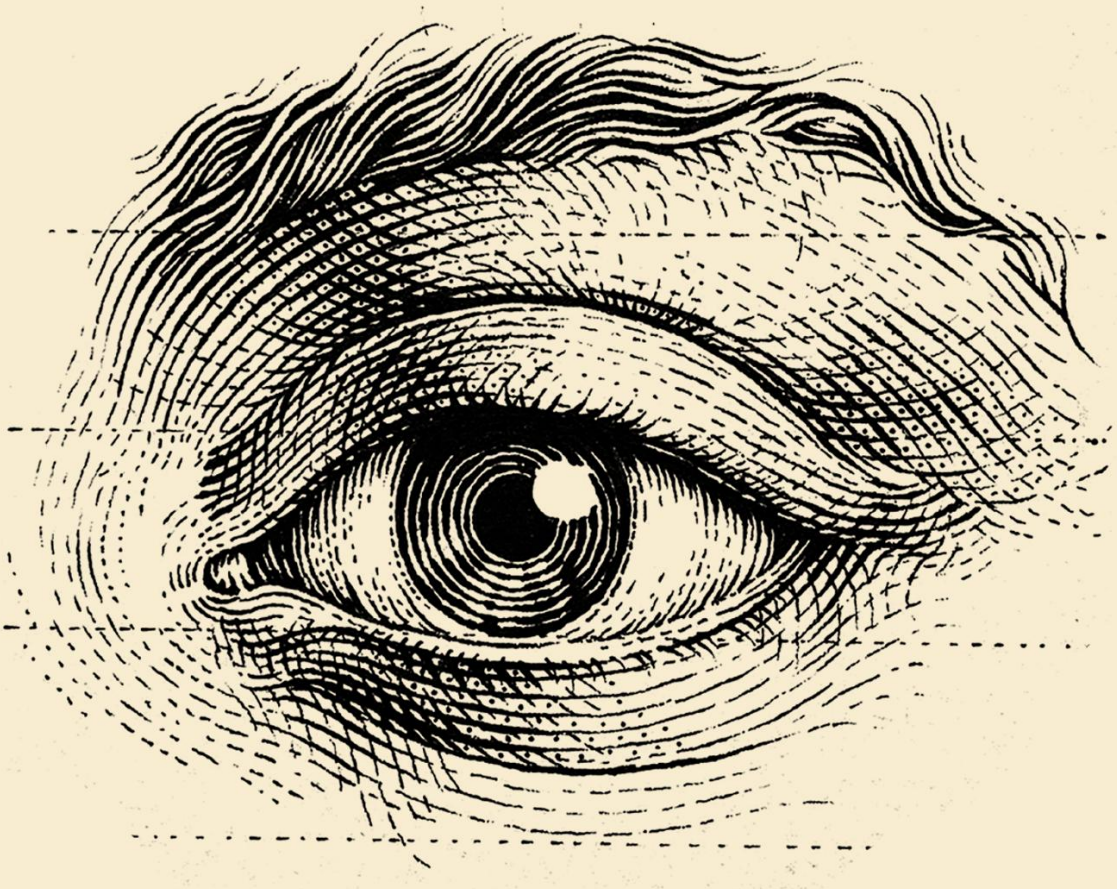
"Engraving" Style

Pen & Ink Drawing

1

BASIC CONCEPTS & TECHNIQUES



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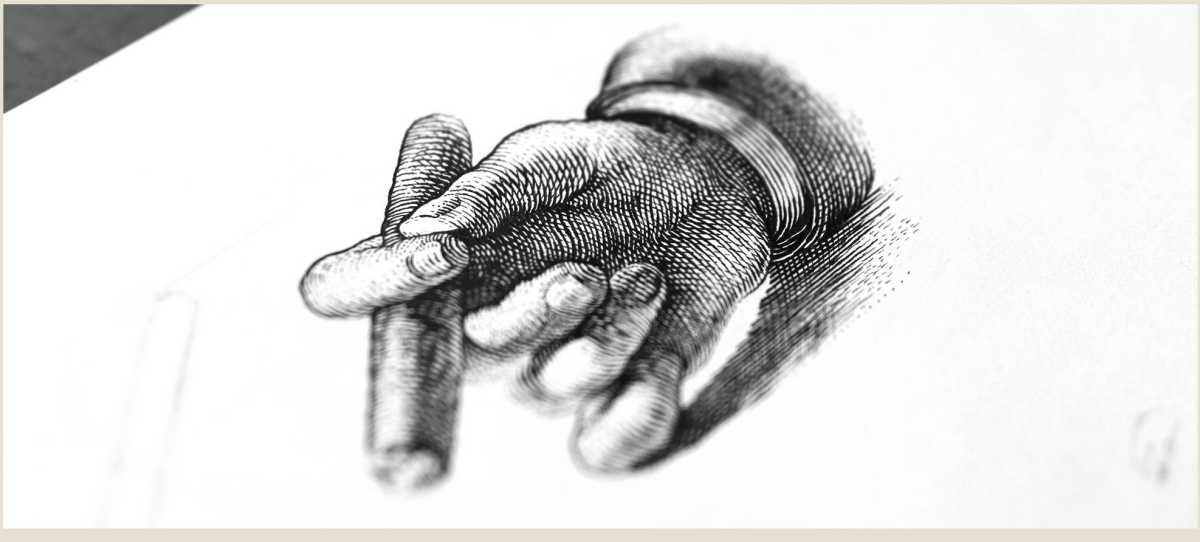
INTRODUCTION

Scratchboard Illustration is an art style inspired by two established techniques: **Scratchboard** and **Etching** *(Printmaking)*.

Scratchboard Art originated by using carving tools or needles to scratch on a black-coated board. Beneath that coat is white ground *(usually made of chalk, glue, gesso, or clay)*. The artwork is created by scratching away the black surface to reveal white lines underneath, similar to drawing with white ink on black paper.

For more information: https://www.britannica.com/art/scratchboard



Let's not forget to mention **Etching** - one of the most powerful techniques in Printmaking - also known as scratching using a strong acid. With this technique, we use tools to engrave a metal plate *(usually copper)* to create the desired artwork, then pour ink into the grooves to make prints.

For more information: https://www.britannica.com/topic/etching-printing

Based on those two techniques, we will learn about ink drawing, which embodies the spirit of classic engraving. For now, let's name it **Scratchboard Illustration**.

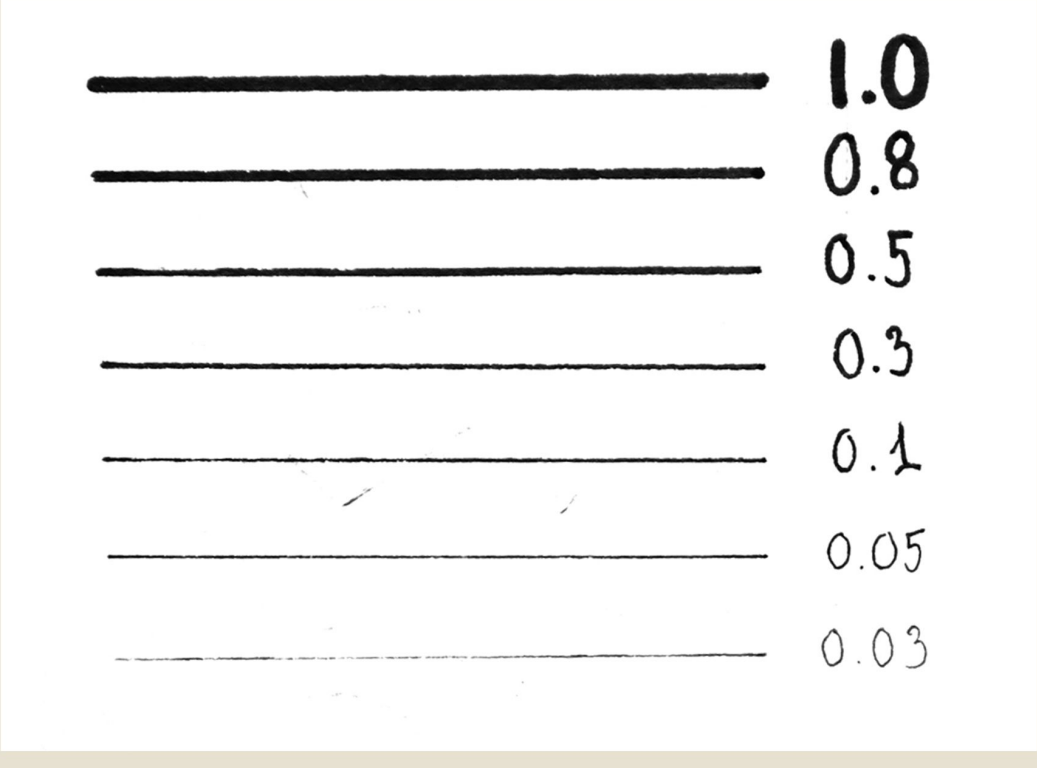
MATERIALS & PREPARATION

As a brief introduction to Scratchboard Illustration, let's go through its commonly-used tools and materials.
Below are my recommendations, yet feel free to explore other options to add visual interest and uniqueness to your artwork.

INK/PEN

Within this modest guidebook, markers will be used to illustrate. I recommend choosing *(or combining)* the following brands: **Sakura** Pigma Micron, **Copic** Multi Liner, and **Faber-Castell** Ecco Pigment.

Since there are several nib sizes, your choice can vary based on the size or details of the drawing. My recommendations for small to medium-sized drawings *(up to 12 inches)* are **0.05, 0.1, 0.3 and 0.5**.



Different nib sizes

MATERIALS & PREPARATION

SKETCHING

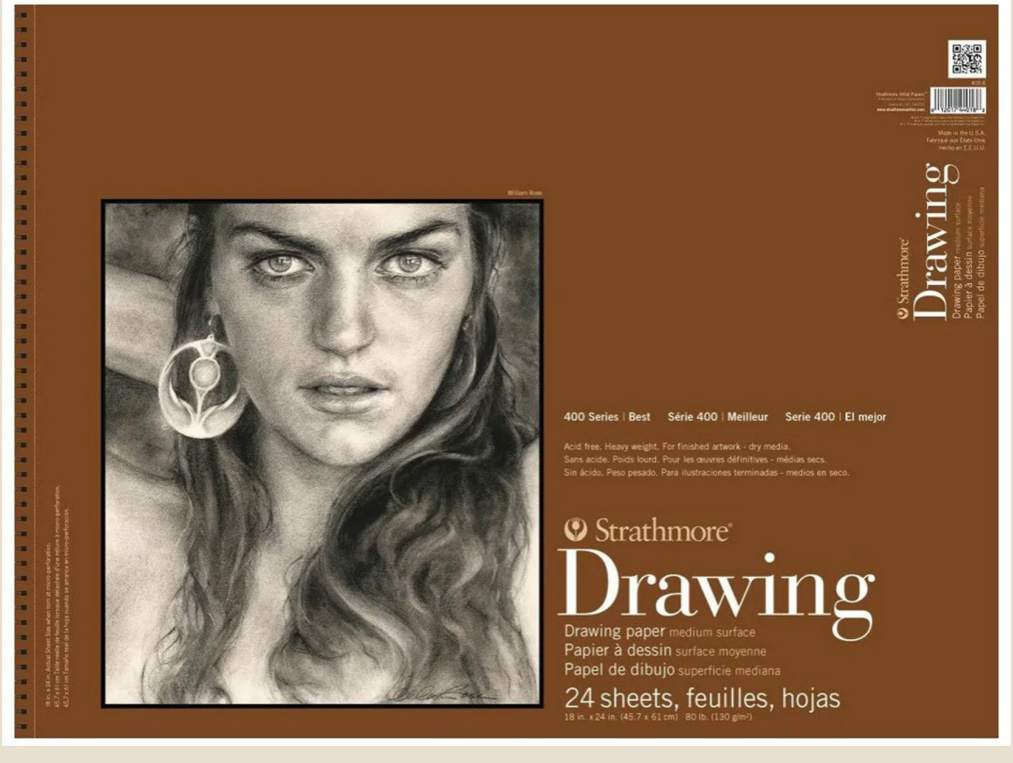
It is almost impossible to create great artwork out of midair without sketching - Yet you can still skip this step when drawing with ink. *(That's why I use "almost".)*

To sketch, we need a pencil *(recommended)*, an eraser & a ruler *(in case of need).*

- **Pencil**: **Faber-Castell** or/and **Staedtler** pencils are my go-to choices.
- **Ruler**: Any brand will do.
- **Eraser**: Tombow's **Mono** *(or any other eraser made for art & graphic use.)*

PAPER

The types of paper for ink drawing can be highly variable. However, some can trigger ink leaking or reduce the depth of your finished work - especially tiny details. Therefore, my favorable choice is Strathmore Drawing 400 series.



SKETCHING TECHNIQUES

As mentioned, sketching is one of the integral first steps *(besides the ideation)* to creating a fine illustration or painting. It allows you to visualize the overall composition and later supports your ink drawing process. Therefore, let's get to know some sketching techniques.

Hold a pencil for sketching

Simple and unessential as it may seem, the way you hold your drawing pencil will affect the marks you make on the drawing surface. Hence, there are different grips serving different sketching purposes:

#1: Fore-arm movement

This sketching technique requires using your entire forearm *(from the elbow to the hand)*. Imagine your arm as a compass and your elbow as the axis. Drawing with the whole forearm is best for initial, rough sketches such as framing.

Using fore-arm movement techinque, you should hold the pencil by your index finger and thumb. Remember to place them at a reasonable distance from the pencil tip - This will help the lines look more liberating and expressive.

SKETCHING TECHNIQUES

#2: Wrist movement

For determining layouts, composition and primary shapes, you will use your wrists as a pivot to create detailed sketches. In other words, the wrist takes over the position of the compass hinge while the hand rotates to perform expressive and easier-to-control lines.

With this technique, you need to place your fingers far from the pencil tip. Hold the pencil with the index finger and thumb while other fingers play the supporting roles.

#3: Fingers movement

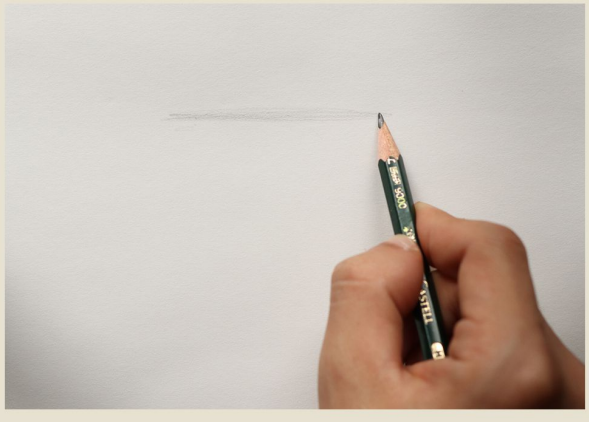
Lastly, control your fingers' movement when sketching. This technique is similar to how you write and it aims for tiny details that your fore-arm or wrist cannot finely manage.

Hold the pen with your index finger, thumb, and middle finger. Place them near the tip while raising the pencil body *(about 45 degrees from the paper)*. This grip can help you work on tiny details.

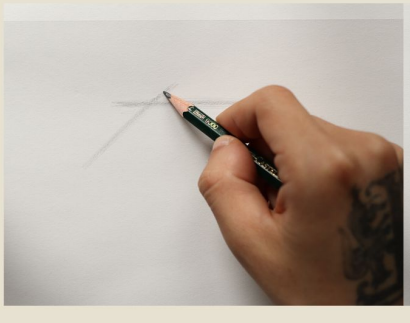
SKETCHING TECHNIQUES

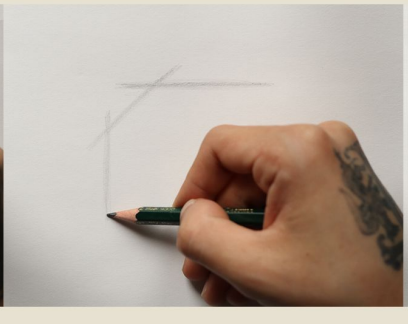
Sketch with straight lines

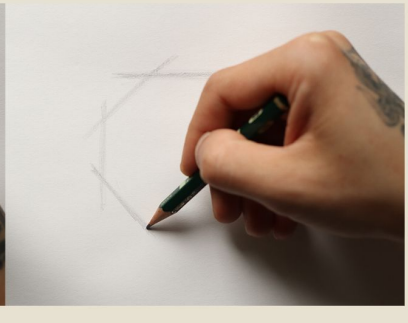
Straight lines are commonly used for rough framing, layout-ing or depicting simple shapes. Use your fore-arm or/and wrist movement technique to sketch.



Place your hand perpendicular to the line that you are about to make, then draw a sharp horizontal line. You can draw the same line multiple times but keep your pen pressure gently.



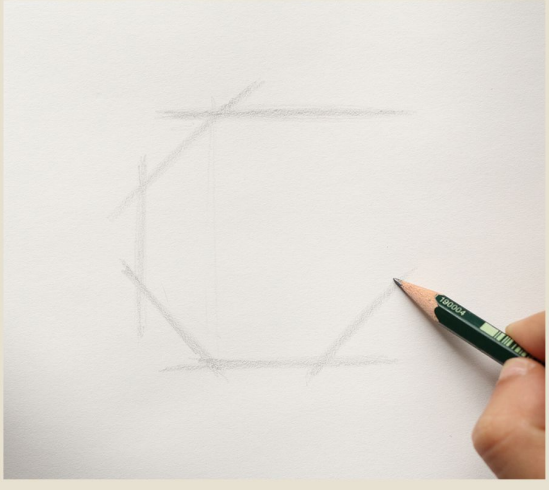
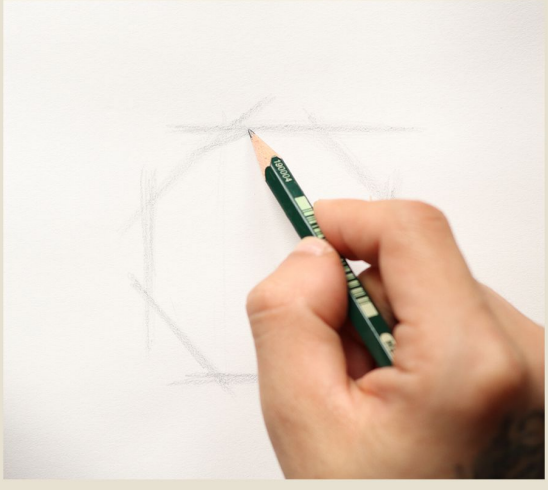
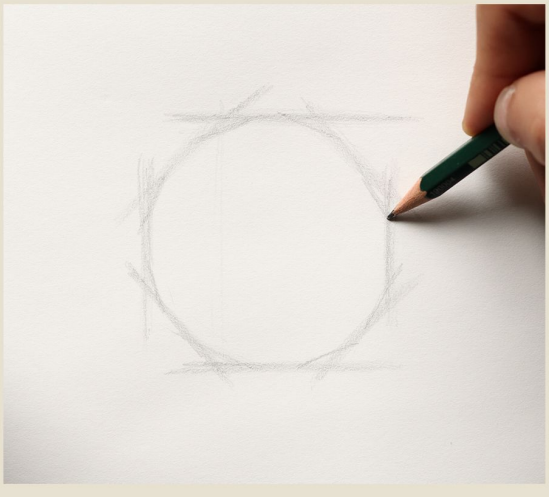
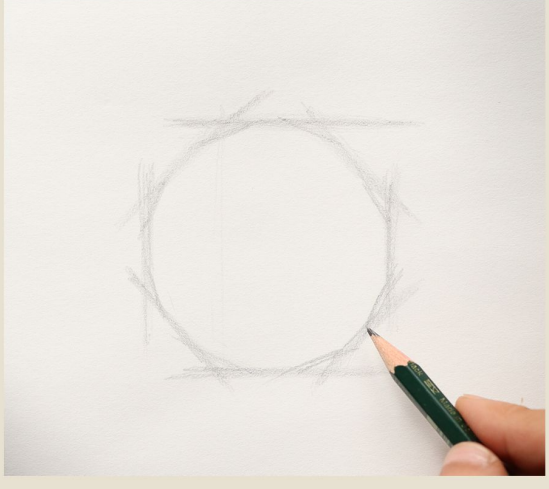


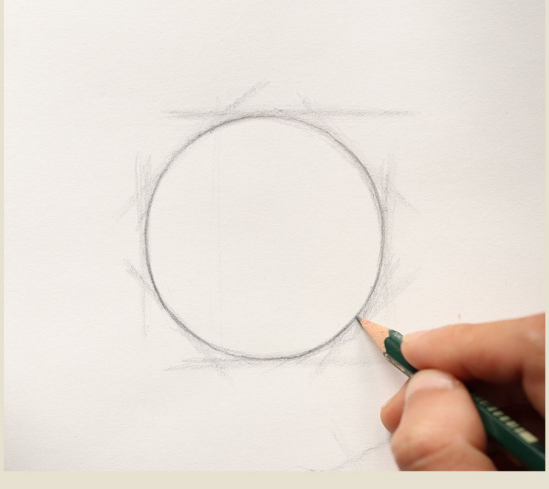


It can be seen from the above illustrations that once the line's direction changes, the hand's direction also changes. Therefore, you should always place your hand perpendicular when drawing straight lines. This way, you will not need to rotate the paper yet still have an overview.

