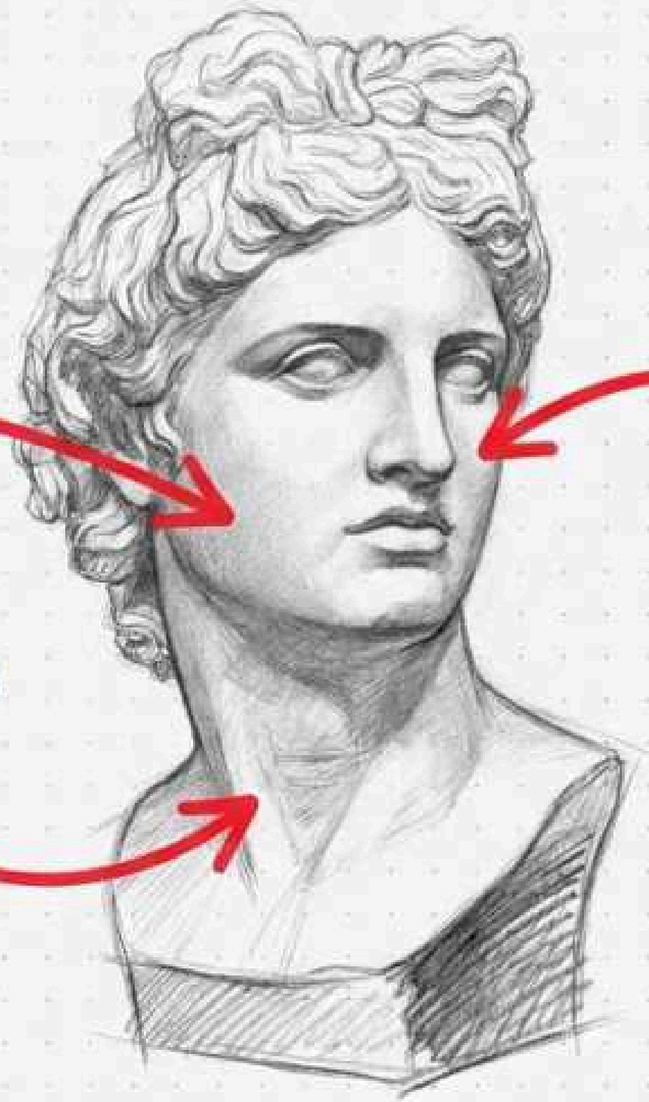
# Three Questions to Organize the Anatomy of Light



What is value, and how do we measure it?

How does light fall on a solid object, and what are the zones?

How do we build tones so a flat drawing looks 3D?

**Master these, and your drawings gain weight and depth. Light is the subject as much as the objects are.**

# Value Operates Independently of Color

¶ 3.2



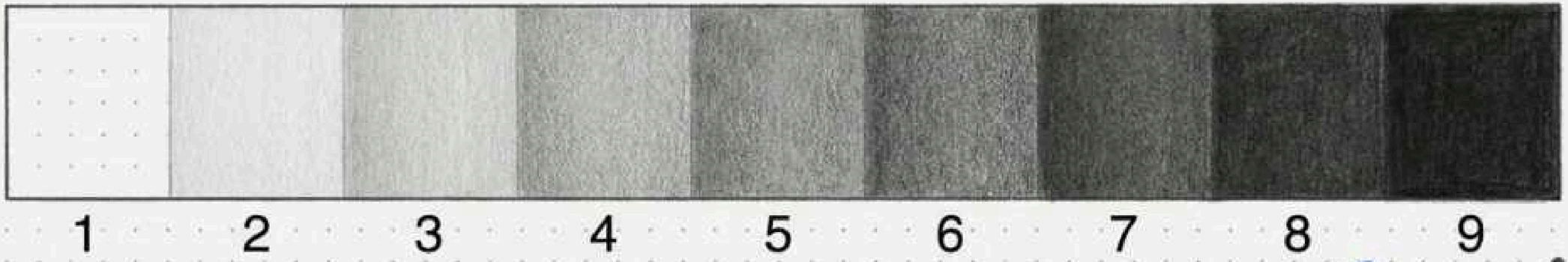
- Value is the single most important element for making objects look solid.

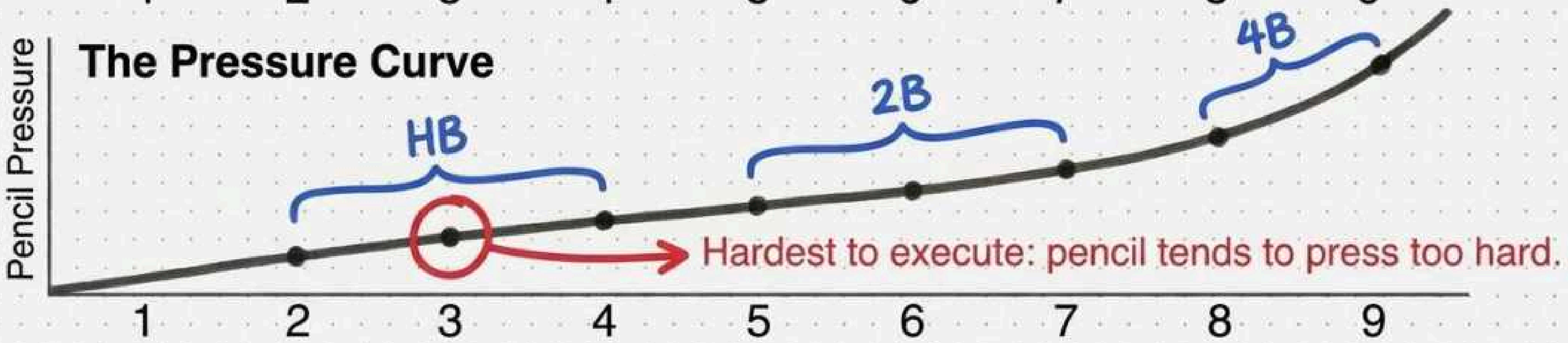
- A drawing that gets value right can be sloppy elsewhere and still succeed.

Value = f(Lightness/Darkness) ≠ Hue

# The 9-Step Value Scale & Pressure Curve

¶ 3.3

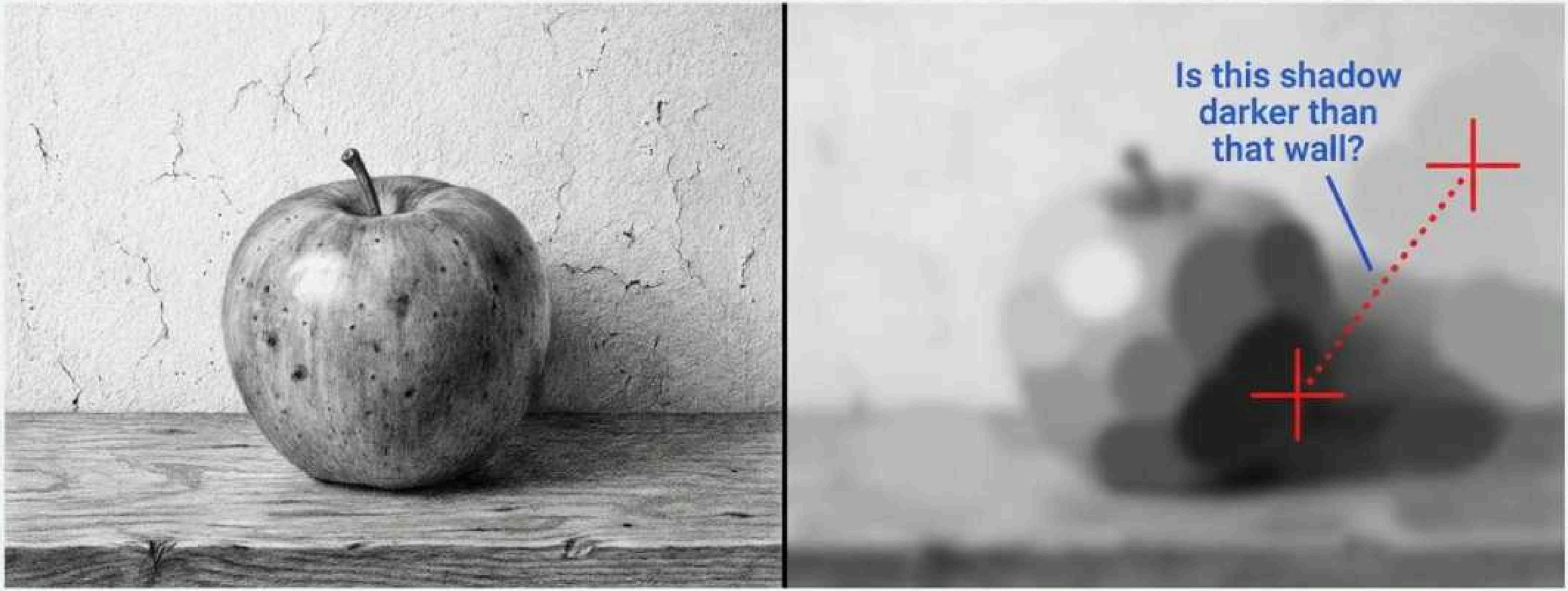



Artists build a value scale to train pressure control. The goal is perfectly even steps from white paper to the darkest tone.

