ARTEFACTS
A teacher and student resource for Leaving Certificate Art and Design Appreciation
ARTEFACTS

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The Chester Beatty Library offers visitors the opportunity to explore the history of art through its collection of fascinating artefacts from diverse cultures. The Library’s mission is to facilitate teachers and students in exploring the connections of its unique collection with the art and design curriculum, using innovative ways of engaging with the artworks within the classroom.

*Artefacts* has been devised to give students following the Leaving Certificate Art History course a relevant understanding of selected objects from the collection, providing them with the skills needed to further explore and understand the artists and their works in the collection. The contents of this resource and the artworks have been selected because of their relevance to key movements, styles and techniques included in the Leaving Certificate Art History exam.

Questions and prompts are added throughout the resource to encourage students to engage with the artefacts in a meaningful way and to practice using key art terminology when discussing and writing about artworks.
Aims and Objectives

Aims
- To provide educators and students with an insightful and exam-oriented resource about the Chester Beatty Library Collection.
- To create links and suggest primary source material relevant to the Leaving Certificate Art History course as devised by the Department of Education and Skills.

Objectives
- To provide an understanding of the various developments in art history as reflected in the Leaving Certificate Art History course.
- To provide the opportunity for students and educators to discuss and evaluate European, Islamic and East Asian art as found in the Chester Beatty Library Collection.
On your journey through the collection you will find examples of books and artefacts that represent specific periods in history and, therefore, art history. One of the aims of this resource is to create links between the Chester Beatty Collection and the Leaving Certificate Art curriculum. The rich variety of world art objects, materials, techniques, styles and subject matter represented here will enable you to experience, first-hand, some of the key aspects sought by Art and Art History examiners.

During your visit take notes, make sketches, listen to and look at the information being communicated, but above all think about what you are experiencing. Try to compare and contrast objects from different cultures and time periods. Decide which styles or imagery you like most and least, and question yourself about your opinion.

- Use the questions and prompts throughout this pack to evaluate your experience of the collection.
- Make note of new vocabulary and unfamiliar terms.
- Learn about materials and techniques used by the various artists and craftspeople represented.
- Watch the visual presentations to see the skills and processes used to create some of the objects.
- Explore the gallery/library itself; consider all the decisions made by curators and designers.
Appreciation of Art and Design: Gallery/Museum Visit Question

Section 3 of the Leaving Certificate exam deals with the Appreciation of Art and Design. Each year there is a question based on a visit to a cultural site or event; this can be any exhibition in a gallery, museum, or cultural/heritage centre.

In order to be able to answer this question with confidence it is important that you visit at least two exhibitions during the year to become familiar with all the important aspects of the exam answer.

Also, by seeing two exhibitions, you can compare and contrast the different approaches taken by the galleries and, therefore, be more knowledgeable when discussing and writing about your cultural experiences.

The information and questions contained within this resource are designed to provide all the relevant facts and to stimulate you, the visitor, to question what you see and form your own opinions about the Library and its collection.
The Chester Beatty Library contains some of the finest treasures of the great cultures and religions of the world. The collection was bequeathed to the Irish people by the American collector Sir Alfred Chester Beatty. The Library’s extraordinary collection of manuscripts, prints, icons, miniature paintings, early printed books and **objets d’art** – from across Asia, the Middle East, North Africa and Europe – exemplify the richness of human creative expression dating from c.2700 BC to the present day.

**Name and Function of Institution**

The Chester Beatty Library Mission Statement

To maintain and preserve the collections and make them available in the most appropriate ways for the use and enjoyment of the public and for scholarly study and research, in order to promote a wider appreciation and understanding of the international cultural heritage embodied in the collections and to foster relations between Ireland and the peoples whose cultures are represented in the collections.

Like most Irish state-funded museums, there is no entrance fee to visit the Chester Beatty Library (including the temporary exhibitions), making it easily accessible to a wider audience.
The Chester Beatty Library is located in the Clock Tower building adjacent to the Dubh Linn Gardens of Dublin Castle. Originally built c.1752, the north façade and the brick second storey were added early in the 19th century. According to the Irish Architectural Archive it is almost certain that this 19th-century redesign was by Ireland’s most important architect of the period, Francis Johnston (1760–1829). He designed two other buildings in Dublin Castle: the Chapel Royal and the Quartermaster General’s Office. Johnston’s architecture spanned both the neo-classical (the GPO, 1814, O’Connell Street, Dublin) and the neo-Gothic styles (Charleville Castle, 1800–1812, Tullamore, Co. Offaly) (archiseek.com/tag/francis-johnston).

During the early 1990s the building was completely remodelled and a purpose-built exhibition block was added. The architects (Office of Public Works) intended the design to ‘express the value of the collection and, like a jewellery box, to protect it’. The quality of materials and construction reflect the importance of the artworks and artefacts as well as providing 21st-century museum-standard conditions. However, apart from the Library’s promotional signage, the exterior architecture gives few clues about the richly diverse and unique treasures contained within.

The glazed concourse area acts as a lightweight link between the restored 19th-century Clock Tower building and the environmentally-controlled exhibition spaces. This three-storey, light-filled space draws visitors into the Library in a welcoming way, as this is the main public area containing the restaurant, shop, lecture space and audio-visual theatre. The complex also houses a conservation laboratory, a reading room and offices, as well as three exhibition galleries and a roof garden. The Library relocated from its original home in Shrewsbury Road to Dublin Castle, where it re-opened in 2000.

In 2002 the Chester Beatty Library won the impressive European Museum of the Year award.

Describe your initial response on entering the Chester Beatty Library.

How do you feel?
What are you thinking?

Francis Johnston was appointed chief architect of the Board of Public Works. For more information see the Dictionary of Irish Architects 1720–1940, dia.ie.
What is the function or role of a gallery, museum or library?

- education and community outreach programmes
- conservation and preservation of heritage and culture
- display
- entertainment
- support for artists, craftspeople and collectors
- promoting cultural understanding

Who and what is a curator?

‘Traditionally, a curator has been defined as the custodian of a museum or other collection – essentially a keeper of things. The Association of Art Museum Curators identifies curators as having a primary responsibility for the acquisitions, care, display and interpretation of objects, such as works of art. They work with their institutions to develop programmes that maintain the integrity of collections and exhibitions, foster community support, and generate revenue’.

(Association of Art Museum Curators: artcurators.org.)

Most museums and galleries have dedicated education departments, which work closely with curatorial staff and plan educational programmes specific to the collection of the institution and its audience.
Provision of Information

One of the main functions of a cultural institution is to engage with its audience and to provide facts and interesting information to the visitor. During your journey through the Chester Beatty Library, make note of the various ways information is communicated to you, the visitor (e.g. catalogues, worksheets, maps, text panels and labels).

Look at the floor plan of the Library. Do you think it is easy to follow? Why/why not?

Technology is often utilised by galleries as a means of communicating with the visitor. The Chester Beatty Library uses a number of audio and visual presentations on-site as well as on its website and online digital image bank. Some institutions use interactive touch-screen devices and apps. Others provide virtual tours for those who cannot visit the institution in person.

Take a virtual tour of an exhibition or gallery, for example, at frick.org/visit/virtual_tour. In your opinion, how does the experience of a virtual tour differ from your actual visit to the Chester Beatty Library? List the advantages and disadvantages of each.

Consider the needs of different types of visitors to a gallery or museum, for example, the visually impaired or non-English-speaking visitors.

In how many languages is the information leaflet available?

Are there audio guides or Braille panels?

Do you think information is effectively communicated? Is it interesting/relevant?
Timeline

Look at the timeline included in your pack; you will see that it contains the dates of some of the most important human achievements from c.30,000 BC to 2,000 AD.

Student Exercise

As you explore the artefacts and objects that interest you, make a note of the date they were made. On your own, as a class or as a whole school exercise, compile your own timeline; include significant world events, artists, important movements, designers, iconic architecture, great musicians, scientific inventions and important figures throughout history and see where your chosen Chester Beatty treasures fit in.

Did You Know?

Different cultures refer to dates differently.

Solar calendars are based on the movement of the earth around the sun (approximately 365 days). The solar Gregorian calendar uses BC (Before Christ) for the years before and AD (Anno Domini) for the years after the birth of Christ. A contemporary alternative method uses BCE (Before Common Era) and CE (Common Era).

Lunar Calendars are based on the cycle of the moon (every 29.5 days). The year the Prophet Muhammad left Mecca to reside in Medina represents the first year of the Islamic lunar (Hijri) calendar. H is used for before and AH (Anno Hegirae) is used for the years after the Hijra.

Soli lunar calendars reflect the monthly lunar cycle and years either twelve or thirteen months, corresponding to the solar cycle. Both the Chinese (Han) calendar and the Hebrew calendar are soli lunar and are much older than the Gregorian and Islamic calendars.

Why Collect?

Do you or your family or friends collect objects of any kind? Do you think all humans have the urge to collect useful, valuable, beautiful or unusual objects and artefacts?
The love of books for their own sake, as distinct from the love of literature, has attracted book collectors or bibliophiles throughout the centuries. Some collectors have sought to acquire copies of the earliest books, whereas others have collected works from particular printers, authors or periods in history.

Alfred Chester Beatty was particularly attracted to decorated books, especially if they had beautiful illuminations, illustrations or fine bindings. He also collected first editions, limited editions, extra illustrated editions and rare copies of printed books, as well as rare and beautifully illuminated manuscripts.

His is a collector's library containing the finest or rarest material available, which Beatty summed up in his own words as: ‘Quality, quality and quality!’

Many scholars regard Chester Beatty as the last of the great private book collectors. It is unlikely that his lifetime achievement can ever be repeated, given the breadth of the collection and the resources that he was able to devote to it.

Sir Alfred Chester Beatty

Born New York 1875
Mining engineer
Married twice
Two children
Died 1968

What else can you find out about him?

Visit our website
www.cbl.ie
The Life Story of a Book

Many of the books within the Collection tell or contain a story. But consider the actual life story of a book: who made it, who owned it and who has read it over the course of its life?

