Course Companion

AP 2-D Art and Design

Every topic handout in one volume

全部专题讲义合集

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Elements of Art

AP 2-D Art and Design

Line

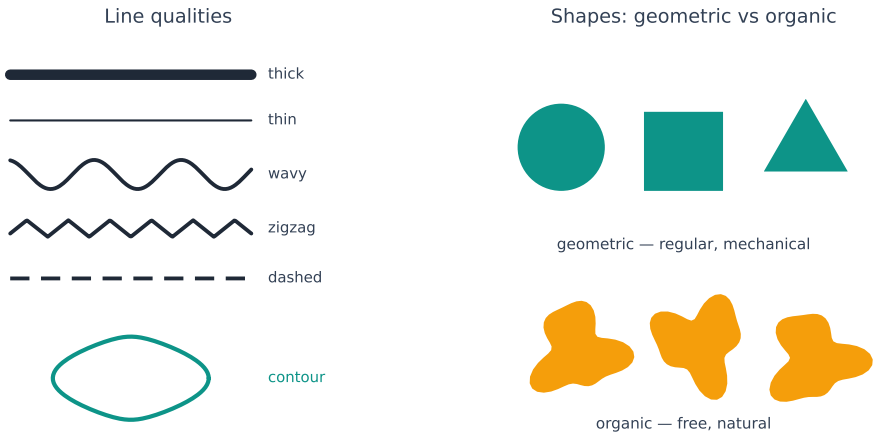
Why it matters. Georges Seurat spent about two years (1884-86) painting *A Sunday on La Grande Jatte*, a park scene three metres wide, almost entirely in tiny dots of pure colour. Up close it looks like confetti; from across the room the dots mix in the viewer's eye into grass, shadow and sunlight. Every effect in the picture comes from decisions about the elements in this unit - line, shape, value, colour, texture and space - and learning to name them is the first step to using them on purpose.

The **elements of art** 艺术元素 are the visual "building blocks" every artist uses. The first is **line** 线条 – a moving point that the eye follows.

- A line has **length and direction**; it can be straight, curved, angular, or freeform.
- Lines have **quality**: thick or thin, smooth or rough, continuous or broken, dark or light.
- **Contour** 轮廓 lines trace the edges of a form; **gesture** 动态速写 lines capture movement quickly.
- **Implied lines** 隐含线 are not drawn but suggested – by a row of objects or a person's gaze.

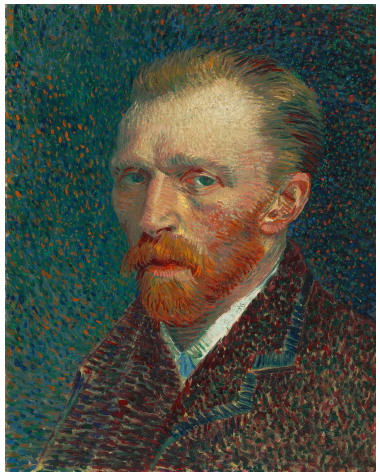


Hokusai's The Great Wave off Kanagawa: bold curved outlines carry the eye along the wave, and the claw-like lines of foam create movement



Line varies in weight and character; shapes are either geometric (regular) or organic (natural)

Direction carries feeling: horizontal lines feel calm, vertical lines feel strong, and diagonal lines feel active. Artists use line to build shape, shade value (hatching), imply texture, and lead the viewer's eye.



Van Gogh's self-portrait: restless diagonal strokes behind calm horizontal shoulders – the same two directions doing opposite jobs in one picture

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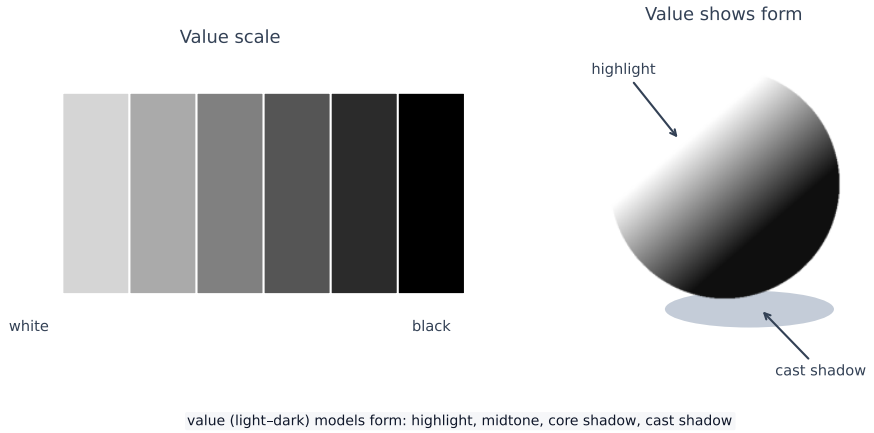
Shape and Form

A **shape** 形状 is a flat, enclosed area; a **form** 形体 has the illusion of three dimensions (height, width, and depth).

- **Geometric** 几何 shapes (circle, square, triangle) are regular and mechanical; **organic** 有机 shapes are free and natural.
- **Positive shape** 正形 is the object; **negative shape** 负形 is the empty space around and between objects – learning to see it makes drawing far more accurate.
- Form is created on a flat surface with **value** (shading), overlapping, and perspective.

Value

Value 明度 is the lightness or darkness of a tone – the single most powerful tool for showing three-dimensional form.



value (light–dark) models form: highlight, midtone, core shadow, cast shadow

A value scale steps evenly from white to black; strong value contrast creates drama and a focal point

- A **value scale** 明度阶 runs from white through greys to black.
- Light on a form has a **highlight** 高光, **midtones** 中间调, a **core shadow** 明暗交界线, **reflected light** 反光, and a **cast shadow** 投影.
- **Chiaroscuro** 明暗对照法 is the bold use of light and dark to model form. Squinting removes colour and helps you judge value.



Joseph Wright's A Philosopher Lecturing on the Orrery: one hidden light in the centre creates strong value contrast (chiaroscuro), lifting each face out of the dark

Color

Colour 色彩 is light reflected from a surface. It has three properties and follows the logic of the **colour wheel** 色轮.



Primary colours mix to secondary and tertiary hues; complementary colours sit opposite each other

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- Colour's three properties: **hue** 色相 (its name), **value** (light/dark), and **saturation** 饱和度 (dull to vivid).
- **Primary** 三原色 (red, yellow, blue) mix to make **secondary** 间色 and **tertiary** colours.
- **Complementary** 互补色 colours sit opposite on the wheel: placed side by side they intensify each other, but **mixed** together they **neutralise** 中和 into a dull grey-brown. **Analogous** 邻近色 colours sit next to each other and harmonise.
- **Warm** 暖色 colours (red, orange, yellow) advance; **cool** 冷色 colours (blue, green, violet) recede. A **tint** adds white, a **shade** adds black.



Van Gogh's Sunflowers is built almost entirely from warm yellows and oranges, an analogous colour scheme that feels bright and unified

Texture

Texture 肌理 is the surface quality of a work – how it feels, or how it appears to feel.

- **Actual (tactile) texture** 实际肌理 can be physically touched (thick paint, collage, rough paper).
- **Implied (visual) texture** 视觉肌理 is the illusion of a surface, made with marks, value, and pattern.
- Techniques include stippling, hatching, **impasto** 厚涂 (thick paint), and dry-brush. Contrasting smooth and rough areas adds interest and can direct the eye.



Woven denim close-up: texture is the surface quality you can see or feel – actual or implied

Space

Space 空间 is the area within, around, and between the parts of a work, including the illusion of depth on a flat surface.

- **Positive space** is filled by the subject; **negative space** is the empty area around it.
- Depth is created with **overlapping** 重叠, size, placement, and detail.
- A scene organises into three depth planes: **foreground** 前景 (nearest), **middle ground** 中景, and **background** 背景 (farthest). The nearest plane usually carries the most detail and contrast, the farthest the least.
- **Linear perspective** 线性透视 uses a horizon line and **vanishing point** 灭点 so parallel lines converge; **atmospheric perspective** 空气透视 makes distant things paler, bluer, and less detailed.
- The **format** and **cropping** of the picture plane shape how the space is read.

