly like the original notes, and while they are sometimes sold as replicas, they are often bought as originals. This can be done because the technology used to manufacture notes many years ago has long been superseded by modern technology; and if you don't have an original note against which a replica can be compared, a collector may not realize the deception. However, there are people who assemble collections of forgeries and it is a recognized collecting theme; although collectors should be aware it is illegal, in some countries, to possess forged banknotes of any country.



Genuine note

350365 دو

Evenly spaced Arabic letters precede the serial number on the genuine note.



Fraudulent note

8 886981

A modern fraudulent note printed by a legitimate security printer for a cartel representing itself as an office of the Bahrain government.

WHAT TO COLLECT?

Below: A Military Payment Certificate (MPC) used on the military bases of the United States of America. This type of banknote is one of many to stir interest in collectors of banknotes associated with the military.

There are more collecting interests in the world of banknotes than can possibly be imagined. Often, it is a specific theme or interest that attracts a collector to banknotes in the first place. For instance, a collector might become interested in the banknotes of his own country, or of a country once visited. This can lead to the commencement of a collection. However, when various aspects of banknotes are investigated and discovered, a range of collecting interests is opened up.

Some of the common collecting interests of banknote collectors are:

- · Specific countries
- Specific banks
- A theme, such as insects on banknotes, or ships, music, medicine, et cetera
- Commemorative banknotes, issued to commemorate specific events
- Inflation money
- · Military currency
- Banknotes used in military occupations
- One note from every country in the world
- Error notes notes that were manufactured with mistakes
- Items related to banknotes such as cheques, traveller's cheques, private note issues, bills of exchange, shares and bonds, merchant notes, letters of credit, IOUs, banking ephemera, et cetera
- Notes with a specific date on them or issued in a certain year; as collectors might have an interest in that year. For example, it might be their birth year or notes that carry their birth date



The possibilities are almost endless; start on one subject and you may soon find you are collecting two or three subjects, or, on the other hand, becoming a specialist in a very narrow subject. Some collectors have said they collect every country of the world!

In deciding what to collect, you must also consider your budget. If you have limited funds to spend on your collection, then limit your spending. However there are still many areas of collecting that are cheap. Sometimes a limited budget means collecting banknotes in lower grades.



A note issued by Italy during its occupation of Albania, during World War II. This note is of interest to collectors of occupation currency.



There are a number of cases of hyperinflation over the years and one of the most recent was in Zimbabwe, where inflation was so rampant, the Reserve Bank of Zimbabwe had to issue banknotes for one hundred trillion dollars. Many collectors specialize in inflation issues.



This error was caused by a fold in the paper, after the banknote sheets were printed but before the serial numbers were printed and the sheets guillotined. This creates a "flap."



This error was caused by a crease in the paper before the banknote was printed. Opening the creased paper, a white "gutter" is apparent.



A commemorative banknote issued by Romania to mark the total eclipse of the sun in 1999.

HOW TO BUILD A COLLECTION

any people start a collection with a specific objective in mind, while others pick up a few banknotes here and there before deciding on an area of interest. Once an objective is determined, the collection starts. Banknotes can be obtained from numerous sources, with the following being the principal sources.

Banknote dealers: There are many professional and part-time banknote dealers who will offer notes to collectors. Some dealers specialize in the stock they sell, while others offer general banknotes of the world. Most reputable dealers in world banknotes, that is, banknotes of many countries, are members of the International Bank Note Society and their contact details are on the IBNS web site.

Auction houses: There are quite a few auction houses that have dedicated auction sales for banknotes, and other auction houses that have a section for banknotes in their auction sales. Most auction houses have an online presence and many auction houses advertise in the IBNS Journal. Auctions frequently combine notes into one lot, as auction houses seek to have a minimum value for each

lot. This can mean the one note you are seeking for your collection is in a lot of, say, six banknotes. Should you want the specific note, you have to buy the whole lot, which can make auctions a bit daunting. Don't forget, there is usually a buyer's premium added to the hammer price.

On-line sites: There are many on-line sites where a collector can purchase banknotes. These sites can belong to a dealer, an auction house, or a general site that offers many types of items for sale, including banknotes. Some sellers on the general sites offer expert presentation with accurate grades and descriptions. Some sellers offer a limited degree of expertise and the banknotes are often described or graded inaccurately.

Collector fairs: There are local and international collector fairs, where dealers who offer banknotes attend. Often, dealers who sell banknotes also sell coins or stamps and so collector fairs with dealers offering these collectables are worth attending. There are only a couple of international collector fairs where only banknotes are sold and these are advertised in the IBNS Journal.