Some of the books in the Chester Beatty Library are thousands of years old and have travelled thousands of miles! They have witnessed and survived great events, wars, plagues and the passage of time.

Imagine what they have seen and what stories they could really tell.

Within the Collection the Manichaean Papyri have a fascinating life story. Their journey from creation in Egypt c. AD 400 to the collection of a 20th-century European bibliophile was full of drama and peril. Today, 48 leaves and some fragments remain from this codex.

In the 1920s Chester Beatty entrusted the eminent papyrus conservator Hugo Ibscher of Berlin with the job of conserving this collection of manuscripts. Ibscher continued working on the collection throughout the 1930s, delivering the conserved and glassed pages of papyrus to Beatty in London as they were completed. At the outbreak of World War II a substantial amount of the collection was still awaiting treatment. For safety, Ibscher removed the papyri to his home where he continued to conserve the collection alongside the Berlin half of the Manichaean manuscripts. After his death his son moved the book blocks and glass plates first to a concrete bunker at Berlin Zoo and then to his father-in-law's house in Bavaria for safe keeping.

A significant part of Beatty's Coptic Papyrus Collection was confiscated by Russian forces in Berlin at the end of World War II and removed to the Soviet Union.

While some of Beatty's Manichaean collection was returned to him in London after the war, it was not until 2001 that the final manuscript with its half-unconserved book block (affectionately referred to as the ‘Sod of Turf’) was returned to Dublin.

Ibscher was able to separate over 600 leaves from five book blocks. However, he was unable to separate all of the leaves from the final manuscript. It is hoped that in the future, with advances in conservation technology, more leaves will be separated so that the remaining text can be read.

The Manichaean Papyri have survived for around 1600 years; they were based on the teachings of the Iranian Prophet Mani (216 – 276 CE). Manichaeism was a major religion, popular throughout the Roman Empire and as far as China between the 3rd and 7th centuries.

His teachings are based on dualism: the struggle between the spiritual world of light and the material world of darkness.

Now you know something about the papyri's past, can you imagine what their future will be?
The Role of the Conservators

The expert knowledge and skills of conservation specialists trained all over the world are needed to ensure the preservation of Sir Alfred Chester Beatty's collection. Conservators protect, restore and preserve the artefacts and objects, ensuring that they will be available for the enjoyment and research of future generations of visitors and scholars.

As you move through the various spaces and galleries, use all your senses to consider changes in: architecture, colour, lighting, display, sound, smell and even temperature.

Does the atmosphere change between the different galleries/spaces? Why?

Notes
Early Religious Iconography

Throughout the history of humankind, marks and images have been used to communicate ideas, as illustrated in Ogham writing carved into stone pillars or hunting scenes painted onto the walls of caves. Organised religion relies on text and imagery to spread beliefs and to convert and teach people about a particular faith. The stories and prayers of a religion are sacred and recorded by scribes who have been held in the highest esteem due to their skills and abilities.

We see religious images and stories from different faiths carved onto stone crosses, cast into precious metal objects or embroidered onto fabrics.

The central role of writing and the book in the world’s main faiths can be seen in the Chester Beatty Collection. While beliefs, objects of worship and imagery differ from one religion to the next, all of them have the book – in one form or another – in common.

The Book of Kells dates from c.AD 800 and is currently on display in Trinity College, Dublin. Most scholars agree that the book’s place of origin is Saint Colum Cille’s monastery in Iona, Scotland. However, it cannot be ruled out that some pages were created after it was brought to Ireland. The decoration reflects the skill of the Christian monks who created it and the insular style of the Golden Age of Irish Christian art. See: tcd.ie/Library/bookofkells/book-of-kells.

Within the Chester Beatty Collection there are numerous religious manuscripts dating from around the same period, the 8th and 9th centuries.

On the Art History course you study a number of Christian books. Can you name any?

Do you know what the books of the different faiths are called?

- Christian
- Islamic
- Jewish
- Hindu
The Canons of Saint Basil

*The Canons of Saint Basil*, dating from c.900 Egypt, are a collection of rules on church discipline. The pages or leaves are made from parchment, which is animal skin (usually calf, sheep or goat) that has been scraped, stretched on a frame and treated with lime to create a flat surface able to hold ink or paint. The words are written in the Coptic language. The term Copt refers to those who remained within the Christian faith in Egypt after the Arab conquest in AD 641.
9th Century Qur’an Fragment

The Qur’an is the holy book of the Islamic faith. Muslims consider it to be a record of the exact words of God/Allah as communicated to the Prophet Muhammad by the Archangel Gabriel.

This manuscript dates from the 9th century AD (3rd century AH) and is thought to have been created in what is now Iraq. It is written in the Arabic language, which the Qur’an states is the language through which God’s messages were communicated. Therefore, only in Arabic can the word of God be accurately recorded and understood.

Translation into different languages would mean slight changes and interpretations to the original meaning.

The words are written in what is called Kufic script, a style distinctive for its elongated horizontal and vertical marks.

Arabic is read from the right to left of each page (whereas English is read from left to right).

Vellum is used for the pages of this Qur’an. Vellum is a more precious and fine version of parchment, usually made from very young calfskin, scraped and polished to a very smooth finish.
The techniques and processes used to create illuminated manuscripts have changed little over the centuries. Once the parchment or vellum was prepared, cut and folded to size, the scribe would mark out lines for text, often with a pointed implement or else with charcoal, which would be erased later.

After the under-drawing was complete a layer of white size (usually egg white or wheat starch) was applied. The scribe would use quill or reed pens and various pigments mixed with oils to create the text. Because parchment is thick and strong, if a mistake was made it could be scraped off without making a hole and written over. Once the text was complete, the surface was often burnished (rubbed) with a smooth stone such as crystal and made ready for illumination.

It was common for a number of skilled artists to work on each page. Once the scribe had completed the text, painters would then work on the illustrations and decoration. These artists used brushes made from squirrel or goat hair. The finest brushes were made from the hair inside a calf’s ear or from a white kitten. It is said that Islamic artists often bred their own cats to ensure a constant supply of the highest quality hair. Minerals, precious metals and organic and chemical compounds were ground down and mixed with oils to create the artist’s palette. Usually large areas of gold were filled in first and burnished (rubbed) with a smooth semi-precious stone such as agate; the various colours were then applied in thin layers. The finer details such as faces were often the final areas to be completed. Western arts often used gold leaf while gold paint was more often employed in Islamic manuscripts.

The Book of Kells, the Canons of Saint Basil and the 9th-century Qur’an fragment are from very different parts of the world yet have a number of important aspects in common:

**Subject:** Religious texts.

**Function:** Each was intended to spread the teachings and beliefs of a specific religion.

**Tools:** Reed and quill pens, animal hair brushes. (See quill pen instructions in hand-out.)

**Materials:** Parchment and vellum pages, bound in leather.

**Pigments:** Minerals, precious metal and stone ground down and mixed with oils. (See image on p.21 and webexhibits.org/pigments.)

**Techniques:** Calligraphy, illumination and bookbinding. (Look up the Getty Museum’s Making Manuscripts video on YouTube.)
Pigments

(These are some examples of materials that can be used to make pigments)

See pp.54-55 and, for examples of how pigments are used in manuscripts, see video on Islamic illumination and calligraphy in the Arts of the Book Gallery, 1st Floor.

Black = lampblack (soot)
Blue = lapis lazuli (mineral) or indigo (plant)
White and Red = treated lead
Green = verdigris (copper)
Yellow Ochre = iron (mineral)
Materials

When viewing these two religious manuscripts from the same period it is interesting to note the ways in which they are different from each other. One of the most immediate differences between these two books is the materials used. The Stavelot Gospel is written on vellum, whereas the pages of this Qur’an by Ibn al-Bawwab are paper.

The invention of paper has been credited to a Chinese man, Ts’ai Lun, in AD 105; however, it is thought that paper had been in use in China from c.200 BC. It is not until the 8th century AD that we see paper being used for Islamic texts. It is believed that in AD 751 Chinese prisoners in Samarqand revealed the secret of papermaking to Islamic craftsmen. By the early 11th century, paper was being produced and used throughout the Islamic world; in contrast, paper was not widely used in Europe until the 15th century (coinciding with the introduction of mass printing).

Decoration and Imagery

Another significant difference between these two works is the type of imagery used to illuminate the text. While Christian and Muslim manuscripts are often richly decorated, the imagery in the Qur’an is always non-figural. Within Qur’anic illumination, abstract motifs containing intricate geometric patterns and interlaced vegetal forms are often used to bring texts to life.

The arabesque style of decoration is a distinctive of Islamic art, craft, design and architecture, but there are examples of figural illustrations in Persian, Indian and Turkish non-Qur’anic manuscripts. Christian art and architecture is often figural in style. In the Stavelot Gospel and other Christian manuscripts we see depictions of the human figure and animals, as well as images of plants and flowers.

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2. The Islamic Golden Age is traditionally dated from the mid-7th century to the mid-13th century during which time Muslim rulers established one of the largest empires in history. (For further resources see the Metropolitan Museum of Art website: metmuseum.org/learn/for-educators/publications-for-educators/art-of-the-islamic-world.)

Not many people in the medieval period could read; therefore, the Christian faith relied on imagery to help spread Christian teachings to the illiterate masses.

Consider the architecture of the period: Romanesque churches decorated with carved stone sculpture. Elongated figures, animals and plants were carved onto portals, pillars and tympana, often depicting biblical scenes teeming with figures, just like those used to decorate the pages of the *Stavelot Gospel*.

The *historiated initial*, or illuminated capital, is a distinctive feature of medieval Christian manuscripts. Scribes enlarged and richly decorated the first letter of the word of a page, chapter or verse. These compositions were often a visual depiction or illustration of the subject of the verse, intended to deepen the reader's understanding and appreciation of the text; sometimes they were humorous or just had a decorative function.