All the elements in one work. Edward Hopper's *Nighthawks* (1942) shows a diner at night seen through a large window. **Line:** the long diagonal of the counter and window pulls the eye across the picture into the diner. **Value:** the brightly lit interior against the dark, empty street creates the strongest contrast and the focal point. **Colour:** cool greens and yellows of artificial light, with a few small reds that stand out against them. **Space:** the deep, empty street and the diner with no visible door make the figures look cut off from the world. **Shape:** simple geometric shapes for buildings and windows give a still, quiet mood. Notice that each element is named **and** connected to its effect - that is the habit to build.

Studio exercise. Make a nine-step value scale in pencil, then draw a single egg lit by one lamp in three versions: line only, value only, and line plus value. Write one sentence for each saying what that version shows best.

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> **Worked example (applying the concept).** Asked to describe how **line** creates meaning in a portrait, a strong answer names the element, its quality, and its effect: *"The artist uses thick, jagged diagonal lines in the background, and their restless, active direction makes the calm horizontal lines of the sitter's shoulders feel even more still."* Naming the element **and** linking it to a feeling is what portfolio written evidence and analysis questions both reward.

Exam tips

- Name the **element** precisely – line, shape or form, **value**, colour, texture, space – in any analysis.
- Justify how **form** is modelled with a **value scale** and a single light source.
- Read the **colour wheel**: identify **complementary** versus **analogous** schemes and warm or cool temperature.
- Separate **shape** (2-D) from **form** (3-D) and **actual** from **implied texture**.
- Explain depth with **overlap**, size, **linear perspective**, and **atmospheric perspective**.

Common mistakes.

- Using "shape" and "form" as if they meant the same thing. A shape is flat; a form looks three-dimensional.
- Describing colour only by hue ("it's blue"). Say its value and saturation too: "a dark, dull blue".
- Forgetting negative space. The empty areas around a subject are shapes that the composition depends on.
- Naming an element without saying what it does. "There are diagonal lines" earns little; "diagonal lines create a sense of speed" explains.
- Mixing complementary colours and expecting brightness. Side by side they intensify; mixed, they turn grey-brown.

Practice.

1. A painting shows a sunset over the sea in reds, oranges and yellows. Name the colour scheme and describe the mood it creates.
2. A student's drawing of an apple looks flat. Name two value areas the student should add and say where they go.
3. Explain the difference between actual texture and implied texture, with one example of each.
4. Describe two ways an artist can make a mountain look far away in a landscape painting.

5. In Hopper's *Nighthawks*, explain how value creates a focal point.

Answers.

1. An analogous, warm colour scheme; warm colours that sit next to each other on the wheel feel unified, bright and energetic.
2. A core shadow on the side away from the light, and a cast shadow on the table next to the apple; a highlight on the near side also helps.
3. Actual texture can be touched, such as thick impasto paint; implied texture only looks textured, such as hatching that suggests rough bark.
4. Use atmospheric perspective - make it paler, bluer and less detailed - and make it smaller and higher in the picture than near objects.
5. The bright interior is surrounded by dark street and buildings, so the strongest light-dark contrast is in the diner, where the eye goes first.

Vocabulary card meanings

line: A thin mark that can run straight or curve. Contour: The outer edge that describes a shape. gesture: A quick drawing that catches movement rather than detail. Implied lines: Edges the eye follows even though no stroke is drawn there. form: A solid shape, or the illusion of volume on a flat surface. organic: A shape that looks grown, with a curved outline or a jagged one. negative shape: The empty area around an object, which can itself form a design. midtones: The greys or colours between the lightest and darkest values. core shadow: The dark band on the side of a form turned away from the light. The paired Chinese term names the boundary where the light stops. Colour: What the eye reads as hue, lightness, and intensity on a surface. colour wheel: A circle that arranges hues so relationships among them are easy to see. hue: The name of a colour, such as red or blue, apart from how light or dark it is. Primary: In one colour system, the starting hues of that system, often three, which a different system may mix from other hues. secondary: A hue made by mixing two of the basic hues. neutralise: To dull a hue by mixing in its opposite on the wheel. Analogous: Hues that sit next to each other and therefore look related. Warm: Hues such as red and orange, often felt as energetic. cool: Hues such as blue and green, often felt as calm. Actual (tactile) texture: A surface you could feel with your fingers, not only see. impasto: Paint laid on so thickly that the strokes stand up. overlapping: Placing one shape in front of another so depth is suggested. foreground: The part of a picture that seems nearest to the viewer. middle ground: The zone of a picture between what is nearest and what is farthest. background: The part of a picture that seems farthest away.

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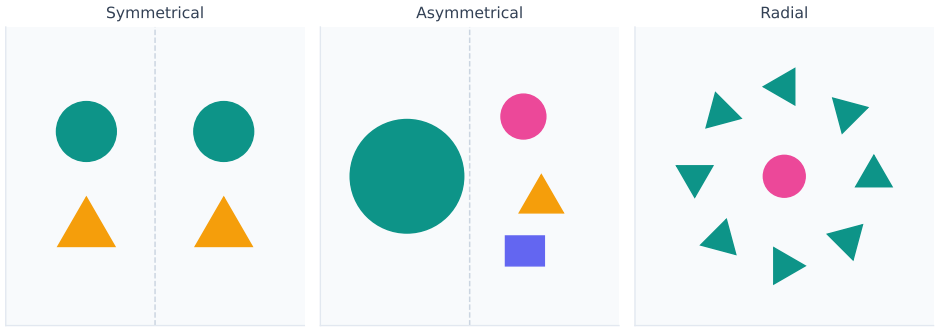
Principles of Design

AP 2-D Art and Design

Balance

Why it matters. In Leonardo da Vinci's *Last Supper* (1495-98), every line of the ceiling and walls runs to a single vanishing point - behind the head of Christ, at the exact centre of the picture. Thirteen figures in a long row could look like a crowd photo; instead, symmetry, perspective and a bright window behind the central figure make the eye go straight to him. The principles of design in this unit are how artists organise the elements so that a viewer sees what matters first.

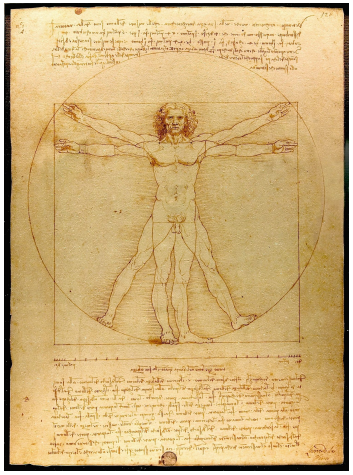
The **principles of design** 设计原则 are the "rules" for arranging the elements of art. The first is **balance** 平衡 – the visual distribution of weight so a work feels stable.



Symmetrical balance mirrors a central axis; asymmetrical balance weighs different elements; radial balance radiates from a centre

- **Symmetrical (formal) balance** 对称平衡 mirrors both sides of a central axis – calm and orderly.
- **Asymmetrical (informal) balance** 非对称平衡 uses different elements of equal **visual weight** 视觉重量 – dynamic and lively.
- **Radial balance** 辐射平衡 arranges elements around a central point.

Visual weight is affected by size, colour, value, and position: a small bright shape can balance a large dull one.



Leonardo's Vitruvian Man: the figure is drawn with near-perfect symmetry about a central vertical axis, and the surrounding circle gives it radial balance too



Composition balances light, mass, and interest across the picture plane

Emphasis and Focal Point

Emphasis 强调 makes one part of a work stand out as the centre of interest – the **focal point** 视觉焦点, where the eye is drawn first.