Other collectors: Once you have determined the objective of your collection, you can identify other collectors with similar interests. The best way to do this is by becoming a member of the IBNS and identifying collectors with similar interests.

Visit the country: If you have the opportunity, you may visit the countries that issue banknotes you collect. However, before you visit, you should determine whether the issuing authority offers to sell notes to members of the public, particularly in uncirculated condition. Sadly, many issuing authorities do not offer this service. If the central bank does sell banknotes to the public, they usually sell the currently circulating notes and not varieties; for example, not date or signature varieties. Also keep in mind, in some countries there are restrictions on taking currency out of the country; the restriction might limit the person leaving the country to a specific sum, or it might be a total restriction on removing currency from the country. It's best to check before you travel!

WHAT CONDITION TO BUY

hen buying a banknote, you must be aware of the difference in price that is determined by condition. A banknote in Uncirculated condition might be significantly more expensive than a note in, say, Very Fine condition. If you are collecting modern banknotes, it is wise and practical to purchase notes in Uncirculated condition, as the premium should not be very significant. If the notes you seek are older notes, it becomes more difficult to obtain notes in high grades, and if you are having difficulty in obtaining a certain note, it is worth obtaining

a lower grade note as a "filler" for your collection until you can obtain one in higher grade. Some collectors prefer to purchase only uncirculated notes, but this becomes impractical when attempting to acquire certain banknotes, either because they are so rare in very high condition or they are so expensive.

When purchasing a banknote, you should always know what price is reasonable to pay for a note. You should generally not pay above market value, but you should know what the market value is. This can be achieved by comparing prices

between dealers, or by looking at prices realized at auctions, which many auction houses present online. Many people judge the value of a note by its catalogue value, but this is not always reliable. If checking a catalogue value, it is best to use an up-to-date catalogue specializing in the area you collect. If you decide to pay more than the market value, because you believe the catalogue prices are inaccurate, or because you have not seen the banknote available anywhere else, or because you desperately want the item - this should be an informed decision.

THIRD-PARTY GRADING

hen you purchase a banknote, especially at a distance, how can you be sure the banknote is in the condition described by a dealer or an auction house? Reputable dealers and auction houses will ascribe the correct condition, although everyone makes mistakes. Should a mistake be made, these dealers and auction houses will usually accept the note when returned in the condition it was bought. Make sure you know the terms of sale.

In an effort to remove any ambiguity in the grade of a banknote, third-party grading (TPG) services have been established.

For a fee, a collector can have notes

identified, graded, and "slabbed" in archival plastic. This process is intended to eliminate subjective opinions of a note's grade, but a collector should have the confidence to agree or disagree with the grade assigned by the third-party grading service.

Not everyone likes this development as: the slab makes it difficult for others to grade the note; there may be differences between the grading standards used by the third-party grading services; and it turns a note into an investment commodity rather than an object to be collected. Assessment by a third-party grading service may mean the future sale

of a "slabbed" note will achieve a higher price if the work of the grading company is respected. Some collectors, after buying a "slabbed" note, will remove it from the slab and place it in an album or a sleeve.

In the end, the more you can learn about banknotes, the more confident you can be in determining whether to purchase slabbed banknotes and whether you take the option to use the services offered by third-party grading companies.

It should also be remembered, the various TPGs do not use the IBNS grading standards; so if you are buying a note graded by a TPG, check the descriptions of their grades.

PROCESSED NOTES

B ecause banknotes increase in value as their grade improves, many people are tempted to process banknotes to achieve a higher grade. Theoretically, a note that is in, say, Very Fine condition, can never improve on that condition, but steps are taken by some people to make it appear in a higher grade. While there is always debate on the various processes to "improve" a banknote, processing or "doctoring" banknotes is generally frowned upon by the collector community.

Reputable dealers will always advertise processed notes as such. Sometimes dealers don't advertise this fact. This might be due to their wishing to misrepresent the note, or it may be because they are not aware the note is processed. In the end, you the collector must learn to identify processed notes and buy them, or not, as you see fit.

Some of the activities people undertake to "improve" a banknote are:

Cleaning: Banknotes, by circulating, attract dirt. This may be ordinary grit and grime, it might be ink or pencil marks, or other substances. Dirt can be removed by various means, such

as an eraser to remove pencil marks. While removing dirt from a banknote by non-destructive methods is not always frowned upon, invariably, in some minor way, it will affect the quality of the banknote.

