HOW TO DRAW
MANGA
Sketching Manga-Style

Vol.5 Sketching Props
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Even corners are rounded.

Circles constitute the base forms of sleeves and hats.

Cups and bottles
Manga in addition to book and magazine illustrations are full of circles. The spaces people inhabit in their daily existences come abounding with round objects and rounded corners.
If You Can Draw a Mug, You Can Draw Anything!

Round objects visually become ellipses. This is best represented by the all-familiar drinking mug. A handle-less mug constitutes the base form of all "elliptical objects" and curves. This includes the portrayal of spaces, solid objects created using ellipses, and of thicknesses and volumes formed using combinations of ellipses.

"Yunomi"
("A handle-less mug used to drink hot tea)

Various pots
("A pun on "yunomi," or a handle-less mug, which is the cup pictured, and "unomi," which refers to fishing with a cormorant)

Gun

Tray with a wine bottle, wineglass, and bowl

Car wheels

Clothing accessories
Chapter 1: From Two to Three Dimensions

This book focuses on personal effects or objects that surround a character, particularly targeting objects located below eye level. (Objects above eye level constitute the background or setting.)

Chapter 1 teaches tricks to drawing forms ranging from simple geometric shapes to solid objects and ellipses.

**Using Circles, Triangles, and Squares to Draw Solid Objects**

Basic circle, triangle, and square

A cylinder (tube), cone, and rectangular solids are the base form of almost any object.

Break up complex solids into simple solid forms to make drawing them easier.

Chapter 2 covers how to draw personal effects that round out a character's sense of presence, like glasses, hats, shoes, and bags.

Chapter 3 covers props used to portray daily scenes, such as small items like cups and trays or large items like bicycles.

Chapter 4 discusses how to draw items that primarily appear in action scenes and which enhance the world you are attempting to create, such as swords or guns, etc.
There Are Fixed Rules Guiding How an

1. Dividing the Composition into a World Above and a World Below

An object’s shadow changes according to the angle at which it is seen or the type of lens used to capture it.

The base is visible.

Looking up: The world above
Looking down: The world below

The top is visible.

Above
Eye level
Below

The base or bottom of objects above eye level is visible, and the upper surface is obscured from view. The top of objects below eye level is visible. Most objects drawn with a character fall into one of those two categories. (When drawing the background, establish where eye level is located and divide the background into a world above and a world below.)
Object Appears

The cup's bottom is visible.

Above

Eye Level

Below

The top of the cup is visible.

The above shows a teacup in perfect profile. We rarely encounter this view in either real life or artwork. However, you should have a firm grasp of an object's profile in order to capture its form when drawing.

Objects located in the world above are seen from a "worm's eye" or "low angle" perspective.

Position the character's face or chest at eye level to pull the reader's eye to him or her, thereby showing off the character. When composing a figure in this manner (particularly when positioning the face at eye level), all body parts etc. below the face fall into the world below and should, therefore, be drawn from a high angle.

Objects located in the world below are seen from a "bird's eye" or "high angle" perspective. This is how our now familiar teacup appears.
2. Using a Standard Solid

In this book, we refer to solid objects not drawn in perspective as "standard solids." Artists often draw objects held in the hand or dishes resting on a table as reference objects and use them in compositions where they do not intend to emphasize the perspective.

**Standard Solid**

Standard solids are not drawn in perspective. Sides that face each other may be drawn parallel to one another, so the objects appear to be solids, even though they are not in perspective.

Objects on top of a table

Objects naturally seen from above or automobiles drawn at a distance are rendered as standard solids.

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**Drawing Ellipses**

Draw an ellipse using a central axis and a straight, vertical line.

1. Establish the central axis of an object.
2. Draw a vertical line intersecting the central axis.
3. Sketch a layout of an ellipse around this central point.
4. Clean up the ellipse so that it is symmetrical from top to bottom and side to side.

Viewing an ellipse from various angles makes it obvious that the ellipse is distorted. Rotate your paper when drawing ellipses.
3. Capturing Objects in Perspective

This book refers to solid objects drawn in perspective as "objects in perspective." Artists use objects in perspective to create impact like that found in photographs taken with a wide-angle lens.

**Object in Perspective**

Objects in perspective are drawn with an exaggerated sense of perspective to accentuate a three-dimensional feel. Objects are typically drawn in one-point perspective.

In the wide-angle lens style figure above, the sense of perspective is heightened, and forms are likewise exaggerated.

Ref.: When portrayed from a distance, the figure is drawn as a standard solid, and no sense of perspective is emphasized. A figure like this would typically appear in an expository scene.

**Objects in Perspective and Ellipses**

- **Standard object**
- **Object drawn in perspective**
- **Ellipses drawn in the same perspective**
- **Use one-point perspective for the side lines.**

Draw ellipses using a central axis and a vertical line when portraying both standard objects and objects in perspective.

- **The bottom ellipse should be rounder than the top.**
- **The bottom ellipse should be rounder than the top.**

Using a square as a guide when drawing a circle will give you a clean, freehand circle. However, there are problems with this technique.

**Incorrect**

If you use a cube to draw an ellipse in this manner, you will end up with a distorted ellipse. This technique cannot be used for ellipses.
Drawing a Corridor Using One-Point Perspective

- Create a Sense of Depth Using Large and Small-scaled Objects

Make objects close to the picture plane large and distant objects small. This gives the composition’s center a sense of depth.

There are two conditions to using large and small-scaled objects to create a sense of depth. - You must know how large the object actually is. - Both the large and small object must be the same.

Even though this gun is a 3/4 view drawn at a low angle, it is still not in perspective.

You need a drawing that shows just how big the object really is when held. This is when a composition using standard objects comes into play.
Making an object held out or pointed toward the picture plane large gives the composition impact. This technique is used in scenes where fists, guns or swords are thrust forward.