- Emphasis is created through **contrast** – of size, colour, value, isolation, or placement.
- Leading lines and the rule of thirds help place a strong focal point.

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- **Subordination** 从属 keeps other areas quieter so the focal point leads.

Contrast

Contrast 对比 is the difference between elements – it creates energy, variety, and readability.

- Contrast can be of value (light/dark), colour (complementary), shape, texture, or size.
- Strong contrast attracts attention and defines a focal point; low contrast unifies and calms.
- In design, value and size contrast create clear **visual hierarchy** 视觉层次.

Movement and Rhythm

Movement 动感 leads the viewer's eye through a work; **rhythm** 节奏 is the repetition that creates a visual "beat".

- Movement is the path the eye takes, guided by line, edges, colour, and placement.
- Rhythm types: **regular** (even), **flowing** (curving), **progressive** 渐进 (gradual change), and random.
- Repetition with variation keeps rhythm interesting rather than monotonous.



Van Gogh's The Starry Night: swirling brushstrokes sweep the eye across the sky (movement), and the repeated curls give it a rolling rhythm

Pattern and Repetition

Repetition 重复 reuses an element; a **pattern** 图案 is the repeated element arranged in a predictable way.

- Repetition of shape, colour, or line builds unity and rhythm.
- A pattern is a repeated **motif** 母题 – regular (a grid or tessellation) or irregular.
- Too much repetition feels monotonous; changing scale or colour adds variety.

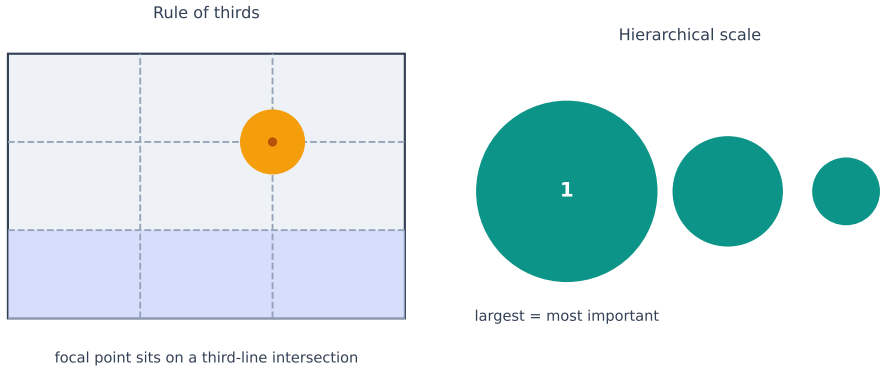


William Morris's Strawberry Thief: one motif of birds among strawberries repeats in a regular pattern across the whole cloth

Proportion and Scale

Proportion 比例 is the size relationship between parts; **scale** 尺度 is the size of an element relative to something else.

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The rule of thirds places key elements on the third-lines; hierarchical scale makes the important element largest

- Proportion compares the sizes of parts within a work (head to body).
- **Hierarchical scale** 等级比例 makes the most important element the largest.
- Exaggerated or distorted proportion can express emotion or draw attention. The **golden ratio** 黄金比例 is a historic guide to pleasing proportions.

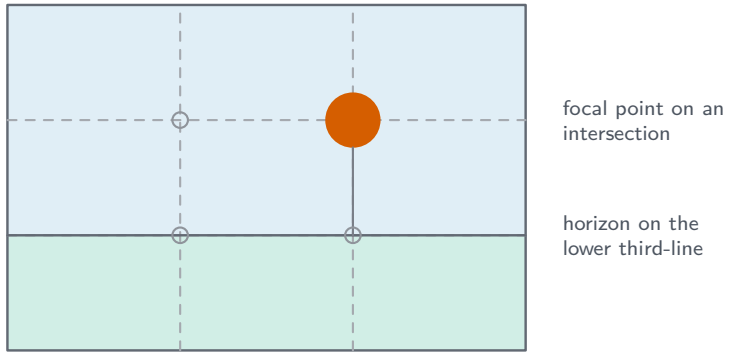
Unity and Variety

Unity 统一 holds a work together as a whole; **variety** 变化 adds interest so it is not dull. Good design balances the two.

- Unity comes from repetition, **proximity** 邻近 (grouping), **continuity** 连续性 (aligning elements along a line or edge so they read as one group), and a limited palette.
- Variety is difference that prevents monotony. **Harmony** 和谐 comes from similar elements.
- The best works achieve unity **with** variety – order that still surprises.

Composition

Composition 构图 is how all the elements and principles are arranged within the **picture plane** 画面.



Rule of thirds: key elements on the lines and their intersections.

- The **format** 画幅 (portrait, landscape, square) shapes the design.
- The **rule of thirds** 三分法 places key elements along third-lines and their intersections.
- **Cropping** 裁剪 decides what is included and what is cut, changing emphasis and tension.
- A strong composition unifies the elements while creating a clear focal point – this is what the AP portfolio's 2-D skills are judged on.

Diagnosing a composition. When a work "doesn't feel right", check the principles in order:

1. **Focal point** - where does the eye go first? If nowhere, add contrast of value, colour or size at one place.
2. **Balance** - squint: does one side feel heavier? Move or add visual weight on the light side.
3. **Movement** - trace the path the eye takes. Does it leave the picture at a corner? Turn it back with a line or shape.
4. **Unity and variety** - are there too many unrelated colours or marks (no unity), or nothing that changes (no variety)?

Applied: a student's still life has a bright red apple in the exact centre, all other objects the same size in a row, and a bare left half. Moving the apple to a third-line, overlapping the objects at different sizes, and repeating the red in a small cloth on the left would give a focal point, rhythm and balance at once.

Studio exercise. Make four thumbnail sketches of the same three objects: symmetrical, asymmetrical, radial, and cropped tightly. Mark the focal point in each and choose the strongest.

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> **Worked example (applying the concept).** To explain **balance** in a composition: *"The large dark shape on the left is balanced by three small bright shapes on the right – this is asymmetrical balance, which gives the piece visual weight on both sides while keeping it dynamic rather than static."* A full answer names the principle, points to specific evidence in the work, **and** states the effect on the viewer.

Exam tips

- For every work, state which **principle** organises it – balance, emphasis, contrast, movement, or unity.
- Justify **balance** through **visual weight**, not just symmetry.
- Ensure one clear **focal point**, and name the **emphasis** technique that creates it.
- Aim for **unity with variety** – name the unifying device and the source of interest.
- Plan **composition** with the **rule of thirds** and thumbnails before committing.

Common mistakes.

- Thinking asymmetrical means unbalanced. Asymmetrical balance is balanced through equal visual weight, not mirror images.
- Putting the focal point in the dead centre by habit. Centring can work, but it should be a choice.
- Confusing pattern (a repeated motif arranged predictably) with rhythm (the visual beat repetition creates).
- Treating unity as "everything the same". Unity with no variety is monotonous.
- Naming the rule of thirds as if it were a rule to obey. It is a guide; strong works also break it on purpose.

Practice.

1. A poster has a huge black title at the top and tiny grey text everywhere else. Name the principle at work and its effect.
2. Explain how a small bright shape can balance a large dark one.
3. A pattern of identical squares feels dull. Suggest two changes that add variety while keeping unity.
4. Medieval paintings often show a king much larger than the people around him. Name this kind of scale and its purpose.
5. Describe how the *Last Supper* uses emphasis to create a focal point.

Answers.

1. Emphasis through size and value contrast creates a clear visual hierarchy: the title is read first.
2. Bright colour and strong contrast give a small shape high visual weight, so placed further from the centre it can equal a large, dull shape.

3. Change the size of some squares gradually (progressive rhythm) or change the colour of every fourth square; the repeated square shape keeps unity.
4. Hierarchical scale; the most important person is shown largest to show power or status.
5. All perspective lines meet at Christ's head, he is isolated in the centre, and the bright window frames him, so the eye goes to him first.