Washing: To clean a note in a liquid solvent is now commonly done, but not condoned by most collectors. Washed banknotes were once identified by their odour, with chemicals being detected; but the people who wash banknotes have improved their techniques, so now there is little or no odour to a washed banknote. Washing notes removes much of the dirt and often the banknotes are pressed or ironed after washing. Washed banknotes can mostly be identified by:

- The very fine lines of creasing on the notes, which cannot be removed and which can be seen under a good light or by looking across the note at a low angle (in a good light)
- If there are ink marks on the note, the ink lines are no longer crisp, but have become blurred while being washed
- Have a look at the back of the note. If the note has been folded, the fold marks will be more apparent on

the back of the note, especially if the fold marks have attracted dirt, which is more difficult to remove than other surface dirt.

Trimming: Banknotes that have seen circulation might develop small tears or nicks in the edges of the note. By using a sharp knife and a straight edge, the small tears and nicks can be removed or reduced by cutting off a small part of the edge of the note, but the banknote becomes smaller as the edge(s) are trimmed. In this case, look for sharp edges that are not consistent with the general condition of the note. If in doubt, try matching the note against another of the same type to see if it is a different size. Remember that normal manufacturing variances can create differences of up to 2mm between two notes of the same variety.

Repairing: For more expensive notes, some people employ professional paper restorers to repair the banknote paper. Repairs usually mean mending a tear or filling a hole in the paper. If a tear has been repaired it is often very difficult to identify if it is expertly done. If a hole in the paper is filled, the ink of the printing is usually missing.

COLLECTORS AND INVESTORS

ost people who purchase banknotes are collectors, but because money can be made from buying and selling banknotes, the hobby has attracted investors. This is to the detriment of collectors and has led to the rise in value of some banknotes, often beyond the reach of many collectors. Like any commodity, there is a retail price and a wholesale price.

If, as a collector, you purchase a banknote for, say, \$20, you can expect to sell it for \$10 to \$15. However, inflation and demand can push the price up, particularly for banknotes with a higher retail price.

If there are, say, 15 known examples of a specific note in a high condition, the price of the note will remain low while there are fewer than 15 people seeking to acquire the banknote.

When the number of people wanting the note exceeds 15, the price of the note increases and the investors move in. While this is inevitable, it is simply a hurdle the collector faces. In the end, every collector likes to make money when a collection is sold, but it can be frustrating while still collecting if a collector is competing against investors.

HOW TO STORE A COLLECTION



Banknote album pages come in numerous page sizes and differing numbers of pockets, sold by a range of manufacturers.



Inert plastic holders are used by many collectors to store their banknotes. The holders come in a range of sizes and can be stored in file boxes.

here is every chance you will end up with a good collection after a number of years, if you remain dedicated to your collection, and it is therefore worth taking care of the banknotes you purchase. By taking care of your banknotes, they retain their value and if you decide to sell any of your banknotes, you should achieve a good market price for them.

The two principal methods of storing banknotes in a collection are in albums, specifically designed for banknotes, and in plastic sleeves. However, of utmost importance is the type of plastic in which the banknotes are stored. If a banknote is stored in cheap plastic albums or sleeves, the notes can deteriorate because the plasticizers attack the printing and the paper of the banknote after a period of time. Inert or archival plastic will protect your banknotes and it is well worth paying the extra money these items cost to maintain your collection. Mylar is the best-known of the archival plastics, with album pages and individual sleeves available in this product. Archival plastic is manufactured by several reputable

companies. Some companies manufacture album pages and individual holders that have acid-free cardboard backing and archival plastic fronts, that are suitable for storing banknotes; however they lack the advantage of viewing the front and back of your banknotes.

Once in your albums or holders, banknotes should be stored away from direct light, and away from heat and moisture. Each element—light, heat and moisture—affects banknotes, with some banknotes changing colour over a period of time, especially if they are subject continuously to light. This sometimes leads people to think they have discovered a colour variety of a banknote, only to learn it is discolouration due to poor storage.

EQUIPMENT A COLLECTOR SHOULD OWN

here are items a banknote collector should possess. Each of the following items may be considered by the collector, although each item is not mandatory:

Storage: As indicated in "How to Store a Collection" it is essential to have the best storage for your collection. Banknote albums with pages manufactured from inert plastic, or sleeves manufactured from inert plastic, are the best option. Album pages and holders made from acid-free paper and inert plastic covers are also an option.

Magnifying glass: Invariably, it is necessary to study banknotes closely, to check various details, such as micro-printing and difficult-to-read signatures. For forgery detection, magnification of 20x is recommended. This will be more powerful than you will want to use for every-day examination of notes.