**Composition/Page Layout**

The margins of the Qur'an are decorated with seals and florid medallions (palmette) of pattern and colour. These symbols are often placed at the beginning of verses or chapters to assist readers, or to indicate where ritual prostration was required. The margins of the *Stavelot Gospel* are written in a late-Caroline miniscule script and could be described as visually dense and rigid in comparison to the fluid style of the *cursive script* used by Ibn al-Bawwab.
Compare and contrast the style of the *Stavelot Gospel* to the Qur’an by Ibn-al-Bawwab. Think about the composition/layout of the text and the decoration on the pages.

These two books have some key features in common. Judging by the quality of the materials and the skills of the calligraphers and illuminators, we can assume both were created for very important and influential *patrons*. Both works contain an abundance of rare and expensive materials such as gold leaf.

Note the differences between these two manuscripts:

<table>
<thead>
<tr>
<th><strong>Ibn al-Bawwab Qur’an</strong></th>
<th><strong>Stavelot Gospel</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Read right to left of page</td>
<td>Read left to right of page</td>
</tr>
<tr>
<td>Arabic</td>
<td>Latin</td>
</tr>
<tr>
<td>Muslim</td>
<td>Christian</td>
</tr>
<tr>
<td>Lapis lazuli (blue) and gold</td>
<td>Purple and gold</td>
</tr>
<tr>
<td>Non-figural</td>
<td>Figural</td>
</tr>
</tbody>
</table>
The Book through the Italian Renaissance

The three miniatures described in this section were produced in Padua, Italy over a 150-year period. This era is important as it encompasses a significantly creative time and place in European art history: the Italian Renaissance. Padua is particularly interesting when exploring the development of painting because it is where Giotto di Bondone (1267–1337) painted his famous proto-Renaissance frescoes in the Scrovegni Chapel, otherwise known as the Arena Chapel (http://www.cappelladegliscrovegni.it/index.php/en).

Giotto’s images display a natural and lifelike style, which contrasts with the hierarchical, flat decorative style popular among his predecessors. Giotto was famous even in his own lifetime as his skill was admired by many of his contemporaries.

Jacopo Avanzi

The miniatures of this copy of the Thebaid of Statius have been attributed to both Jacopo Avanzi (c.1350–1416) and Altichiero de Zevio (c.1330–c.1390). Both Avanzi and de Zevio were strongly influenced by the great fresco painter Giotto di Bondone.

The art of the manuscript, along with most art forms, underwent major changes during the 14th century, setting the stage for developments in the Renaissance. The miniatures contained within manuscripts reflect the same use of perspective, treatment of the figure, colour palette and tonal qualities of the frescoes and paintings of the period.

Plasticity of Figures/Forms

Look at the use of tone in this miniature. A range of shades from light to dark grey are used to create a three-dimensional (3D) effect. This monochromatic palette is often described as grisaille; however, the addition of strong red, blue and gold is used here to create a sense of drama in the composition. The figures are fully-rounded forms (plasticity); they overlap and intertwine within the composition in a realistic way. Like Giotto, Avanzi and de Zevio depict their figures with dramatic gestures and realistic facial expressions. This scene is full of action, which helps create a strong narrative or story for the viewer.

Patronage

Jacopo Avanzi painted a number of frescoes as well as manuscripts and, like many other artists of this period, including de Zevio, relied on the patronage of the ruling classes and the Church for commissions. However, with the rise of the middle classes, rich merchant families became important patrons of secular illuminated manuscripts. By the 14th century in Europe, books were being designed to the exact specifications of the patron. Throughout history, books have been considered prized works of art as they contain the work of many skilled craftsmen and artists. In Renaissance Europe, artists were often arranged into guilds. The guilds set out strict rules about membership, apprentice training, standards
of work and the trade of goods and services. They also played a charitable role, providing assistance to old or destitute members.

The design and layout of books and documents changed to meet the demands of an increasingly literate middle-class. We see greater numbers of books with secular (non-religious) subjects produced during this period. Tales of wars, instruction manuals and reproductions of important classical writing became popular subjects. The *Thebaid of Statius* is a 14th century copy of a 1st century classical Roman epic poem written by Statius about the attack by the seven champions of Argos on the city of Thebes. Many classical texts were saved through Arabic translations that were then translated into European languages, starting at the time of the Crusades in the 11th century. This ‘re-birth’ of interest in the art, culture and philosophy of classical Greece and Rome is one of the major features of the Renaissance period. Wealthy patrons wanted to show off their knowledge and culture through the beautiful objects they commissioned, and richly decorated and elaborately bound books were classic examples of their taste and wealth.

**Bartholomeo Sanvito**

The renowned Paduan scribe Bartholomeo Sanvito (1435–1518) completed the manuscript *Dictys Cretensis de Bello Troiano*, on the Trojan War, for Cardinal Gonzaga. Sanvito was a contemporary of Andrea Mantegna (1431–1506), who trained and worked in Padua during the same period, and comparisons have been made between certain aspects of their work. Both artists used strong colour and almost sculptural forms and figures in their classically inspired compositions.

Look up the work of Andrea Mantegna (1431–1506) in your art history book or online.

Can you identify any similarities between the style, subject matter or techniques of Sanvito and of Mantegna?

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Look at your art history textbook. Find the artworks by Giotto di Bondone (1267–1337) and compare his work to that of the three artists described here:

- Jacopo Avanzi (c.1350–1416)
- Bartholomeo Sanvito (c.1435–1518)
- Benedetto Bordon (c.1455–1530)

Consider how each of the artists has used composition, colour, scale and tone. Compare and contrast their chosen subject matter and media. Pay close attention to how they deal with the human figure (form), architecture and the landscape (perspective).
**Perspective**

A key characteristic of Renaissance art was the use of perspective to create dramatic visual effects. **Linear perspective** is where objects appear to get smaller and closer together as they move into the distance or background of the composition. This illusion or visual effect is enhanced with the inclusion of architecture or other man-made structures. A small city on the horizon or pillars, windows or the lines of buildings all converging on a vanishing point create the illusion of depth and distance for the viewer.

Sanvito and Mantegna also made use of **atmospheric perspective** to create depth. The artist fades the colours and blurs the lines of the background images; mountains become blue/grey, cities become hazy silhouettes tricking the eye into believing that they are far away in the distance.

At this time artists viewed each other’s work and advanced ideas and techniques begun by earlier artists. The aim was to create idealised images that were beautiful and well-proportioned, but in a realistic manner.

Consider the skill and creativity of Avanzi, Sanvito and Bordon in comparison to other, more famous Renaissance artists. Their creativity is hidden within precious books, often unseen and certainly difficult to display in galleries the way paintings are exhibited. Do you think they deserve more recognition for their art? Give reasons for your opinion.

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**Benedetto Bordon**

By the time Benedetto Bordon (c.1455–1530) illustrated the sumptuous manuscript *Evangeliarium of Santa Giustina* (1523–25), the Renaissance was at its height.

Artists were being inspired by the masterpieces created by Leonardo da Vinci (1452–1519) and Raphael (1483–1520), while Michelangelo (1475–1564) was still painting, sculpting and designing for elite patrons. This book, which contains 75 miniatures and numerous decorative ornaments, is considered to be one of Bordon's finest works and one of the most outstanding artistic creations from 16th-century Padua.

The text is written in *Gothic miniscule* script on vellum and decorated with miniatures and ornamental borders. The graphic style used to illustrate the *flora* and *fauna* of the borders could be compared to that of Sandro Botticelli (1444–1510), whose compositions teemed with exotic, graphically-depicted flowers. This miniature displays many characteristics of High Renaissance painting: the dramatic depiction of the story, vivid colour and pattern, and the use of linear perspective to create the illusion of depth and distance.
The Martyrdom of Santa Giustina in the Evangeliary of Santa Giustina, Benedetto Bordon, 1523-25, Padua, Italy, W 107 f. 65r.
Northern Renaissance

The Printing Press

The printing press was invented in Germany by the goldsmith Johannes Gutenberg around 1440–45. This development revolutionised book production, distribution and design. Unlike the speed at which technology can be shared today, it took some time for this new invention and process to spread throughout Europe. Also, the powerful guilds of scribes and illuminators managed to block the introduction of printing in some cities, fearing the loss of their livelihood. However, progress could not be stopped for long because the printing press was so efficient, making it possible to quickly create multiple copies of a text once the moveable type was set. In printing, script typefaces were originally based on the scripts common in handwritten manuscripts. Over the course of the Renaissance elaborate Gothic ‘scripts’ like Blackletter began to be replaced with more fluid, naturalistic typefaces, in keeping with the humanist ideas of the time.

Images were created using woodcut and copperplate printing processes. Gradually the art of the scribe and the illuminator became the art of the printer and woodcut artist. At this time paper began to be manufactured and used in Europe, superseding and replacing the more expensive materials like animal skins, just as printing eventually replaced the time-consuming techniques artists used to write and decorate books. Book production still required the skills of a number of different craftspeople; it was common practice up until the early 19th century for printed sheets and images to be sold unbound, allowing stationers and buyers to commission bindings of their own design. Some patrons, however, still commissioned hand-copied books, believing in the value and artistic merit of one-of-a-kind illuminated manuscripts.

Print Collection

Although books were central to Alfred Chester Beatty’s Collection, it was common for collectors to purchase single leaves and portfolios of unbound prints and pages. The buyer could then decide how they would like to display these images: in sewn and bound albums, in handmade portfolio cases or in frames on their walls. Chester Beatty began collecting prints around 1910. He was particularly interested in the works of northern European artists. Over the course of his life he amassed over 35,000 prints in various techniques, making his one of the largest collections of Old Master prints in Ireland.

Woodcut Printing

The earliest technique for printing images was the woodcut, a method in use in China and Japan from around the 8th century AD. This process is very similar to that of lino printing. The artist draws out the design on paper and traces it onto the surface of the woodblock in reverse. Using sharp cutting tools of various shapes, the negative space – or background area – is cut away, leaving the design standing in relief (raised from the surface). The block is then rolled with ink and pressed onto paper. The raised inked areas make contact with the paper and transfer the design onto the page. This process can be repeated many times, making it possible to create multiple copies of a single image.