SKETCHING TECHNIQUES

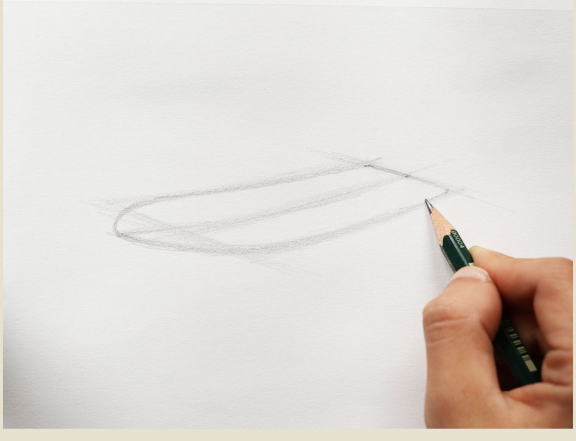
Straight lines can also transform into curves if we combine different directions when drawing:

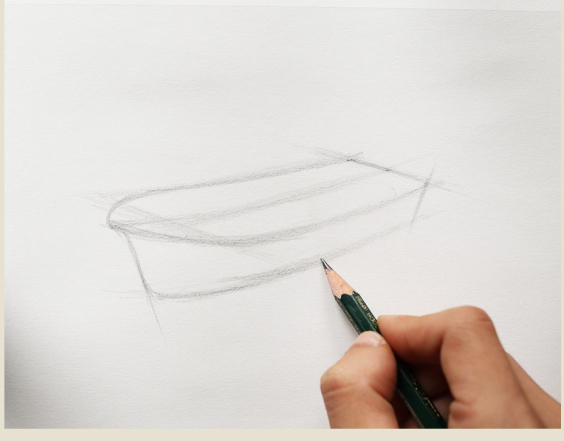





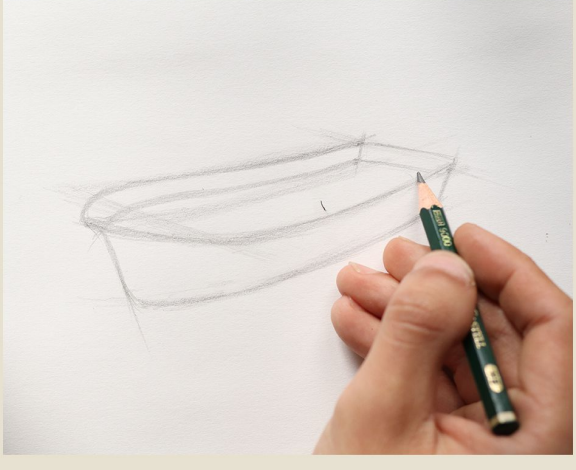


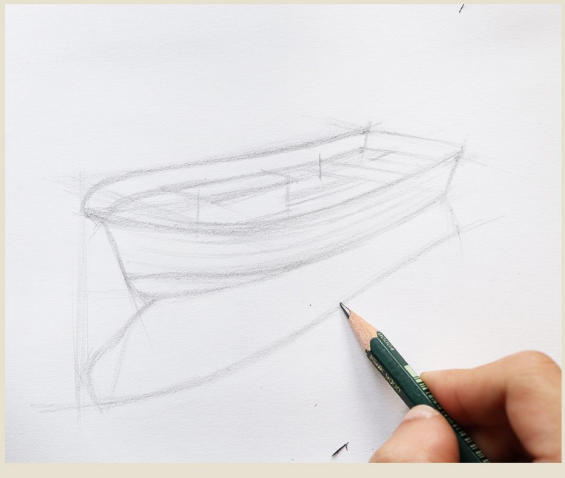
SKETCHING TECHNIQUES

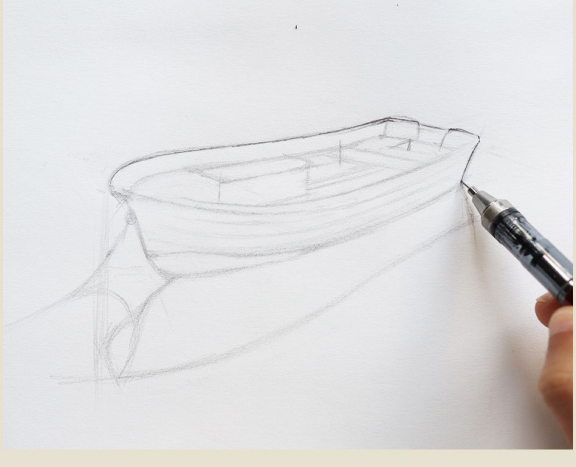
Example: Sketching a boat (Step-by-step)

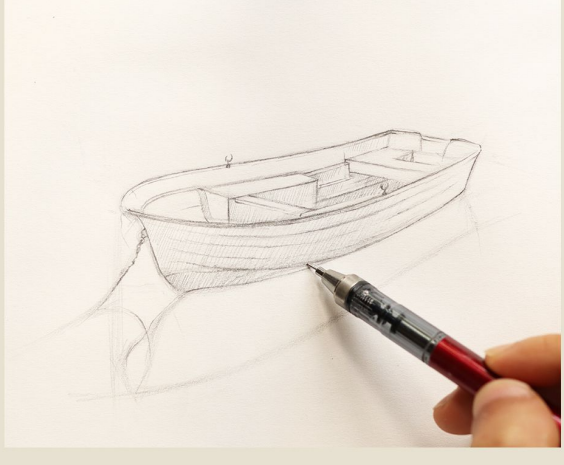






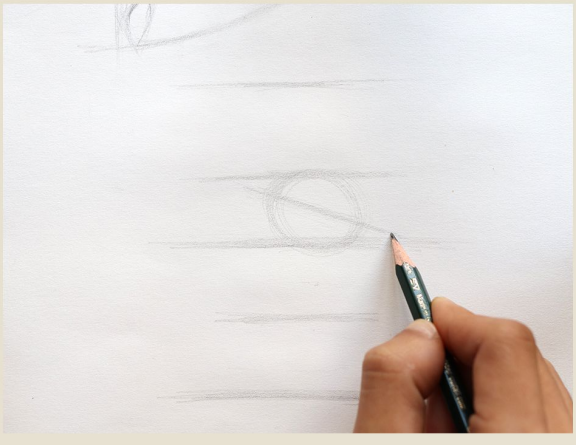
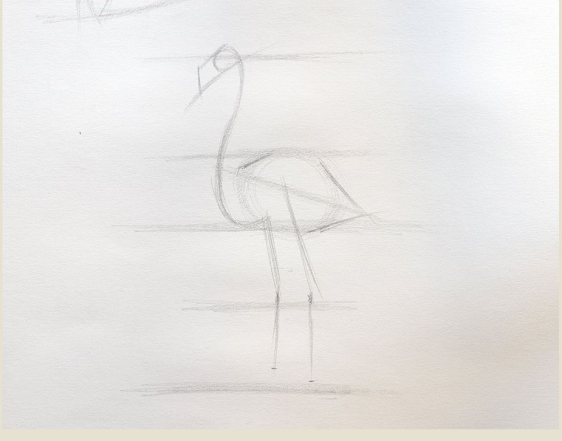
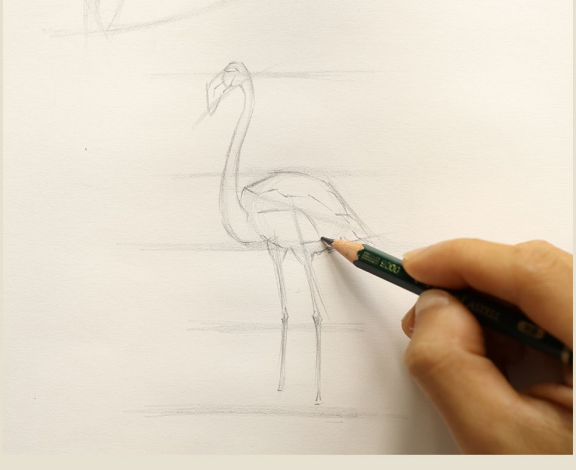






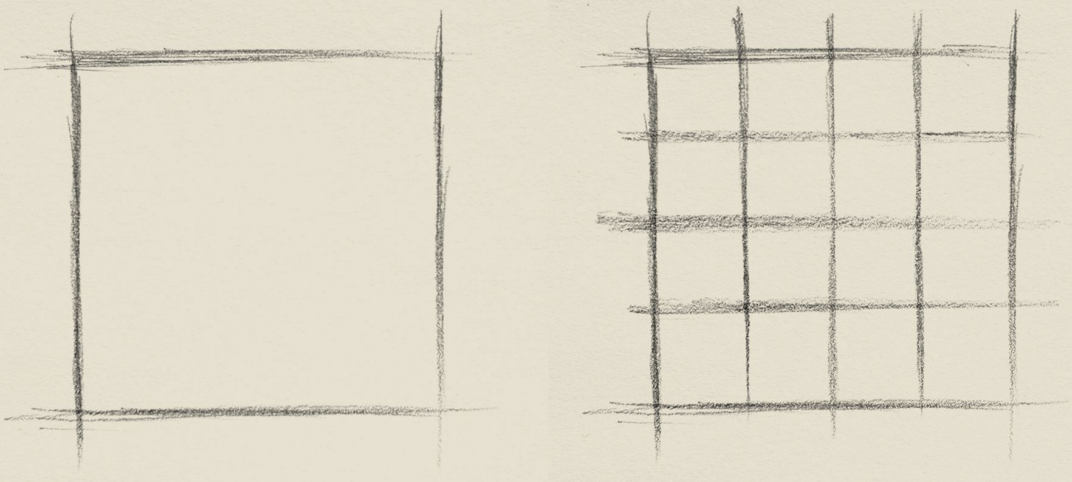
SKETCHING TECHNIQUES

Example: Sketching a Flamingo (Step-by-step)

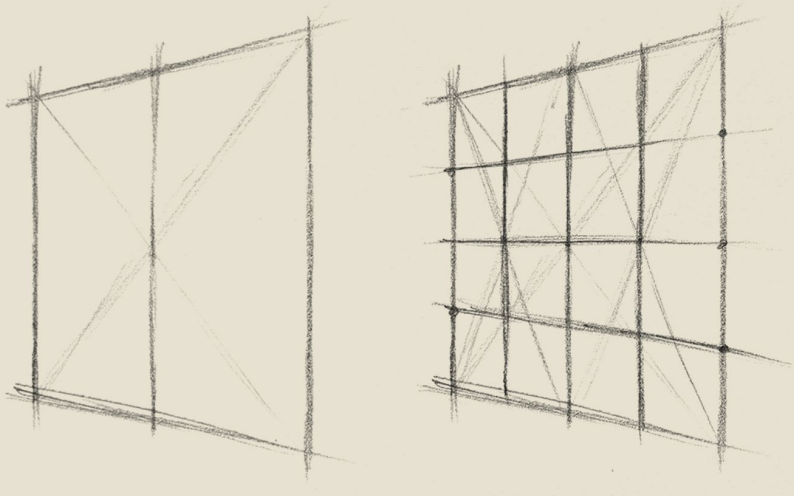




SUBJECTS FORM ANALYSIS

Each object has its structure and form. By studying the surface of an object, you can understand its inside structure and how light affects it. This step offers great support to your ink drawing techniques later on.

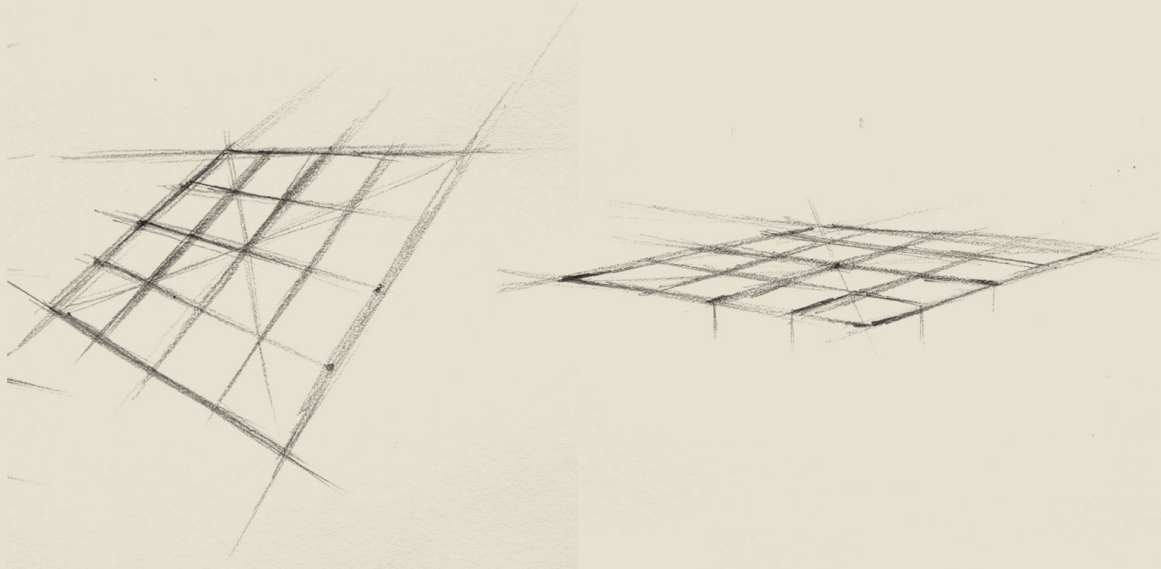


Let's begin by drawing a square of a plane viewed from the front angle. On the inside, sketch small cells of vertical and horizontal lines *(can be 16 or 20, or even more.)* Those cells can be temporarily called cross-contour, which will be used several times later.

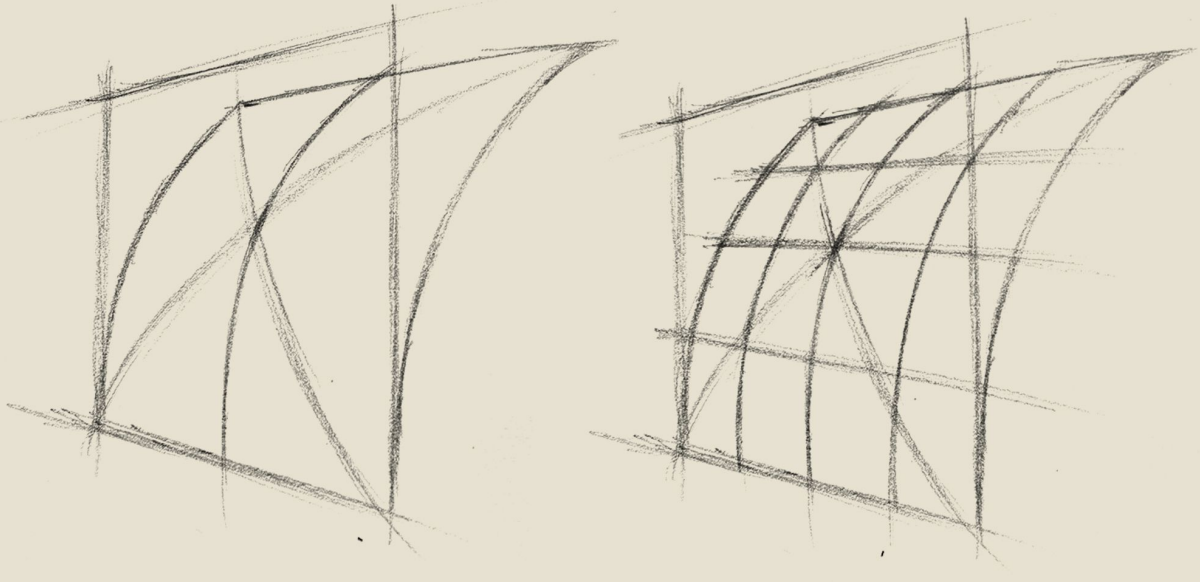


Next, rotate that square on its vertical axis. From a linear perspective, its left side will look smaller *(since it is farther from the eyes*). Accordingly, cross-contour lines also change their direction.

SUBJECTS FORM ANALYSIS

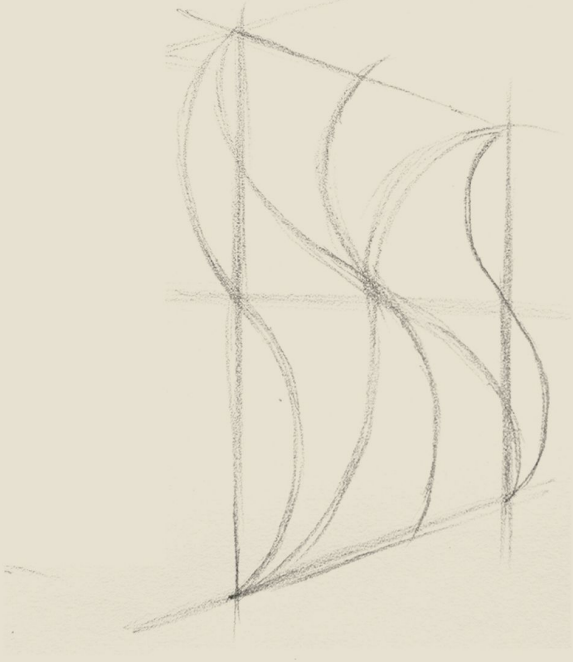


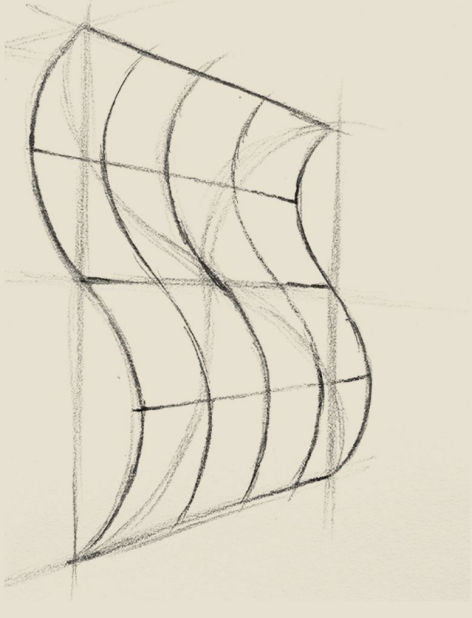
These two illustrations are examples of how one plane looks from different views and how linear perspective affects the direction of cross-contour lines.



When bent, the top edge of our "piece of paper" gradually changes shape.
As a result, the cross-contour lines transform from straight to curvilinear.

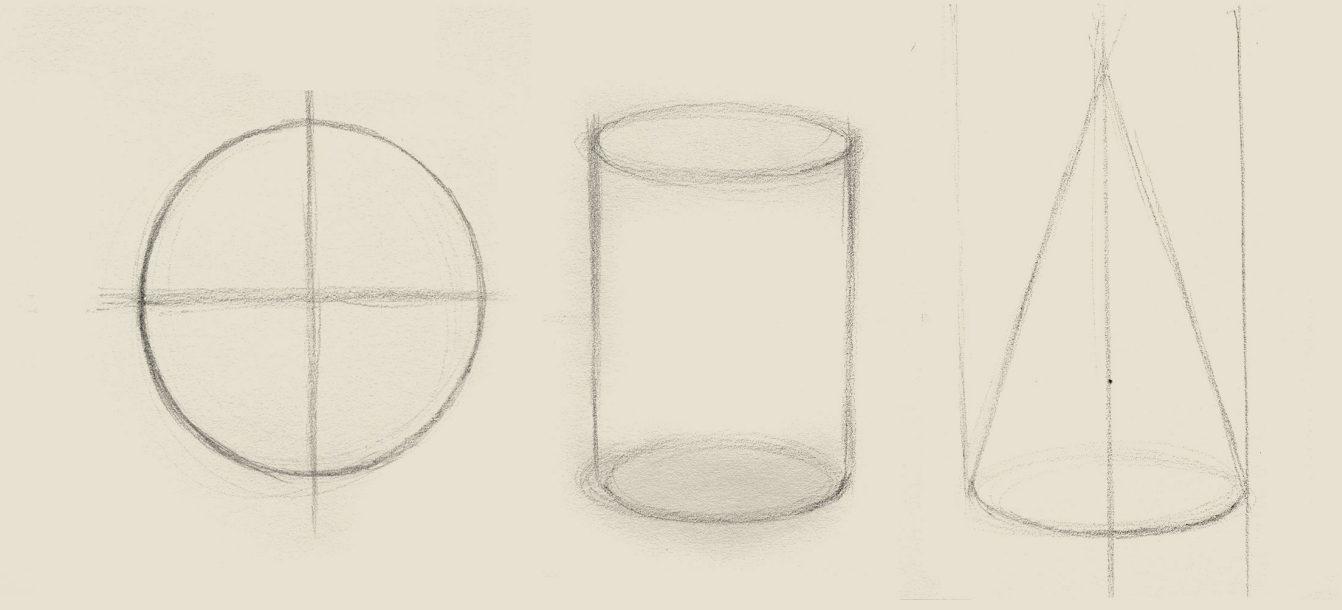
SUBJECTS FORM ANALYSIS



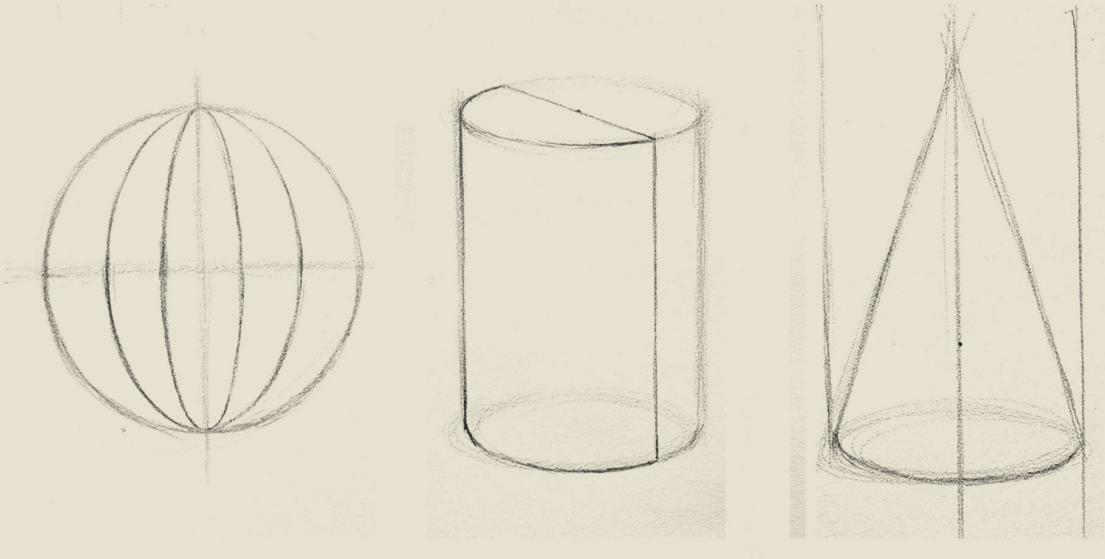


Now, let's take it to the next level by bending both sides of the plane at the same time. As a result, those cross-contour lines transform with S-shape *(or wavy)* to fit the form of our "piece of paper."

