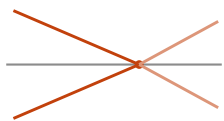
Space, Depth, and Proportion

AP Drawing ▪ Topic 3

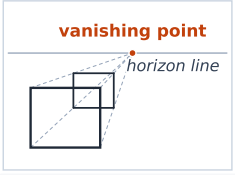
AP Drawing



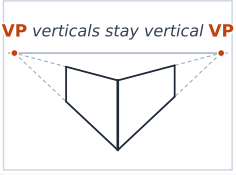
What we will cover

1. Measuring & sighting
2. One-point perspective
3. Two- & three-point
4. Foreshortening
5. Atmospheric perspective
6. Composition
7. Figure & portrait

One-point perspective



Two-point perspective



one-point: receding parallels meet at a VP · verticals stay vertical

1

Sighting

Measuring and sighting

Sighting 目测 measures the subject with your pencil at arm's length – the survival skill of observational drawing.

- locked elbow, one eye closed: the pencil is a ruler and a protractor
- pick one unit (a head, a cup) and measure everything in it – **comparative measurement** 比较测量
- a **plumb line** 铅垂线 shows which landmarks sit exactly above each other

> Draw the **envelope** 外包形 first – the big simple shape containing the whole subject – then divide it.

Check angles by rotating the pencil to match an edge, then carrying that angle to the paper.

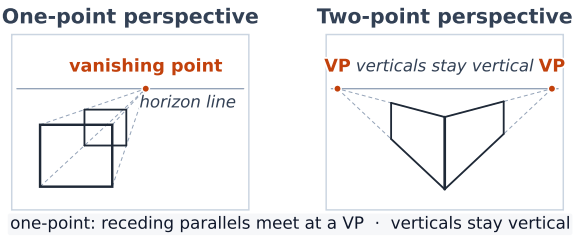
2

Perspective

Linear perspective – the picture as a window

The **horizon line** 视平线 is the viewer's eye level: we look down on everything below it and up at everything above it.

Lines parallel to the picture surface stay true; lines going into the scene converge to a **vanishing point** 灭点.



one-point (left) and two-point (right)

Perspective plus **overlap** 遮挡 is depth doubled: near edges cover far edges.

One, two, and three points

- **One-point** 一点透视 – rooms and streets straight-on
- **Two-point perspective** 两点透视 – subject turned; left and right points
- **Three-point perspective** 三点透视 – adds a vertical point (tower from below)

Keep two points far apart – too close creates a fisheye. Boxes scaffold everything.



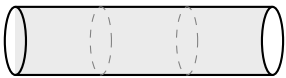
One-point perspective: depth lines aim at one vanishing point

Foreshortening

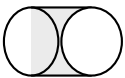
Foreshortening 透视缩短 is perspective applied to a single form pointing toward you – lengths compress dramatically.

- a pointing arm may appear one-third of its true length
- draw the apparent shape, not the length you know
- overlap is the key signal: hand over forearm, forearm over upper arm
- think in **cross-sections** 横截面 – rings around the form

Memory lies, observation tells the truth – measure foreshortened lengths by sighting.



side on: full length



pointing at you:
one-third the length

Perspective as scaffolding, and depth without lines

dividing receding space	equal spaces look smaller as they recede – use diagonals to divide them evenly
the box	boxes drawn in perspective become scaffolding for everything: buildings, books, vehicles, even heads
shadows and reflections	obey the same perspective system as the objects that cast them
atmospheric perspective	distant things lose contrast, warm colour and edge definition
detail density	a depth cue by itself – render the near leaf, suggest the far tree
overlap	the strongest depth cue of all, and the cheapest

> Build the box first and draw the object inside it. Almost every foreshortening problem is easier once the enclosing box is correct.

Atmospheric perspective – depth without lines

Air scatters light, so contrast fades with distance. The far mountain is a pale, flat shape. **Foreground**: darkest darks, sharpest edges. **Background**: a narrow value range, soft edges.

> Save full black and white for the foreground – distance lives in middle greys.



Atmospheric haze: contrast and detail fade with distance

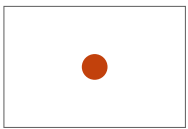
3 Composition & figure

Composition and the picture plane

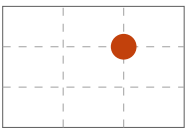
Composition 构图 is a named drawing skill – and the first thing a scorer sees.