Vocabulary card meanings

Symmetrical (formal) balance: A design whose two sides mirror each other. Asymmetrical (informal) balance: A design that feels steady even though the two sides differ. visual weight: How strongly a shape, colour, or mark pulls the eye. Radial balance: Parts arranged around a centre, like spokes. Emphasis: The part of a picture the artist makes the eye notice first. progressive: Changing step by step, as a size or a colour grows. Hierarchical scale: Making a more important figure larger than the others. Unity: The sense that the parts of a picture belong together. variety: Differences among the parts, so a picture is not monotonous. proximity: Placing things near each other so they read as a group. continuity: A path the eye can follow without a break. Harmony: Colours or shapes that agree with one another. format: The shape and size of the picture area. Cropping: Cutting the edges so that only part of a scene remains.

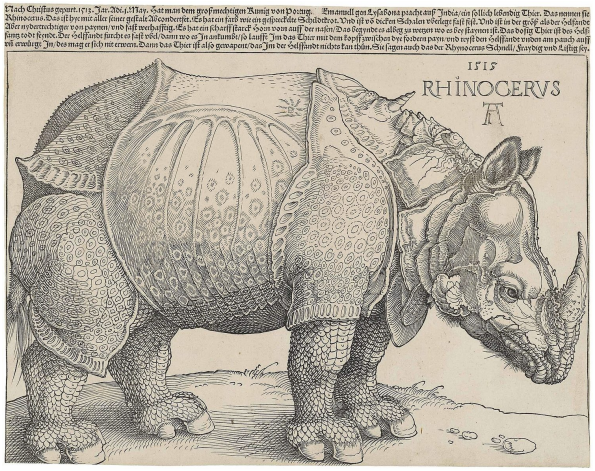
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2-D Media, Materials, and Techniques

AP 2-D Art and Design

Drawing Media

Why it matters. In 1515 Albrecht Dürer made a woodcut of a rhinoceros he had never seen, working only from a written description and a sketch sent from Lisbon. Because it was a print, thousands of copies spread across Europe, and for more than two hundred years many Europeans believed rhinos looked like Dürer's armour-plated beast. The medium decided what the image could do: a painting would have hung in one room; a print travelled the world. Choosing a medium is choosing what your work can say and where it can go.



Dürer's Rhinoceros, 1515: a woodcut print that carried one image across Europe

Media 媒介 are the materials an artist works with. Drawing media make marks directly on a surface and are the foundation of most 2-D work.

- **Dry media** 干性媒介: graphite (pencil), charcoal, conté, chalk and oil pastel, coloured pencil.
- **Wet media** 湿性媒介: pen and ink, brush and ink, markers.
- Mark-making techniques: **hatching** 排线, **cross-hatching** 交叉排线, **stippling** 点画, blending, and scribbling.
- The **tooth** 纸纹 (texture) of the paper changes the line and value possible.

Drawing is used both to **investigate** ideas (studies and sketches) and to make finished works.

Painting Media

Painting 绘画 applies pigment held in a **binder** 粘合剂 to a surface, building colour, value, and texture.

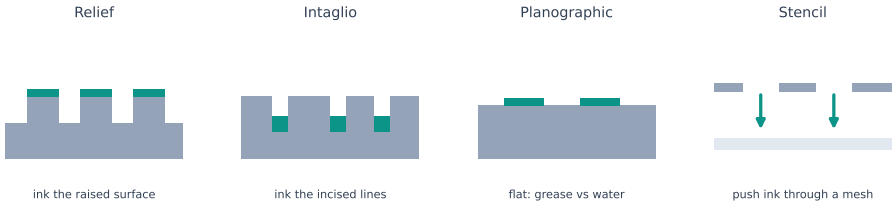
- **Watercolour** 水彩 is transparent; **gouache** 水粉 is opaque and water-based; **acrylic** 丙烯 dries fast; **oil** 油画 dries slowly and blends richly.
- The **support** 底材 and **ground** (paper, canvas, board; primer or **gesso** 石膏底料) affect how paint behaves.
- Techniques include washes, **glazing** 罩染, wet-on-wet, dry-brush, and impasto.



Oil painting builds colour in layers: media choices shape surface, value and space

Printmaking

Printmaking 版画 transfers an image from a prepared surface (the **matrix** 版) to paper, so many copies (an **edition** 版数) can be made.



Relief prints from the raised surface; intaglio from incised lines; planographic from a flat greasy image; stencil pushes ink through a mesh

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- **Relief** 凸版 (linocut, woodcut) – ink sits on the **raised** surface; cut-away areas stay blank.
- **Intaglio** 凹版 (etching, engraving) – ink sits in lines **cut below** the surface.
- **Planographic** 平版 (lithography) – image and non-image areas are on the **same level**, using grease and water.
- **Stencil** 孔版 (screen printing) – ink is pushed **through** open areas of a mesh.

The matrix is reversed, so the printed image is a mirror of the plate.



Dürer's engraving Melencolia I: in intaglio the lines are cut into a metal plate, and the fine, dense lines that engraving allows build deep shadow and rich detail

Collage and Mixed Media

Collage 拼贴 assembles found materials onto a surface; **mixed media** 综合媒介 combines two or more materials or processes.

- Collage glues papers, photos, fabric, or found objects into a composition.
- Mixed media layers processes – for example, drawing over paint, or print with stitching.
- These add **actual texture** and unexpected meaning; a found material (a ticket, a map) can carry meaning beyond its look.

Photography and Lens-Based Media

Photography 摄影 makes images with light and a lens; the elements and principles apply to the frame just as in any 2-D work.



Alfred Stieglitz's The Steerage, a famous early art photograph: the gangway, funnel, and figures form a strong geometric composition, so the elements and principles apply to a photo too

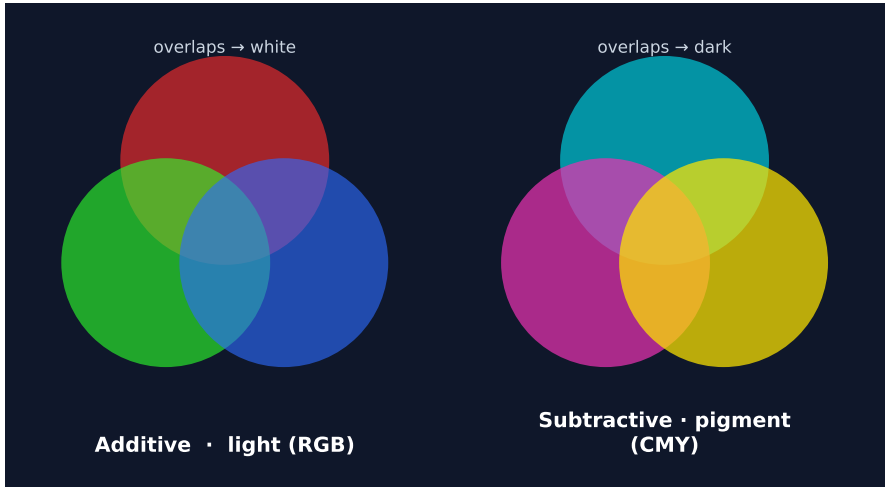
- Key controls: framing, **focus** 对焦, **exposure** 曝光 (light), **depth of field** 景深, and viewpoint.
- The rule of thirds, leading lines, and negative space compose a photograph.
- **Editing** 后期 (cropping, contrast, colour) is part of the creative process, not just correction.

Digital Art and Design

Digital media 数字媒介 create and edit images on a computer or tablet, working in layers.

- **Raster** 位图 images are made of pixels (photo editing, digital painting); **vector** 矢量 images use maths paths and scale without losing quality.
- **Layers** 图层 let an artist build, mask, and revise without damaging earlier work.
- Digital colour uses **RGB** (screen, additive) or **CMYK** (print, subtractive); keep files high-**resolution** 分辨率 for the portfolio.