The above is drawn from a moderate low angle as if scene through a wide-angle lens. This imbues objects moving toward the picture plane with a sense of speed and power.

High Angle, Wide Lens Rendition
This portrayal emphasizes a sense of weight and luxury in the car. Simulated two-point perspective is used to accentuate the sense of depth and breadth. The addition of speed lines creates a sense of movement.

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Chapter 1

The Basics in Drawing Characters and Props
Capturing Objects Using Circles, Triangles, and Squares

Before making yourself aware from the start of the object as a three-dimensional solid, try to capture its basic form using simple geometric shapes.

- **Circle**: A circle can represent a tabletop or a dish. It also constitutes the base form of an ellipse.

- **Triangle**: A triangle can represent a cup or a plastic bottle.

- **Square**: A square (or rectangle) can represent a handbag, a cell phone, or other similarly shaped object.

A human figure can also be expressed as a combination of circles and squares.
Using Circles, Triangles, and Squares to Capture a Composition

Circles, squares, and rectangles can be used to capture the basic forms of the remaining objects around the human figure.

Glasses

The two lenses are captured as a unit and represented with a rectangle.

The lenses and the frame can be grouped together and represented using a block.

Cup

The cup’s right and left sides must have uniform slopes. Imagine the cup as a triangle.

Layout captured as a standard solid

Cell Phones, Bags

As is obvious at a glance, cell phones are basically rectangular in form. Rounding the corners makes the cell phone appear authentically mechanical.

To draw a bag, start with a standard solid. Do not be overly concerned with perspective (i.e. diagonal lines indicating depth).

Tables and Dishes

Ellipses: A circle becomes an ellipse when viewed from an oblique angle.

Circles with de-emphasized perspectives positioned on a tabletop just appear different in size. Draw all as ellipses positioned at the same angle.
The Angle of Perspective Is the Key to Compositing Objects

Shapes in Profile

Circle  Triangle  Square

*In actuality, these shapes would never look like this unless you saw them from a significant distance or were viewing them through a telescopic lens.

Looking Up—Low Angle

Sphere  Cone  Cylinder  Box or Block

Looking Down—High Angle

Adding shadow to a circle creates a sphere.

It is difficult to draw clearly delineated sides on a cone or a cylinder. Render them from a high or low angle to show them as solids.

Boxes have clearly delineated sides, making them easy to render as solids.

Most of the objects we find in our surroundings are solids seen from a high angle.

And yet, you will find surprisingly frequent opportunities to draw cups from low angles.

We rarely see these objects from a low angle.
The Basic Rules of Ellipses

Objects that appear to be circles when seen from directly overhead—for example, cups—will appear elliptical when viewed from an angle.

Seen from directly overhead
The lengths are virtually identical from top to bottom and side to side.

Seen from an oblique angle
The object has shortened from top to bottom, turning it into an ellipse.

90° Object viewed from directly overhead

60° Object seen from a moderately high position

45° The object viewed from a common standing position

5° to 15° The object viewed from an extremely low position

The lower the position, the more the circle appears squashed and flattened out.

Ellipse Template

There are templates with ellipses from common angles (25°, 35°, 45°, 60°). There are also templates with ellipses ranging from 5° to 15°. When drawing manga, first sketch the composition's under drawing in pencil and then go over it with a technical pen.

Tip

Even though the second figure is standing, the distance from the desk causes her to view the circle from the same 25° angle as the crouched figure.

A figure standing even farther from the desk causes the circle to become an even more flattened ellipse (10° to 15°).
The techniques for drawing curves for the top or bottom of a can are the same as those for a cup, plate, or car wheel. Here, we examine the steps in drawing a can to learn how to use a template.

1. Capturing the Form

Centerline dividing the ellipse vertically

Centerline dividing the ellipse horizontally

Draw two lines approximately establishing the ellipses vertical and horizontal centers.

This means a circle seen from a 25° angle.

The vertical and horizontal centerlines intersect at a 90° angle.

1. Sketch a rectangle to match the ellipse's desired shape and then sketch the ellipses layout within the rectangle.

2. Sketch a layout of the can's sides.

3. Draw a vertical centerline that is parallel to the layout's side.

4. Draw a horizontal line that indicates the can's approximate height.

5. Draw a horizontal line indicating the center of the can's top.

6. Draw the ellipse representing the can's bottom.
2. Drawing the Top Ellipse

1. Lay the template in the target position. Lay the template in the target position.

2. Carefully align the template to the paper so that it lies perpendicular to the composition.

3. Firmly hold down the template so that it does not slip around.

4. Ellipses have two sharp curves on each side. Start drawing the long, gentle curves first.

5. Draw carefully to prevent the template from shifting.

6. This shows the finished top of the can.
3. Drawing the Bottom Ellipse

1. Once again, lay the template in the target position for the top ellipse and draw points at the top and bottom of the ellipse's center.

2. Draw a straight line to connect the top and bottom points. This constitutes the can's vertical centerline.

3. Match the horizontal centerline to the vertical centerline. Select the same-sized ellipses from the template.

4. Only the front, center of the bottom ellipse will be visible, so draw the ellipse from the horizontal centerline.

5. Lightly sketch in the remainder of the ellipse to create a three-dimensional object. The front curve is touching a base, so use thicker strokes.

6. This shows the finished top and bottom ellipses.

4. Drawing a Cylinder

1. Draw a line from the tip of the ellipse.

2. You may use the template's side as a straightedge instead of a ruler.

3. Carefully draw the line so that the ellipse and the can's side are not off. Carefully connect the ellipse and the side, while checking to make sure you do not leave a gap and to make sure they touch correctly.