# The Squint Filter: Judging Relative Value

¶ 3.4



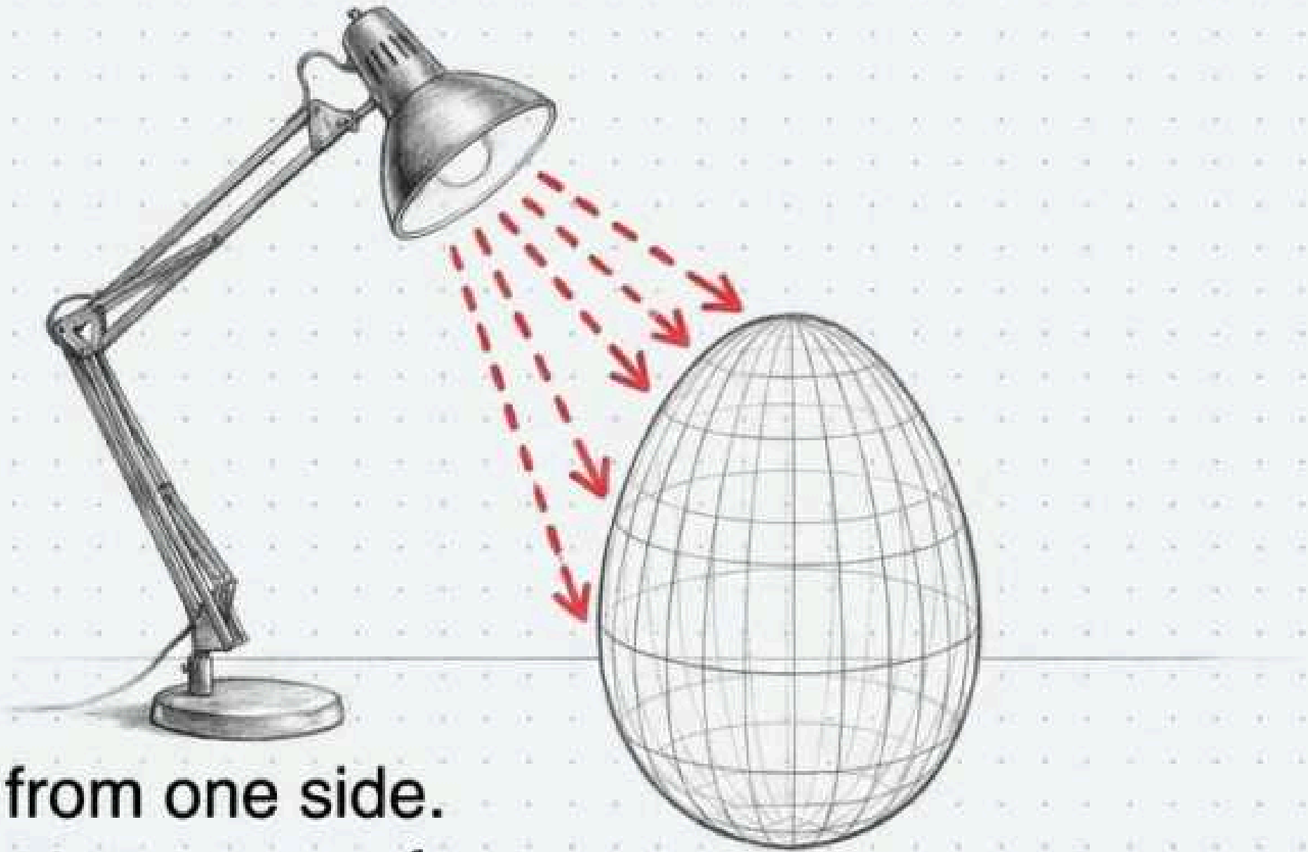

Normal Vision

Squint Filter

- Narrowing your eyes merges nearby tones into large masses.
- Relative judgment > Absolute judgment. You only need to know if an area is darker than its neighbor.

# The Anatomy of Light on a Solid Form

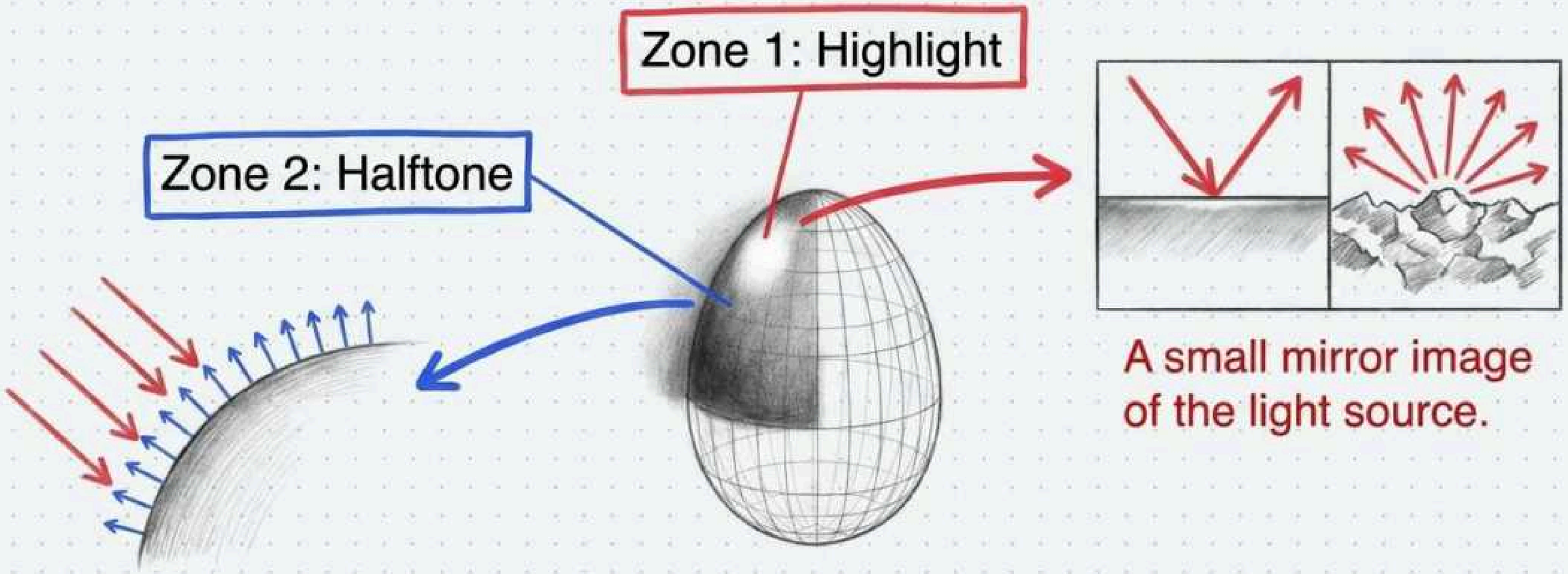
¶ 3.5



Take a ball lit from one side.
As the surface turns away from
the light, it moves through distinct zones.
Each zone has a standard name governed by physics.