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Mixing light (RGB) brightens toward white; mixing pigment (CMY) darkens toward black

Graphic Design and Illustration

Graphic design 平面设计 communicates a message visually; **illustration** 插画 makes images that support or tell a story.



Size, weight, colour and placement set the reading order.

- Design combines **type** 字体, image, colour, and layout to reach a viewer or client.
- **Visual hierarchy** guides the eye to what matters first, through size, weight, and placement.

- **Typography** 字体排印 – typeface, size, spacing, alignment – is a core design tool.
- Design and illustration are **problem-solving**: the audience and message shape every choice.

Choosing a medium - three questions. Before starting, ask: (1) **What effect do I need?** Soft atmosphere suits charcoal or watercolour; crisp edges suit ink, vector graphics or screen printing. (2) **How much revision will I need?** Oil, acrylic, digital layers and charcoal can be changed; watercolour and ink are hard to undo. (3) **Does the material carry meaning?** A map in a collage about migration, or a newspaper ground under a portrait, adds an idea before any mark is made.

Medium	Transparent or opaque	Easy to revise?	Typical effect
Watercolour	transparent	hard	light, luminous washes
Gouache	opaque	fairly easy	flat, matte colour
Acrylic	either (diluted or thick)	easy, dries fast	bold colour, layering
Oil	either, slow drying	easy while wet	rich blending, glazes
Charcoal	-	easy (erase, lift)	deep blacks, soft edges
Digital (layers)	either	very easy	anything, but watch resolution

Studio exercise. Draw the same small object three times in three media - graphite, ink, and one wet medium - in under 15 minutes each. Write one sentence for each: what could this medium do that the others could not?

> **Worked example (writing about process).** When your written evidence must explain a **material and process**: *"I used charcoal on toned paper because its soft, smudgeable line let me build deep shadow quickly, and I lifted highlights with an eraser to suggest form."* Notice the shape – name the medium, say *why* you chose it, and connect it to the **idea** you were exploring. Listing a material with no reason earns little.

Exam tips

- Match the **medium** to the intended effect, and justify the choice.
- For **printmaking**, state **relief** versus **intaglio**, and remember the printed image reverses.
- Explain **transparent** versus **opaque** paint, and **layers** and **vector** versus **raster** in digital work.

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- Treat **collage** and **mixed media** materials as meaning, not just texture.
- In **graphic design**, show a clear visual **hierarchy** serving the message.

Common mistakes.

- Forgetting that prints are reversed. Letters and faces must be cut in mirror image on a relief block.
- Calling every print "lino". Name the process: relief, intaglio, lithography or screen print.
- Using a low-resolution digital file for the portfolio, which blurs when enlarged.
- Adding collage materials only for texture. Explain what the material means.
- Writing "I used paint". Name the paint and the technique: "acrylic glazes over a gesso ground".

Practice.

1. A student wants to print fifty identical posters with flat areas of bright colour. Which printmaking process fits best, and why?
2. Explain why watercolour painters usually work from light to dark.
3. A designer needs a logo that will appear on a pen and on a building. Should it be raster or vector? Explain.
4. Describe one way a photographer can control what is in focus, and the effect.
5. Write a 100-character materials-and-processes statement for a charcoal drawing with erased highlights on toned paper.

Answers.

1. Screen printing (stencil): ink is pushed through open mesh areas, giving flat, even colour, and many identical copies can be pulled.
2. Watercolour is transparent, so white comes from the paper; light areas must be kept, and darks are built up over them, not the reverse.
3. Vector: it is made of mathematical paths, so it can be scaled to any size without losing quality, unlike pixel-based raster images.
4. A wide aperture gives a shallow depth of field, so only the subject is sharp and the blurred background makes it stand out.
5. Example: "Vine and compressed charcoal on toned paper; highlights lifted with a kneaded eraser." (85 characters)

Vocabulary card meanings

binder: The substance that holds pigment together on a surface. Watercolour: Paint thinned with water, usually transparent on paper. gouache: Opaque water-based paint that can cover what is underneath. acrylic: Fast-drying paint whose pigment is held in a plastic medium. oil: Paint whose pigment is held in a slow-drying fat from seeds. support: The surface a picture is made on, such as paper or canvas. glazing: A thin transparent layer of colour laid over a dry layer. Printmaking: Making pictures by transferring ink from a prepared surface. matrix: The block or plate that carries

the image to be printed. edition: The number of prints issued together, which may be pulled from more than one plate. Relief: A print taken from ink sitting on the raised parts of a block. Intaglio: A print taken from ink held in lines cut down into a plate. Planographic: A print from a flat surface, where image and blank areas are level. Stencil: A print made by pushing ink through openings in a sheet. Collage: A picture built by sticking pieces of paper or other materials down. mixed media: A work that combines more than one material or method. Photography: Making an image by recording light. focus: How sharp the chosen subject is in a photograph. exposure: How much light is allowed to reach the sensor or film. depth of field: How much of a scene, from near to far, looks sharp at once. Editing: Changing a picture after it has been captured. Digital media: Artwork made or stored as computer data. Raster: An image built from a grid of pixels. Layers: Separate stacked levels in a digital file that can be edited alone. Graphic design: Planning type and images so a message is clear. illustration: A picture made to explain or accompany a text. type: The lettering chosen for a design.

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Investigate: Inquiry and the Artistic Process

AP 2-D Art and Design

Inquiry and Asking Questions

Why it matters. Claude Monet painted the haystacks outside his house in Giverny more than twenty-five times in 1890-91 - at dawn, at noon, in snow, in summer haze. He was not painting haystacks so much as asking a question: *how does changing light change what we see?* Each canvas answered it a little differently and raised a new question for the next. That is exactly what the AP portfolio asks of you: not one perfect picture, but a question pursued through many works.

In AP Art and Design, making begins with **inquiry** 探究 – asking questions that guide a **sustained investigation** 持续探究 over time. This is Big Idea 1.



Inquiry drives a cycle: ask a question, investigate, make, reflect – and let each answer raise a new question

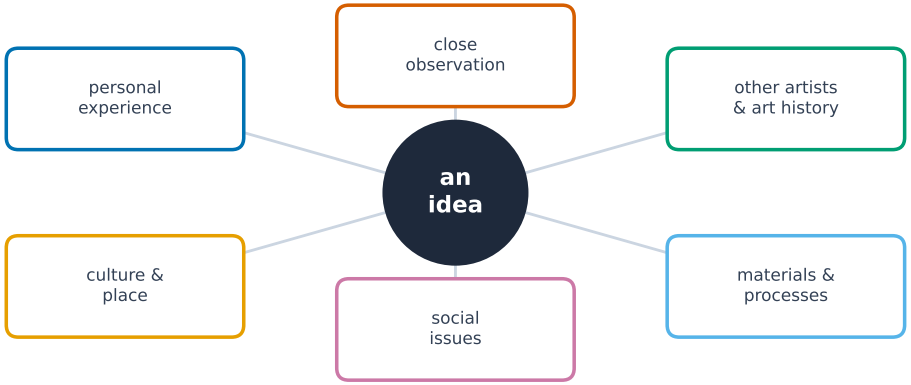
- Inquiry is asking questions to find information and drive investigation.
- A sustained investigation is an in-depth, question-driven study of materials, processes, and ideas.
- Good questions can be simple – who, what, when, where, why, how, what if, and why not.
- Questions **evolve**: early questions lead to new questions as the work develops.

Sources of Ideas and Experiences

Artists' and designers' **experiences** 经历 inform why, how, and what they make.

- An experience is any event – real surroundings, imagined ideas, communication, or research.
- Reflecting on experiences sparks questions and inspires investigation.
- Ideas come from **observation** 观察, memory, other disciplines, and other artists' work.

- Experiences can be **documented** with drawings, photos, notes, or sound, becoming a resource.



Strong inquiry questions grow from experience, observation, other art, culture, issues, and materials

Materials, Processes, and Ideas

Every work is built from three interacting components – **materials, processes, and ideas** 材料、过程与想法.