4. This shows the finished cylinder, which is the can's basic shape.
5. Adding the Rim

1. Draw a smaller ellipse just inside the first ellipse.

Use an ellipse that is slightly smaller than the first ellipse.

2. Start by drawing the back rim. Keep a slight gap between the second and first ellipse. You will need to alter the ellipse's size. Start by drawing the upper half.

3. Shift the template slightly downward and draw the curved sides so that the ellipse that it connects cleanly with the rim curve.

4. Position the template so that the foreground inner curve will be closer to its corresponding outer curve than the two far curves.

5. Adjust the curves so that they connect smoothly.

6. In order to give the rim of a cup or can the illusion of volume, adhere exactly to the template when drawing only the outer ellipse. Draw detailed or short curves of the inner ellipse using freehand in order to create a sense of thickness.
6. Adding Thickness to the Rim

① Draw a freehand curve as a guide to give thickness to the rim.

② Tilt the template and look for a curve that matches the image in your mind's eye.

③ Establish an angle that matches the image in your mind and draw a curve that clearly indicates the height and width of the rear rim.

④ Adjust the two ends of the curve freehand. When drawing a close-up, look for a curve on the template that best matches this area and use that.

7. Cleaning up the Sides

① Clean up the sides, erasing any sketched, tentative lines.

② The can's rim juts out just barely further than its sides, so bring the template in slightly.

③ Hold the template down so that it will not slip and draw the line using a single stroke.
8. Adding the Bottom Rim to Finish

① Add an inner curve that matches the outer curve. Above, the artist is using an ellipse that is one size smaller than the first ellipse used.

② Clean up the lines freehand, as you did for the top rim.

③ Carefully add the portion of the rim that juts out.

Tip

Use thicker strokes for the portion touching the base. This allows you to portray the can's shadow, caused by the rounded rim. Adding thick lines like this imbue objects with stability.

④ Final Image

④ Follow the same process for the can's other side.

⑤ Connect the line to the rim so that no gaps form.

⑥ Sketch a layout of the bottom rim, adding thickness.
Hatching

Using Light and Shadow to Suggest Three-Dimensionality

Objects

When little light is present, objects melt into shadow and do not have a strong sense of three-dimensionality.

When light is present, a strong contrast develops between light and dark areas, evoking a look of three-dimensionality.

Characters

Without the presence of a set light source, there are no shadows.

A flame flares up on our girl’s fingertip. Now shadows appear, and she looks three-dimensional.

Ref.: Mountains

A light source is located in the upper left.

A light source is located in the upper right.

Even if the light source does not physically appear in the composition, applying shadows in a fixed manner indicates to the viewer where light and the light source are located. This is known as “establishing a light source.”
Light-and-Shadow Produced "Light, Medium, and Dark Shades"

The contrast between light and dark causes objects and figures to look three-dimensional. "Medium" shades occur between "light" and "dark" shades and allows for enhanced three-dimensional portrayal and richer suggestion of texture.

Basic Light and Dark

The contrast of light and dark cause the circle to look like a sphere.

Light shadow suggests a weak light source (the primary shade is grey).

The above shows a weak light-and-dark contrast, which yields a soft, gentle atmosphere.

Dark shadow suggests a strong light source (the primary shade is black).

When the light-and-dark contrast is strong, the sense of three-dimensionality becomes heightened, resulting in a cold, hard image.

Portrayals of Light, Medium, and Dark Shades

Why Light, Medium, and Dark Shades Develop

• Three-Dimensionality through the Interplay of Light, Medium, and Dark Shades

Using light, medium, and dark shades on a human figure projects a gentle impression.

We perceive that this box has three sides owing to the light, medium, and dark shades.

The above shows only light and dark shades.

• Interplay of Light, Medium, and Dark Shades

The "medium" shade appearing after the sequence of "light," "medium," and "dark" suggests reflected light. It enhances the sense of three-dimensionality.
Portraying Texture

Suggestion of texture is essential to drawing a character with props. Hatching suggests soft hair. Hatching, such as the straight strokes appearing on the can, appears on other objects as well to suggest texture.
**Distinguishing Use of Hatching According to Materials and Their Textures**

**Glass Champagne Flute**
Use primarily straight strokes.

**Collar**
(Thick fabric)
Use primarily diagonal strokes.

**Cargo Pocket**
(Same fabric as the collar)
Use thicker strokes for the button's shading to give it a three-dimensional look.

**Black Leather Brassiere**
The light-and-dark contrast creates a strong sense of three-dimensionality. The above shows cross-hatching.

**Can**
Regular vertical and horizontal strokes produce hatching that creates an inorganic, hard texture.

**Black Leather Skirt**
Since the skirt is the same material as the brassiere, cross-hatching is again the prominent form of shading. Her wristband is also the same material; however, since it is cylindrical, primarily straight strokes were used to portray light, medium, and dark shades.

**Knife Handle**
Omitting any areas of white suggests a material with a matte finish.

**Wood Grain**
Hatching was used to create the illusion of wood grain.
**Materials Observation and Analysis**

**White Sphere (Styrofoam)**
The region touched by light is not visually distinct. The light-to-dark contrast is somewhat dull.

The profile contour is a thin line that wraps around from the sphere's opposite side.

**Metallic Sphere**
The sphere's surroundings are totally reflected on the sphere's surface. Draw in black the ceiling, people, and other objects on the sphere's surface. This sphere has a sharp light-to-dark contrast.

**Glass Sphere**
The light source is small and round. It forms a circle of light within a shadow on the sphere's opposite side.

**Ref. How Differences in the Light Source Affect the Material's Appearance**

The profile contour and the light-to-dark contrast changes, depending on where the light source is located, its shape, and its intensity.

**Indoor Light Located Directly Above Is Sole Source**

The portion of the sphere touching the table appears black.