SUBJECTS FORM ANALYSIS

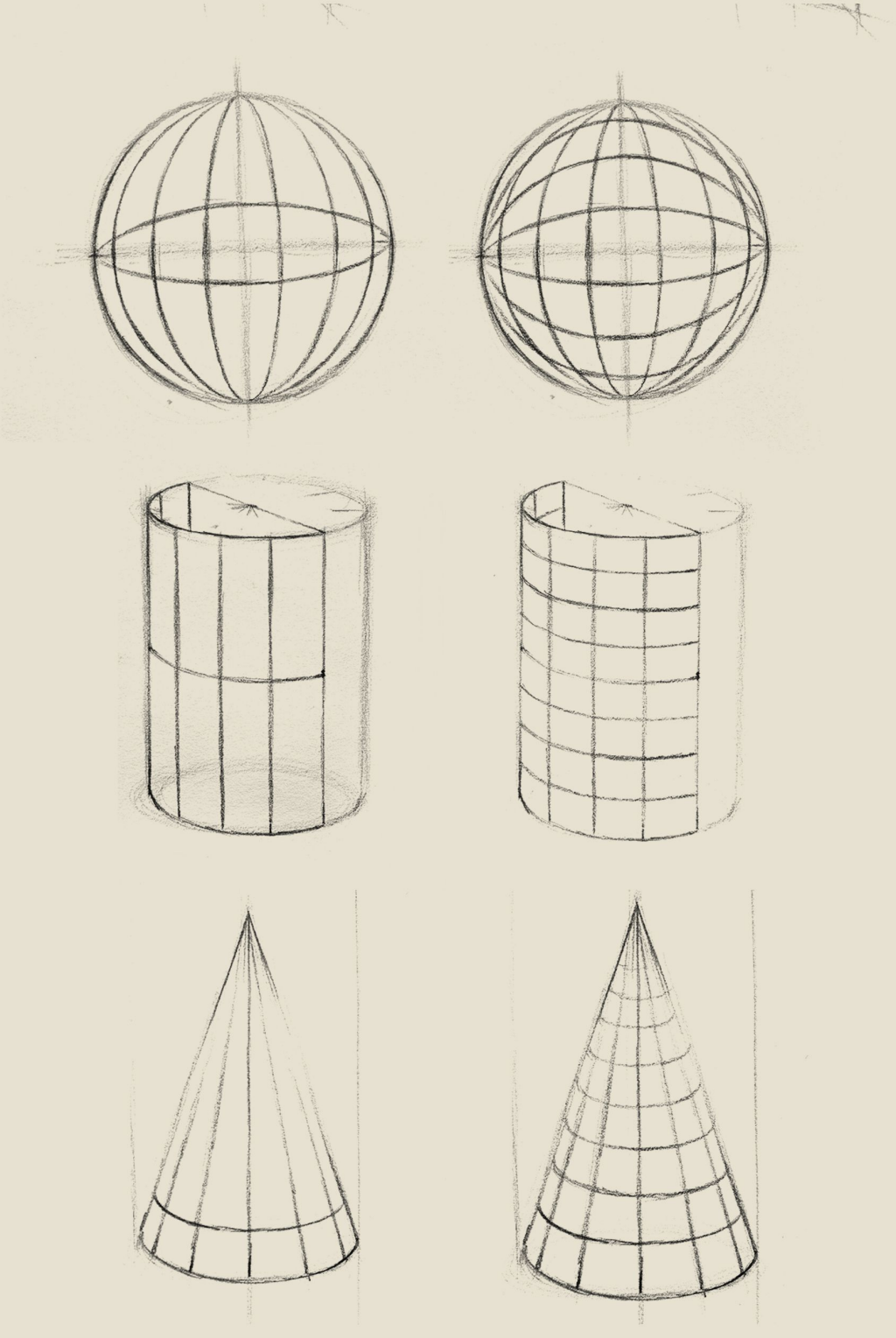


Next, let's analyze the three most important forms in art: Sphere, Cylinder & Cone.



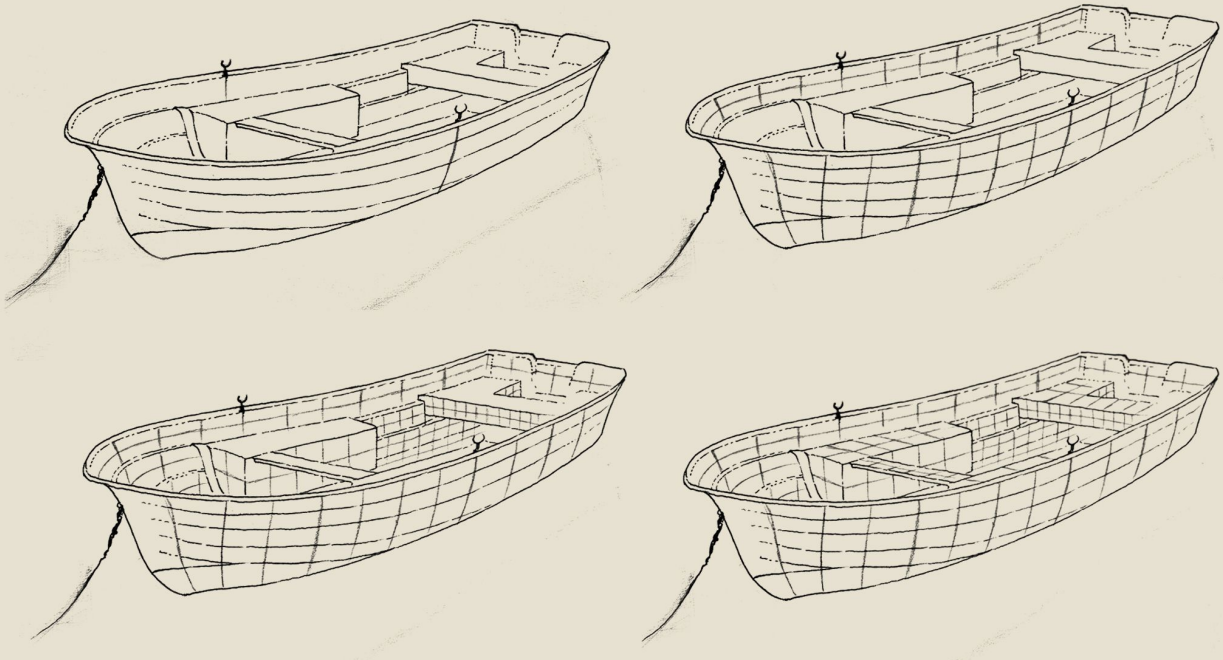
With a closer look, the sphere is a solid figure bounded by curvilinear lines connecting two poles *(similar to the meridians of our globe)*; the cylinder includes two parallel bases *(on top and bottom)* and a surrounding curvature; while the cone is made of a circular base, and a curved surface pointed towards the top.

SUBJECTS FORM ANALYSIS

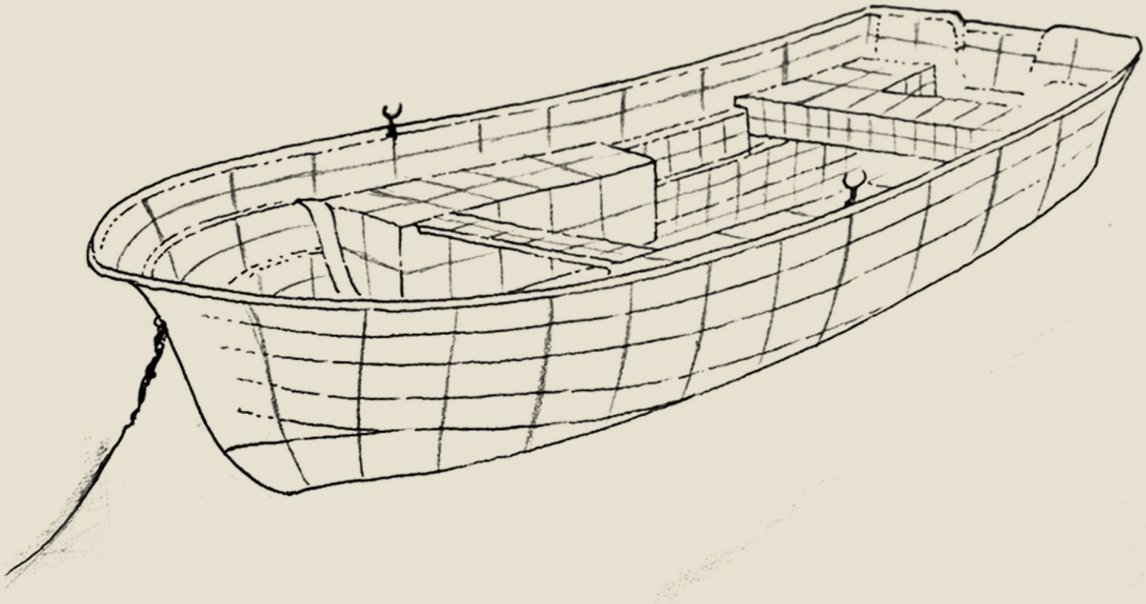


Based on the surface characteristics, use cross-contours - a series of lines that run horizontally and vertically - to define the form of your drawing object.

SUBJECTS FORM ANALYSIS



Use the first sketch *(boat #1)* to practice cross-contouring. As illustrated, cross-contour lines run over the whole "terrain" of the boat - from its outer wrapping to small, inner details.



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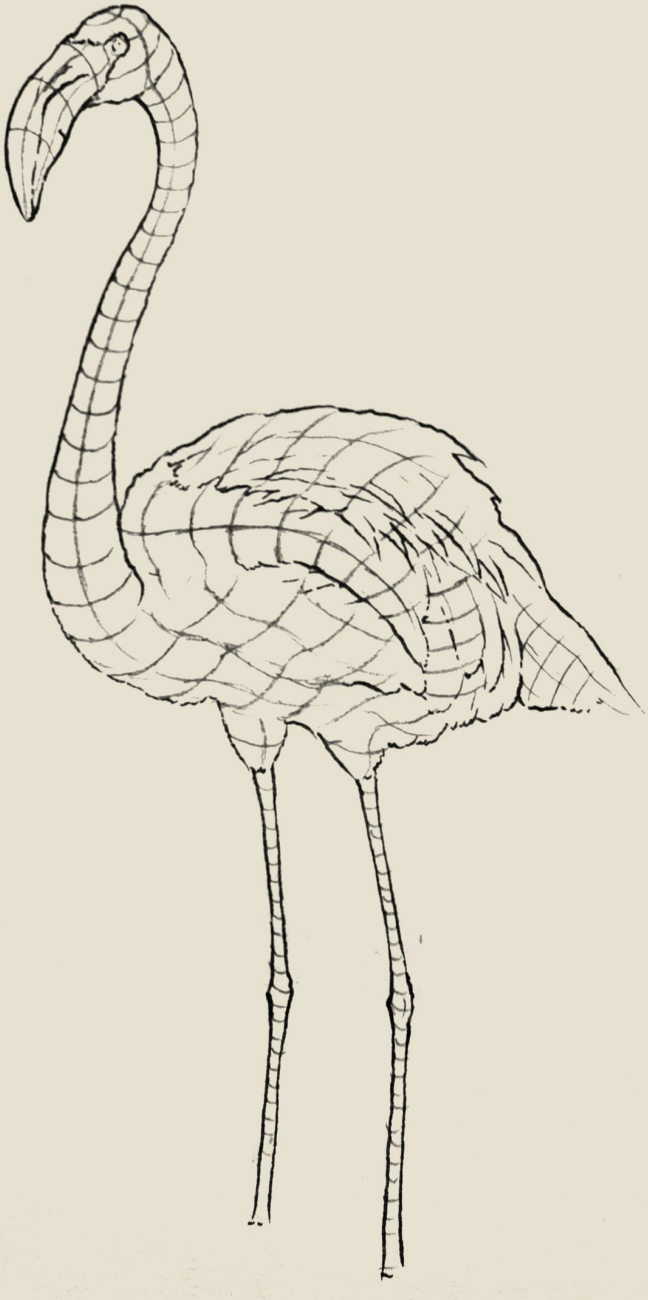
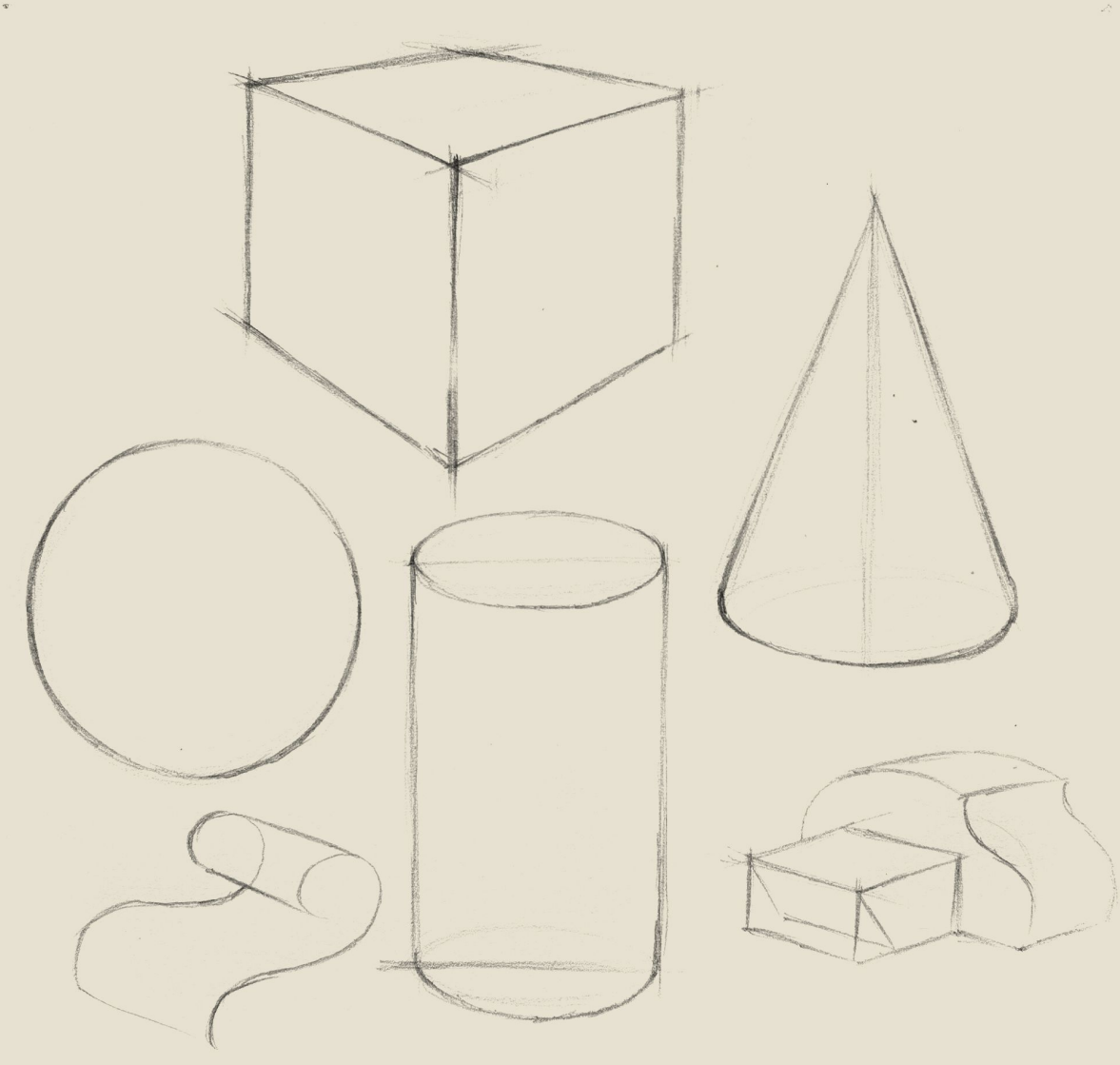


In the second example, let's study a more complex object: the flamingo we created in the previous section. It can be seen that the flamingo's neck shares the same shape as a cylinder. This is how we visualize an object based on its primary form. Likewise, its body can be sketched from a sphere with curved lines.

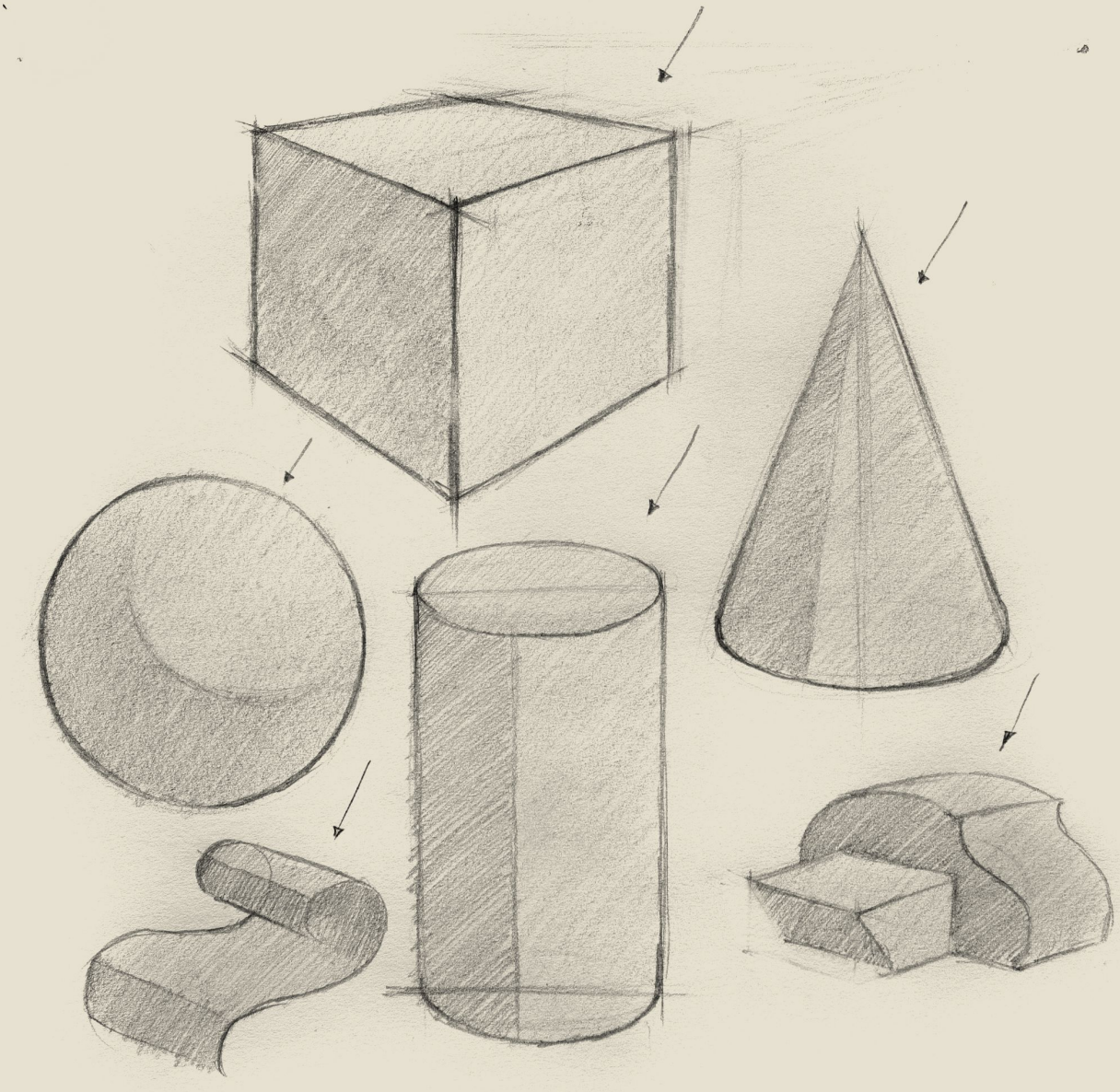
BASIC SHADING TECHNIQUES

The following section is for basic shading techniques. When shading, the magical illusion of three-dimensional reality appears on your drawing paper. Therefore, mastering this technique can directly do wonders for your ink drawing *(as well as other drawing techniques)*. To make it easier, we will shade primary shapes, including the Cube, Sphere, Cylinder and Cone.