# Zone 1 & 2: Highlight and Halftone

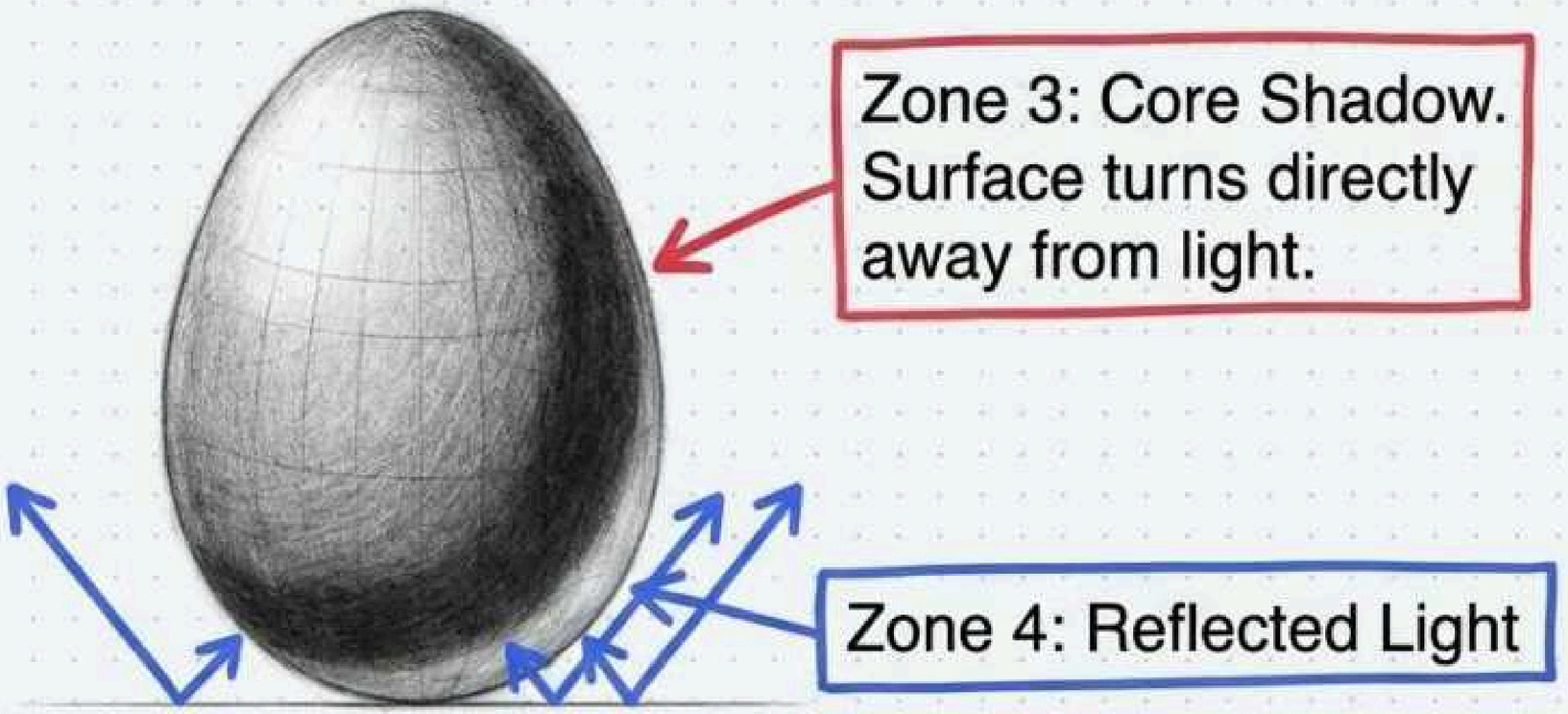
¶ 3.6




The middle tone turning away from light.
Crucial: This is where most of the sense of volume lives.

# Zone 3 & 4: Core Shadow and Reflected Light

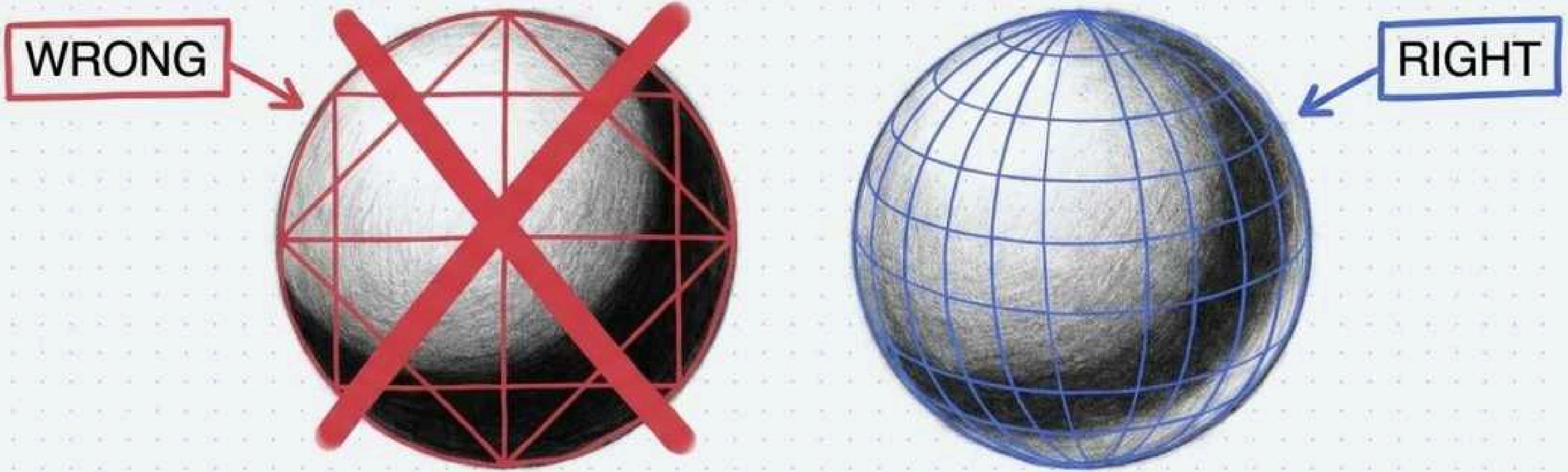
¶ 3.7




The core shadow is not at the very edge. A faint glow bounces from the surface beneath—this is the reflected light. It is never as bright as the lit side.