**Natural Light from Window Is Sole Source (High Angle)**

The window's shape is reflected.

The reflected ceiling appears to be a shadow.

**Light and medium shades of crosshatching produce the look of a light material.**

**Crossthatching and solid black accentuates the contrast of light and dark. The black produces the heaviness of metal.**

**Fine strokes suggest light passing through the sphere.**
Chapter 2

Letting the Props Narrate about the Character
What Is Meant by "Props Narrating about a Character"

A single pair of glasses can alter a character's impression. Shoes, bags, hats and other props all tell the reader more about a character's personality and lifestyle than words.
Building a Character from Solid Shapes

- Upper arm: Cylinder
- Waist: Truncated cylinder
- Thigh: Widening cylinder
- Head: Sphere
- Face: Flat
- Neck: Cylinder
- Torso and chest: Block
- Chest: Sphere (Half sphere)
- Backside and hips: Sphere
- Shin and lower leg: Combination of widening cylinders

Positioning a joint in the center of each finger makes them easier to draw.

Hand and fingers: Blocks and cylinders
Use blocks to define the palm and fingers.

Feet: Triangle, circle, and rectangle
Capturing the depth and roundness of the head is vital to drawing glasses, hats, and other accessories worn on the face and head.

Tips on Achieving Three-Dimensional Heads

(1) Vertical and Horizontal Centerline: Use a Circle and X Layout
(2) Head Depth: Use the Face
A Look at the Parts of the Face and Head

Section of head denoting depth

The face is virtually flat

Facial feature lines

Virtually straight

The Face Is a Mask

Face Line

Since the neck is a cylinder, the connections between the head and torso to the neck form circles.

The head consists of the face plus a spherical base.

Face line

This shows the hair. Using curved strokes, maintaining awareness of the head's curved surface allows you to create a sense of volume using solely the hair.

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Glasses are such a popular accessory in *manga* that there is even a type of character known in Japanese as a "*meganekko,*" which is a non-derogatory word referring to a young character who wears glasses. Make certain that you have established where the eyes and ears are positioned when drawing glasses.

**Tip 1:** Be certain that the glasses proportionally match the face when composing them.

The glasses should flare out at the temples.

The temple tip slips around the ear.

The temple covers the eye.

The rims should be as wide as the face.

**Tip 2:** Establish the angle of perspective.

The trick here is to draw the glasses as a standard solid rather than actually to follow the rules of perspective.

**Tip 3:** Sketch the glasses as a shallow block.
Sketching Steps

1. Sketch the head.
2. Sketch the rims' layout as a block.
3. Draw the glasses while adding in the eyes and nose.
4. Carefully add the details to finish. Make sure that the right and left sides of the rims and temples match in thickness.

Basic Points on Eyeglass Part Shapes

How Glasses Are Worn

- **Hinge**
  - Narrow hinge
  - Wide hinge

- **Rims**
  - Rim attaches only to top of lens
  - Rimless
  - Rim attaches only to bottom of lens
  - Full rim (Rim surrounds lens)

*Cellulose is a popular material for plastic frames; although, other materials are used as well. Cute, red frames are made of plastic.*
Dramatizing with Glasses

Shifting/Taking off Glasses

Lifting glasses:
This pose could be used for manga or a magazine or book illustration.

When drawing the act of lifting glasses, make sure that the temple tips stay on the ears. This is a difficult feat actually to perform in real life.

When drawing a character removing glasses, use a high angle and have the character look down. The above drawing shows a low bridge, so the boy grasps the frame by the hinge.

Adjusting Glasses

My glasses are intentionally drawn in perspective to preserve my expression.

This character is pushing up her glasses with the inside of her fingertips. The act has a reserved air. Draw the fingers touching the frame. Making the hands smallish projects a feminine atmosphere.

The act of grasping the frames with the fingers is an affectation meant to intimidate. Be sure to make the hand big.

You must dramatize the hands touching the glasses. Pay careful attention to how the fingers bend.
Adding Hands

The above could be used to suggest a character putting on glasses, removing them, or adjusting the glasses’ position. The ring finger typically bends in conjunction with the middle finger. However, adjusting the point of view allows the artist to show movement.

This character is pushing up his glasses with his middle finger. While the act serves to adjust the glasses, placing the hand in front of the face functions to create an intimidating air or heightens the character’s presence.

Portraying Characters in Glasses (Eyeglasses Effects)

These glasses have oval lenses. The temples attach to the rims’ bottoms, projecting a gentle impression. This look works well with bishonen (literally “beautiful boy”) style characters.

These goggle-style frames have tall lenses. Frames like these typically come colored or are used as sunglasses. The eyes are obscured to people looking directly at the wearer, making this style suited to creating a suspicious atmosphere.

Rectangular lenses suggest an honest, upright character.

These are simply rendered, round frames. Project a character’s personality by adding simple eyes for a regular character or omit the eyes to create a geek.
Goggles are an advanced application of glasses. Instead of flat lenses, draw boxy or tubular lenses onto a headband.

The above shows a rough sketch capturing the shape. The depth and width of the front piece are generally established.

Study the front piece's depth, the band's width, and where it attaches (whether it attaches toward the front piece's center, top, or bottom).

Sketch a band to function as a layout guide for the front piece.

This centerline functions as a guide for determining the band's placement.

This shows a layout of the headband. Show the headband wrapping around the head, forming a loop.

This functions as a guide for aligning the lenses' lower ends.

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**Sketching Tips**

**Capturing the Front Piece's Form**

- Lens centerline
- Trapezoid
- Lens height (front)
- Front piece depth
- Part that touches the face (back)

**Capturing the Lenses' Width**

- E.g.: Swimming Goggles
- The above sketch establishes the headband's width.
Sketching Steps

① Sketch a headband-style layout establishing the goggles’ width.