Step 1: You can capture a general sense of each form and sketch based on previously discussed techniques. Besides four primary forms, you can also experiment with other complex structures, such as the left-sided piece of paper or the right-sided figure of combined shapes.

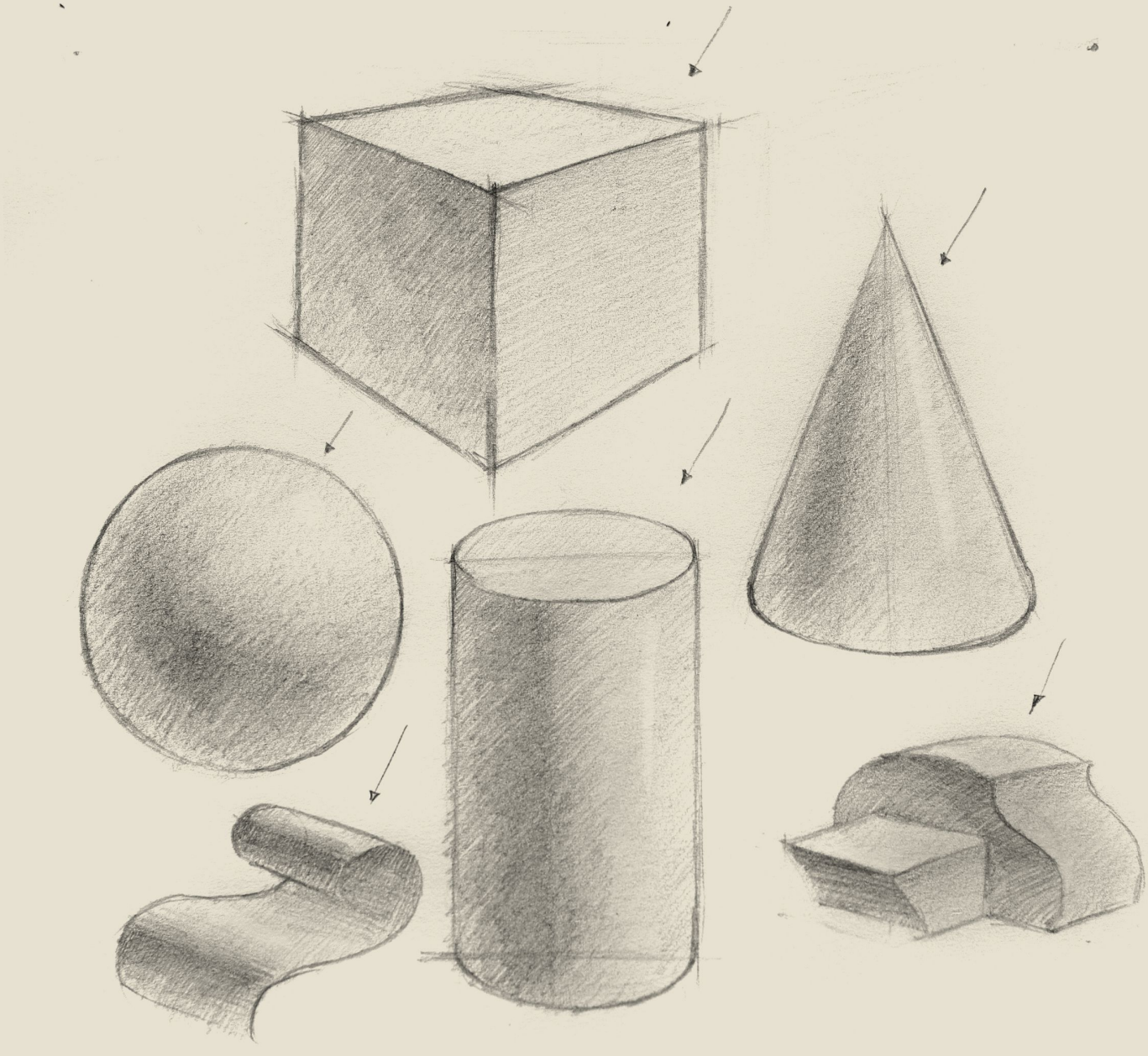
BASIC SHADING TECHNIQUES



Step 2: Tonal values block-in

Tonal values block-in is an essential step of shading, where we use two simple values to differentiate our drawing object's light and shadow areas. Our purpose is to define its basic form and light source, setting the groundwork for the next steps.

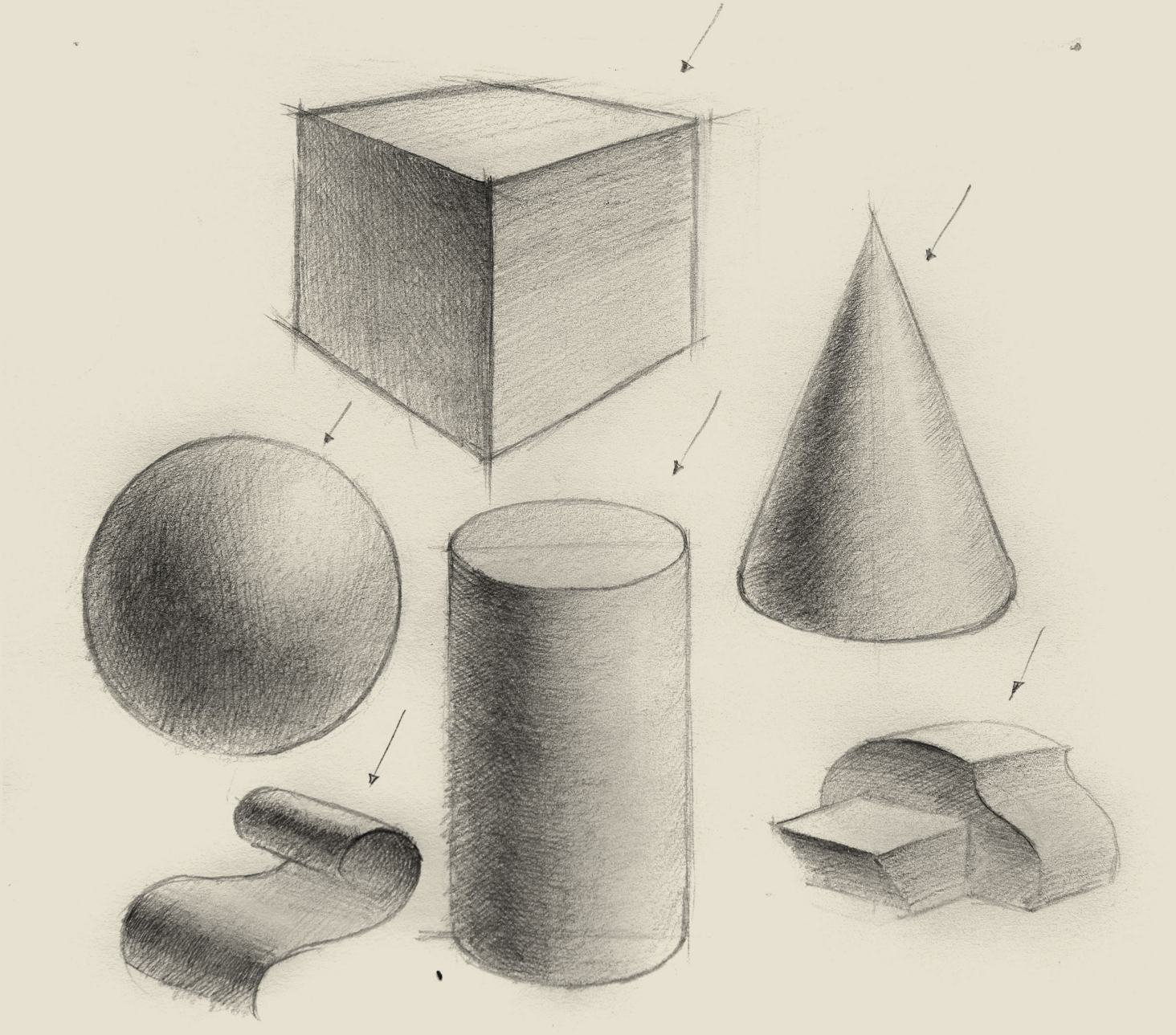
BASIC SHADING TECHNIQUES



Step 3: Core shadow, mid-tone, and reflected light

After identifying the light and shadow, let's start shading by using core shadows and mid-tones. Core shadow is the darkest area, which usually falls on the side of an object, away from the light and near the light-shadow terminator *(step 2)*. However, it does not reach the edge where the light reflects *(as illustrated)*. Blend the core shadow and lighted areas to create mid-tones for visual harmony.

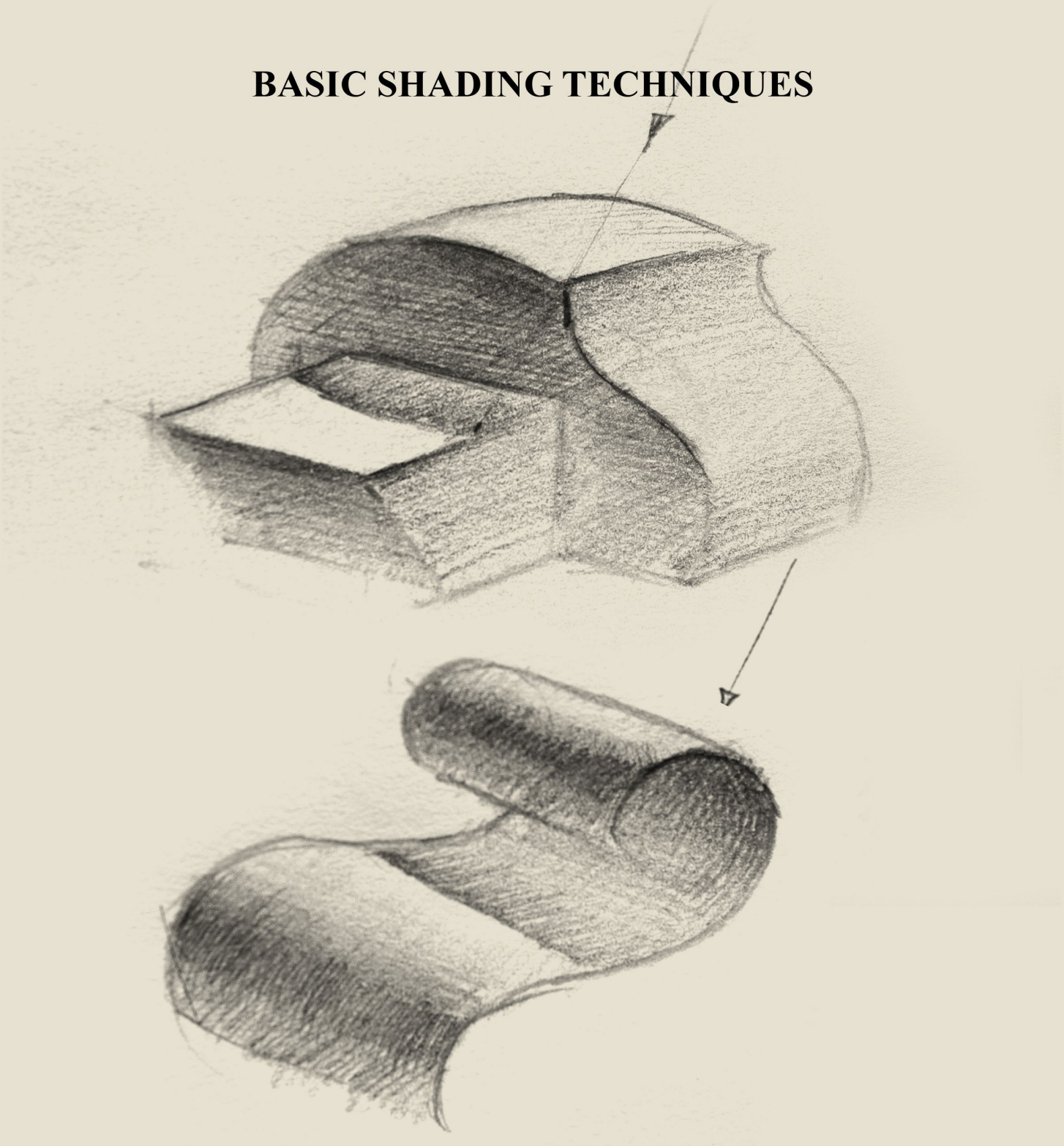
BASIC SHADING TECHNIQUES



Step 4: Emphasis and details

After step 3, all of your needed elements for shading are ready: Direct light (the area that directly faces the light source); mid-tone *(the tonal range between the shadow and highlight);* core shadow *(the darkest area)*; and reflected light *(where the light source bounces off other objects and reflects onto the cast shadow)*. To breathe life into your drawing object, you can increase the contrast values, such as making the core shadow darker or adding more details *(e.g., highlight)*.

BASIC SHADING TECHNIQUES



Step 5: Cast Shadow

The shadows of different parts *(or objects)* mutually affect one another. Let's take the two illustrations above as an example of when other parts of one object cast shadows on different surfaces. Therefore, cast shadows can bring an object to life due to the light effects.

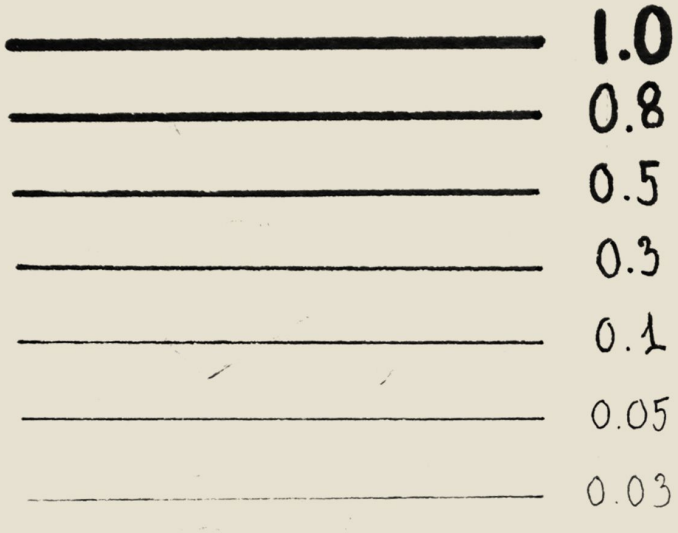
INK TECHNIQUES

We have gone through two important supporting steps for ink drawing: Sketching and Shading. This section will discuss basic ink techniques and how to apply them.

I. Materials & Tools

The options of tools and materials for ink drawing vary, from traditional styles with pointed nibs to modern ones with stylish drawing pens. In this guidebook, let's only focus on using drawing pens.

My three go-to brands for ink drawing are Copic Multiliner, Sakura Pigma Micron and Faber-Castell Ecco Pigment *(feel free to choose one or combine them)*. Since each type comes with different nib sizes, you need to stand on your drawing size and purpose to decide. Below are some popular nib sizes.



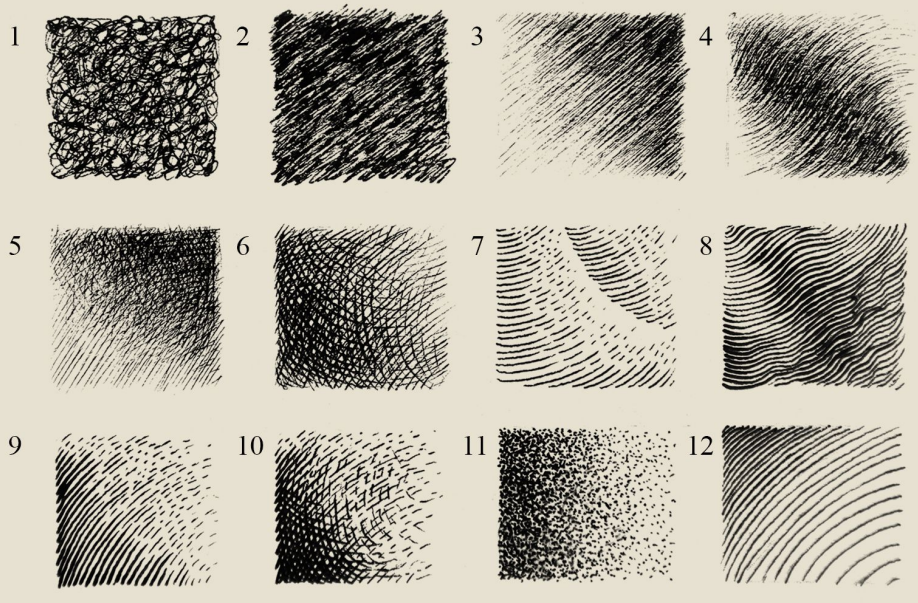
Diverse as they can be, I recommend only sticking to the three following sizes due to the nature of Scratchboard Illustration. For drawings less than 9x12 inches:

1. Size **0.1**: For outlines and shading support
2. Size **0.3 - 0.5**: For drawing thick lines or highlighting details
3. Size **0.05**: For small details or lighted areas

INK TECHNIQUES

II. Ink Experiments

Before practicing Scratchboard Illustration, let's "warm up" with some following ink techniques.

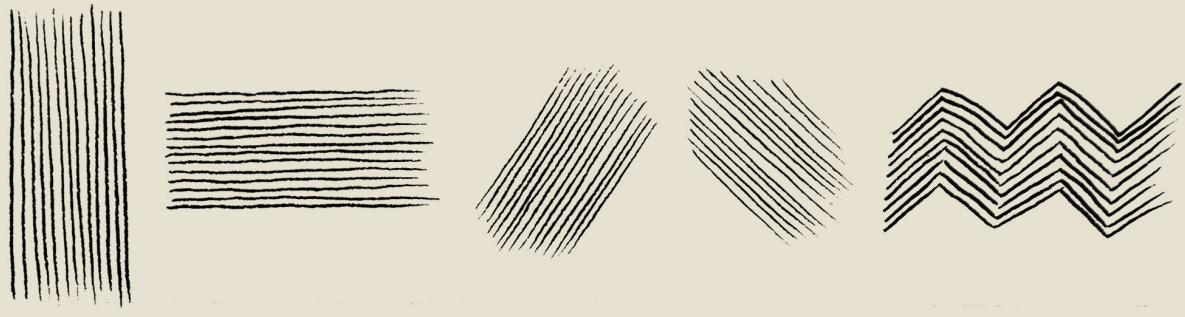


1. **Scratching**: Draw freely in any direction
2. **Scratching 2**: Draw freely but in only one direction
3. **Traditional Hatching**: Draw parallel lines in the same direction with a fast speed
4. **Curved Hatching**: Draw parallel, curvilinear lines in the same direction
5. **Traditional Cross-Hatching**: Combine parallel lines from different directions, making them intertwined
6. **Curved Cross-Hatching**: Similar to cross-hatching but with curvilinear lines
7. **Scratchboard Hatching**: Similar to technique (3). Take time to keep those lines parallel and evenly spaced. You can also combine them with broken/dashed lines for a light effect.
8. **Scratchboard Hatching 2**: Similar to technique (7), but with a different line width.
9. **Combine** techniques (7) and (8).
10. **Scratchboard Cross-Hatching**: Follow the Scratchboard techniques, but make the lines intertwined in different directions.
11. **Stippling**: Use small dots of ink and their density to lend the composition a illusion of light.

INK TECHNIQUES

III. Ink Basic Techniques

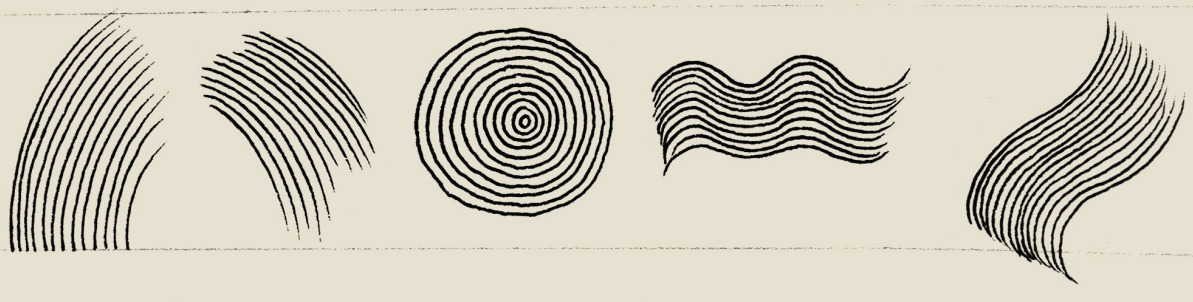
Let's start practicing the basic types of lines.



1. Straight lines: The signature of Scratchboard Illustration lies in its parallel lines *(hatching)*. Therefore, it's crucial to learn how to draw parallel, evenly-spaced lines in different directions.

Let's begin with vertical and horizontal lines, then diagonal ones *(to the left and right)* and finally broken lines and zig zags.

Note: Try to create an equal spacing between the lines by taking decent time *(don't rush)* and controlling your pen pressure.

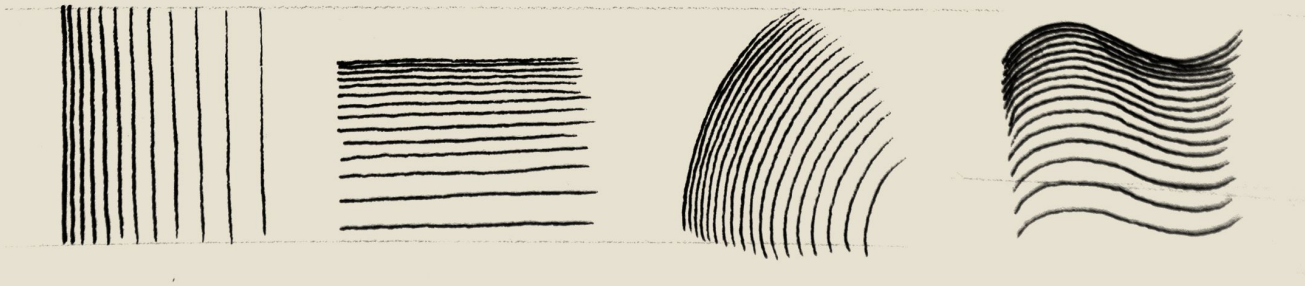


2. Curves: Create curvilinear and wavy lines with an unchanged principle: Parallel placing and equal spacing.

Draw curvilinear lines toward different directions along with concentric circles and wavy lines.