- **Materials** are what a work is made of; **processes** are how it is made; **ideas** are what it is about.
- The components interact: a material suggests a process; a process shapes an idea.
- Investigating all three expands the possibilities for making, and influences how viewers interpret the work.



Return to the color wheel when choosing harmonies for a series

Art and Design in Context

Works are made and understood within a **context** 语境 – traditions, cultures, and other disciplines.

- Context is when, where, how, why, and by whom a work was made and viewed.
- Artists work within, or challenge, art and design **traditions** 传统 from cultures around the world.
- Comparing works reveals similarities and differences in materials, processes, and ideas.
- Acknowledging references and influences shows **integrity** 诚信 – never copying without credit.

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Hokusai in context: historical works teach composition for the investigation

Evaluating Art and Design

Works can be **evaluated** 评价 by using visual evidence to compare them with specific **criteria** 标准 (as the AP scoring guidelines do).

- Observe carefully: identify the materials, processes, and ideas, and how they connect.
- Consider whether the components show **synthesis** 综合 – parts working together for one effect.
- Evaluation can be informal (as you work) or formal (a **critique** 评图 with peers or a teacher).
- Reflecting on evaluation improves your later thinking and making.



Critique names visual evidence: line, tone, and composition in a master drawing

Documentation and the Process Journal

Documentation 记录 records information and becomes a resource for the sustained investigation.

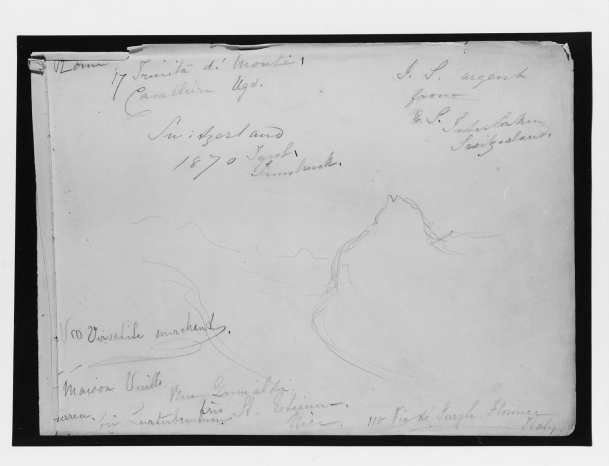
- It takes many forms: images, notes, diagrams, material samples, and written reflection.
- A **process journal** 创作日志 (sketchbook) records questions, experiments, and revisions over time.
- Documenting your **lines of inquiry** 探究路径 shows how the investigation developed.
- Consistent documentation makes writing the portfolio's written evidence far easier.

From topic to inquiry - three steps. (1) Start with an interest or experience (a topic): *my grandmother's kitchen.* (2) Find what puzzles you about it: *it feels warm even though it is crowded and old.* (3) Turn that into an open question you can answer by making: *How can colour, light and cropping turn a cluttered space into a sense of comfort?* A good inquiry names something you can **change** in the work (colour, cropping, material) and something you want to **find out** (comfort, memory, tension).

A critique in four steps. When evaluating your own or a classmate's work, move from evidence to judgement: **describe** what you see (materials, subject), **analyse** how the elements and principles are organised, **interpret** what the work seems to mean, and only then **judge** how well materials, processes and ideas work together. Starting with "I like it" skips the evidence the AP criteria are built on.

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Worked example (framing an inquiry). A weak sustained-investigation question is really just a topic: *"My investigation is about the ocean."* A strong one is a real **question** that can drive many artworks: *"How can I use colour and texture to show the ocean shifting from calm to dangerous?"* The question names an idea **and** points to the visual choices you will test – exactly what raises a portfolio's score.



A process journal page: inquiry notes and small experiments document how ideas develop

Exam tips

- Frame the work with an open **guiding question**, not a closed yes/no one.
- Draw on varied **sources** – observation, experience, research – and cite your influences.
- Aim for **synthesis**: materials and **processes** chosen because they carry the idea.
- Evaluate through **critique** using the elements and principles, then plan a **revision**.
- Keep a **process journal**: record experiments and failures as evidence of inquiry.

Common mistakes.

- Writing a topic ("nature") instead of a question that can guide making.
- Asking a closed question with a yes/no answer ("Is red a warm colour?").
- Keeping the same question for fifteen works without letting it change. Evolving questions are evidence of inquiry.
- Treating references to other artists as copying. Studying and citing influences is part of research; reproducing them is not.
- Recording only finished pieces in the process journal. Failures and notes are the most useful documentation.

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Practice.

1. Turn the topic "my city at night" into a guiding question for a sustained investigation.
2. Explain the difference between a material, a process and an idea, using one example artwork of your own design.
3. A classmate's critique says: "It's nice, I like the colours." Rewrite it using the describe-analyse-interpret-judge steps.
4. Give two kinds of documentation you could keep in a process journal and why each is useful.
5. Explain how studying a work from another culture could inform your own inquiry without copying it.

Answers.

1. Example: "How can artificial light and reflections show loneliness in a crowded city at night?"
2. Example: ink and watercolour (materials); wet-on-wet washes and pen drawing on top (process); the feeling of a rainy street dissolving (idea).
3. Example: "The painting uses blues and greys with one bright yellow window (describe); the window is the focal point because of the value contrast (analyse); it suggests someone waiting at home (interpret); the colour contrast makes the idea clear, but the left side is empty and could be balanced (judge)."
4. Photographs of works in progress show revision over time; written notes of what failed and why show experimentation and reasoning.
5. Analyse how it uses materials, processes or ideas (for example, the flat colour and outlines of Japanese woodblock prints), then apply that principle to your own subject and cite the influence.

Vocabulary card meanings

experiences: Things the artist has lived through and can draw on. materials, processes, and ideas: The stuff used, the way it is worked, and the thinking behind a piece. traditions: Ways of making that have been passed on over time. evaluated: Judged against stated standards. criteria: The standards used to judge a piece of work. process journal: A dated record of trials, choices, and revisions while making work. lines of inquiry: The questions an artist follows through a body of work.

Make: Practice, Experimentation, and Revision

AP 2-D Art and Design

The Sustained Investigation

Why it matters. Pablo Picasso made at least eleven lithographs of a bull in December 1945 and January 1946. The first is a detailed, shaded animal; each later state removes something, until the last is a few simple lines that are still unmistakably a bull. Seen together, the series shows thinking you can follow: practice, experiment, revise, discover. A sustained investigation is that kind of visible thinking, stretched across fifteen images.

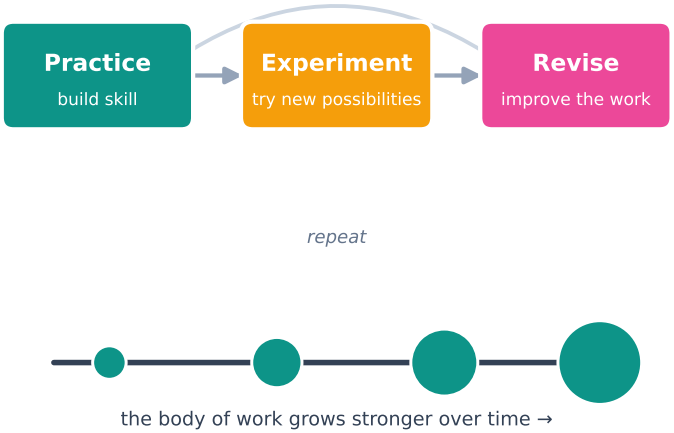
Big Idea 2 is about **making**. Its heart is the **Sustained Investigation** 持续探究 – a body of work that explores one question or idea in depth over time.

- A sustained investigation is **guided by questions or inquiry** and develops as you make.
- It shows **practice, experimentation, and revision** – not a set of unrelated pieces.
- The 2-D portfolio's Sustained Investigation section is **15 images** plus written evidence.
- A clear, focused inquiry gives the whole body of work direction and **coherence** 连贯性.