# The Roundness Mechanic: Avoiding Flat Forms

¶ 3.8

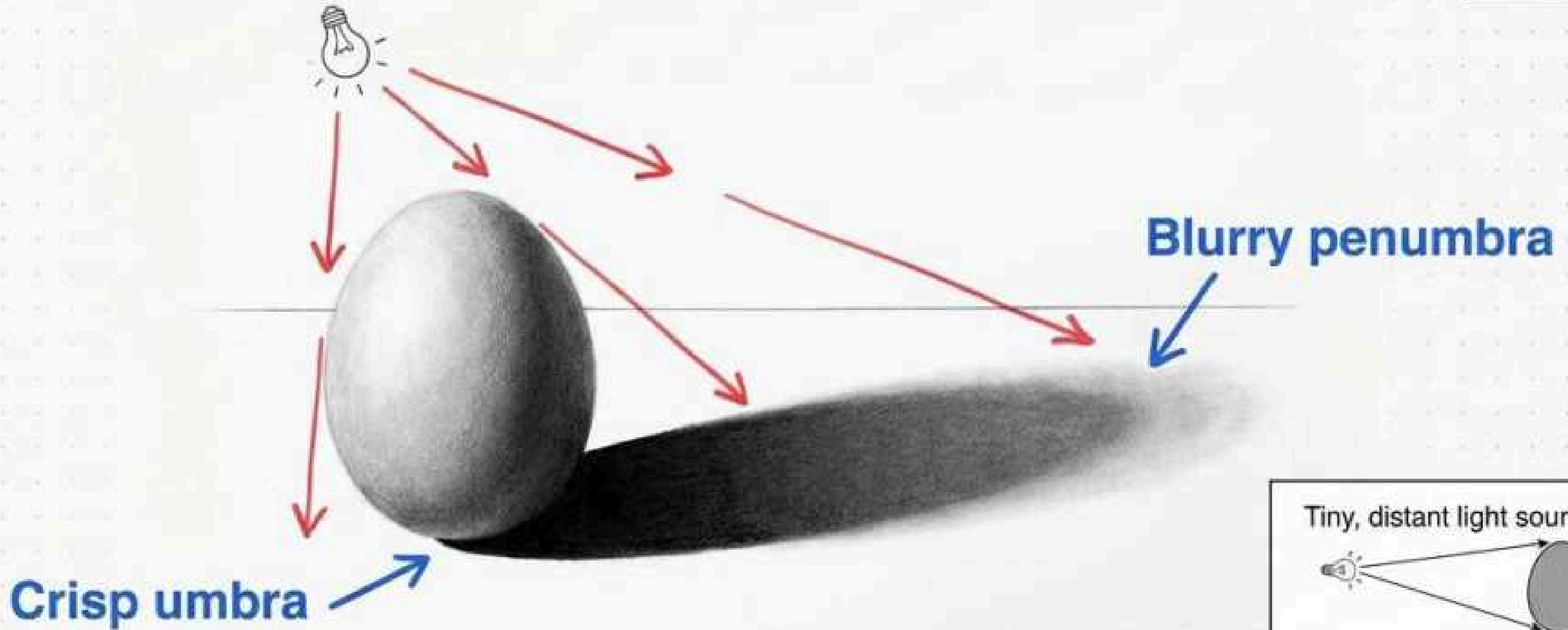



Halftone < Reflected Light < Core Shadow

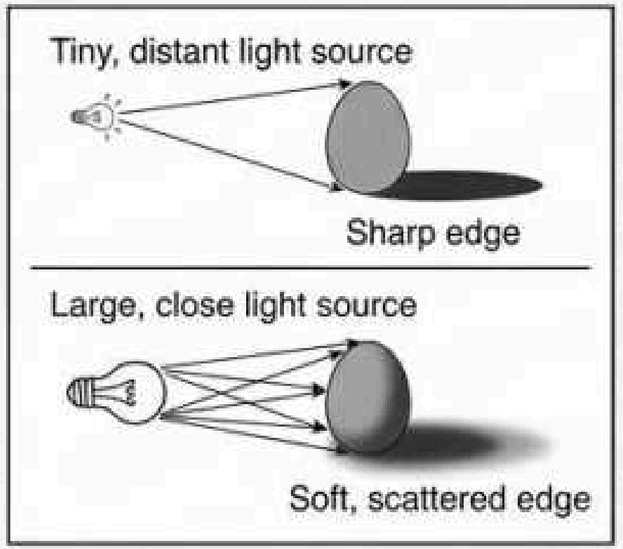
The core shadow is the darkest area on the object, but not the drawing's darkest area.

# Zone 5: The Cast Shadow Fade

¶ 3.9

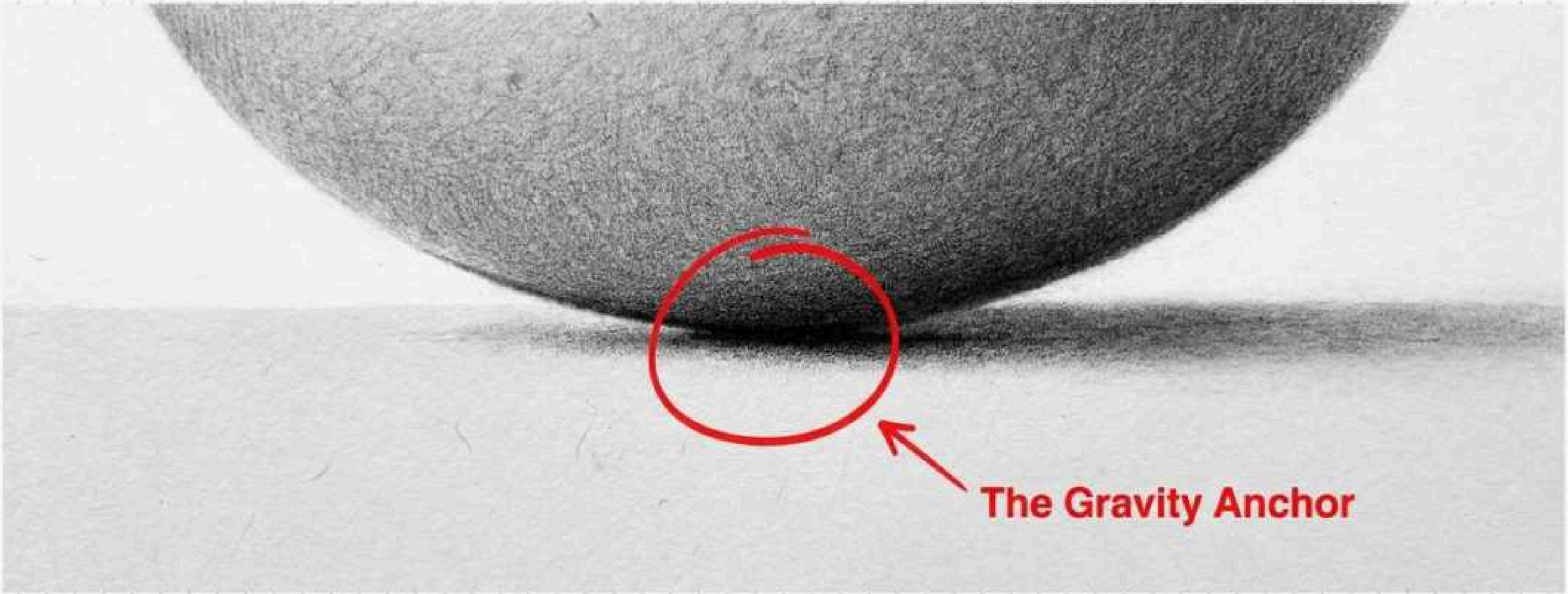



**Usually the darkest value in the drawing. Shadows soften and lighten as they move away from the object throwing them.**