- what you crop out is as expressive as what you keep
- the **rule of thirds** 三分法 beats dead centre
- design the **negative space** 负空间: the empty shapes are shapes you drew
- keep the **figure-ground** 图底关系 relationship readable

Test crops with a **viewfinder** 取景框 (or a phone) before committing to the page.



dead centre: static



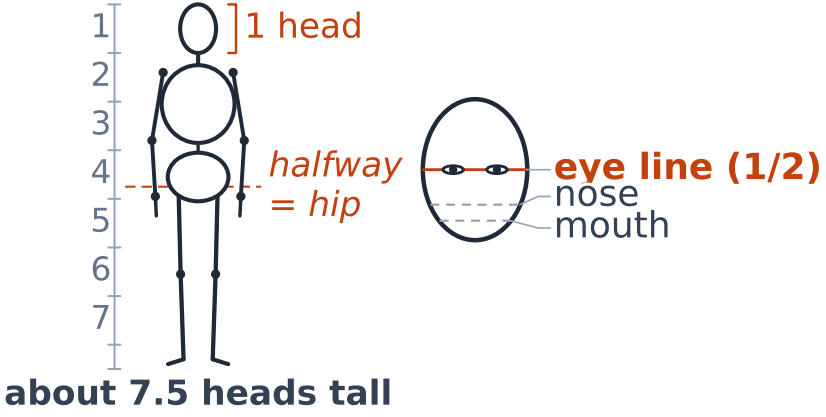
on a third: the eye moves

Drawing the figure, and the head

start with gesture	and the big masses – ribcage, pelvis, skull
features come later	features and fingers come last, once the masses are placed and in proportion
why that order	a beautifully drawn eye in the wrong place cannot be rescued; a well-placed mass can always be refined
checking likeness	use landmark distances, not memorised rules alone – every face bends the average
hands and feet	draw them as simple geometric mittens and wedges first, then divide into parts
the same logic	large shape first, subdivision second – exactly as with the box in perspective

> "Big to small" is one habit applied everywhere in this unit: masses before features, mittens before fingers, boxes before objects.

Drawing the figure and portrait



eyes sit at the halfway line of the skull

The adult figure is about 7.5 heads tall; its halfway point is near the hip, not the waist.

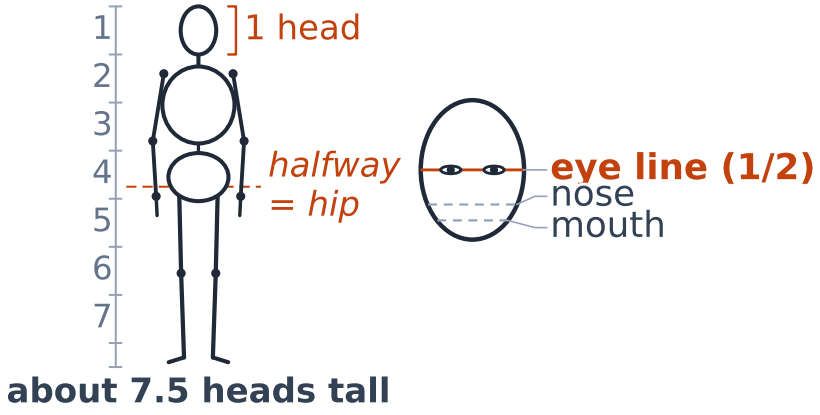
Worked example – checking a perspective drawing

Before you render, run this check

Every depth line must actually aim at its vanishing point. Lay a ruler along each one and follow it to the horizon. Perspective errors are the easiest mistakes for a scorer to spot – and the cheapest to fix, before you spend three hours shading.

Include one strong observational space – an interior, a stairwell, a street. It demonstrates the *space* skill unmistakably.

Check yourself, in detail



The classic adult figure is about 7.5 heads tall; in the head, the eyes sit at the halfway line

Exam tips

- **Perspective errors are the easiest mistakes for a scorer to spot** – check every depth line actually aims at its vanishing point before you render.
- **Include one strong observational space** (an interior, a stairwell, a street) in the portfolio: it demonstrates the *space* skill the rubric names, unmistakably.
- **Foreshortening is high-value evidence.** One convincing foreshortened limb or object tells scorers you draw what you see, not what you remember.
- **Crop like a designer.** Before starting, test three viewfinder crops and pick the one with the strongest negative space – composition is judged at first glance.
- **Use atmospheric perspective in graphite too**, not just paint: softening far edges with a kneaded eraser is quick and reads as skill.

4 Recap

Topic 3 – key takeaways

1 Sight it

one unit, comparative measurement, envelope first

2 Perspective

horizon is eye level; every depth line aims at its point

3 Foreshorten

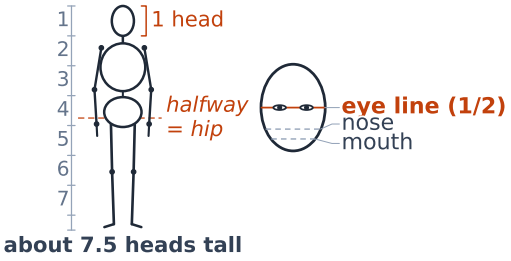
draw the apparent shape, not the length you know

4 Compose

crop like a designer; design the negative space

Check yourself

1. What does the horizon line represent?
2. Roughly how many heads tall is the adult figure?
3. Where do the eyes sit on the skull?
4. Name two ways distance changes a shape's appearance.



Answers **1.** the viewer's eye level **2.** about 7.5 **3.** at the halfway line **4.** paler/cooler, softer edges, less detail