See Print Technique Glossary and information in the Arts of the Book Gallery First Floor.
Albrecht Dürer

Albrecht Dürer (1471–1528) was one of the most influential northern European artists of his time. His travels to Italy greatly influenced his style, techniques and subject matter. The northern European style of the period had developed from miniature painting. It focused on realistic depictions of the human figure and included rich details, textures and naturalistic light. Southern European artists, especially the Italians, preferred a more idealised beauty, painted with strong outlines and classical proportions. Sharp perspective was often a feature of their compositions. Dürer’s work has been described as ‘mediating’ between the two styles: his compositions often combine realism with beautiful, rich detail. His prints demonstrate his immense skill for creating tone using a variety of types of line and cross-hatching techniques.

The Apocalypse series of woodcut prints was completed in 1498 and reprinted many times over. We know Dürer originally intended these prints to be bound into a book or portfolio because on the reverse of each image is Latin text describing the next image in the series. The image of The Four Horsemen of the Apocalypse is fantastical; the realistic details and violent imagery would have made this image very powerful and even frightening to its 15th-century audience.

The 16th century in Europe was one of great change and conflict. The Protestant Reformation (c.1517) was a time when individuals began to challenge the power of the Roman Church. Dürer’s work often contains graphic warnings to sinners; he warns the viewer not to forget the supreme power of God. The images in Dürer’s Apocalypse woodcuts could be said to depict the horrors that each side of a religious war could inflict on the other in the name of their beliefs. No one is above judgement; in the image we see kings and peasants alike being trampled underfoot.
The Four Horsemen (The Opening of the First Four Seals), fourth print from the Apocalypse, 1511 Latin Edition, Albrecht Dürer, c.1498, Germany, Wep 21
Oil Painting

While artists in southern Europe were still using tempera and fresco techniques, northern European artists were developing a new technique. Jan van Eyck is often credited with inventing oil painting; however, in 2008 new discoveries and research proved that Asian artists were using this medium as early as the 5th century AD.

Nonetheless, Jan van Eyck greatly advanced the technique of oil painting. He applied layers of glazes (coloured pigments mixed with oil) on the surface of the canvas or board to create depth and realistic texture and detail.

Simon Bening

The prayer book containing this image (see image on p.33) is a collection of prayers to the Virgin Mary, thought to have been commissioned by Emperor Charles V. The artist, Simon Bening (1483–1561), was one of the greatest Flemish manuscript illuminators of the period. His eldest daughter, Livinia, became court painter to Edward VI of England. His style is characteristic of the northern European Renaissance, with naturalistic light and tone and realistic depictions of surface texture. The composition is simple: the Virgin and Child are placed centrally within the picture plane and both have golden halos. The background is in blue and Bening has painted architectural detail to create the illusion of a frame around the composition. We can clearly see the hand of the artist in this image; all his brush strokes are visible, giving the image a fine linear quality.

The influence of the great Flemish artist Jan van Eyck (c.1390–1441) can easily be observed in this work eg. see nationalgallery.org.uk/paintings/jan-van-eyck-the-arnolfini-portrait.

Compare this image of the Madonna to one by an Italian artist of the same period, e.g. Raphael (1483–1520). Note the contrast in light and tone between the two works: Raphael used sfumato to create a soft focus, while Bening kept the light crisp and the lines sharp.

Raphael’s figures are rounded and languid in the idealised classical Renaissance style. Bening, in contrast, depicted a realistic northern European woman, with pale skin and hair falling naturally over her shoulders.

Make note of the differences in colour, texture and composition between the two styles.
The camera was not invented until the early 1800s, so paintings and prints were used to represent the world in two-dimension (2D).

We take photographs of important occasions, but, before the camera, artists were called on to record these events.

In today’s terms, we could liken Jan van Eyck’s style to photorealism.

To get a glimpse of the life and techniques of a northern European artist, watch the film *The Girl with the Pearl Earring* (2003). The story is a fictional account of the life of the artist Johannes Vermeer (1632–1675) (essentialvermeer.com).
Festival of Lanterns on Temma Bridge, from the series Views of the Bridges of Various Provinces, *ukiyo-e* woodblock print, Katsushika Hokusai (1760–1849), 1827–1830, Japan, CBL J 2755
Compare the striking simplicity of Hokusai's woodblock print to Albrecht Dürer's richly detailed woodblock print *The Four Horsemen of the Apocalypse* (1498) (see p.31).

20th-Century Influence

Japan had been closed to the outside world for approximately 250 years until its ports reopened for trade with the West in 1854. The introduction of Japanese decorative arts and prints into Europe at a number of international exhibitions in London and Paris from the 1860s to the 1880s sparked a fashion known as *Japonisme*. Impressionist artists collected Japanese objects and art, and were particularly interested in how Japanese artists used colour and pattern. The flat perspective and unusual points-of-view used in Japanese woodblock prints were totally different to the Western (i.e. European) style of linear perspective. (For more examples of Japanese art see the online image gallery at cbl.ie.)

In Édouard Manet's (1832–1883) portrait of the writer Emile Zola (1868), the artist paints pictures within his picture: he includes a Japanese screen and a Japanese print of a figure on the wall (museeorsay.fr/index.php?id=851&L=1&tx_commentaire_pi1%5Bshow-uid%5D=313&no_cache=1).

Katsushika Hokusai

The woodblock print designer Katsushika Hokusai (1760–1849) is one of Japan's most celebrated artists. During a hugely productive artistic career that spanned 70 years, he created an astonishing range of works, including prints of beautiful women, landscapes, flowers and animals, as well as illustrated books and artists’ manuals.

The Chester Beatty collection contains 75 single-sheet prints and 9 illustrated books of Hokusai's work. Especially important is his beautifully varied *Thirty-Six Views of Mount Fuji* (see image pp.34–35). These images are a lesson in compositional experimentation, showing the same subject (Mount Fuji) from 36 different points-of-view or perspectives.

From the 17th century a growing number of woodblock prints (both illustrated books and single-sheet prints) were produced to meet the demands of the
newly prosperous and increasingly literate merchant class in Japan. Woodblock prints could be produced quickly, cheaply and in large numbers.

Prints were produced by a team of highly skilled craftsmen, employed and directed by a publisher. The publisher commissioned an artist to produce an image, which was then carved onto wooden blocks by an engraver and finally inked and printed. Initially, prints were restricted to black outlines, which might be hand-painted with red and green pigments. However, by the mid-18th century, a method had been developed that allowed many different colours to be printed on a single sheet of paper in perfect alignment using one block for each colour.

Woodblock printing, like lino printing, is characterised by strong lines, contrasting texture and pattern, and areas of positive and negative space.

Impressionists and Japonisme

At his home in Giverny, France, Claude Monet (1840–1926) created a Japanese-style garden in which to paint his **plein air** landscapes such as *Japanese Bridge at Giverny* (1900). He constructed ponds filled with water lilies, a Japanese-style wooden bridge and planted trees and flowers similar to those seen in Hokusai’s landscape prints in the collection (nga.gov/collection/gallery/gg85/gg85-74796.html).

In 1876 Monet painted a portrait of his wife entitled *La Japonaise*. In the painting she wears a richly patterned silk kimono and is surrounded by Japanese paper fans. She stands in a pose similar to those found in the book of prints by Suzuki Harunobu (1724–1770) within the collection (Boston Museum of Fine Art: mfa.org/collections/object/la-japonaise-camille-monet-in-japanese-costume-33556).

Find some examples of Japanese woodblock prints in the collection. Now compare and contrast them to some Western/European paintings you know. (See cbl.ie for examples of Japanese woodblock prints.)

Think about the different uses of colour and pattern. Note the types of subject matter being depicted. Japanese artists often created compositions with flat or parallel perspective; not the linear perspective used by many European artists, where objects get smaller as they recede into the distance. Also pay attention to the unusual points-of-view shown in the Japanese prints: close-ups, bird’s-eye-views or multiple points-of-view as opposed to a singular and often central point-of-view favoured by many European artists.
The Courtesan Chozan from Choji House, from the series Fashionable Beauties as the Seven Komachi, ukiyo-e woodblock print, Kikugawa Eizan (1787-1867), 1806, Japan, CBL J 2504
**Student task:**
Look at a map of the world. In groups, choose a number of objects from the collection that interest you. Plot the location of these objects on the map. How many countries and cultures are represented? Would you consider the collection to be a written history of the world? Are there any countries not represented? Why do you think this is?

**Student reflection:**
How does the Chester Beatty Library seem to you in comparison to other galleries/museums you have visited? List the similarities and differences and evaluate which aspects of each are more successful in your opinion.