② Draw the headband’s centerline.

③ Draw ovals for the lenses.

④ Draw the headband.

⑤ Final image

The same applies to lenses laying at a tilt or to round lenses.

Round lenses
This piece is shown contracted. It expands when worn.

The bell is an optional accessory.
Goggles as a Fashion Accessory

When worn at approximately 30°, the goggles just touch the eyebrows. The goggles lie close to the eyes, making it a practical way of wearing them.

When worn at approximately 45°, the goggles lie over the forehead. This is the most common way to fashionably wear goggles.

This character is wearing her goggles at approximately 60°. Rather than being practical or fashionable, an artist would choose this style of wearing goggles to reflect the character's individuality. This style also works effectively with magazine or book illustrations.
Headbands and Other Headpieces: Wraparound Headpieces

Cloth Headbands

When drawing accessories for the head, be sure that you correctly position the head’s crown (the head’s top/center) and the ears.

The headband is a swath of cloth that stretches and contracts.

Front view: The headband takes a moderate downward curve.

Profile: The headband takes a moderate upward curve.

The curve changes directions at this point (it changes into the face line)

3/4 view: Upward curve

High angle: Downward curve

Low angle: Upward curve

• Cloth Headbands Worn Vertically

To the right is a headband made of a stiffer fabric. To suggest a stiff fabric, use straight lines to create a curve constructed of angles.

This shows a headband made of a supple fabric. The headband follows the head’s curved surface.
**Hachimaki**
(*Narrow strip of cloth worn around the head and tied at the back)*

- **Front view**: The width does not change.
- **Perfect Profile View**: Use the face line as a guide to adjust the width.
- **Slightly Turned**: The hachimaki touches the ears.
- **The hachimaki tapers toward the knot.**
- **Add fabric creases around the knot.**

- **Sketching Tips**

  1. After sketching the layout, add the face line.
  2. Add the *hachimaki* after first establishing the volume of the hair. The curve of the forehead forms a gentle arc that lies virtually parallel to the horizontal centerline.
  3. Add facial features, hair, and other details to finish.
Stiff Headbands

This is a standard headband, which may consist of fabric covering wire or plastic. The ends grip behind the ears.

The headband may be worn toward the front of the head, over the center, or rear of center.

The headband describes a half circle that follows the curve of the head. Draw a front view and a profile view to establish its positioning.

Headbands project an athletic atmosphere, even when the wearer has long hair.

Headpieces

The headpieces pictured here, which come adorned with ribbons, serve a decorative function more than as a means of keeping the hair in place, like the more functional, stiff headbands pictured above.

Above shows ribbon ends. The ends may be cut at a bias or notched.

These headpieces may come with frills or ribbons or in tiny checkered print. Most are used to create a girlish air.

The headpiece ties under the chin.
Maid Headpieces

The maid headpiece has cloth ruffles; although, there are versions like the ribbon headpieces pictured on the previous page.

Sketching Steps

1. Use a radiating form for the layout, making the lines equidistant.

2. Use a wavy line for the top contour.

3. Add V's (both right side up and upside down) to finish.

The ruffles stand at a tilt.

The ruffles change appearance depending on the view.

Headband with Kitty Cat Ears

This headband has animal ears (in this case, kitty cat ears). These are typically used as a costume. Versions with headbands that lie flat on the head like those shown on the previous page also exist.

Crows and Tiaras

Crows are placed on the head. This functional characteristic causes them to be categorized with hats. However, since crows are not an item we encounter in our daily lives, they are more a costume item, like the kitty cat ears also shown. We might wear a crown or a tiara to a party or wedding.
Hats are a wonderful accessory making a character look cute. They enable the artist to indicate that a character is stepping out using solely the costume. Maintain awareness of the head’s shape when drawing hats.

### Baseball Caps

Hats comprise a crown and a brim.

- **Crown**
- **Brim**

**3/4 View**

- **Centerline**
- **Curve top**
- **Profile View**
  - Remember to include the brim’s slope.
  - Note how the curves change appearance depending on the angle of perspective.

**Directly Above**

- **V shape**
- **Curve**

**Moderate High Angle**

- Note how the juncture where the brim and crown attach change appearance.

- The brim’s tip describes a normal curve.

- Imagine a square with rounded corners when drawing the brim.

### Common Hats

- **School cap**
- **Newsboy cap**
- **Straw hat**
- **Cowboy hat**
- **Baseball cap**
- **Hunting cap**
- **Knit cap**
- **Sun visor**
- **Floppy sun hat**
- **Scarf**
- **Beret**

This is a scarf worn wrapped around the head. While it is not a hat, it changes the appearance of the wearer like a hat does.
Sketching Steps

1. Sketch a layout of the character.

2. Draw a line that establishes the cap's depth. Draw the cap's crown without a brim.

3. Sketch the crown's layout, making it just slightly larger than the character's head.

4. Draw the brim's layout as a flat rectangle.

5. Draw a line extending from the centerline into the direction that the character faces. This line will form the basis of the brim. (This applies when the character wears the cap straight on his or her head.)

6. Use an inverted V to describe where the cap's brim and crown connect.

Flesh out the character and the cap.

Clean up the lines to finish.
Assorted Ways to Wear a Cap

Front View

The above shows a cap worn straight.

This shows a cap worn at a downward tilt.

This shows a cap worn at an upward tilt.

Worn Straight

Profile view

Rear 3/4 view

Low angle, 3/4 view

Worn with the Brim in the Back

Profile view

Low angle, 3/4 view

Ref.: Bend in the Brim

Standard bend in brim
Brim with more dramatic bend
The brim tapers narrows toward its end.

This bottom edge takes on an upward curve. The brim’s underside now becomes visible.
Newsboy Cap

This is an advanced application of a cap.