# Zone 6: The Occlusion Shadow

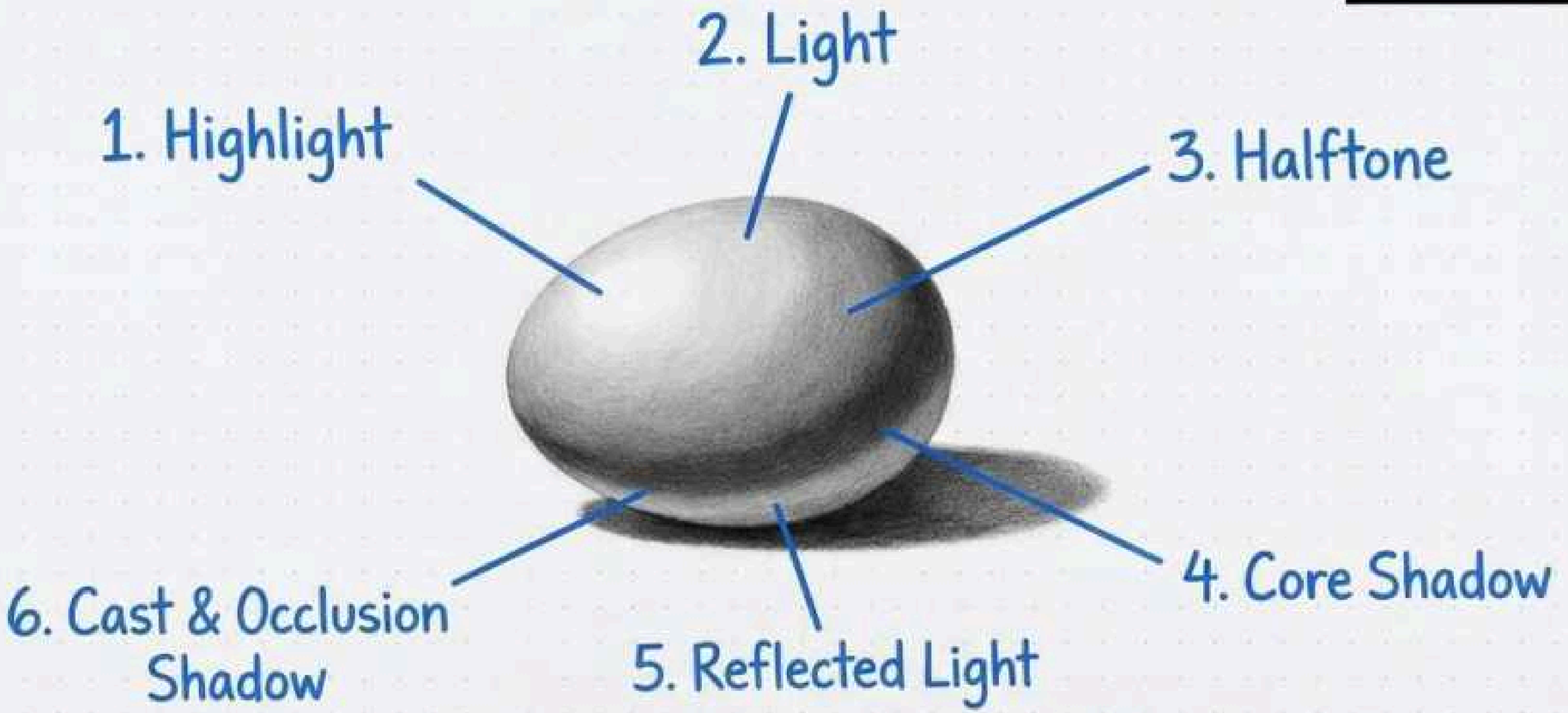
¶ 3.10




The tiny dark gap where the object touches the surface. A single dark smudge here tells the viewer the object is resting, not floating. Together with the cast shadow, it anchors the world.

# Synthesis: The Six Zones of Light

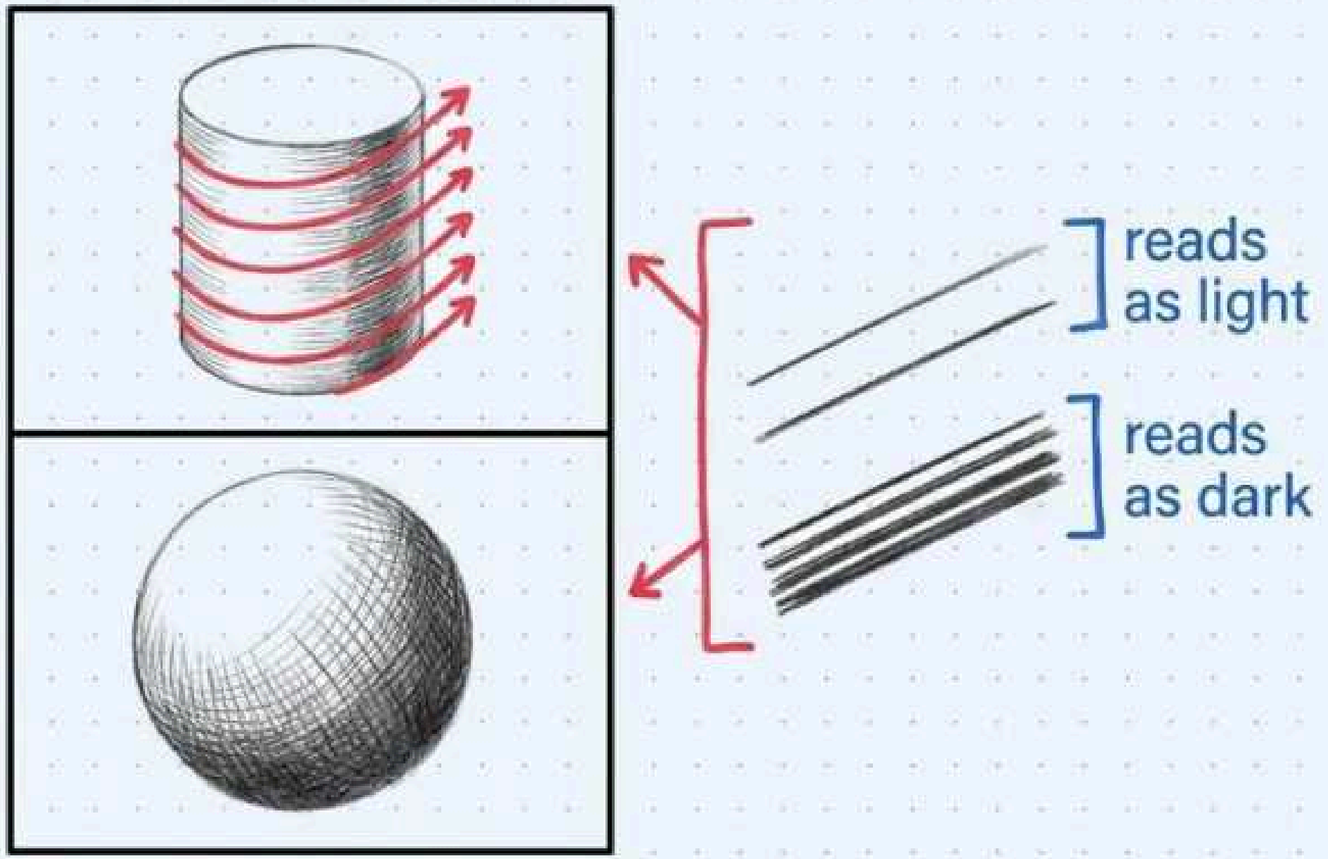
¶ 3.11




**Start with an egg or orange lit from one side.**
**Render one zone at a time, light to dark.**
**Draw it three times, comparing your errors to reality.**