Practice, Experimentation, and Revision

Making advances through three linked actions.

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Practice builds skill, experimentation tries new possibilities, and revision improves the work – repeated across the body of work

- **Practice** 练习 is repeated work to build skill and understanding.
- **Experimentation** 实验 tries new materials, processes, and ideas to discover possibilities.
- **Revision** 修改 changes a work based on reflection, feedback, or new questions.
- These are shown **across the body of work**, not just in one final piece. Evidence of experimentation and revision is exactly what the AP readers look for.



A master study: practice, experimentation and revision are how 2-D skill accumulates over time

Synthesis of Materials, Processes, and Ideas

Strong works show **synthesis** 综合 – materials, processes, and ideas integrated so the whole is more than its parts.

- Synthesis means the components combine to create a unified effect.
- The chosen material should support the idea; the process should serve both.
- When components are integrated, viewers read one clear message rather than separate parts.
- Synthesis develops through investigation – trying combinations and keeping what works.

Demonstrating 2-D Skills

The portfolio must show **2-D skills** 二维技能 – the elements and principles used to organise a flat surface.

- 2-D skills are the skilful use of line, shape, value, colour, texture, space, and the principles of design.
- Skilful work shows control of value, colour, composition, and mark-making.
- Skills are demonstrated **across many works**, in a range of materials and processes.
- The **Selected Works** 精选作品 section is where 2-D skills are judged most directly.



Van Gogh's Starry Night: expressive line, colour, and rhythm as 2-D skills

Composition and Craft in Making

Craft 工艺 is the quality of making; **composition** is the arrangement of the work – both communicate care and intent.

- **Craftsmanship** 匠艺 is the skilful, controlled handling of materials and processes.
- Composition applies the principles of design to organise the picture plane.
- Craft should serve the idea – sometimes a rough or raw handling is the right choice.
- Consistent quality across the body of work signals a developed artist.



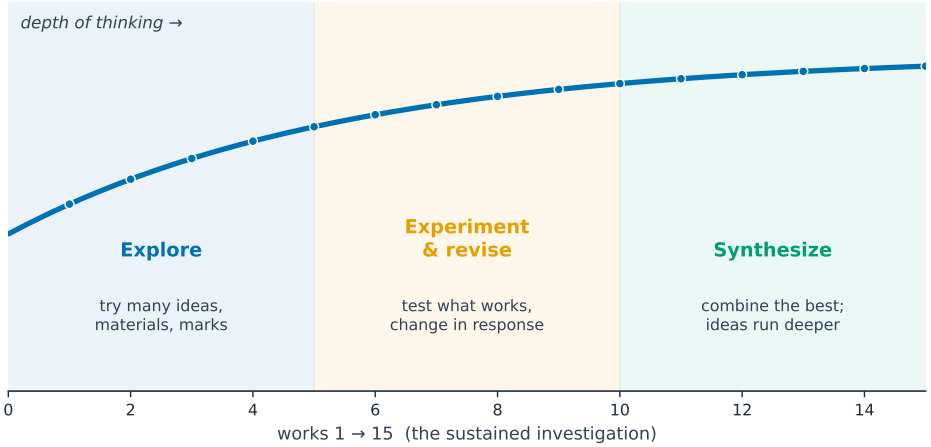
Hokusai's Great Wave: composition and craft guide the eye across the picture plane

Developing Ideas Over Time

A sustained investigation shows ideas **developing** 发展 – growing and changing across the body of work.

- Development is visible when later works build on discoveries in earlier ones.
- New questions, materials, or processes push the investigation forward.
- Not every experiment succeeds – evidence of what did **not** work is still valuable.
- A body of work with clear development scores higher than a set of finished-but-static pieces.

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Early exploration gives way to experimentation and revision, then synthesis – the thinking visibly deepens across the works

Planning fifteen images. A workable plan for the Sustained Investigation: about three or four **early** images that test the question with studies and quick experiments; six to eight **developing** works in which you try new materials, compositions or ideas because of what earlier works showed; and three or four **resolved** works that bring the strongest discoveries together - with process images (details, in-progress shots, sketchbook pages) mixed in where they show a decision. Each image should be explainable as an answer to "why did you make this next?"

Showing revision you can see. Readers cannot hear you explain, so make revision visible: photograph a work before and after a change; place a failed version next to the successful one; keep the thumbnail that led to the final composition. One clear before-and-after says more than a paragraph.

> **Worked example (showing development).** The Sustained Investigation is scored on **evidence of thinking**, not just finished pieces: *"My first three works used flat colour; after seeing they felt lifeless, I experimented with layered glazes in works 4–6, then in works 7–9 I combined the best of both."* Describing a change **and** the reason for it is how you demonstrate practice, experimentation, and revision.

Exam tips

- Build the **sustained investigation** as a connected body of work, not one-offs.
- Show **practice**, **experimentation**, and **revision** – a documented failure still earns credit.
- Push **synthesis** and clear **2-D skills**, and keep **craft** clean to the edges.
- Let each work **develop** from the last, raising the next question.

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- Choose materials and processes that embody the guiding question.

Common mistakes.

- Submitting fifteen finished pieces with no process. Development and revision must be visible.
- Choosing a question so broad that the works do not connect, or so narrow that nothing can change.
- Confusing practice (repeating to build skill) with experimentation (trying something new) and revision (changing in response to reflection).
- Letting craft slip at the edges - unfinished corners, smudges, crooked photographs.
- Saying "I experimented" without showing what was tried and what was learned.

Practice.

1. Give one example each of practice, experimentation and revision in a sustained investigation about reflections in water.
2. Explain what synthesis means, using an example in which the material supports the idea.
3. A student's fifteen images are all pencil portraits of the same friend, each similar in size and pose. What is missing, and how could they fix it?
4. Describe how you could show revision in two images.
5. Explain why an unsuccessful experiment can still belong in the portfolio.

Answers.

1. Practice: repeated studies of ripples in graphite; experimentation: trying ink poured onto wet paper to mimic water; revision: recropping a painting after noticing the reflection was the more interesting half.
2. Synthesis is materials, processes and ideas working as one; for example, a portrait about memory painted in fading watercolour washes that dissolve at the edges.
3. Experimentation and development are missing; they could try new media, compositions, lighting or questions (what does the friend's face look like in memory, in a crowd, in fragments?).
4. Photograph the work before and after a change, such as darkening the background to strengthen the focal point, and explain the decision in the written evidence.
5. It shows experimentation and the reasoning that led to the next work, which is what the investigation is scored on.

Vocabulary card meanings

coherence: The quality of a body of work that holds together as one investigation.
developing: Still growing an idea through further trials.

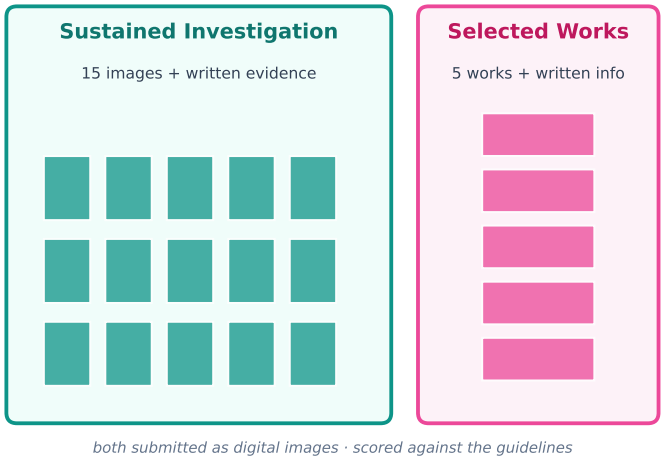
Present: Communication and the AP Portfolio

AP 2-D Art and Design

The AP 2-D Art and Design Portfolio

Why it matters. AP readers look at thousands of portfolios on a screen, often for a few minutes each. They never see the real work, cannot ask a question, and rely entirely on your images and short written statements. A brilliant painting photographed in yellow light with a shadow across it, or described with "I used paint to show my feelings", can score below a weaker work that is clearly shown and precisely described. This unit is about making sure your work arrives with its full strength.