Think of the cap’s crown as a pin cushion and attach the brim.

*The newsboy cap generally sells well. Cotton is worn during the summer and wool during the winter.

Front view

Layout of the crown

Use a W-shaped wave for the brim’s front.

Profile view

Establish the same distance from the top of the head to the top of the cap as in the front view.

The charm of the cap is its oversized fit. Drawing this contour so that it slightly covers the bottom edge is an effective way to create this look.

Sun Visors

Draw sun visors as headbands with brims.
Straw and Wide-brimmed Hats

Draw a large circle (ellipse) constructed around (the roundness of) head.

Crown's width
Brim's width
Gap between head and hat

Correct

The hat should be worn low so that it just covers the eyebrows.

Incorrect

The hat appears unnatural if it floats above the head. It makes the head look too big.

The brim is approximately the same length from front to back and right to left.

Hatband ellipse

When showing the hat worn at an angle, draw the ellipses forming the hatband and the brim so that their centerlines do not align.

Brim ellipse

The vertical centerline remains unchanged.

Hatband ellipse
Brim ellipse
Centerline

Both ellipses lie at a 30° angle.

Hatching using curved lines that follow the arc of the ellipse create the look of straw.

Straw is a soft, natural material, so remember to create a flexible shape.

Sketch the face's horizontal centerline and layouts of the eyes to achieve the correct look of the brim's ellipse.
Cowboy Hats

Cowboy hat brims curl up at both sides, and the crown has a trapezoidal form.

Establish whether or not the brim widens and the extent to which the sides curl up (in this case, to about half the height of the crown).
The helmet’s silhouette reflects that roundness of the head. Some helmets, called “full-face helmets,” cover the entire head, while others, called “half helmets,” cover only a portion.

When donned, a helmet makes the wearer’s head look oversized.

Visors (shield) come in flip-up and snap-on versions. Tinted visors are also available.

**Guide for Determining the Sizes of the Helmet and Head**

Sketch the helmet’s outline so that it follows the head’s contours. Make the helmet two sizes larger than the head.

**Why Helmets Are So Large**

Helmets contain sponge inside to function as a buffer and absorb shock.

Incorrect example: The helmet is too small.

Always draw the head first before drawing the helmet.

The flyaway hair locks function as guides for the helmet’s layout.

Open-Face Helmet
Using a Circle and Curve Template to Produce a Clean Sketch

Helmets are assemblages of gentle curves. If you intend to do an accurate close-up of a helmet, use a curve or large ellipse template.

In manga, artists generally use technical pens instead of dip nib pens.

Curve and circle template B

These templates contain curves of incrementally different curvatures. These may also be called "large ellipse" templates.

Curve template A

Common Helmets

Full-Face Helmets

Full-face and off-road helmets include coverage for the chin. When the helmet is donned, only the wearer’s eyes are visible, and the wearer’s facial expression is obscured.

Modular helmet (This includes a flip-up visor.)

Shorty helmet: These are typically worn with 50cc scooters and mopeds or tandem bicycles.

Open-face helmet: (This version comes with a removable visor or without a visor.) Unlike full-face helmets, these have no chin coverage, allowing view of the wearer’s facial expression.

Off-road helmet
Think of headphones as a headband with hamburgers attached.

Headphones include a headpiece called a "headband" that is reminiscent of a fashion headband.

The hamburger-shaped ellipses are ear pads.

Below shows a finished headphones sketch.

Headphones and Parts

- Headband
- Pad made of sponge or other soft material
- Hinge
- Ear pad
- Cable

Sketching Steps

1. Sketch the figure's head plus the headphones.
2. Clean up the shapes and add the details.
3. Some ear pads have wrinkles in the pad portion.
4. Give volume to the headband.
5. The headband is worn against the top of the head.
6. The hinge is centered along the ear pad.

Final Image
Sketching Tip: Draw the Ear and Then an Ellipse Covering the Ear

Profile View

Give the ear pad a vertical centerline when sketching the figure in profile.

3/4 View

When drawing the figure in 3/4 view, shift the ellipse’s centerline.

Draw a curve that follows the head’s curved surface.

This is the centerline of the ellipse for where the hinge connects to the ear pad cup.

The centerline should lie at the same angle as the ear.

Ear pad centerline

Rear 3/4 View, Moderate High Angle

Randomly disperse short, fine strokes around the ear pad to create wrinkles.

For the centerlines, first draw vertical line ① at the same angle as the ear. Next, draw centerline ② perpendicular to vertical line ① so that the two lines intersect.
Removing Headphones and Hanging Headphones around the Neck

This character holds the headphones in her hands as she removes them. The headphones are shifted behind the head. Be certain that you draw the neck with volume.

This character has a headphone set hanging around her neck. Front view

The headphones are pulled apart to take them off.

Sketching Steps

1. Sketch the headphones as slightly wider than a fashion headband.
2. Attach hamburgers to each side.

Profile view

The headband describes an ellipse as it wraps around the neck.
Designer Headphones

Some headphones are not merely functional but also fashionable.

These have unusually shaped ear pads.

Here we see earmuffs.

Some headphones display logos or other decorative artwork.

Headsets

These are headphones and microphones that come attached as a single set.

Entertainers also wear headsets.

Operator

Headset

Receiver

Microphone

Ear pad
Props That Tell about the Arms, Legs, and Body

The Basics of Clothing

Clothing is designed to envelope the body. This section discusses how the sleeves, neck holes, and other areas from which body parts protrude are circular in form.

Armhole: The armhole marks the juncture where the sleeve and shoulder meet. It reflects the upper arm's girth and the torso's depth.

Side seam: This stitched seam gives the torso the appearance of volume.

Cuffs: This is a circle that surrounds the wrist.