Consider how the Collection can influence your own artwork. See the Leaving Certificate Higher Level 2008 exam paper (examinations.ie).
Timeline

c.30000-25000
Paleolithic cave paintings. Lascaux, France

c.15000-10000
Carved limestone miniature figure, Woman of Willendorf, Austria

c.3400
Emergence of cuneiform writing on caly tablets in the Sumerian civilisation (now Iraq)

c.3200
Construction of Newgrange passage tomb in Ireland

c.3200
Hieroglyphic writing invented

c.2700
The Chester Beatty collection's oldest object, Clay Tablet (cuneiform text). See p.45

c.2000
Phoenician alphabet developed

1333-1323
Regen of Tutankhamen in Egypt

1300
Chinese script

1200
Trojan War

8th c. BC
The Greek alphabet adapted

776
First Olympic Games held in Greece

c.563
Birth of Buddha

469-399
Socrates, philosopher

1st century BC
The opening of trade routes along the Silk Road

27 BC-AD 14
Founding of the Roman Empire

4 BC
Birth of Jesus

c.100 AD
The Book of Breathings. See p.46

c.105 AD
Ts'ai Lun invented paper in China

4th Century AD
Ogham alphabet/writing used

c.476
Decline and fall of the Roman Empire

4th/5th century
Manichaean Papyri. See p.14

570
Birth of the Prophet Muhammad

c.650
Qur'an, book of Muhammad's revelations compiled

751
Secret of papermaking revealed to Muslim craftsmen by Chinese prisoners in Samarkand

c.795
First Viking raids on Irish monasteries

8th century AD
Invention of block printing in China

c.800
The Book of Kells, illuminated manuscript. Trinity College Dublin

c.842
Vikings established settlement in Dublin

9th century
Qur'an fragment. See p.19

9th century
The Canons of Saint Basil. See p.18

c.1000
Stavelot Gospel book, Flemish. See p.23

c.1000-1001
Qur'an by Ibn al-Bawwab, Iraq. See p.22

c.1030
First movable type printing used in China, invented by Bi Sheng

c.1073-1088
The Bayeux Tapestry

1085
Great Perfection of Wisdom Summary Sutra, China. See p.50. First paper mill in Europe at Jativa in Moorish Spain

c.1095
First Crusade (until c.1290 Christians and Muslims fought over the Holy Land)

c.1100
De Civitate Dei. See p.49

c.1150-1155
Gislebertus carved tympanum and sculptures at Autun Cathedral, France

c.1153
Walsingham Bible. See p.48

c.1169
First Anglo-Norman knights invade Ireland

c.1267-1337
Florentine artist Giotto di Bondone, frescoes in Arena Chapel, Padua

1348
Black Death spread throughout Europe (estimated 25%-50% of European population died)

c.1350-1416
Artist Jacopo Avanzo. See p.25

1377-1446
Architect Filippo Brunelleschi, Dome of Florence Cathedral

1378-1455
Sculptor Lorenzo Ghiberti, Baptistery Doors, Florence

1390-1441
Jan Van Eyck, The Arnolfini Portrait (Naturalism, Northern European Renaissance)

1401-1428
Masaccio, frescoes in Brancacci Chapel, Florence (quattrocento)

1431-1506
Paduan painter Andrea Mantegna, Judith with the head of Holofernes nationalgallery.ie

1435-1518
Quattrocento painter and scribe Bartholomeo Sanvito. See p.26

1444-1510
Painter Sandro Botticelli, Birth of Venus and Primavera (quattrocento)

c.1450-1516
Painter Hieronymus Bosch The Garden of Earthly Delights museodelprado.es

1452-1519
Leonardo da Vinci, The Last Supper and Mona Lisa (High Renaissance)

1455-1530
Illustrator and artist Benedetto Bordon. See p.27

1469
Birth of Guru Nanak, founder of the Sikh religion

1471-1528
Painter, Printmaker Albrecht Durer The Apocalypse Chester Beatty Collection

1475-1546
Michelangelo Buonarroti, Sculptor: David, Architect: Dome of St. Peters Basilica, Painter: Sistine Chapel ceiling

1483-1520
Painter Raphael Sanzio, Madonna of the Meadow khm.at and School of Athens fresco Vatican, Rome

1485-1561
Flemish illuminator and artist Simon Bening. See p.32

1492
Columbus reached America


1970s - Post-Modernist period emerged, Neo-Conceptualism, Cindy Sherman (1954-) Minimalism, Frank Stella (1936-)


1930s - World War II

1920s - Irish Easter Rising, leads to 1922 Civil War


1910s - World War I

1900s - Irish avant-garde novelist, poet and playwright Samuel Beckett (Modernist)


1890s - Fauvism. Henri Matisse (1869-1954) Les Fauves

1890s - The Vienna Secession founded. Gustav Klimt (1862-1918) Egon Schiele (1890-1918)


1890s - Post-Impressionism emerged. Paul Cézanne (1839-1906) Paul Gauguin (1848-1903) Vincent van Gogh (1853-1890)

1890s - First Impressionist Exhibition held in Paris. First commercially available typewriter

1890s - Universal Exposition, Paris. Introducing Japanese prints, textiles and objets d'art to European artists and collectors


1880s - Austrian neurologist Sigmund Freud, founder of psychoanalysis. The Interpretation of Dreams 1900

1880s - Spanish architect Antoni Gaudi, Sagrada Familia Cathedral, Barcelona (Art Nouveau style)

1880s - Pre-Raphaelite Brotherhood founded. Millais (1829-1896) and Rossetti (1828-1882)

1880s - The Irish Famine: ‘The Great Hunger’ an estimated 1 million people died and a further 2 million emigrated

1880s - Barbizon School. Jean-Francois Millet (1814-1875) Jean Baptiste Camille Corot (1796-1875) Nathaniel Hone (1831-1917)

1870s - Queen Victoria reign Great Britain

1870s - French painter Edouard Manet Olympia and Dejeuner sur l'herbe musee-orsay.fr (Impressionist/Realist)

1870s - First Braille printing for the blind

1870s - Invention of photography in France

1870s - French Painter Eugene Delacroix Liberty Leading the People louvre.fr (Romanticism)

1870s - Invention of lithographic printing

1870s - French academic painter Jean Auguste Dominique Ingres. The Turkish Bath louvre.fr (Neo-Classical style)

1870s - American Declaration of Independence (War of Independence c. 1775-1783)

1870s - Japanese printmaker, designer and painter Katsushika Hokusai. See p.85


1870s - French Painter Jacques Louis David The Oath of the Horatii louvre.fr (Neo-Classical style)

1870s - Spanish painter Diego Velázquez Los Meninas Prado Museum Madrid

1870s - Bernini, Counter-Reformation Architect: Piazza of St. Peter's Rome, Sculpture The Ecstasy of St Teresa Rome (Baroque)

1870s - Painter Caravaggio The Taking of Christ National Gallery Ireland (Baroque)

1870s - Writer William Shakespeare

1870s - Painter El Greco (Mannerist style) St Francis in Ecstasy National Gallery Ireland

1870s - Martin Luther's challenge to the church, thus beginning Protestant Reformation of Western Christianity

1870s - Architect Andrea Palladio, The Villa Barbaro, Italy (Palladianism)

APPENDIX A

PRINTING TECHNIQUES

Woodcuts

The woodcut was one of the earliest techniques used to print images and decorative details. The artist would normally draw his composition on paper, glue it to the wood and then cut away those areas of the drawing which were not to be printed, thereby leaving the remaining composition standing in relief from the rest of the block. This raised area would then be inked and printed, either as a single print or combined with lines of text for an illustrated page.

Characteristics of woodcut illustrations are the large bold lines and blank spaces, which are usually enclosed by a printed ink border. The raised lines of the woodcut tend to break after repeated use, the effect of which can be seen in broken areas of ink in late issues of a woodcut print. This can be disguised by later colouring, which can overpower the image, an effect the original artists never intended.

Engraving

Engraving is an intaglio technique of making printed images. This technique requires the use of a sharp tool to cut an image onto a metal plate (usually copper). When the composition is complete, ink is dabbed over the plate and into the incised lines; any excess ink is removed, leaving the surface of the plate clean and ready for printing.

A printing press is needed in order to pick up the ink from the incised lines and the pressure exerted on the dampened paper by the engraved plate results in the characteristic plate mark around the edges of an engraving.

Copper engraving became the most common method of transmitting printed illustrations as technical refinements greatly increased its range of tone, textures and detail. As printing developed and fashions changed, other techniques for making prints became more popular.

Etching

Etching is another intaglio printmaking technique. Here, the artist first coats a metal plate with a thin layer of etching ground made from a combination of wax, gum and resin. After this is applied, the surface is usually blackened by smoking the plate over a candle.

The artist uses an etching needle to draw the composition and, as the etching needle cuts through the etching ground, it exposes the copper plate underneath. The etching ground offers very little resistance to the etching needle, which allows the artist more freedom of movement than in other engraving techniques; consequently, etchings can show more spontaneity and movement than other prints.

Once the composition is finished, the coated plate is immersed in a bath of acid, which bites into the exposed copperplate. The artist can remove the plate from the acid at regular intervals to achieve varying strengths of line or to correct mistakes. When the artist is satisfied that the lines are sufficiently bitten, the plate is cleaned and inked and is then ready for printing. A variety of techniques can be added to this process to achieve more subtle effects, aquatint and drypoint being the most common.
Lithography

Lithography was invented in 1798 in Munich by Alois Senefelder (1771–1834). It was the first new printing process since the invention of intaglio printing in the 15th century. Senefelder explained his process in his book *The Complete Course of Lithography* (1818). Senefelder’s first application of lithography was in the production of music scores and he claimed he could produce up to 6,000 prints a day. The commercial success of lithography came about in the late 1820s when printers used the technique for posters, magazines and illustrated bill headings.

The basis of lithography is that water and grease repel each other. Usually, the artist draws his design on a polished limestone slab that has been covered in a greasy substance made from soapy fats and mixed with carbon black. After preparing the design for printing the stone is dampened with water and an oil-based ink applied with a roller. This results in a black-and-white print. If the artist required colours, different stones were used for each colour. Early examples used only three stones and three primary colours (yellow, red and blue). The superimposition of each stone on the design resulted in a colour lithograph.

Chromolithography

Chromolithography was developed in France by Godefroy Engelmann (1788–1839) in 1837, and within a few years it became the most common technique for printing in colour. Many European artists drew topographical views, which could now be reproduced on a far wider scale than ever before. Very often these artists accompanied the great explorers of the 19th century as they mapped ‘new’ lands in Africa and the Orient. The expanding European merchant class eagerly purchased prints of these images of exotic flora and fauna. Equally popular were prints of royalty and their palaces.

As technology developed in the 19th century, the production of lithographs became more mechanical and the artist became more removed from the production process. Eventually photography took over from lithography as a means of producing mass-illustrations.