INK TECHNIQUES

3. Dashed/Broken Lines: This type is commonly used to depict different values *(shading)* and is found in well-lighted areas. Ypu can create dashed/broken lines from straight or curvilinear ones. Keep them parallel and equally spaced - but instead of one continuous stroke, make them “broken”.

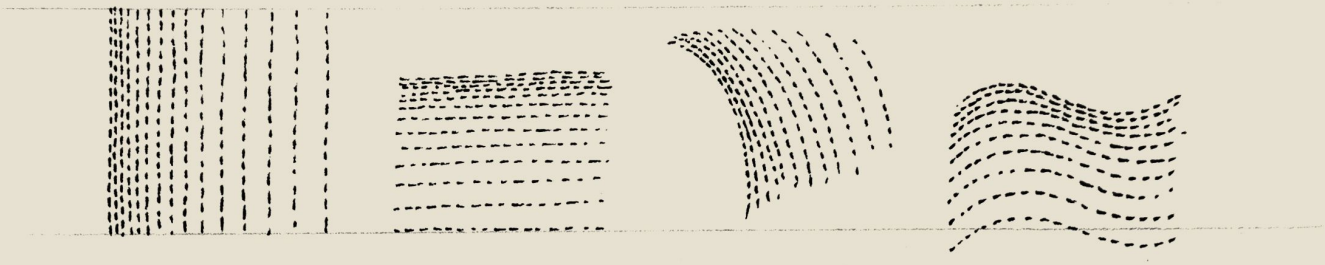


4. Spacing: As discussed, value is the main player in shading. Besides using the dashed/broken lines (3) to change values, you can also create a tonal effect by changing the space among those parallel lines.

Draw straight and curvilinear lines parallel to one another - but adjust their spacing each time. Start with those close to each other, then gradually increase their distance until they are 1/4 inch apart.

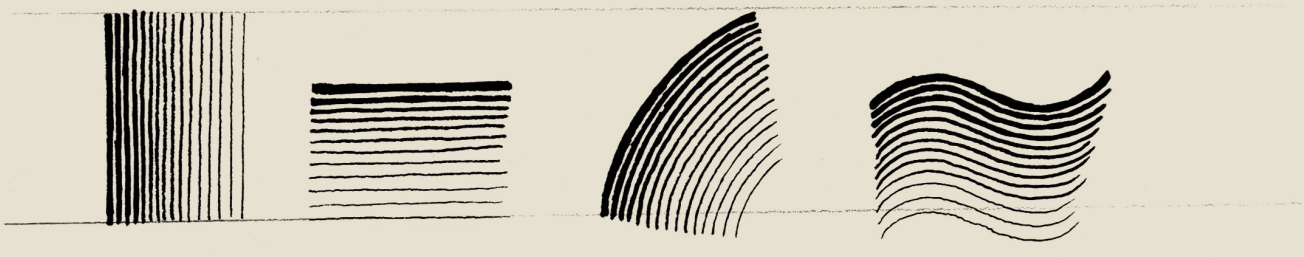
Line spacing is commonly used for drawing backgrounds or landscapes. However, this needs to be done with great care to avoid sudden gap which causes unbalanced visual harmony.

INK TECHNIQUES



5. Combine dashed/broken lines and line spacing: To explore different ways of displaying values, you can combine both techniques (2) and (3). This way, you not only can create dashed lines but also change their spacing.

This technique is used for lighted areas, where values transform between mid-tone and direct light *(or highlight)*.



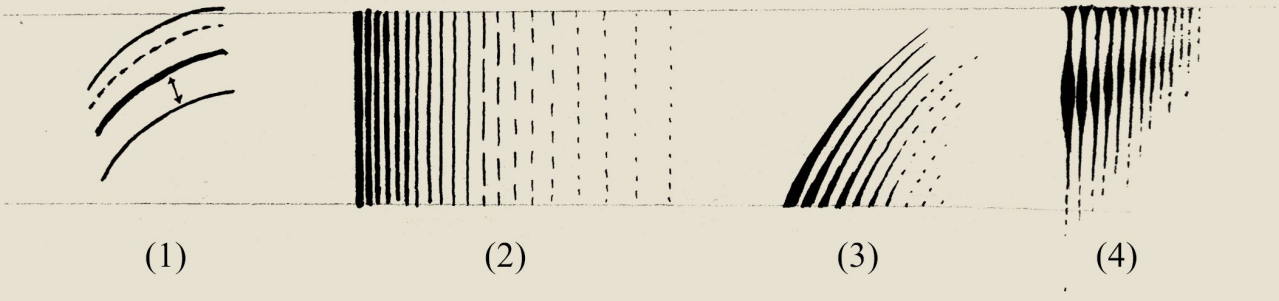
6. Line width: Changing line width is also one of the distinctive techniques in Scratchboard Illustration. When using traditional tools like pointed nibs, the line will change in size as you press your hand harder.
However, since we only use drawing pens in this guidebook, let's thicken the line by reapplying them several times.

Now, it's time to practice drawing different types of lines, directions and levels of complexity. You can begin with a simple line, then over-draw to thicken its width to 1 mm.

Draw the second line with a slightly thinner thickness. Continue minimizing the line width of other lines until it equals the pen nib.

Recommendation: Use a nib size of 0.1 mm to perform this technique.

INK TECHNIQUES



(1) (2) (3) (4)

7. Combining Multiple Techniques: By using different techniques simultaneously, you are getting closer to mastering Scratchboard Illustration. As illustrated in (1) and (2), you can create a rectangle with a darker left part, gradually transitioning to a mid-tone in the middle and becoming brighter on the right.

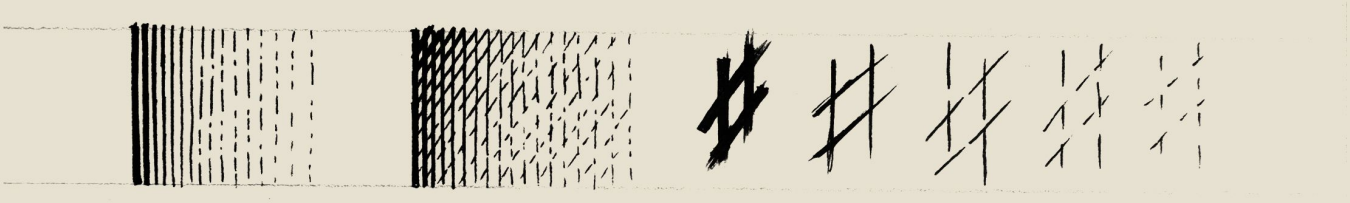
To perform this technique, begin with thick lines *(about 1 mm)*. Those lines will become thinner to the right until their width is similar to the nib size *(0.1 mm)*.

When it is hard to scale down the width, use dashed/broken lines with a unique twist: in illustration (2), those dashed/broken lines change both their thickness and length of strokes. Continue until they are just dots apart.

Let's study illustrations (3) and (4) before moving on to another technique. Instead of changing the width of the entire line, you can change one specific part to create suited light effects.

When adjusting the line width, try to make it transform harmoniously and smoothly by using the curve *(as illustrated).*

INK TECHNIQUES



6. Cross-Hatching Scratchboard Illustration: Hatching can not always bring the desired results or accurate values. In that case, you can combine it with cross-hatching.

Cross-hatching, similar to the traditional ink drawing mentioned previously, is how you use one or multiple layers in a different direction. For Scratchboard Illustration, I recommend using up to three layers. Take the illustration above as an example of a two-layer drawing.

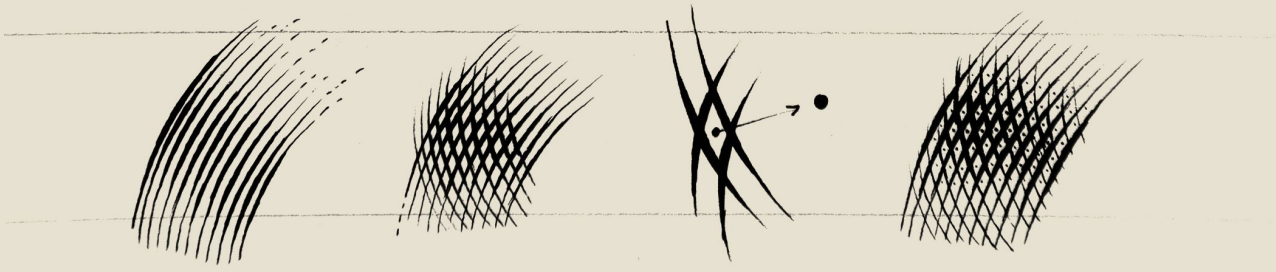
To practice this technique, you need a finished hatching layer, then add another layer *(with a different direction)* on top. These two directions shall form an angle of 15 - 45 degrees.

The second layer should share the same technique as the first: thick lines *(or broken lines)* stick together.

Remember to practice not only straight lines but curvilinear ones as well.
In this step, only adjust the width of one particular part instead of the entire line *(as illustrated).*

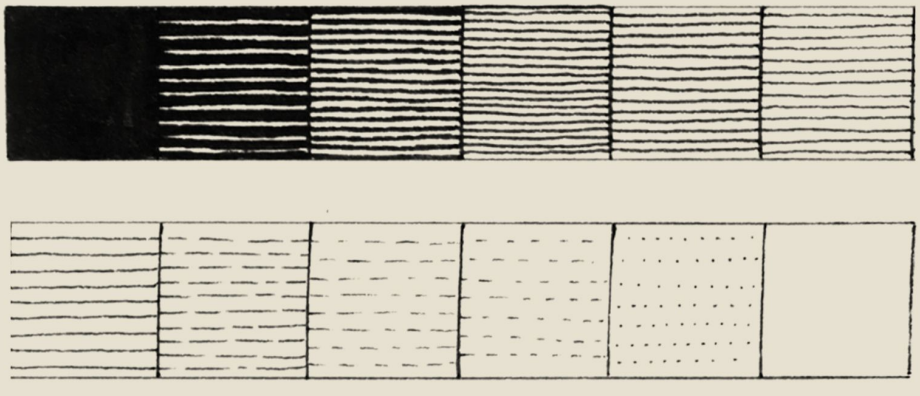
As shown, the lines will have a thicker bottom and thinner top. Use the hatching technique to create the first layer before working on the second one.
The intertwining lines will form a diamond shape, the size of which varies depending on the line width.

INK TECHNIQUES



7. Emphasize core shadow: If cross-hatching has yet to deliver the desired value, we can add a third layer. However, applying too many layers can affect this technique's characteristics.

One of my preferred techniques to emphasize the shadow without adding more layers is playing with dots. As illustrated, you can draw a dot in the middle of the diamond shapes created from cross-hatching to darken the shadow.

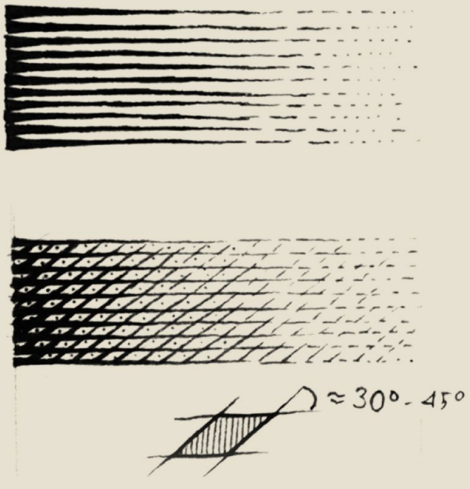


8. 12 levels of values: This illustration shows 12 basic levels in depicting values, which can cover almost all the nuances of light and shadow in an artwork.

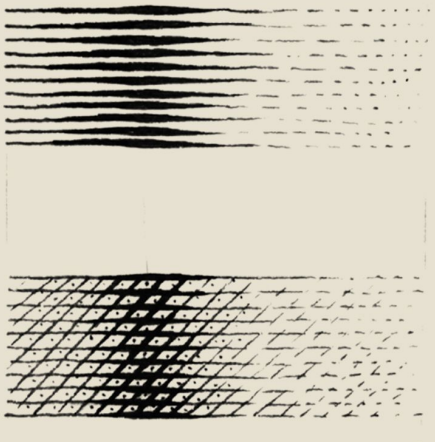
To finely perform these levels, you will have to combine all the techniques learned previously, i.e., full black box, line-width adjustment, line spacing, dashed/broken lines, and full white box. In addition, we can even add the cross-hatching technique *(part 7)* if necessary.

INK TECHNIQUES

9. Summary: Below is some commonly-used techniques for Scratchboard Illustration. Be flexible using them based on the value and structure of your object.

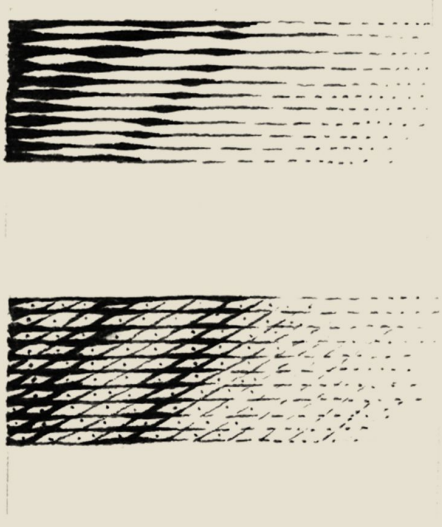


Technique #1: A simple value transition is created from light to dark and vice versa. This technique is commonly used for the smooth surface. The above illustration uses the hatching technique, while the below chooses cross-hatching to emphasize values.

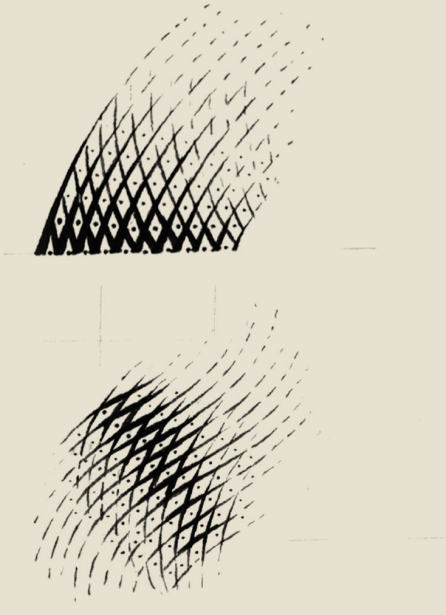


Technique #2: Since the value range is not always linearly represented, we can combine different values to create the darkest focal point in the center - not on one side. Similar to Technique #1, but the lines' thickness lies in the center and gradually gets thinner towards both sides.

INK TECHNIQUES



Technique #3: This requires a unique twist compared to the last two techniques. As shown, the values are intertwined and drawn in a non-permanent direction.
This technique is suitable for complex surfaces, and you can use either hatching or cross-hatching, depending on personal goals.



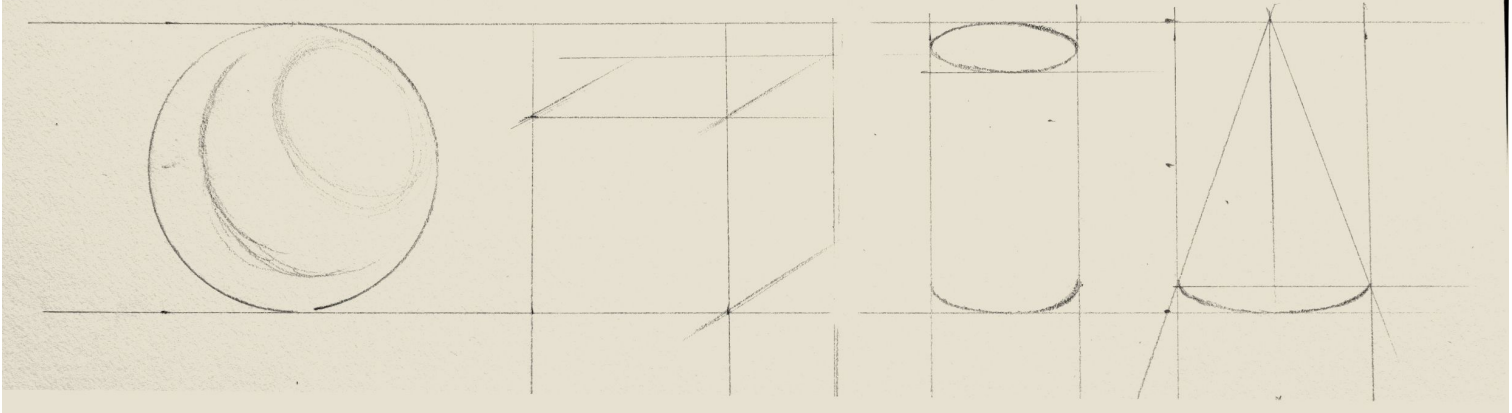
Technique #4: The uniqueness of this technique lies in its line shape. To be specific, it depends on curves instead of straight lines. These curvilinear lines wrap around and run across the surface of your object.
Therefore, the line direction changes once its form and structure change *(e.g., simple curves or wavy lines).*

INK SHADING

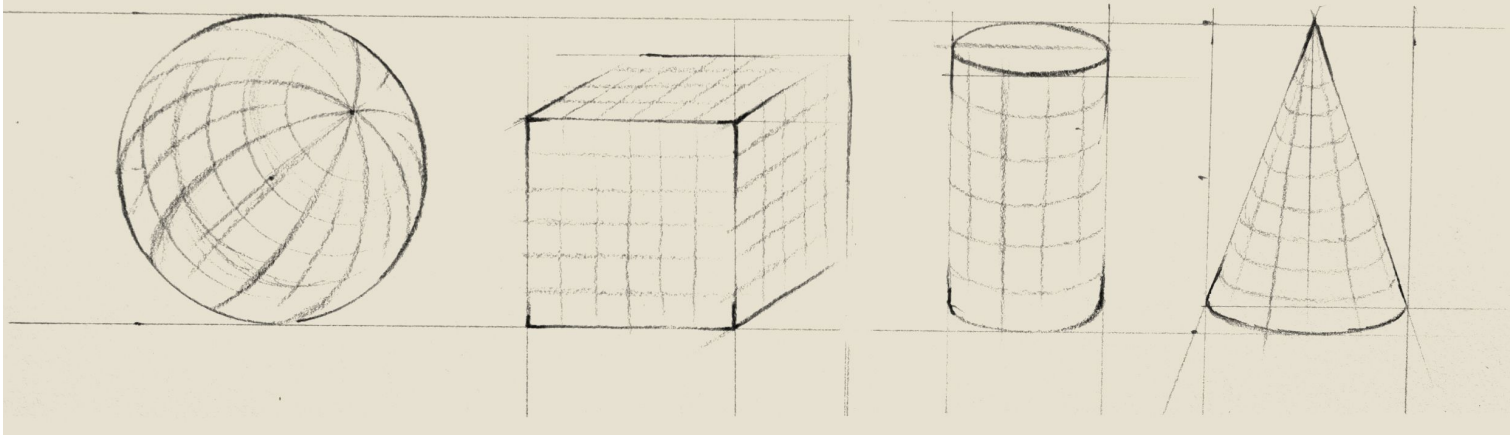
We have come quite a long way in exploring Scratchboard Illustration. It's time to apply all the sketching, shading, and other fundamental techniques learned previously to your artwork.

1. Basic-forms shading with ink

Practicing basic forms is key to depicting complex objects later on. These steps aim to help you practice shading with ink.

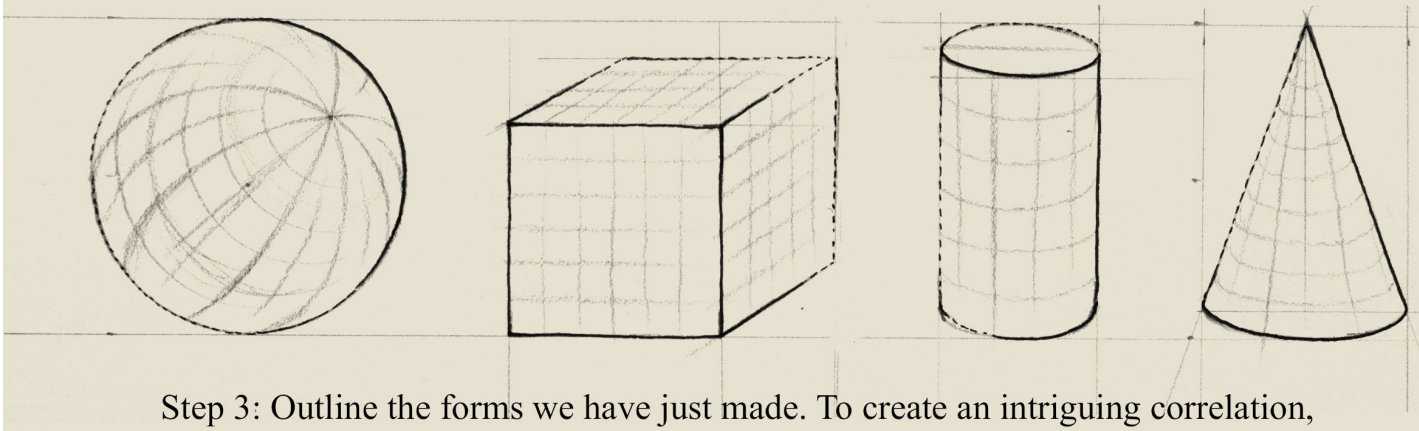


Step 1: Sketch to visualize basic forms, i.e., the sphere, cube, cylinder and cone.