Pants: The style shown here could also be called "slacks" or "trousers." Pant legs are tubular, reflecting the three-dimensional volume of the legs underneath.

The crease line is centered along the leg.

These curves adhere to the torso's contours.

Hem: Use ellipses for the waist and the hem to make a skirt look three-dimensional.

Rippling

Knee highs

Sole of sock

When using a prop or article of clothing to tell a story about a character, start by sketching the torso and limbs as three-dimensional cylinders.
Clothing Is a Second "Skin"

The most basic of clothing basics is a wrapped piece of cloth. Even merely wrapping a cloth around the body causes the fabric to form a cylindrical solid.

Adding diagonal hatching to the ellipses forming the waist and hem makes a skirt appear three-dimensional.

Sketch the torso and draw the clothing around it, making the clothing just slightly larger than the torso.

Since Clothing Is a "Skin," Bending or Stretching It Causes Creases

Crease formed from bending

Crease formed from pulling (a "flexed" crease)

Creases shift as the body's contours change.

These wrinkles reflect sagging fabric. Opt for longish curves when portraying wrinkles and creases around the pant's hemline.

The front and rear creases double as centerlines.
Learning How to Draw the Human Figure from Your Mummy

Figures Are Stacks of Cylinders

Sketch a figure with stripes across his or her body, as if the figure were a mummy. The direction that a curve takes (upward curve or downward curve) indicates how a given body part is positioned.

At a standard angle, the entire body should be drawn using downward curves. These curves are reflected in the downward curve of a skirt and other clothing.

Virtually all parts are short cylinders seen from a high angle (the tops are visible).

The bottoms of these cylinders are visible.

The figure to the right is rendered in cylinders. Capturing the upper and lower surfaces gives a clear picture of how body parts are positioned.

From a low angle, the figure’s curves shift upward.

This figure is rendered as a basic block manikin.
The arm has a tremendous range of motion. Do you ever find yourself confused as to which direction the arm is supposed to be extending or bending?

Try sketching the arm as cylinders. This offers you a clear view of cross-sections of the elbow and wrist, which firmly establishes how the arm is positioned.

Take careful note of the ellipses defining the cuff.

Once you understand the positional relationship between the ellipse defining the cuff and the ellipse defining the wrist, you can start by drawing the cuff to establish the forearm's positioning and then move on to the upper arm.

Controlling an ellipse is to control a three-dimensional solid.
Belts and buckles tell about the torso. These are typically drawn using downward curves. (They are like the edges of a pipe seen from a high angle.)

From a standard angle, all body parts underneath the head are drawn from a high angle, looking down.

That is why belts and buckles always take on downward curves.

Conversely, belts and buckles take on upward curves when drawn from low angles.

Sketching Tips

Draw the buckle wider than the belt.

This is drawn using a "fashion curve." Belts drawn in this manner loosely hang around the waist, requiring that they take on a more pronounced downward curve.

Buckle with single hook

Buckle with double hook

This is block-shaped. The inside was blackened to suggest depth.

Use solid black on the buckle’s tubular parts.

Sketch a centerline to ensure that the holes through which the buckle’s hook passes are centered along the belt.

Block-shaped Buckle

The above shows a block-shaped buckle. Use diagonal hatching to create light-and-dark contrasts.
Common Belt Designs

You can create a host of different belt styles by changing the belt's thickness, color, buckle shape, or other feature.

Narrow belt with buckle closure (hook visible)

Wide belt with block-shaped buckle closure

Woven belt with tie closure

Edging gives the belt a classier appearance.

Buckles come in an enormous variety of shapes, sizes, and materials (metal, cameos, plastic, etc.).

The belts above function more as fashion accessories than to "cinch."

The above shows a thick, heavy belt with intricately detailed decorations.
Suspenders consist of straps that stretch and contract. They are more flexible than belts, allowing ease of movement.

Suspenders take a gradual curve that follows the torso’s front contours.

Draw adjusters on the right and left sides at approximately the same level.

The clip attaches slightly further from center than the tuck.

Bartenders and others occasionally wear cummerbunds over suspenders, as depicted here.

Back adjuster

The metal adjusters control the straps’ lengths.

The clip attaches the suspender to the pants.

Common Styles

X-shaped

Y-shaped
Fashion Trends in Suspenders

Suspenders worn hanging down

The “X” formed in the rear constitutes a key fashion point.

Chubby characters find belts uncomfortable and often opt for suspenders instead. Suspenders also give the wearer a more dignified, sophisticated air.

This character is wearing one suspender over the shoulder and the other hanging down.

Because these suspenders are not flexible, they sag, giving the wearer a sloppy appearance.

Pay careful attention to the length when drawing hanging suspenders.

These are flat straps that neither stretch nor contract.

Hook

This hook attaches to a button.
Arms and Hands

Give characters accessories on their arms and props in their hands.

Draw the wrist as a solid (sketch the wrist ellipse).

Wristwatches

Sketching Tips

Sketch the wrist layout. You may draw the watchband ellipse using the same ellipse that you would a shirt cuff.

The shirt cuff and the watchband take the same curve.

Both the watch face ellipse and the watchband ellipse lie perpendicular to the arm.

Posing to Show off a Watch: Watch Face Worn on the Outside

Wristwatches are small items, so artists often pose a character to show off a watch.
Posing to Show off a Watch: Watch Face Worn on the Inside

Pocket Watches

This is a somewhat large fob with a cover.

This is a somewhat small fob without a cover.

Artists use the characters' poses and chains to show off pocket watches, drawing a character looking at his or her watch.

Use Virtually the Same Ellipse for the Wristwatch and the Wrist
Most cell phones are approximately the size of the palm of your hand. Draw them as blocks with just a shallow depth.