4. Orient is a word used to describe countries of the East, especially East Asia. It was commonly used in the 19th and 20th centuries and often associated with colonialism. It has somewhat fallen out of use.
APPENDIX B

WRITING AND THE ART OF THE BOOK

The Development of Writing

Western civilisation has its earliest roots in the ancient cultures that existed more than 5,000 years ago in the regions of present-day Iraq and Egypt. As these societies became more complex, the need for writing evolved. The invention of writing is one of the most important developments in human history. A commonly understood system of writing makes communication between people easier. Records can be kept, commercial transactions recorded and knowledge and beliefs can be written down and passed from generation to generation.

The Development of Writing Systems

Pictographic writing systems use literal graphic representations of a word, e.g. Indus Valley, Pakistan c.2,300 BC.

Logographic systems use a symbol to denote a word or phrase, e.g. Sumerian c.2,800 BC.

Ideographic representation is when a symbol denotes an idea or thought, e.g. Chinese script c.1,600–1,200 BC. Chinese characters remain the oldest writing system still in use.

Phonographic writing is when a symbol is used to denote the sound of a word, syllable, consonant and/or vowel. Phonetic systems of writing are quicker and take up less space than pictographic writing; however, they are more complex to learn and understand as they require a conversion from idea to spoken language (sound) to written graphic symbol.

There are three main types of phonetic writing systems referred to as consonantal scripts.

A. Syllabic: signs correspond to the sound of syllables, e.g. most Indian scripts and Ethiopic script.

B. Semitic: signs represent consonants with secondary signs or marks for vowels, e.g. Hebrew dating from the 5th/4th century BC and Arabic emerging in the 4th/5th century AD.

C. Alphabetical: signs denote individual letter sounds combined to make up the word, e.g. the Greek alphabet, c.800 BC, developed into a number of different writing systems over different cultures and centuries and forms the basis of the modern 26-letter Roman alphabet.

Examples of Mixed Writing Systems

Mesopotamian cuneiform, c.3,200 BC–AD 200: these began as a pictographic system using literal graphic representations to denote words (pictographic) and developed into abstract cuneiform symbols representing a combination of pictures, sounds (phonographic) and ideas (ideographic).

Egyptian hieroglyphics c.3100 BC: a mixed system using symbols to represent phonographic (sound) and ideographic (ideas).

Mayan glyphs (Mexico, Guatemala etc.) c.500 BC–AD 1200: a mixed system using symbols to represent logographic (words), phonographic (sound) and ideographic (ideas).

Other Systems

Korean Hangul, invented 1443–46: the letter shapes of the consonants are based on the position of the lips and tongue while producing the sound.

Native American Cherokee script: an 85-sign syllabic system developed in 1821.

Clay Tablets

In Mesopotamia (modern-day Iraq) the Sumerians invented one of the earliest writing systems. Known as cuneiform, a symbol or character was used to represent each word. A sharpened reed called a stylus was pressed into a slab of wet clay to create marks. Once the clay tablet was dried the written inscription was preserved. There are a number of examples of clay tablets in the Chester Beatty Library.
If writing had never been invented, how would we communicate?

Can you think of any forms of communication other than textual?
Wax Tablets

Wax tablets were wooden boards covered in a layer of wax. A bone or metal writing tool (stylus) was pointed at one end to write into the wax and rounded at the other end to smooth and erase the text. Wax tablets were used during classical antiquity by students for school exercises and to record information such as lists and trade accounts; examples have also been found containing music and poetry. Ancient Egyptian artists and engineers used these wax tablets as drawing boards to test designs. Several of these tablets could be bound together to make a ‘book’ known as a codex. A set of six yew tablets (made of wood from the yew tree) held together with a leather strap, dating from the late 6th or early 7th century, were discovered in a bog in County Antrim. The ‘Springmount’ tablets are the earliest known examples of Irish handwriting in Insular minuscule script (museum.ie).

Papyrus

The oldest known fragments of papyri are from Egypt and date from c.2400 BC. The Chester Beatty Library contains papyrus manuscripts, scrolls and codices, ranging in date from 1800 BC to AD 800 (see p.15). Papyrus is made from the stems of the papyrus plant; strips are criss-crossed and layered, then beaten until ‘fused together by their own sap’. Once dried, the sheets were often polished with a pumice and cut to form sheets or joined to form scrolls.

Anubis Leading Khonsdjehuty to Osiris in the Book of Breathings c.100 AD Egypt, CBL Pap XXa, detail
Pigments were mixed with gum to make ink and a quill or reed pen was used to write the text.

**Parchment**

Parchment is made from treated animal skin: sheep, goat, antelope etc. **Vellum** (calf skin) is the finest quality parchment, used for important or sacred texts. Traditionally considered to have been invented during the 2nd century BC in Pergamum (Turkey), by about the 3rd century BC parchment began to replace papyrus as the preferred writing material in Europe. While it is expensive and time consuming to make, parchment is very durable. Scribes could scrape away the surface to erase mistakes and re-write the text. Another advantage of parchment is that it is stronger than papyrus, easier to handle and bind, and also easier to conserve, so precious books survive for generations.

**Classical Greece and Rome**

The Romans, impressed with the Greek reputation for learning and intellect, collected Greek literature, music and art. The Romans also realised the importance of recording new information and tales of their victories and conquests. Latin documents and books spread as the Roman Empire expanded (for example, to Spain and Africa). Roman emperors understood that knowledge was power. Therefore, writing and books became symbols of status and knowledge. Julius Caesar and other powerful individuals created private libraries. By the year AD 410, when Rome was sacked, there were approximately 28 libraries in Rome and many more in the cities throughout the Empire, although only a very small percentage of society was literate.

**Middle Ages**

By the end of antiquity, between the 2nd and 6th centuries AD, the codex slowly replaced the scroll as the preferred writing support, although the scroll was still used for certain documents (e.g. the Torah and the English chancery rolls). The book was no longer a continuous roll, but a collection of sheets attached together allowing the reader to freely move back and forth throughout the text and to access a particular point in the text quickly. The codex form improved with the separation of words, capital letters and punctuation, which permitted silent reading. This form was so effective that it is still the standard book form today. However, the scroll format has been reintroduced with digital media and e-books.

At the beginning of the Middle Ages book production was concentrated in monasteries but, as learning advanced, university towns and larger cities became important centres of production. The design, layout and subject of books changed to meet the demands of an increasingly literate society. As scribes and illuminators experimented with the compositional balance between image and text, elaborate and ornate scripts and capital letters were replaced by more simple page layouts and scripts.

The use of paper spread throughout Europe in the 14th century. This material, less expensive than parchment, came from China via the Arabs and was being made in Muslim Spain by the 11th and 12th centuries. It was used in particular for ordinary copies, while parchment was still used for luxury editions.
The Importance of Monasteries

The collapse of the Roman Empire impacted greatly on how records were kept due to the lack of a centralised administrative authority. Europe suffered as a consequence of this collapse and experienced long periods of war and turbulence. Religious orders played an important role in transporting, preserving, copying and sometimes hiding important religious and classical books as well as artefacts.

The decoration of illuminated manuscripts followed different artistic styles across various cultures and time periods. The spread of Christianity influenced the style and distribution of books throughout Europe. Most monasteries had a scriptorium where skilled monks translated and copied gospel books and other religious texts and created decorated manuscripts. From the 13th century in Europe book production became a more secular pursuit. Scribes and illuminators combined text, illuminated capitals, miniatures and decorative borders into complex works of art. These works were bound into protective covers, some of which are beautifully decorated and richly adorned, as can be seen throughout the Chester Beatty Library.
Think of the function of round towers in monasteries; they provided excellent security for precious books and objects.
The logographic writing system in China was developed as early as c.1,600–1,200 BC. The characters of the Chinese alphabet have evolved over the centuries; however, the basic structure of writing has remained similar.

A number of significant inventions were developed in China:

- The invention of paper has been credited to Ts’ai Lun, around the 1st century AD.
- Woodblock printing made it possible for multiple editions of images and text to be produced from a single block. This increased the speed and reduced the cost of producing documents.
- In the 11th century, an ordinary man named Bi Sheng invented ‘moveable’ type.

Chinese writing and books developed differently than European styles.

Compare the documents and books of the East Asian Collection to the Western Collection in the Chester Beatty Library. Look at the contrast in format, style, composition, materials and techniques.
As book production increased, literacy levels throughout Europe grew and throughout the Renaissance the industry of print and publishing began to thrive. Early European printed books generally followed the design and layout of illuminated manuscripts. Artists supplied designs for illustrations, decorative initials and ornamental devices. The design principles of the Renaissance soon found expression in the layout and decoration of books.

The Printing Press

The invention of the printing press in Germany by Johannes Gutenberg between 1440 and 1445 brought book production into the industrial age. This machine made it possible to produce multiple editions of a document quickly and efficiently. Books were no longer unique and rare objects copied by hand and commissioned by wealthy patrons. Increased production resulted in books with various subjects and styles. The Church was still a powerful patron, continuing to commission religious texts. However, classical literature and scientific texts became popular during the Renaissance.
The 17th and 18th Centuries

Book design in Europe changed slowly in the 17th century, but it was a period of great commercial expansion. Books were among the most portable of cultural objects and publications quickly spread across Europe and beyond, to the American colonies and Asia. The 18th century witnessed great creativity among typographers as the design of typeface, illustration and page layout reflected the general artistic expressions of the period.

The 19th and 20th Centuries

The 19th century was a period of great technological and social change. As the Industrial Revolution spread throughout Europe, craft industries declined. The introduction of steam-powered printing presses and paper mills influenced book production. Focus on quantity over quality meant that printers and publishers experimented with new materials, such as cardboard, cloth and plastics. These innovations caused book production to increase and therefore book prices to decrease. Mass-produced products replaced one-of-a-kind objects to meet the demand of the growing middle classes. The use of photography and colour reproductions greatly enhanced the visual quality of books and the variety of subjects published.