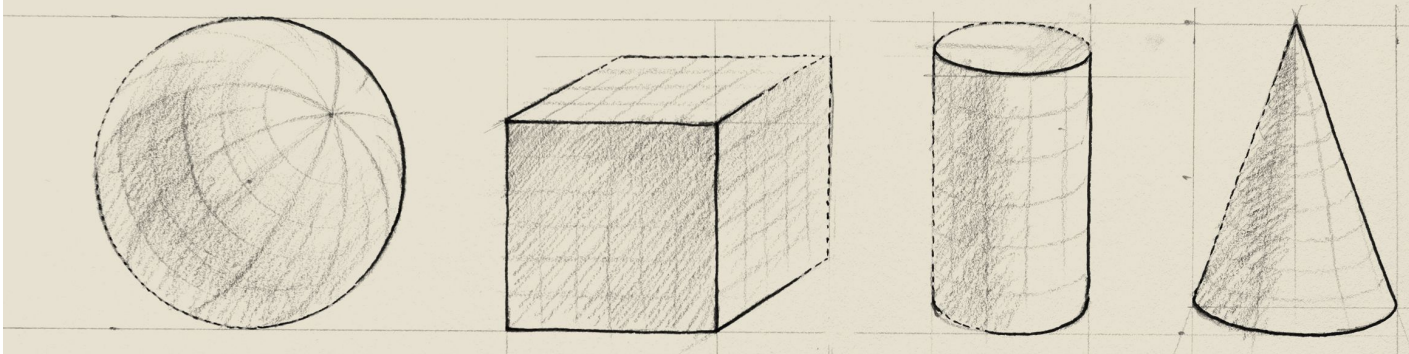


Step 2: Use the cross-contour to analyze these forms' surface and structure.

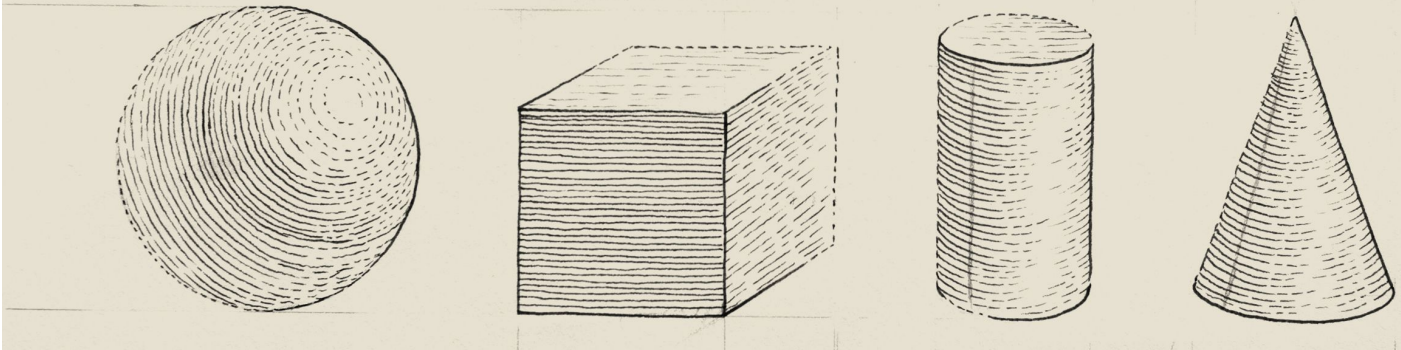
INK SHADING



Step 3: Outline the forms we have just made. To create an intriguing correlation, outline the dark areas & use dashed/broken lines on areas that do not need highlighting.

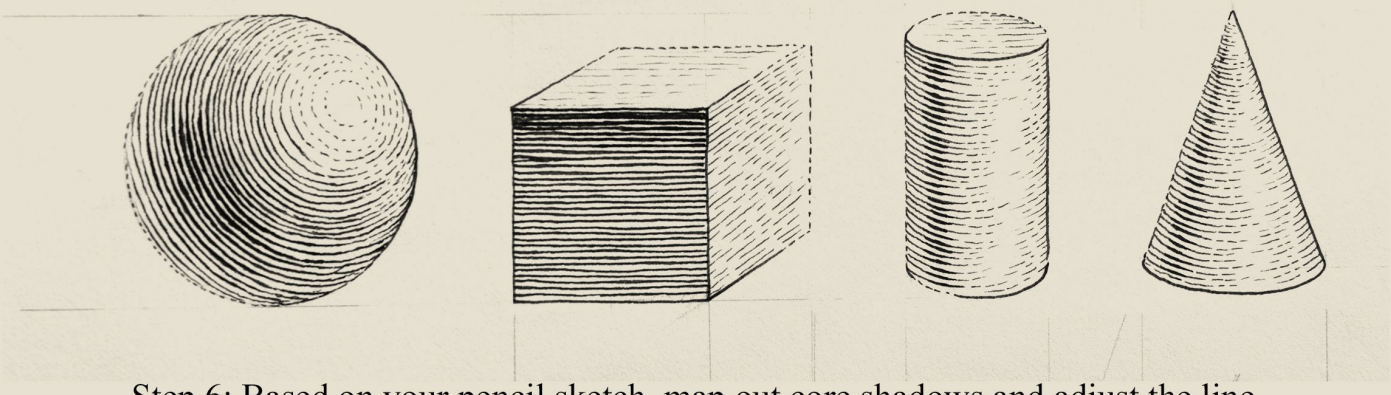


Step 4: Use tonal values block-in and determine light-shadow areas and other shading elements, i.e., core shadow, mid-tone, and reflected light with a pencil *(no need to over-shade)*.

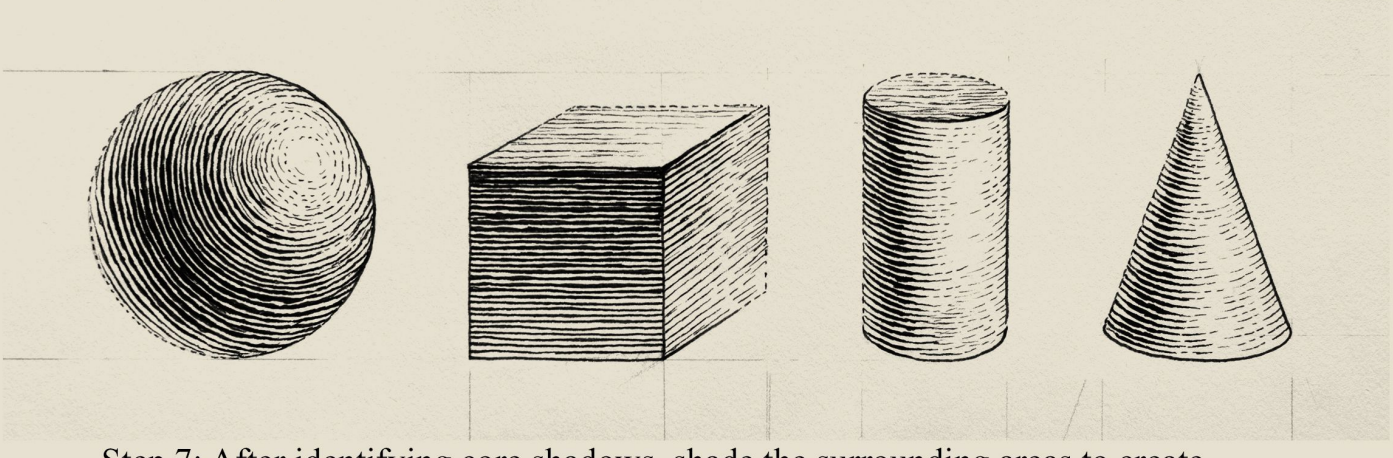


Step 5: Apply tonal values block-in with ink. Use hatching techniques to draw parallel, thin lines that wrap around these forms. Also, combine linked and dashed/broken lines for the desired value.

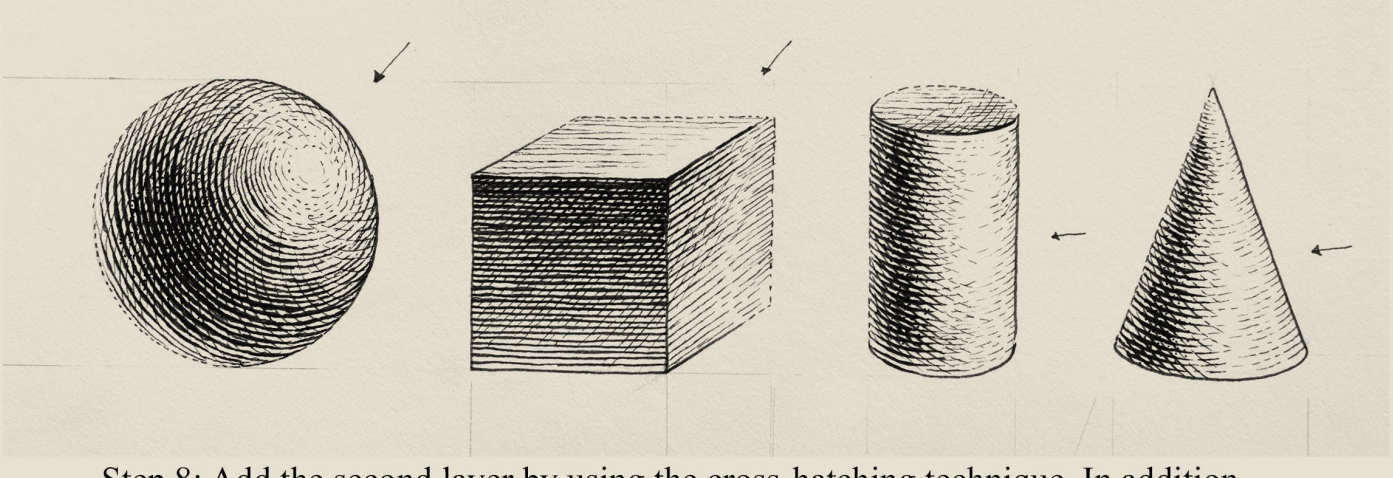
INK SHADING



Step 6: Based on your pencil sketch, map out core shadows and adjust the line width to emphasize the value.



Step 7: After identifying core shadows, shade the surrounding areas to create mid-tones. Brush up with adjustments or add details to harmonize the overall value.

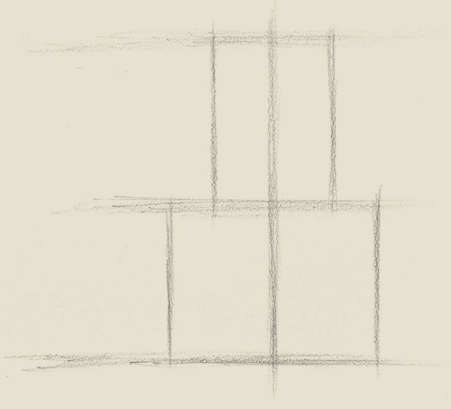


Step 8: Add the second layer by using the cross-hatching technique. In addition, you can add dots to those diamond shapes to increase contrast and darken the core shadow *(optional)*.

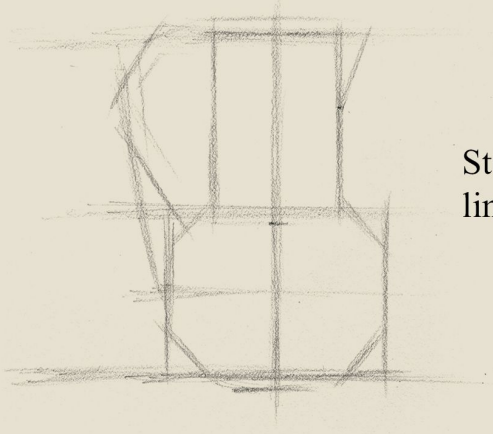
INK ILLUSTRATION

In the last session, you will have illustrative examples to experiment with the techniques learned previously.

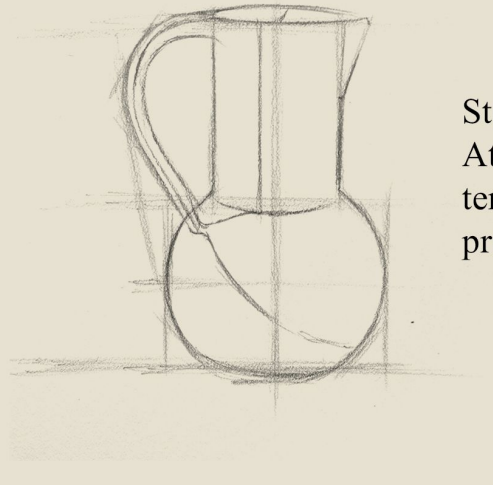
Example 1: Still life | Pitcher



Step 1: Sketch the frame and basic shapes in the drawing. This step aims to define basic shapes and locate the object's details. As illustrated, the pitcher includes the neck *(the upper rectangle)* and body *(the underneath horizontal rectangle)*.



Step 2: Based on the initial frame, use the geometry lines to form a vase shape.



Step 3: Continue sketching and rendering details. At the same time, determine the position of the terminator, where light and shadow transform, to prepare for the shadowing step.

INK ILLUSTRATION

Step 4: Based on our sketch, apply the tonal values block-in technique to determine the light and shadow.

Step 5: Based on analysis *(and personal intuition)*, cross-contour the object to decode its surface and form.

Step 6: After understanding the form, use single and dashed/broken lines for tonal values blocking-in with ink *(based on your previous shading)*.

INK ILLUSTRATION

Step 7: Erase the sketching to see the values clearer. However, the core shadow should be kept to support our next step.

Step 8: You can adjust the line width to stress the core shadow as well as the cast shadow.

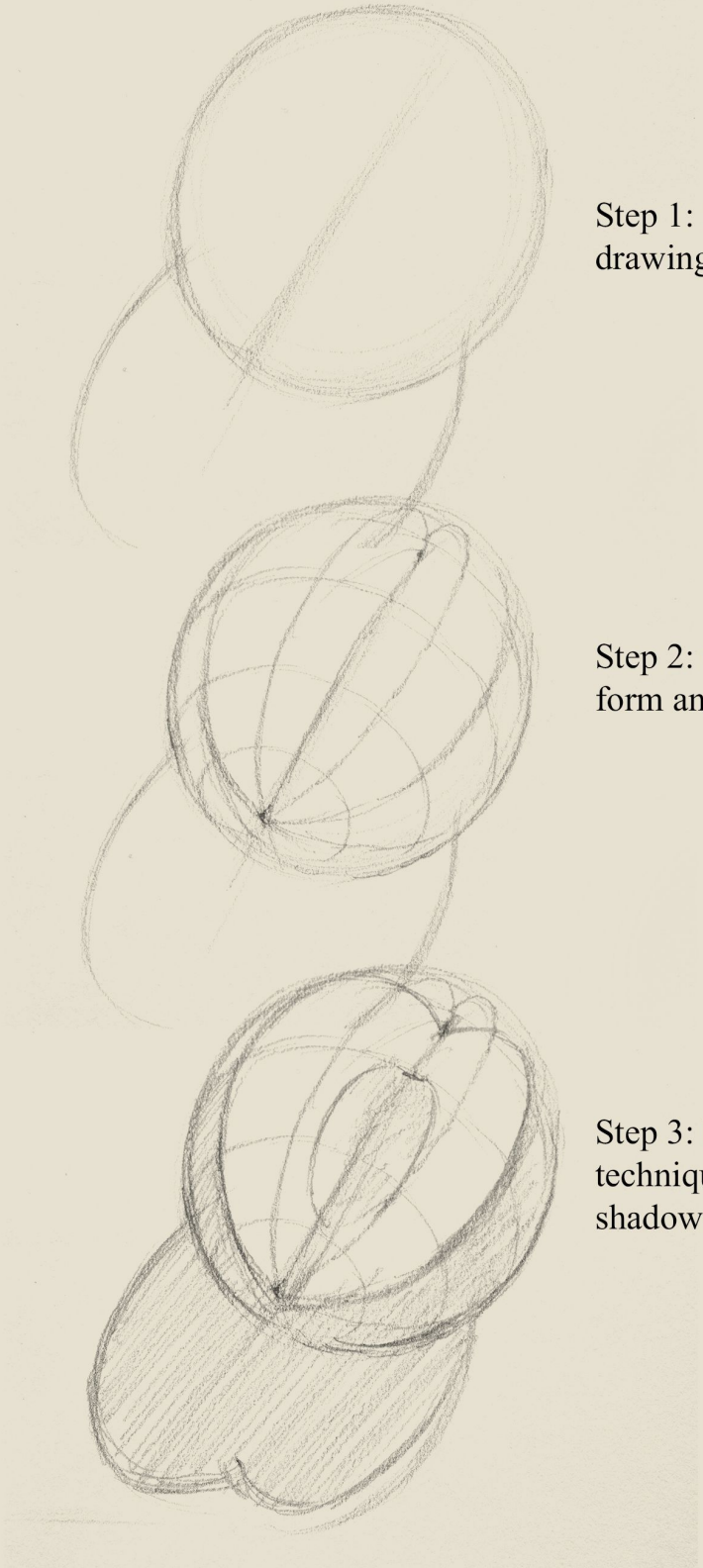
Step 9: Based on the core shadow, continue shading to create mid-tones.

INK ILLUSTRATION

Step 10: Add another cross-hatching layer to emphasize the value and increase the contrast. Also, polish your drawing with additional details and highlight its outline.

INK ILLUSTRATION

Ví dụ 2: Tĩnh vật | Cantaloupe

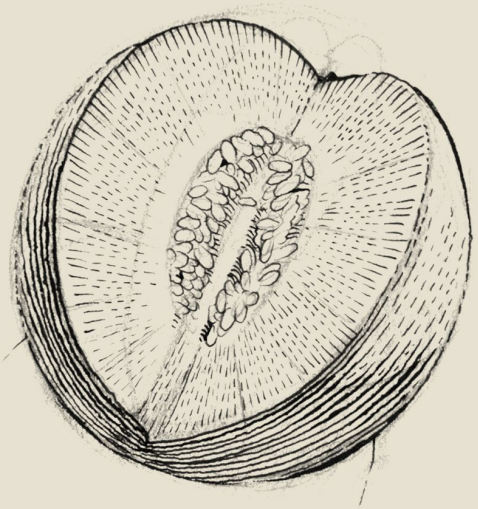


Step 1: Sketch the primary form of your drawing object.

Step 2: Cross-contour to analyze further its form and surface.

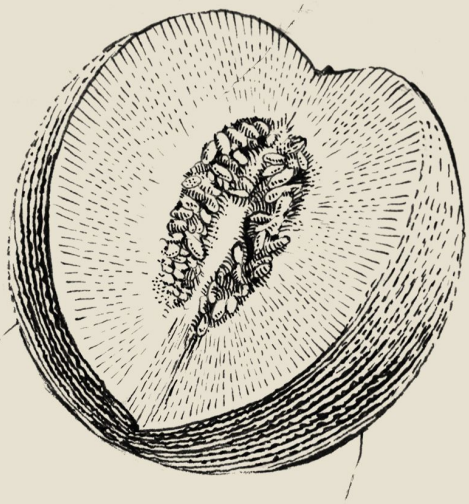
Step 3: Use the tonal values block-in technique to determine the lighted and shadowed areas.

INK ILLUSTRATION



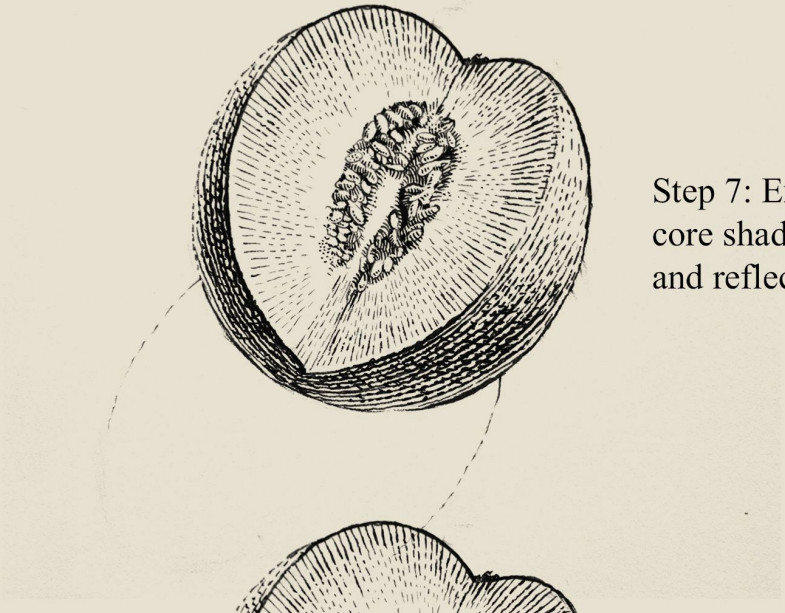
Step 4: Based on your sketch, draw the overall values & outline the details with ink.

Step 5: Erase that sketch, then shade small details, i.e., the peach seeds.