# Mark-Making: Hatching & Cross-Hatching

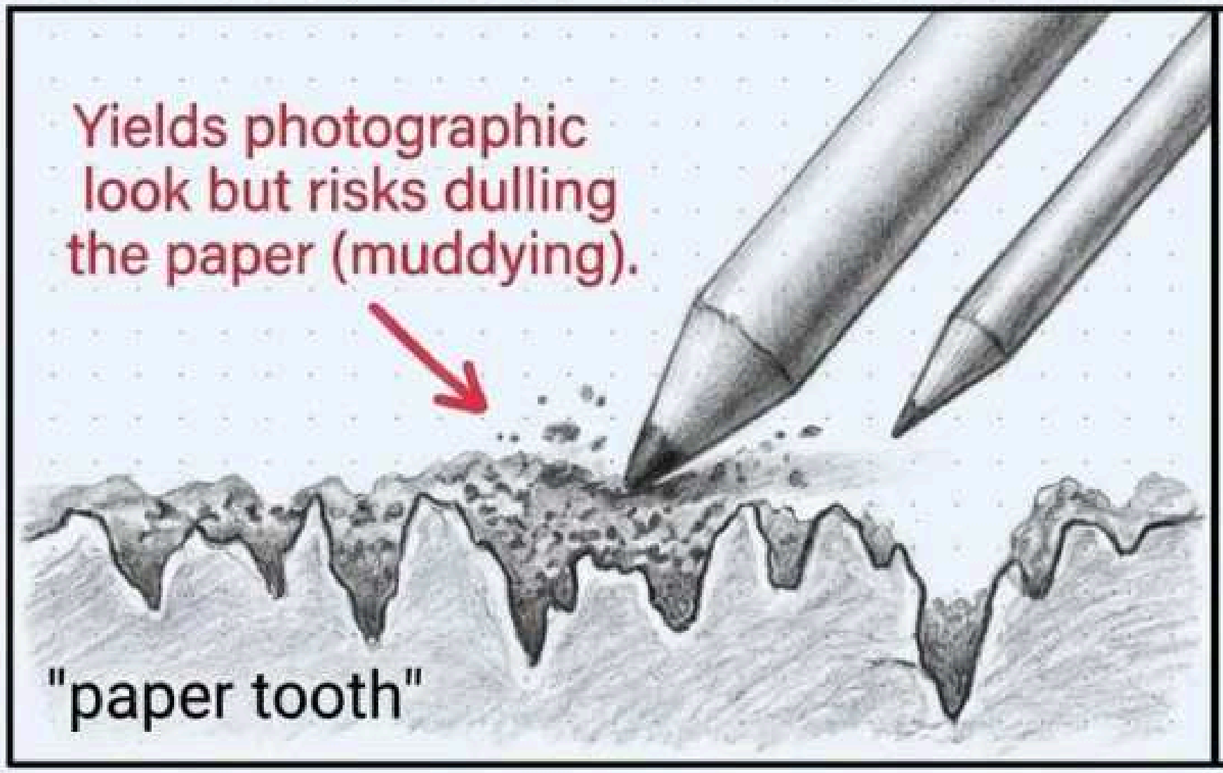
¶ 3.12

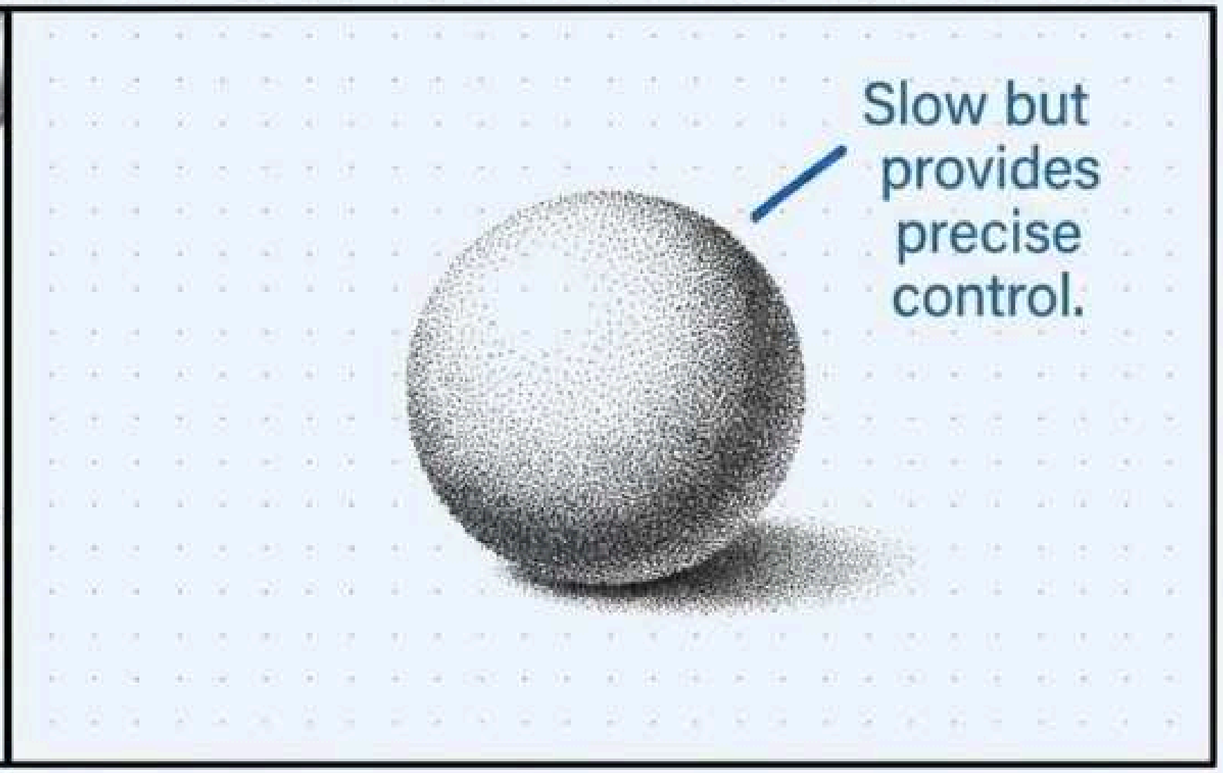



Lines must steer to follow the form. Keep lines evenly spaced; vary the pressure of the pencil to control the darkness.

# Mark-Making: Smooth Blending & Stippling

¶ 3.13

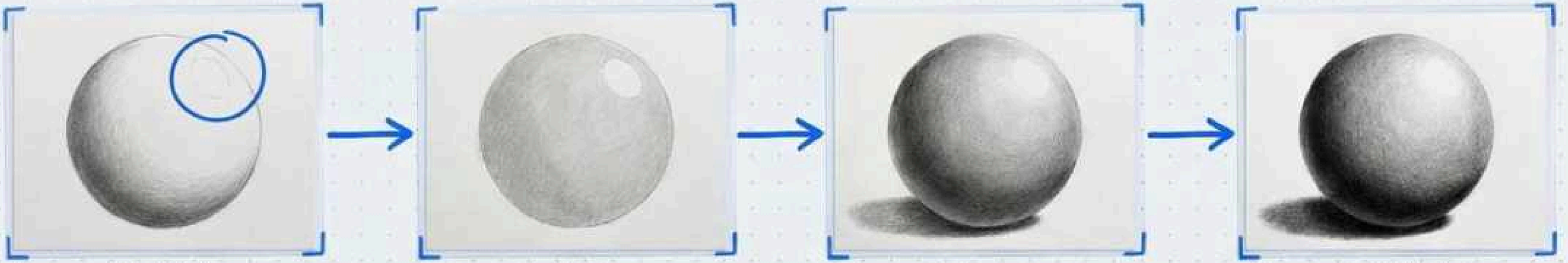



Blending yields a photographic look but risks a muddy finish.
Pro tip: Blend only the halftones, leave crisp lines elsewhere.
Use a tortillon for tiny, precise areas.

# The Lifecycle of Tone: Work in Layers

¶ 3.14



Leave highlight untouched.

Stage 2: Light, uniform wash.

Stage 3: Deepen core & cast shadows.

Stage 4: Add intense darks to occlusion & base.

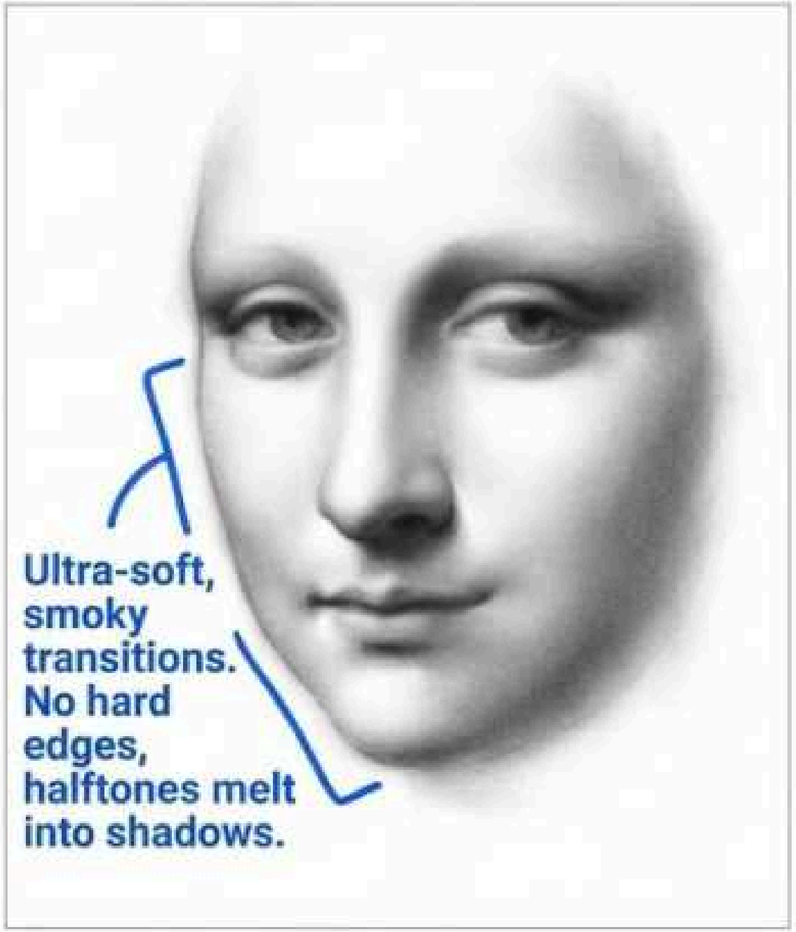



Graphite is easy to darken and hard to lighten. Rushed dark tones are the most common cause of muddy results. Erasing back to white never gives a clean result.