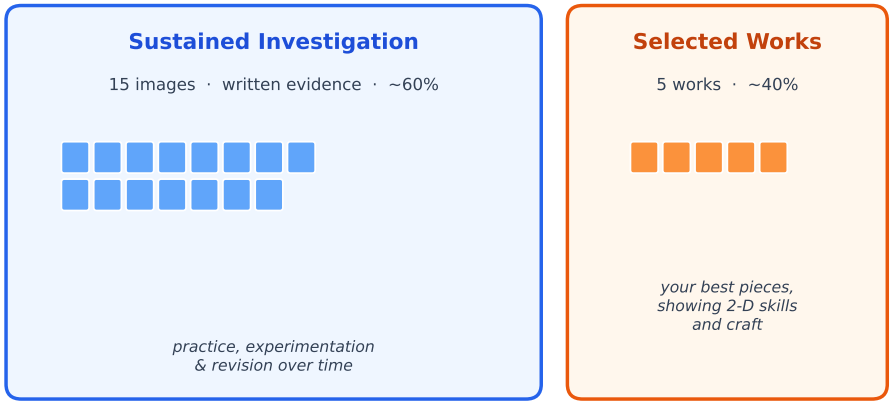
Big Idea 3 is about **presenting** your work. The AP exam is a **portfolio** 作品集 – not a written test. It has **two sections**, both submitted digitally.



The portfolio is a 15-image Sustained Investigation plus 5 Selected Works, submitted as digital images

- The **Sustained Investigation** 持续探究 section: **15 images** showing inquiry, practice, experimentation, and revision, plus written evidence.
- The **Selected Works** 精选作品 section: **5 works** that best show your 2-D skills, with written information.
- Works may be physical or digital, but all are submitted as **digital images**. There is no timed exam – the portfolio is built across the whole course.

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The Sustained Investigation (15 images, plus written evidence) is weighted more than Selected Works (5 pieces)

Sustained Investigation: Images and Written Evidence

The Sustained Investigation is judged on the **inquiry** and the **practice, experimentation, and revision** it shows.

- Submit **15 images** – works and process documentation that show the investigation over time.
- Provide **written evidence** 书面材料: identify the **guiding questions** 引导性问题, and describe how the work shows practice, experimentation, and revision.
- Images should tell the story of the inquiry, not just show finished pieces. Detail and in-progress shots are allowed.

Selected Works: Demonstrating Skills

The Selected Works section shows your best evidence of **2-D skills** 二维技能 and synthesis of materials, processes, and ideas.

- Submit **5 works** (physical or digital) as high-quality images.
- For each, give the **materials, processes, and ideas** used, plus the size.
- These works are judged mainly on the skilful use of the elements and principles; they need not belong to the sustained investigation.



A finished Selected Work: craft, composition and skill must read clearly in the submitted image



Monet water lilies: selected works need clear craft and presentation in the image

Writing About Your Work

Writing communicates your **inquiry, processes, and ideas** to viewers who cannot ask you questions.

- Written evidence must fit within the College Board **character limits** 字数限制 – be concise and specific.
- State the guiding question(s) of the sustained investigation clearly.

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- Describe **how** the work shows practice, experimentation, and revision – use evidence, not vague claims.



Written evidence starts from inquiry notes: describe materials, process, and ideas with specific visual language

Presentation and Image Quality

How work is **presented** affects how viewers interpret it – image quality is part of the grade.

- Photograph work with **even lighting**, **sharp focus**, **true colour**, and no distracting background.
- **Crop** to the work; avoid glare, shadows, and tilted edges (**keystoning** 梯形失真).
- Follow the required file formats and sizes; keep **resolution** 分辨率 high. Poor images can hide real skill.

Understanding the Scoring Guidelines

Both sections are scored against published **scoring guidelines** 评分标准 – knowing them helps you build the portfolio.

- The **Sustained Investigation** is scored on inquiry and on evidence of practice, experimentation, and revision.
- **Selected Works** are scored on 2-D skills and the synthesis of materials, processes, and ideas.
- Readers use **visual evidence in the work plus your writing** to apply the criteria. Design your work with the criteria in mind – not to a formula.

Academic Integrity and Citing Sources

Portfolios must be your **own** work; using others' work without permission or citation is a serious violation.

- Work based on **published or photographic sources** 参考来源 you did not create must move far beyond duplication and **cite** 注明出处 the source.
- Never present another artist's work – or an AI-generated image – as your own.
- Citing influences shows **integrity** 诚信, not weakness. When in doubt, work from your own photos, observation, and imagination.

Writing to a character limit. Selected Works statements are short, so every word must carry information. Compare:

- Weak (ideas): "This work is about my feelings and life." - true of any work.
- Strong (ideas): "Grandmother's hands as a record of eighty years of work." - names a subject and a meaning.
- Weak (materials): "Paint and other stuff." - Strong: "Acrylic glazes over gesso; sgraffito scratched into wet paint." - names the material **and** the process.

For the Sustained Investigation, name the question in the first sentence, then describe **two or three specific changes** you made and **why** - each one a decision a reader can find in your images.

> **Worked example (portfolio written evidence).** For the Sustained Investigation you write a short statement about your inquiry and how the work developed. A strong statement links idea, materials, and change: *"My inquiry asked how repetition can show the passing of time. I began with pencil grids, then moved to printmaking so I could repeat one image with small changes, revising the spacing in later prints to slow the visual rhythm."* One or two sentences that connect **idea → process → revision** score far better than a description of the finished pictures alone.

Exam tips

- Know the two sections: the **sustained investigation** (15 images) and **selected works** (5 works).
- Use images for **process**, not only finished pieces, and name the **guiding question** in the writing.
- Write specifically and within the **character limits** – point to visible evidence.
- Photograph well: even light, true colour, avoid **keystoning**, and keep **resolution** high.
- Keep it your **own work**: transform any **sources** far beyond copying and **cite** them.

Common mistakes.

- Photographing work at an angle (keystoning), in mixed light, or with glare.

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- Writing general statements ("I explored colour") instead of specific, visible evidence.
- Putting unrelated best pieces in the Sustained Investigation; they belong in Selected Works.
- Copying a photograph found online and calling it original. Work from sources must be transformed and cited.
- Leaving the writing to the last week, when the process details have been forgotten.

Practice.

1. Rewrite this ideas statement to be specific: "This is about nature."
2. List three things to check before photographing a painting for the portfolio.
3. Explain the difference in purpose between the Sustained Investigation and Selected Works sections.
4. A student based a drawing on a magazine photograph. What two things must they do for it to be acceptable?
5. Write a two-sentence Sustained Investigation statement for an inquiry about how pattern can show cultural identity.

Answers.

1. Example: "Weeds breaking through pavement as a sign of nature reclaiming the city."
2. Even, glare-free light; the camera square to the work so edges are straight (no keystoning); true colour and sharp focus, cropped to the work.
3. The Sustained Investigation shows a question explored through practice, experimentation and revision over 15 images; Selected Works shows the 5 strongest examples of 2-D skill and synthesis.
4. Transform the source well beyond copying (change composition, medium or meaning) and cite the source.
5. Example: "My inquiry asked how traditional textile patterns can show identity in a modern city. I began by drawing my mother's batik cloth, then combined its motifs with photographs of my street in screen prints, enlarging the pattern in later works so it overwhelmed the buildings."

Vocabulary card meanings

guiding questions: Questions that keep an investigation pointed. character limits: The maximum number of written characters a statement may use. keystoning: A photo of flat work that looks wider at one edge because the camera was not square to it. published or photographic sources: Pictures or texts made by someone else that an artist consults. cite: To name the source of an image or an idea.