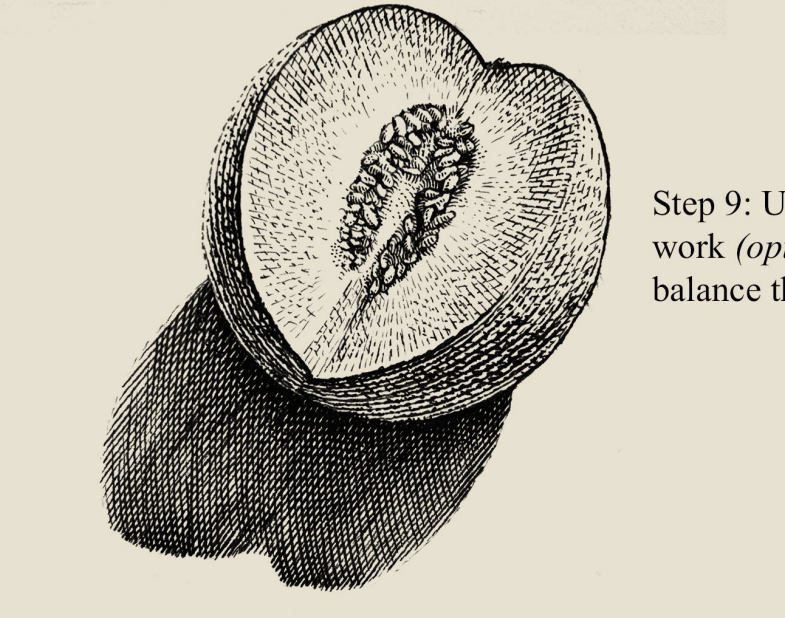
Step 6: Use wavy lines to create texture for the peach skin while emphasizing its core shadow.

INK ILLUSTRATION



Step 7: Expand the shading based on the core shadow to depict mid-tone, highlight and reflected light values.

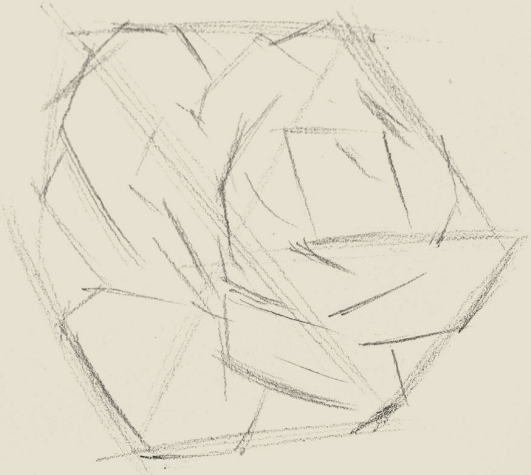
Step 8: Shade the cast shadow.



Step 9: Use cross-hatching to finish the work *(optional)*. Also, polish the details and balance the value of the whole drawing.

INK ILLUSTRATION

Example 3: Nature | Rose



Step 1: Sketch the outline & overall form.

Step 2: Sketch the petals with overlapping effects.

Step 3: Outline with ink.

INK ILLUSTRATION

Step 4: Study the surface texture and form using cross-contour lines.

Step 5: Use a pencil to shade *(tonal values block-in)*.

Step 6: Shade with ink, following the existing cross-contour and pencil shading.

INK ILLUSTRATION

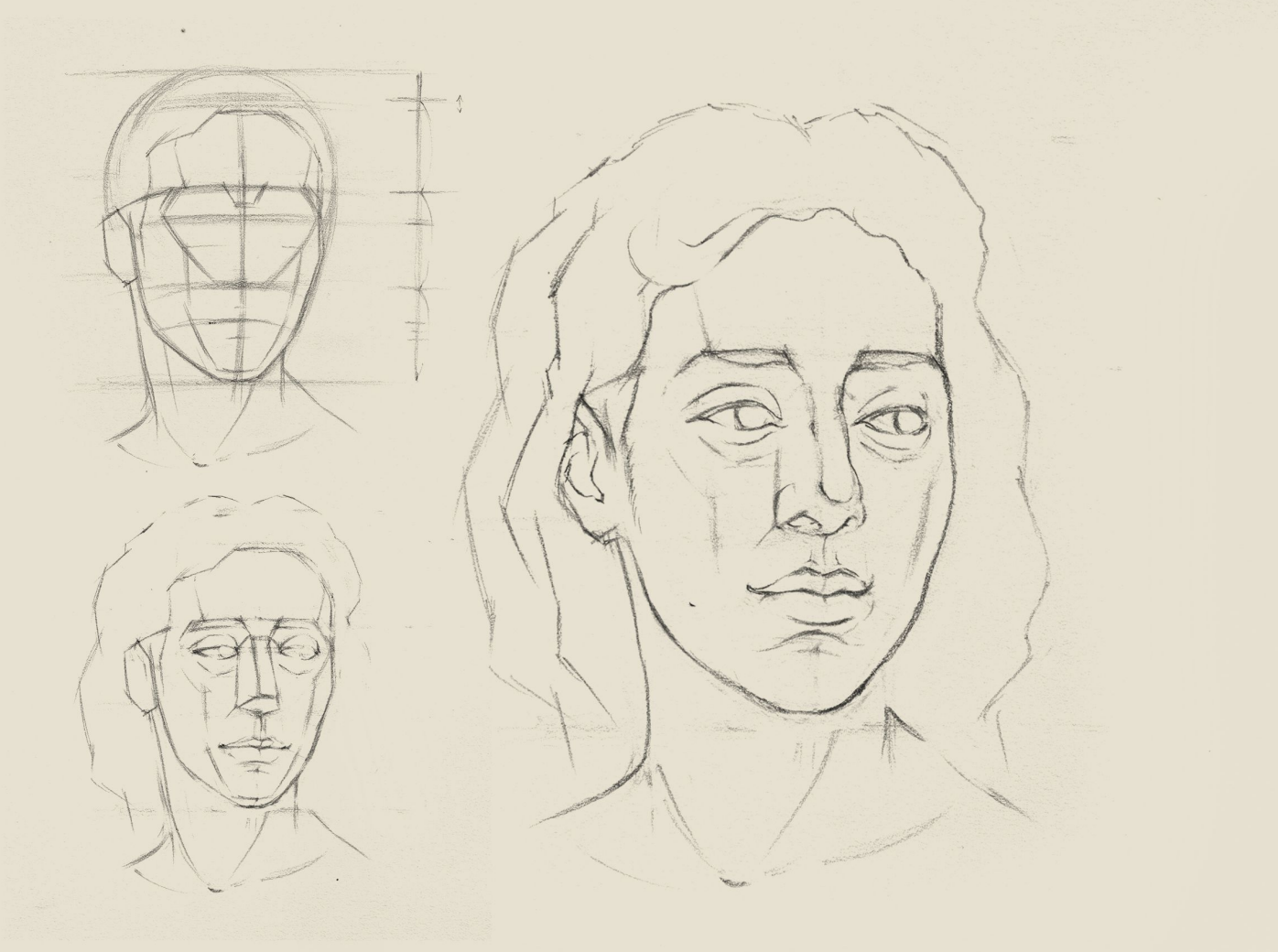
Step 7: Continue with the core shadow, mid-tone, etc.

Step 8: Emphasize the value and correlation of the details by adding one more cross-hatching layer.

Step 9: Emphasize the details and the outline.

INK ILLUSTRATION

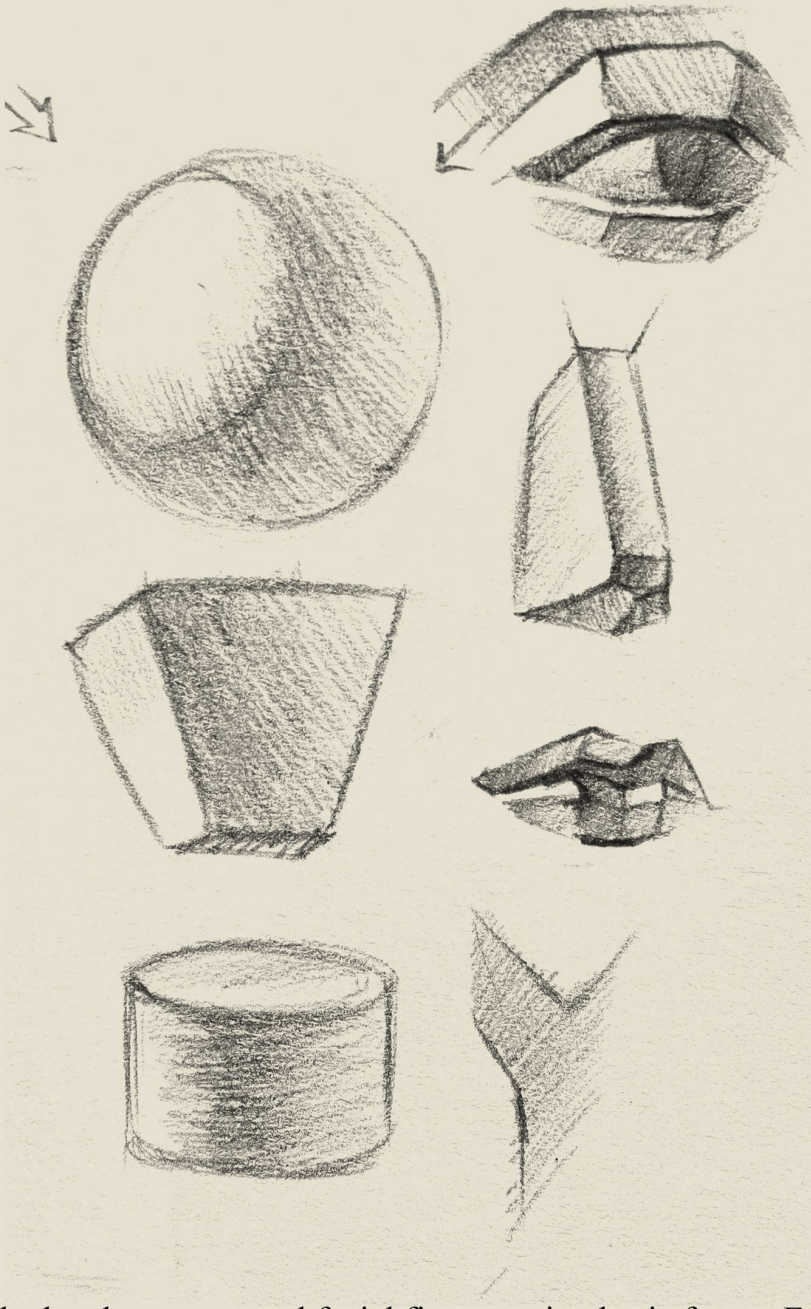
The following example is for drawing portraits, which requires greater care when decoding and depicting the form. Follow the steps below as a complete guide.



It is necessary to pay attention to the initial sketch since it can affect your later process. In this guidebook, let us not delve into portrait analysis due to its complexity *(which shall be discussed in detail another time)*. For now, follow these simplified steps for portrait sketching:

1. Sketch the overall shapes and build basic forms to map out the details.
2. Based on that sketch, assemble facial compositions and figures (e.g., eyes, nose, and mouth) with geometric lines.
3. Polish your drawing using soft and curvilinear lines.

INK ILLUSTRATION



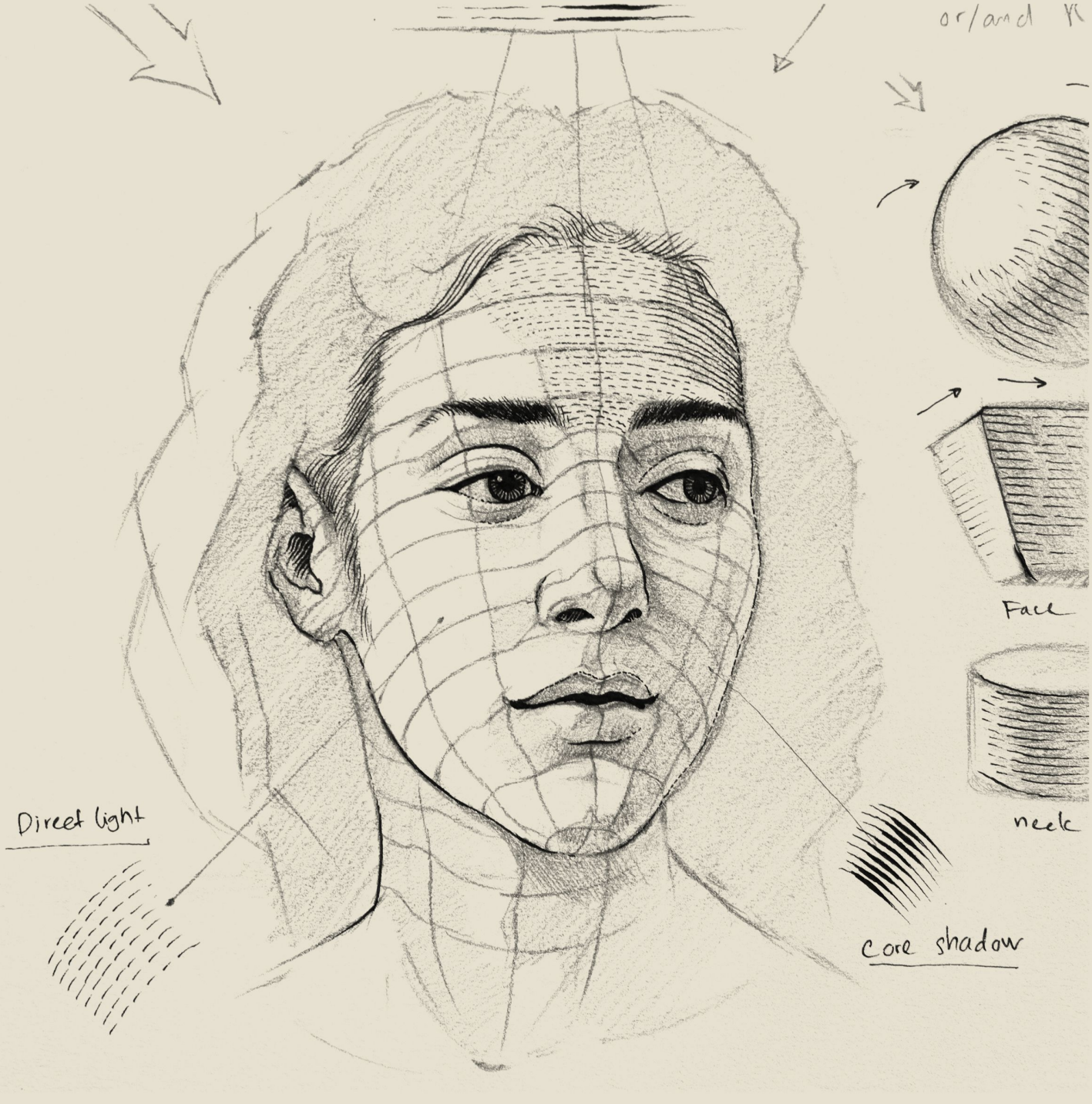
Simplify the head structure and facial figures using basic forms. For example, the sphere represents the head, while the cylinder represents the neck.

Combining simple forms can also simplify details like eyes, nose, mouth, and ears.

INK ILLUSTRATION

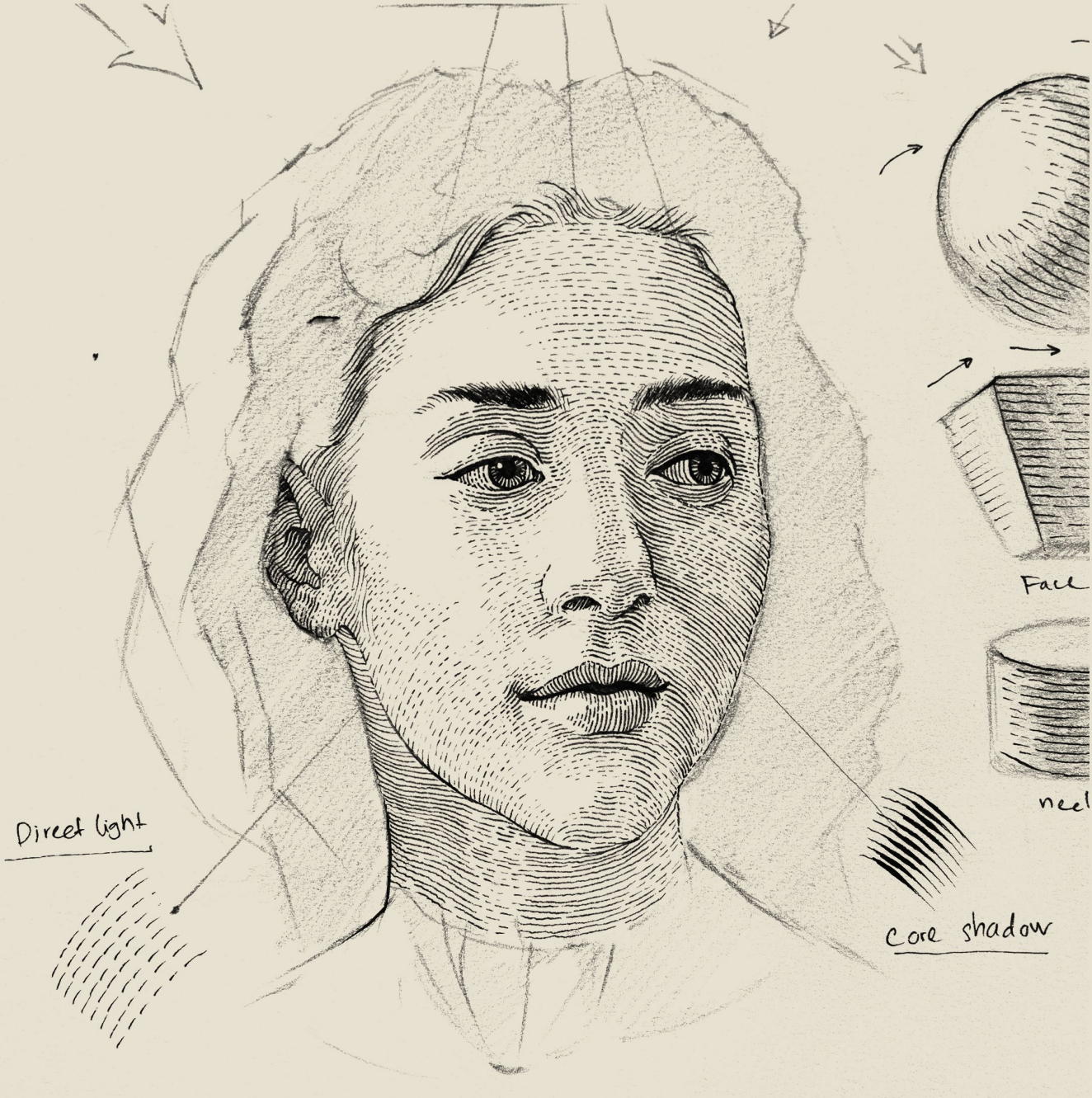
Use a pencil to study and shade the overall values *(tonal values block-in)*.
Based on the facial surface, add cross-contours *(of horizontal and vertical lines)*
to support the ink-shading step later on.

INK ILLUSTRATION



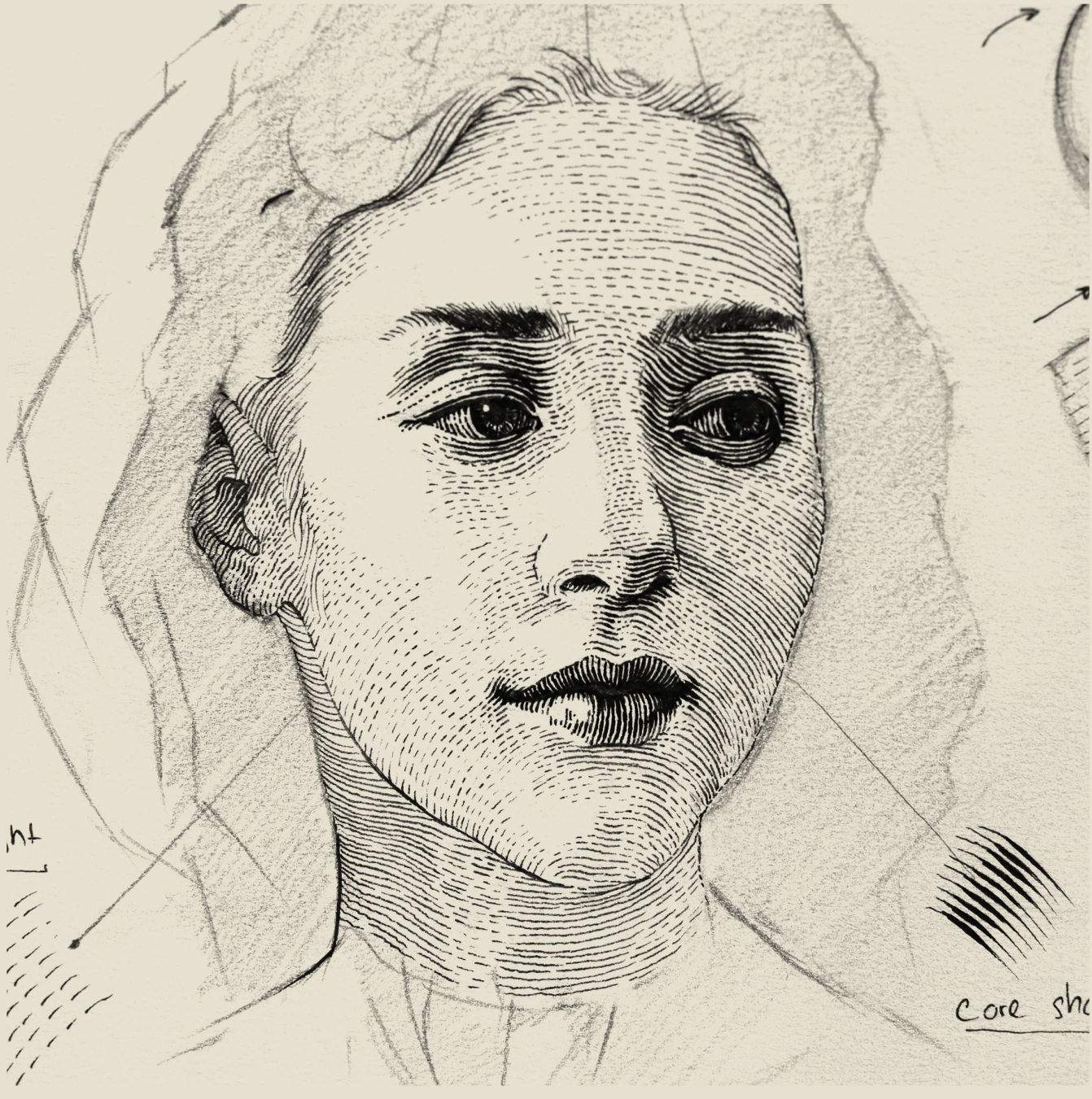
Use ink to draw the darkest parts of the portrait *(i.e., the eyes, eyebrows & nostril)*. Then, based on the overall shading and cross-contour done in the previous section, shade with ink using 'normal' and dashed/broken lines.