Book Collecting

In the late 18th and 19th centuries, large privately owned libraries became increasingly common in Europe and America. This was due to a rise in wealthy industrialists as patrons, a growing interest in antiquarianism and a renewed interest in the medieval period. The book again became a symbol of power and intellect. Fine, limited-edition books were produced by specialist printers and bound to the patrons' specifications. Collectors like J.P. Morgan (1837–1913) and Alfred Chester Beatty began to assemble vast libraries of important and rare books, documents and cultural artefacts.

Bookbinding

Traditionally, the technical process of bookbinding is divided into two parts: forwarding and finishing. Forwarding is mainly concerned with folding and gathering the pages into units or quires and sewing and attaching the protective cover. Finishing, the second stage, is usually carried out by a more skilled binder, who applies the lettering, gilding and other decoration with heated tools and stamps.

These two processes formed the division of labour in many binderies, with women mainly connected with forwarding and men with finishing. Like many craft industries, once an apprenticeship was successfully completed, membership of a guild was granted. In 18th- and 19th-century Dublin many binderies were located in the streets and alleyways off Dame Street, where the chief patrons of books – the Church, state and university – were situated.
Contemporary Era

The invention of the typewriter – and more recently the computer and Internet – has revolutionised book design and production once again. Thanks to desktop publishing individuals can write, design, print and distribute their own ‘books’. The Internet has had an important impact on book production, significantly reducing the demand for printed books in many ways, due to:

- lower production costs
- fast distribution of material
- reference material that is available online
- positive environmental impact of paper-free communication
- websites and blogs serving as new forms of ‘books’

You can write, illustrate and instantly publish your ‘autobiography’ on Facebook. Electronic books, or e-books, are the most recent incarnation of the book and some people predict the total decline of traditional paper-type books in the near future.

Artists’ Books

The Chester Beatty Library contains a number of important 20th-century ‘artists’ books’ including a book by Henri Matisse from 1950. From the late 19th century, artists began producing innovative ‘books’, compiling and binding their artwork into unique ‘artists’ books’. These artists’ books combined text and image in unique and unusual ways. The text was sometimes written by the artist but more often the illustrations reflected the artist’s interpretations of well-known poetry or novels, like James Joyce’s Ulysses. Artists became involved in every step of the publication – from illustration to typeset to paper supply to binding – where previously they would have supplied images to a publisher. The use of books as a medium, a material for sculpture or within multi-media art pieces is also popular with contemporary artists. The Jaffe Centre for Book Arts, in Florida, has a fascinating collection of artists’ books (http://www.library.fau.edu/depts/spc/jaffe.htm).

Treasure Hunt Student Exercise

Find one example of each of the following, make a sketch and take notes on the artefact.

- A concertina book
- A scroll
- A jade book
- A book using parchment
- A book using paper
- An illuminated capital
- A decorated border
- An ostracan
- A leather-bound book
- A wood-bound book
- An illuminated manuscript
- A religious/sacred text
- A secular text
- A text read from right to left
- An artist’s book

Do you consider Facebook to be a ‘book’?

Why/why not?

Do you think paper books will become obsolete with the development of digital e-books?

Would you miss anything about paper books?
**APPENDIX C**

**MATERIALS OF MEDIEVAL ILLUMINATION**

**Pens** – writing implements. Reed pens were used, especially in the Islamic world. In the Middle Ages and later, quill pens became common. Made from the wing feathers of a goose, turkey or swan, feathers from the right wing fit a left-handed person and feathers from the left wing suit a right-handed person.

**Binders** – pigments were mixed with gum Arabic from the acacia tree or egg whites (glair) to act as a binding agent.

**Clothlets** – used as a method to store/preserve organic pigments. A piece of fabric, usually wool, is soaked in the ‘juice’ of the organic matter. This process of soaking and drying is repeated several times. The clothlet is then stored in a cool, dry, dark area until needed. The ‘dyed’ fabric is then immersed in gum, glair (egg white) and/or water to soak out the colour, creating a liquid pigment.

**Inorganic Colours** (made from rocks, stones and minerals)

Earths are the oldest type of pigments, used from pre-history to today; they are widely available, relatively cheap and include yellow ochre, red earth and green earth.

Blue – the stone lapis lazuli, which is crushed and mixed with oil, came only from Afghanistan until the 15th century. Azurite, popular in medieval manuscripts, is available throughout Europe. The stone is ground to a pigment and mixed with glue; the blue can turn green in damp conditions.

Green – malachite (copper carbonite). Used more commonly in painting as opposed to manuscript illumination.

Yellow – orpiment, used throughout Asia and Europe. This is the yellow pigment in the Book of Kells. It was often mixed with indigo to make green in Islamic manuscripts.

Gold – gold leaf applied over base or ground such as gesso has to be applied before any other colour and then burnished. Shell gold, a paste made of gold leaf and gum arabic, is applied before any other pigment on the page.

Silver – silver leaf or shell is applied in the same way as gold. Silver tarnishes over time and appears black. Tin is sometimes used to create silver colour.
**Synthetic Colours**

Lead white – the oldest chemically produced pigment used since classical antiquity.

Red lead – sometimes called mimimum, made by heating lead white to 450°C. It is cheap and easy to produce but it is very reactive, e.g. the red colour turns brown when exposed to citric acid. It is the only red used in the Book of Kells.

Lead tin yellow – developed to tint glass, in Venice for example. It was later used in manuscripts and commonly used in European painting from the 15th to the 17th centuries.

Verdigris – copper acetate, sometimes called ‘Spanish green’, used throughout the East and West. It was commonly used in Islamic manuscripts and is often associated with the prophet Muhammad.

Cinnabar – a dense and stable red mineral, made from mercury. It highly toxic and very expensive to produce. Used first in China and then in the Arab world in the 8th century and later in Europe from about the 12th century.

**Organic Pigments** (made from plants, animals or insects)

Organic pigments create a variety of colours and tones and are often readily available, but they are regional and seasonal. Most are not lightfast and therefore only suit manuscript decoration.

Yellow – saffron from the stamen of a species of iris.

Red – insect reds are extracted from female insects like cochineal, which is still used to dye food, drinks and cosmetics today. Madder, one of the oldest dyes, used in ancient Egypt, comes from the root of the madder plant.

Blue – blue exists very rarely in nature. The colour was originally associated with death and the underworld, and was commonly used on the mantle of the mourning Virgin Mary. Woad, made from the leaves of a plant and indigo, is produced by fermenting the stems of a plant, and was largely produced in India. Indigo became one of the most widely used blue pigments for dying paper and fabric as well as being mixed with other pigments for illuminated manuscripts.

Black – carbon black, also called lamp black, was obtained by burning carbon materials. To produce black ink, the particles are mixed with gum, gelatine or egg whites to create the desired consistency. Iron gall, a vegetable extract from the oak tree, became the most common European ink from the 9th to the 15th century.
GLOSSARY OF TERMS

The terms listed below refer to the descriptions found throughout Artefacts. These have been selected to assist teachers and students.

**Abstract motifs** – designs or patterns that do not look like a specific object. Shapes and patterns are used to depict the subject rather than realistic imagery.

**Antiquarianism** – to be interested in, study or collect antiques.

**Apocalypse** – the subject of the last book of the New Testament, also called Revelation, written by the Evangelist John, who describes his prophetic visions of the battle between good and evil.

**Arabesque** – an often complex design of intertwined leaf, flower or vegetal forms.

**Artefact** – something created by humans, including pottery vessels, flints, jewellery, books etc.

**Artist’s palette** – the tray or receptacle used by an artist to hold his/her paints and pigments. The term is also used to describe the choice and range of colours used by an artist in a work of art.

**Atmospheric perspective** – when the colour intensity of objects in a composition fade and become blue/grey and hazy as they recede into the distance, creating an illusion of distance.

**Avant-garde** – the French term for ‘vanguard’, meaning to practice new ideas and move away from the traditional. Art that is ahead of its time, innovative and experimental is referred to as avant-garde.

**AD** – an abbreviation for Anno Domini, which is Latin for ‘in the year of our Lord’.

**BC** – an abbreviation for Before Christ.

**Bequeath** – to leave or give personal property or pass something on to another.

**Bibliophile** – someone who collects or is interested in books.

**Bifolio** – a single sheet folded once to make two folios or leaves, or four pages intended to be sewn into a book or manuscript.

**Binding** – the act of attaching the pages of a book together and securing it within a cover; or the cover itself.

**Books of faith** – collections of the teachings, beliefs and rules of a particular faith, for example the Bible, Qur’an, Torah and Vedas, see p.17.

**Buddha** – Sanskrit word for ‘enlightened one’. Prince Siddhartha Gautama was born c.563 BC in northern India (modern-day Nepal) and was later called Buddha. Prince Siddhartha Gautama is the founder of Buddhism.

**Calamus** – a writing implement made from a sharpened reed.

**Characteristic** – a key feature or quality particular to an artwork or movement that helps to identify a particular artist’s work or style of work.

**Circa** – from the Latin meaning ‘around’ or ‘about’. Circa is usually abbreviated c. or ca. and means ‘approximately’ in English. It is used when referring to a date.

**Classical Antiquity** – sometimes referred to as the Greco-Roman era. A modern term used to describe the long period of cultural history spanning from (approximately) the birth of Greek civilisation (7th/8th century BC) and ending with the decline of the Roman Empire (5th century AD).

**Codex** – from the Latin meaning a ‘set of tablets’. A book made of a number of sheets stacked and bound along one edge, usually where the sheets are folded.

**Commission** – when a patron engages an artist to create an artwork. A commission often comes with very clear specifications from the patron regarding size, subject, materials and fees.

**Composition** – in art, composition refers to the way in which an artist arranges the elements within the work to create balance, movement or other visual effects.

**Conservation** – the preservation and protection of an artefact, object or artwork.

**Contemporary** – (adjective) living or occurring at the same time; belonging to or occurring in the present; (noun) a person or thing living or existing at the same time; ‘contemporary art’ is art produced now.

**Cross-hatching** – an artistic technique used to create tonal effects by drawing closely spaced lines to represent an area of shade and repeating the process in layers.