Ultraviolet (UV) lamp: Ultraviolet light can be used for two purposes. First, ultraviolet light allows the collector to view fluorescent features on the banknotes they collect. This shows many beautiful features not seen in normal light and often a change to features which may determine a variety. Second, ultraviolet light can show the hidden ugly aspects of a banknote. Among professional graders, it is a crucial tool used to identify stains and foreign substances which are not easily seen by the naked eye. It can also be used to determine if a banknote has been washed, pressed, cleaned or repaired.

Ultraviolet lamps are available in fixed or portable formats. Some collectors take portable lamps when

viewing notes they wish to purchase, to identify damage not apparent to the naked eye. (It may take some experience before damage to a note can be identified by use of ultraviolet light.)

Light box: For identifying watermarks and perfect registration features. Especially useful if you are photographing the watermark or perfect registration feature.

Scanner: If you own a computer, consider purchasing a scanner. By scanning notes you can save them for reference, expand the scanned image and view detail, forward the scanned image to fellow collectors with whom you might be discussing aspects of the note, and if you decide to write about your banknote, you have an image to illustrate your article. (In scanning notes, there are some issues of which a person should be aware. First, for modern banknotes, some scanners will not scan the images of a banknote, and some software will not print images of banknotes. This is due to security features in some banknotes. Second, in some countries not all illustrations are legal if they are reproduced at the same ratio as the banknote, that is a ratio of 1:1. Sometimes 1.5 or 0.5 of the size or similar are required. Similarly, photocopies of banknotes are illegal in some countries.)

Reference Books: All collectors should have reference books on the banknotes they collect. If you don't study the subject you collect, you will never be a proficient collector. The books can be catalogues, histories, or articles on banknotes. As a member of the IBNS, the entire collection of IBNS

Journals is available for download to members and articles covering your collecting interest might be available.

Subscriptions: There are many companies throughout the world that publish numismatic magazines, often including articles and information on banknotes. There are also societies that provide magazines as part of their membership subscription. By subscribing to certain magazines and becoming a member of certain societies you will be in touch with the hobby and possibly with your collecting interest. Not every magazine and not every society will meet each individual's needs, but they can be very valuable tools to enhance the experience of a collector.

Record of Purchases: When you start collecting banknotes, many purchases will be for small amounts and you might not consider it worthwhile to record the price you paid.

As a collection develops, it becomes more important. Consider these examples:

- You bought a banknote and now want to sell it. What price did you pay, from where did you buy it, and when did you purchase it?
- You bought a note in Fine grade and now want to upgrade to Extra Fine or Uncirculated. What did you pay for your Fine note, so you can compare what you are prepared to pay for the better note?
- If you sell part of your collection, you might have to pay capital gains tax, and by recording the purchase prices and selling prices of your banknotes, you can correctly calculate your capital gain.

DISPOSING OF YOUR COLLECTION

hen the time comes to dispose all or part of your collection, there are two basic options: sell or auction.

Selling a collection is usually done by approaching a dealer, perhaps dealers from whom you have bought notes, or perhaps someone who advertises. You might also have come across a collector who is interested in notes from your collection. The biggest benefit in selling your notes to a dealer is you are paid immediately. The difficulty lies in selling your complete collection. If you have a strong specialized

collection, a dealer might readily purchase your collection for a negotiated price. However, if your collection covers numerous areas, notes of varying grades, and contains notes of low value, you might find it difficult to sell your entire collection, as dealers are interested in purchasing notes they can resell.

Auctioning a collection has the advantage of competition, with many buyers being offered notes from your collection. If you auction your notes though an auction house, they will put together lots that have a minimum value, so don't expect

each note in your collection to be offered separately. You will also wait some time to receive payment, as once the auction house has received your notes, they must be catalogued, the auction must be held, and the auction house must receive their payment before they can pay you.

You might decide to sell your notes through an online website. This will allow you to have control over your sales, but you carry the risks and you become the retailer. You must create your own lots and you may have mixed fortunes in disposing of each lot.

JOIN THE IBNS

A nyone who collects world banknotes should consider joining the International Bank Note Society. Membership will provide collectors with:

- The IBNS Membership Directory, published every two years and containing a list of all members at the time of publication (new members being listed in the IBNS Journal), and various reference articles of the Society, such as the Society's Bylaws and the banknote grading standards
- The IBNS Journal, a quarterly fullcolour magazine containg articles on banknotes, a comprehensive list of new issues, Society news, and more
- Access to the members-only area of our web site and the very active IBNS forum

- Access to the IBNS Panel of Experts, to answer questions a member may have
- Access to a dispute resolution process between IBNS members, and
- Access to our two annual mail-bid auctions, whereby banknotes can be bought or sold.

To apply for membership, please visit the Society's web site at www.theIBNS.org and take the appropriate menu option to apply for membership.