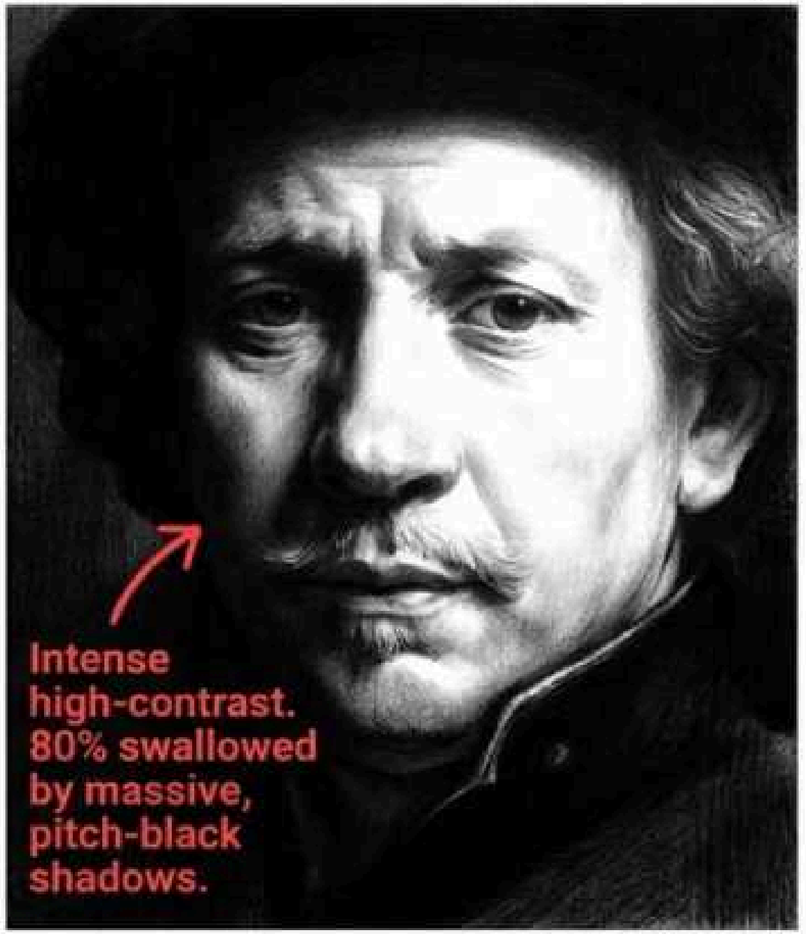
# **Chiaroscuro:** Mastering the Masters

¶ 3.15

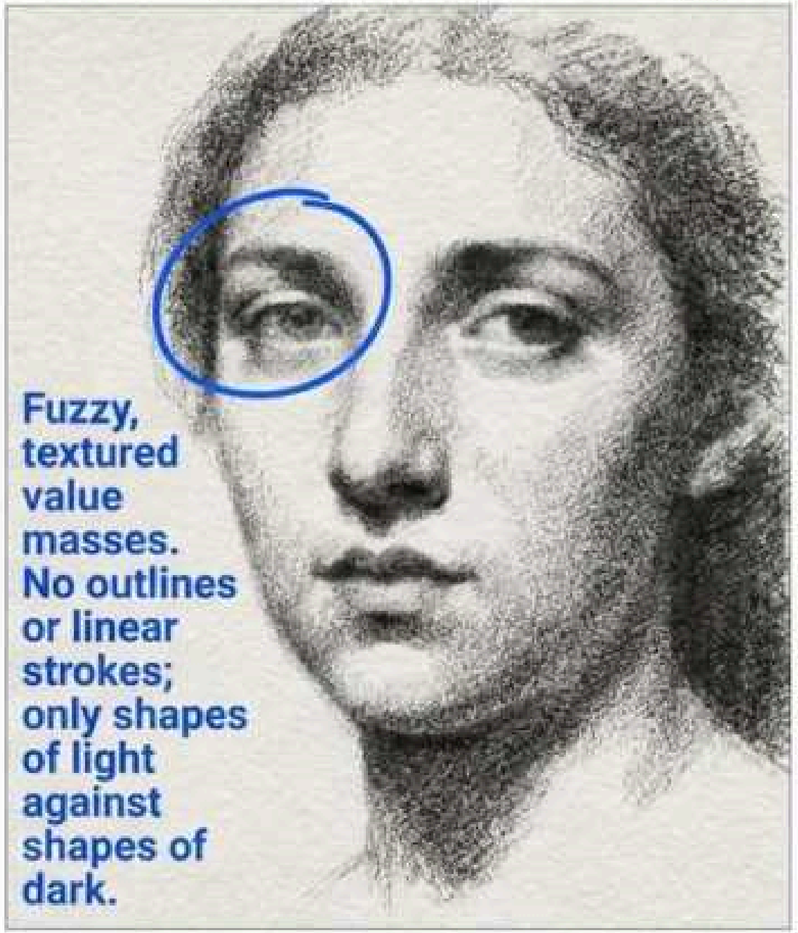
**Da Vinci** (Sfumato)




**Rembrandt** (Deep Shadows)




**Seurat** (Conté / Tone-only)

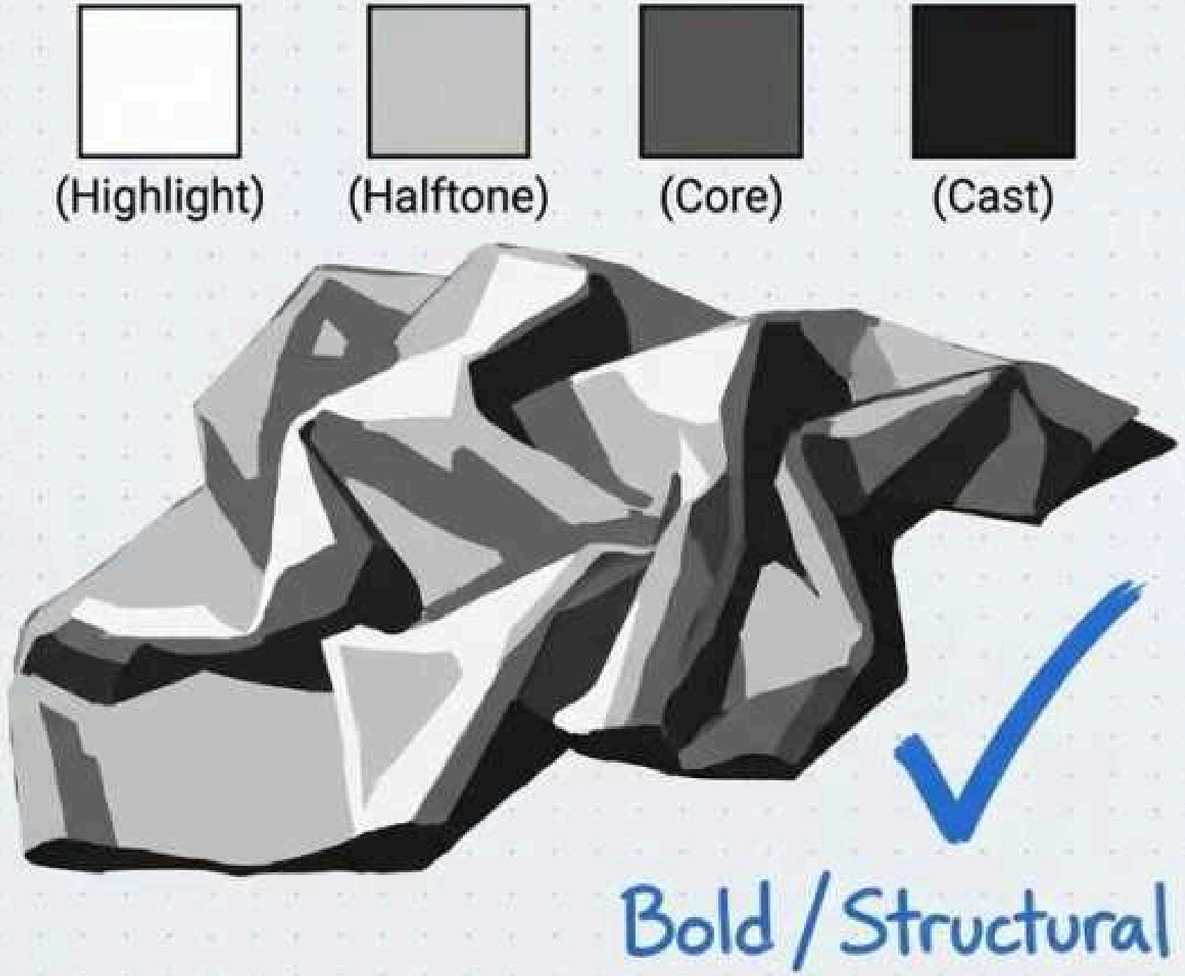



**Chiaroscuro** (Italian for light and dark) models form through contrast.
The ultimate lesson: **Value can replace line entirely**.