INK ILLUSTRATION



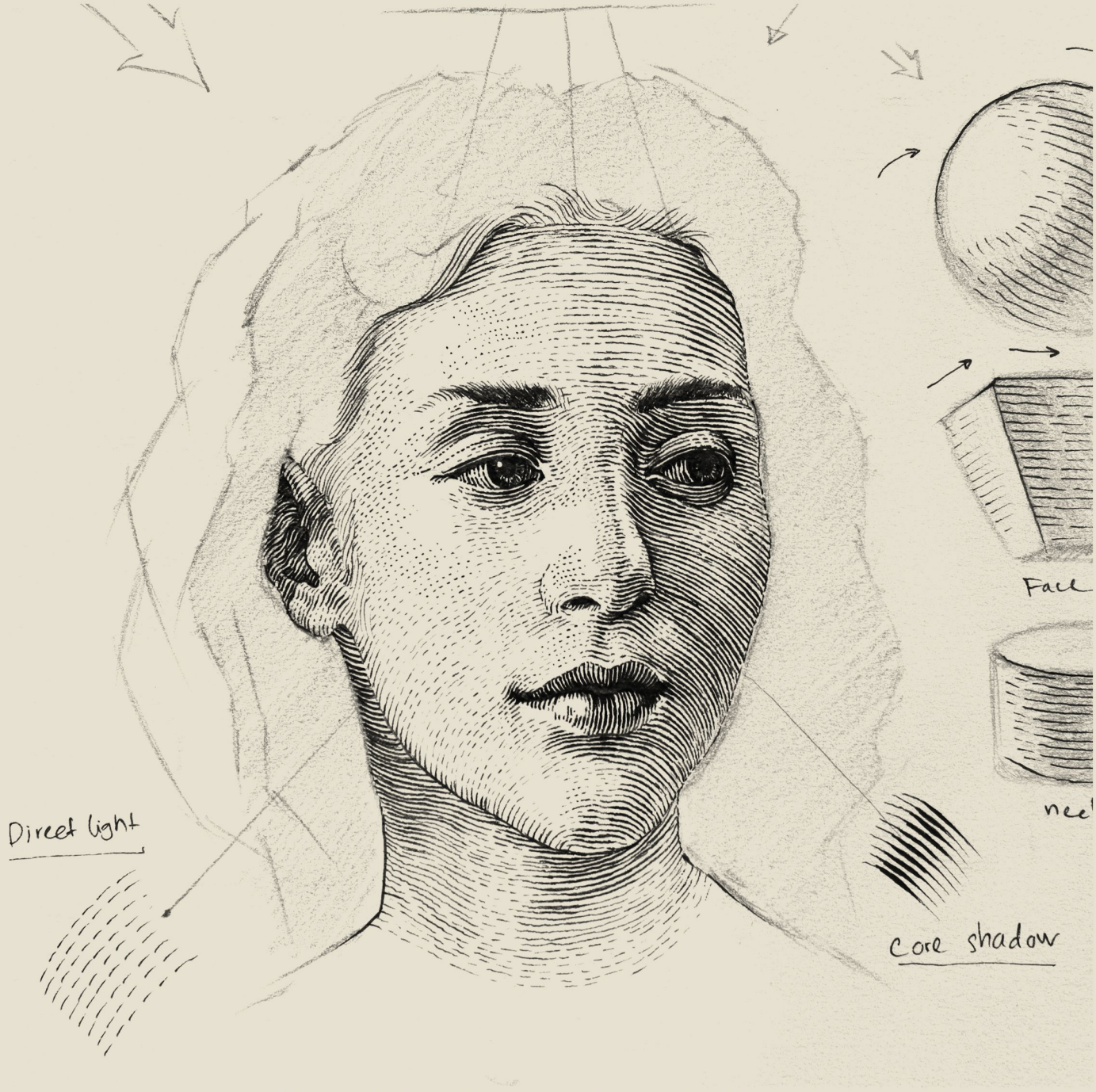
Polish the overall shading and erase unnecessary sketches. The hair shall be drawn later.

INK ILLUSTRATION



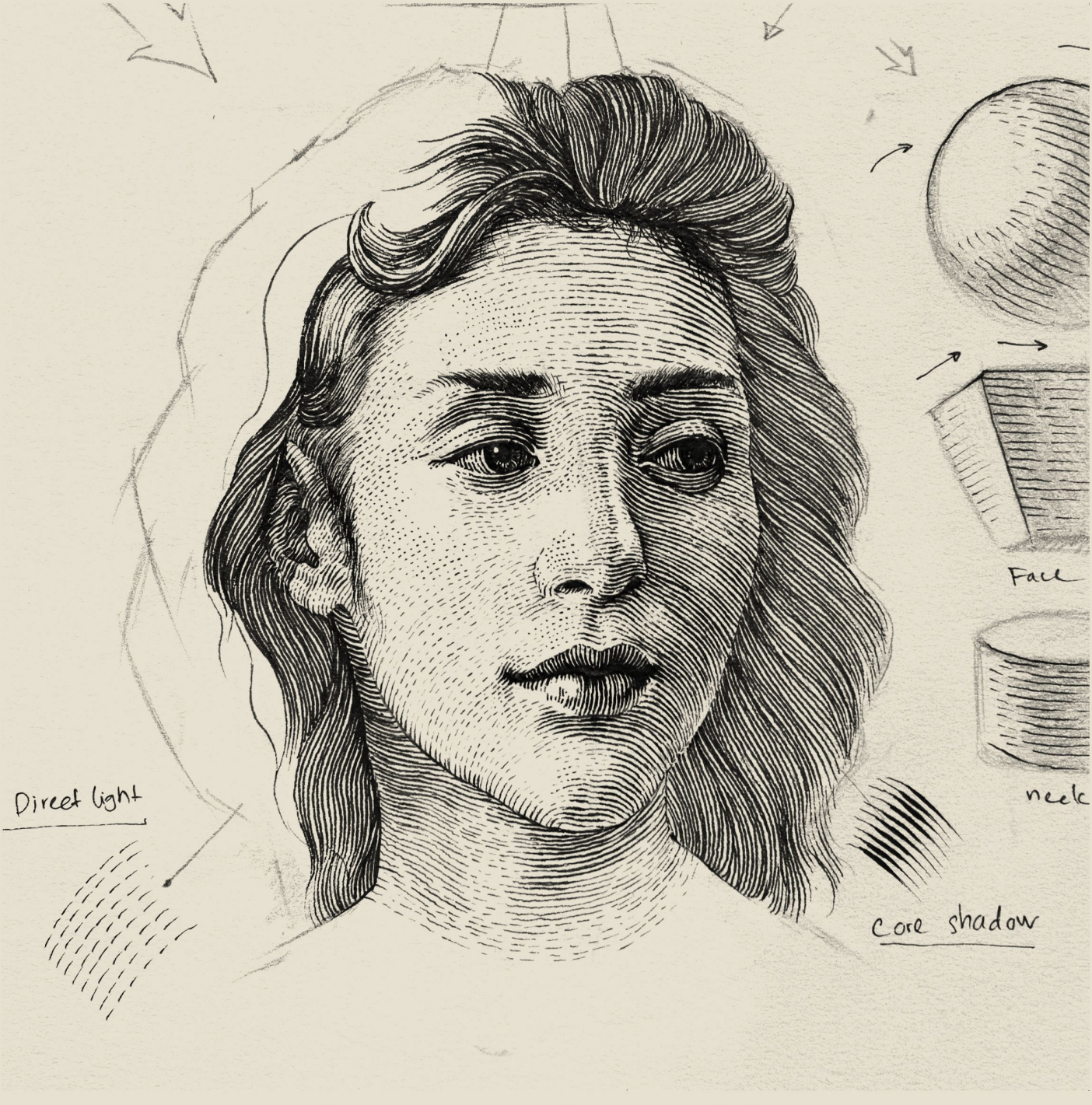
Increase tonal correlation by shading the core shadow and mid-tone areas, i.e., lips, eyes or nasal base. At this point, you can adjust the line width to create the suited value.

INK ILLUSTRATION



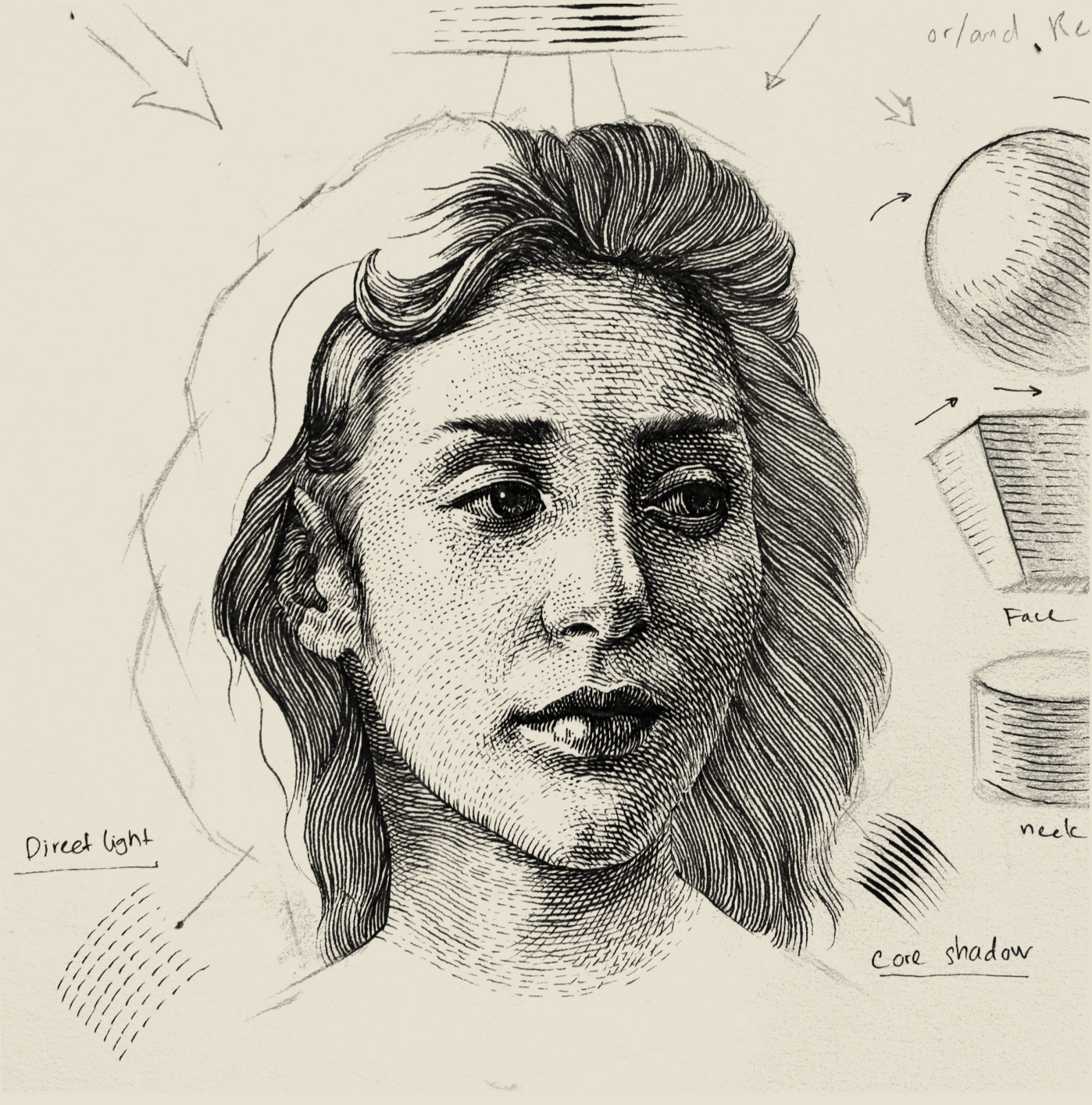
Finish shading the core shadows and mid-tones.

INK ILLUSTRATION



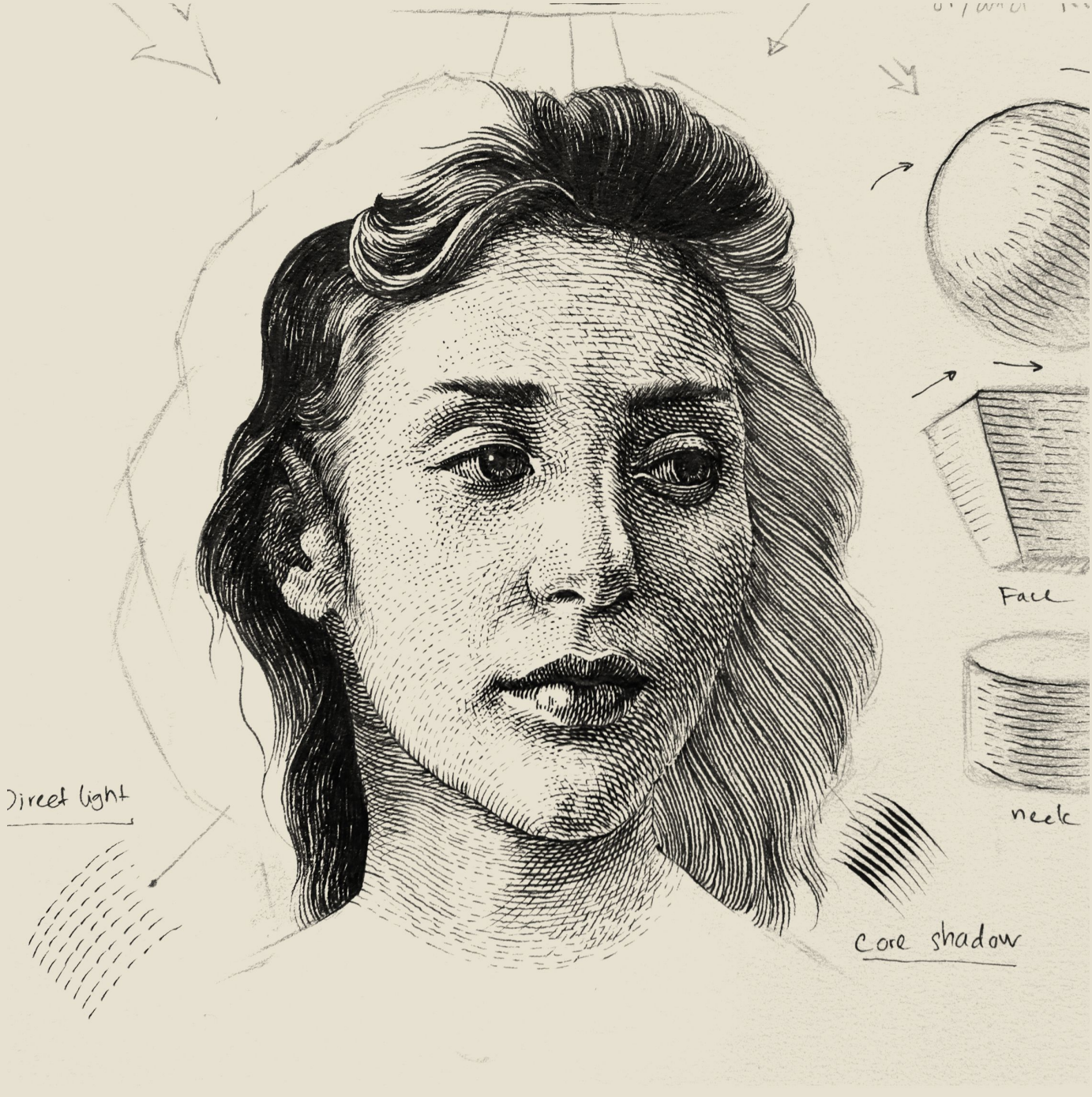
Start drawing the hair based on its natural direction.

INK ILLUSTRATION



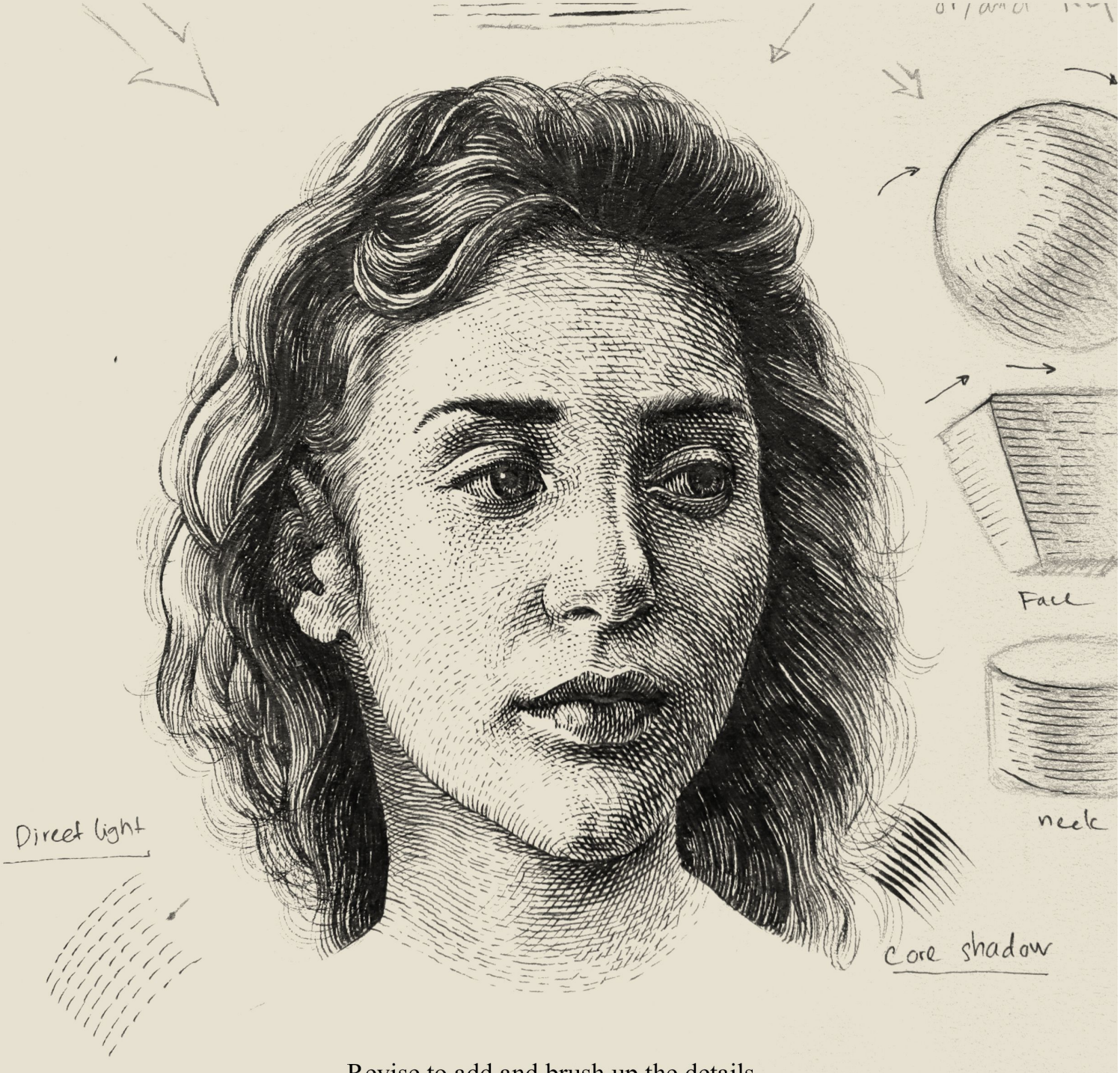
Add another cross-hatching layer to the darkest areas or core shadows to emphasize the drawing's value correlation.

INK ILLUSTRATION



Highlight and shade the hair based on the face and overall composition.

INK ILLUSTRATION



Revise to add and brush up the details.

The last session is for your hands-on experiments. To become more proficient at ink drawing, you can practice by printing out the following pages, using them as opaque prints to draw on then comparing them with your finished works.

THE END

That is all I can share in this introductory guidebook. May it deliver comprehensive knowledge and inspire you to start creating your own artwork.

If you have any questions, please contact me at trile.shiba@gmail.com.

Thank you.