**Crusades** – a series of religious and territorial wars fought during the 11th and 13th centuries between Christians and Muslims in Jerusalem and throughout the ‘Holy Land’ (present-day Middle East).

**Cuneiform** – the wedge-shaped characters used to depict the words of the ancient Sumerian language in Mesopotamia (see p.45).
Cursive Script – based on rapid scripts developed for speed in business and administrative writing. Letters are joined and lines are more fluid, producing an informal style with loops and extended ascenders and descenders. Cursive calligraphy is more formal in style while retaining the ‘fluidity’ of line – a much debated term.

Decorated initial – a letter at the beginning of a work, chapter or paragraph. It is usually larger than the other characters and ornamented.

Environmentally controlled – the light, air and temperature where collections are on display is controlled to support the preservation of the object or artwork.

Fauna – meaning animals and/or wild creatures, after the Roman god Faunus.

Figural – containing human or animal figures.

Flora – meaning wild flowers and plants, after the Roman goddess Flora.

Folio – a leaf of paper, parchment, etc. The front and back of the leaf are referred to as recto and verso (see bifolio). Folio also refers to size: a volume made up of sheets folded once or a volume of the largest size: folio (2°) = folded once; quarto (4°) = folded twice; octavo (8°) = folded three times; duodecimo (12°) = folded four times, etc.

Format – the way in which something is arranged or set out; a manuscript can be in a scroll, accordion or codex format.

Font – a complete set of types of letters, numerals and other symbols, cut and cast in the same style and size.

Fresco – from the Italian meaning ‘fresh’. It is a technique of mural painting carried out on freshly-laid lime plaster. Examples include Michelangelo’s Sistine Chapel and Giotto’s series in Padua (see a demonstration: youtube.com/watch?v=Cej4Ggq5nQI).

Geometric pattern – a motif, design or pattern using geometrical shapes such as lines, circles and triangles.

Golden Age of Irish art (Insular art) – a period of great creative and technical strength in Irish metalwork and manuscript illumination during the 7th and 8th centuries, due to the cultural and artistic influence of Christian monasticism.

Gothic script – a general term used to describe the handwriting used in medieval and early modern manuscripts in Europe from the 12th to the 17th century.

Grisaille – a technique used in paintings and drawings using shades of grey to create the illusion of sculpture in relief.

Guilds – associations of craftsmen and/or merchants providing professional support and agreed shared standards of practice.

Hierarchical – the term given in figural art when scale and unnatural proportions are used to depict the relative importance of each figure. Often the figures appear stacked within the composition (see the art of Cimabue c.1240 – c.1302).

Historiated initial – one which contains figures or a story within the initial.

Humanist – a classical philosophy popular during the Renaissance. Emphasis was placed on the ability for people to achieve excellence through the direct study of literature, art and culture of classical Greece and Rome.

Icons – paintings on wooden panels usually in tempera depicting holy people. Traditional images originated from the Orthodox Christian churches of Byzantium and are commonly found in Greece and Russia today.

Illumination – the art of ornamental writing or decorating handwritten manuscripts with formal, floral, historical-style designs and/or elaborate capital letters, often using gold, silver and coloured pigments.

Illustration – a picture used to decorate a book; an illustration is often used to enhance the reader’s understanding of the text.

Impressionism – 19th-century art movement based primarily in Paris. Artists moved away from classical and historical subject matter to the depiction of everyday life. Impressionism is characterised by visible brush-strokes and the changing qualities of light. The first Impressionist group exhibition was held in Paris in 1874.

Industrial Revolution – the introduction of steam power to Britain in the 18th century sparked a rapid change from small-scale craft to large-scale mass production. It was a time of great economic growth, population increase and urbanisation.

Intaglio – a design incised or engraved into a material.

Japonisme – a French term used to describe the craze for Japanese art and design that swept through Europe once trade began between Europe and Japan during the 1850s. The development of modern painting from Impressionism onwards was profoundly affected by the flatness, brilliant colour, high degree of stylisation and...
realist subject matter of Japanese woodcut prints.

Jesus – born in Bethlehem c.2,000 years ago. Christians believe Jesus was the son of God sent to save people from sin.

Kimono – a traditional Japanese garment worn by both men and women, t-shaped in structure and often richly decorated with intricate patterns and embroidery.

Linear perspective – when the objects within an image recede into the background and disappear at a vanishing point on the horizon, creating a realistic illusion of distance.

Lino printing – a simple form of relief printing. Areas of a linoleum block are cut away to create an image; ink is rolled over the remaining raised areas of the block, which is pressed onto paper producing a printed image (Museums Sheffield: youtube.com/watch?v=3EJaQdUSyN0).

Logographic – from the noun logogram, used to describe signs or characters representing a word or phrase.

Majuscule – a script where the letters are all upper case.

Madonna – term for the mother of Jesus. It is most commonly used when she is depicted with the infant Christ. She is also referred to as the Virgin Mary or the Blessed Virgin Mary.

Manuscript – a book or document written by hand, sometimes illuminated or illustrated.

Medieval period – often referred to as the Middle Ages, sometimes as the Dark Ages, spanning the 5th-15th centuries. Usually used to describe the period of time between the fall of the Roman Empire to the Renaissance, this encompasses the Merovingian, Carolingian, Insular, Romanesque and Gothic styles.

Miniatures – small, often extremely detailed and intricate pictures, commonly found in manuscripts and albums.

Monochromatic – using only the tints and shades of one colour or hue.

Muhammad – born in Mecca, modern-day Saudi Arabia; founder of the Islamic faith in 570 AD.

Narrative – narrative art is art that tells a story, e.g., from religion, literature, myth or history. Much of Western art, until the 20th century, can be described as narrative.

Non-figural – ornament that does not include human or animal figures.

Objet d’art – French for ‘art object’; used to describe a work of art other than a painting.

Ogham – an early alphabet using inscribed notches and lines that was common in Ireland, Scotland and parts of Britain during the 4th–7th centuries AD.

Old Master – established master painter. The term is often used to describe the work of distinguished European artists from the 16th–18th centuries.

Ornamental devices – decorative borders, seals and motifs used to add visual interest to a page or to highlight or indicate a new paragraph or chapter in a text.

Ostracon – a piece of stone or pottery (usually from a broken pot) inscribed with writing.

Paleography – the study of ancient handwriting and scripts.

Papirus – see p.45 for description and definition of papyrus.

Parchment – the skin of a sheep or goat (and sometimes those of other animals) dressed and prepared for writing.

Patronage – the support of the arts by wealthy individuals or organisations. The Christian Church and the Medici family in Renaissance Florence were important patrons of artists, architects and musicians.

Photorealism – a style of painting that emerged in Europe and the USA in the 1960s, characterised by painstaking detail and precision. Photorealism strove to create pictures that looked like photographs (see the art of Chuck Close, b.1940).

Plasticity – when a figure has the impression of being a fully-rounded solid form.

Plein air – a French term meaning ‘out-of-doors’. It refers to the practice of painting entire finished pictures outside as opposed to simply making preparatory sketches and then completing the work in a studio. British artist John Constable (1776–1837) pioneered the technique. Plein air became a fundamental feature of Impressionism and the Barbizon School beforehand.

Point-of-view – (POV) – the position or angle from which the artist views a subject. For example, a bird’s-eye point-of-view depicts a scene from above.

Predecessor – the person/artist who came directly before someone else.

Proportion – refers to the harmonious relationship between one part of an object or figure and the other parts of the object/figure. During the Renaissance, Leonardo da Vinci and Albrecht Dürer attempted to find a mathematical formula for the proportions of the perfect human body.

Quire – a set of pages of parchment or paper, folded in sequence, one within the other, ready to be stitched into a manuscript or book. The term quire comes from the Latin meaning ‘four’ as quires are usually composed of
four sheets of paper folded and sewn together.

**Reformation** – the religious movement against the elitism and corruption of the Christian Church in 16th-century Europe, led by the German monk Martin Luther (1483–1546).

**Relief** – a term used when something is raised from the surface; for example, the design on a coin.

**Renaissance** – from the Italian meaning ‘re-birth’. This was a period of immense creative development initially centred in Italy and later spreading throughout Europe, characterised by a revival of classical art, architecture, literature and learning dating from the 14th to the 16th centuries.

**Roll** – a piece or series of pieces of papyrus, parchment, paper etc., that are written on (usually one side only) and rolled up; i.e. a scroll. This was the most common form of book in the ancient world.

**Samarqand** – a region of modern Uzbekistan, it is considered to be one of the great ancient cities of the world.

**Scribe** – a person who writes manuscripts or documents by hand.

**Script** – handwriting: written characters as distinct from print. Specific examples include Blackletter (Latin) and Kufic (Arabic).

**Scriptorium** a writing room where manuscripts were copied by hand.

**Sculptural forms** – when figures and images in a picture look solid and three-dimensional as if sculpted out of stone or clay.

**Secular** – meaning not related to religion; secular art is non-religious in theme.

**Sfumato** – from the Italian word fumare meaning ‘smoke’; used to describe a painting technique where areas of shading are softly blended from light to dark, creating a soft, realistic tonal effect. Artists like Leonardo da Vinci and Raphael perfected the technique.

**Stationer** – someone who trades in paper goods and writing materials. Historically, a stationer would often buy loose leaves or entire manuscripts and commission specific bindings for clients.

**Stylus** – an instrument made of metal, bone, etc. One end is sharp-pointed for incising letters on a wax or clay tablet, or lines onto parchment or paper; the other end is flat and broad for smoothing the wax on the tablet and erasing what was written.

**Subject** – the person or thing that is the main focus of the painting or sculpture, etc.
Select Bibliography
and Useful Resources

Books

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For a more extensive bibliography see cbl.ie

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Cover image: *The Four Horsemen* (The Opening of the First Four Seals), fourth print from the *Apocalypse*, 1511 Latin Edition, Albrecht Dürer, c.1498, Germany, Wep. 21