# **Simplification:** The Secret to Speed

¶ 3.16

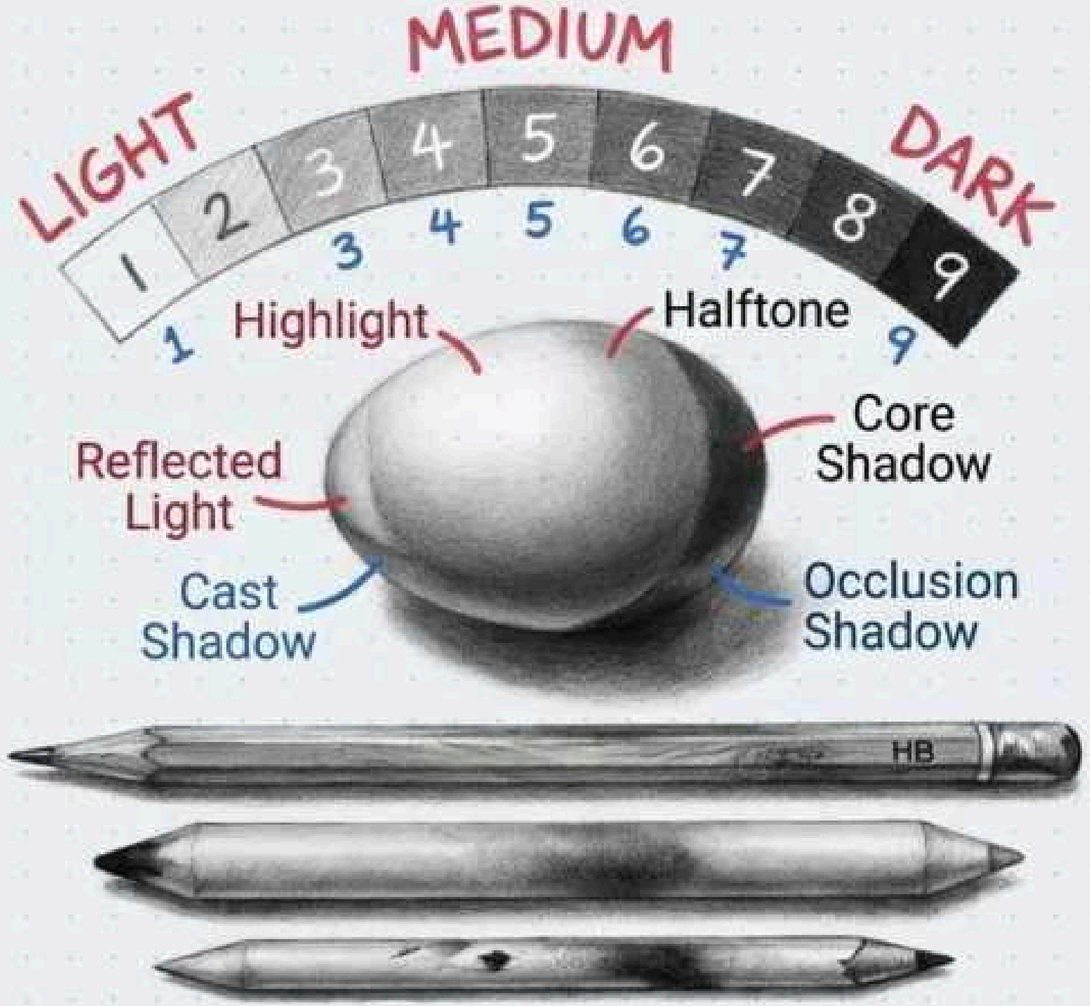



**Group tones** into **three or four families**. Too many close values look fussy and weak; clear groupings look bold. Decide which family an area belongs to before shading.

# **Lecture Recap:** The Architecture of Value

¶ 3.17

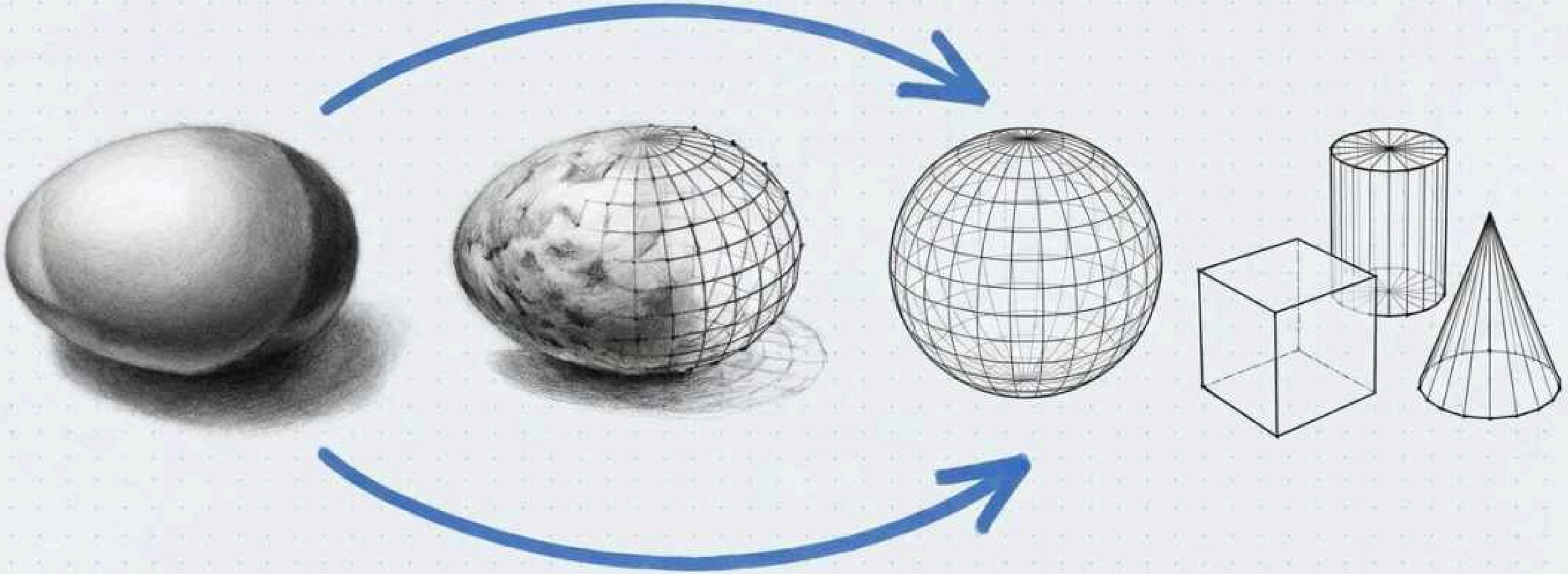



1. Squint to simplify.
2. Work in layers.
3. Preserve highlights.

**Value trains** control. **Form** dictates zones. **Technique** builds tone. **Patience** prevents mud.

# **Next:** Form & Construction

¶ 3.18



**Value** tells us how light falls on a shape, but we must know the shape itself. In Lecture 4, we reduce the world to four basic solids and build from planes.