**Common Cell Phone Dimensions**

- **Palm-sized**
- **When open, cell phones double in size.**

**Sketching Tips**

- **This line establishes the ear's angle.**
- **The phone's surface generally lies at the same angle as the ear.**
- **The transmitter is located in the top section. The speaker holds the top section of the phone against his or her ear.**
- **The key is the angle at which the phone is held against the ear and its position.**

**Sketching Steps**

1. **Draw a block, keeping the vertical, horizontal, and depth lines parallel, accordingly.**
2. **Round the corners and fill in the details.**

Draw the cell phone as a standard solid. Avoid adding an accurate visual perspective.
Texting and Mailing or Texting Photos

If the character is tiny or if you are composing a long composition, draw the cell phone on the large-side.

Use the hand as a yardstick when establishing the cell phone's size.

Drawing the phone according to the laws of perspective would make it appear deformed and visually awkward.

This horizontal centerline establishes the eyes' height.

This is the cell phone's horizontal layout line.

Use a standard solid, regardless of the angle at which the cell phone is held or viewed.

To make a character look at a cell phone, draw the character's face's horizontal centerline and the cell phone's horizontal centerline parallel to one another. This creates the impression that the character and the cell phone are facing each other.
A bag is an indispensable prop that illustrates a given character’s lifestyle. Draw bags as standard solids, using a block as the base form.

**Bags with Straps or Handles on Top**
- Attaché cases, etc.

**Bags with Straps or Handles on the Front and Back**
- Tote bags, schoolbags, etc.

**Bags with Straps on the Sides**
- Handbags, shoulder bags, etc.

**Backpacks and Bags with Adjustable Straps**
- Convertible bags, etc. (bags that function as clutches or handbags, backpacks, and/or shoulder bags)

Bags are essentially "blocks." Establish the proportional size of the character to the bag when drawing.
Bags with Straps or Handles on Top

Leather briefcases, armor-plated attaché cases, trunks, and other sturdy cases emphasizing function.

- Attaché Cases

Use the human figure as a basis for determining the case's overall size.

Handle and case

The case's length is double the handle's length.

Scale Comparison with Human Figure

Shoulders

Height

The case is shoulder-width in length.

Cases run between 5 cm (approx. 2") and 10 cm (approx. 4") in depth; although, deeper cases exist.

Correct

The above shows a standard solid with each side facing each other. The top is visible.

Incorrect

To give the case depth, the artist got caught up in drawing the side in perspective but ultimately forgot to draw the top in perspective as well.

Sketch the handle as a block.

When you intend to make a case appear big or want a composition with impact, draw the case in perspective.
Sketching Steps

"X Method": Dividing the Case Horizontally into Four

The juncture where the lines intersect is the shape's center.

Drawing parallel vertical and horizontal lines from the center produces the vertical and horizontal centerlines.

Repeating this process allows you to create lines that function as guides in establishing the positions of the case’s parts.

Cases with Handles on the Top

- Briefcase
- Schoolbag
- Portfolio
- Toolbox
- Suitcase
- Suitcases

The handle is long enough so that the fingers of both hands will fit.

The roller height is approximately the same as the handle height.

Handle height

Roller height

Front views

Aim for about 45° when determining the angle to draw a pulled suitcase.

Stride length

The suitcase should touch the ground approximately one step behind its owner.

Guide for establishing the distance between a suitcase and its owner.

Incorrect example: The artist made the suitcase appear too far behind its owner.

The pull handle is never longer than the height of the suitcase itself.
Bags with Straps or Handles on the Front and Back

A tremendous variety of bags ranging from functional to fashionable come with straps and handles attached to the front and back, such as shopping bags, tote bags, school bags, and many more.

- **Functional Bags**
  These are primarily sturdy and comfortable to use.

- **Fashionable Bags**
  Designers exploit this type of bag's visible front, adding patterns or shapes to make the bag more stylish.

- **Functional and Fashionable**
  The bag shown here comfortably hangs from the woman's arm, allowing her two free hands.

**Sketching Tips**
Correctly depict differences in handle and strap types.

**Straps That Twist**
- The straps are bar-shaped.
- Because they twist, the underside becomes visible, and the straps' width appears to vary.

**Straps That Do Not Twist**
- The straps are thick and rounded.
- These straps do not twist, so their width is virtually uniform.
School Bags

Scale Comparison with Human Figure

School bags typically hang from the shoulder.

This disheveled student wears his bag sloppily against his back.

Bags with Straps or Handles on the Front and Back

- Casual bag
- Reusable shopping bag
- Shopping basket
- Briefcase

Double zipper
Bags with Straps on the Sides

These include handbags, casual bags, shoulder bags, duffle bags, and a wide variety of other bags.

Sketching Tips

Capturing the Form

Rough sketch
Draw the portion of the strap touching the arm to establish how the strap connects.

Cleaned-up Sketch
Use a standard solid to ensure that the left and right widths are the same.

Sketching the Details

Draw the strap so that its width is even throughout.

Use a dashed line to suggest stitching.

Use thicker lines where the leather is supposed to overlap.

Add solid black to the buckle. This evokes a sense of three-dimensionality and gives the buckle a metallic look.
• Shoulder Bags

This boy is wearing his bag from one shoulder and across his body. Maintain awareness of how the strap forms an ellipse when drawing.

**Characteristics of Shoulder Bags**

- The bags have adjustable straps.
- Shoulder straps come with shoulder grippers.

**Sketching Tips**

- Clearly indicate whether the basic shape is circular or square.
Backpacks

- Backpacks (Day Packs)

Rear

Profile/Right Side

This shows the right side. The right and left sides of some backpacks (day packs) differ.

Front and Side Facing Wearer's Back

Front: This portion is visible from the wearer's front.

Backpacks come with three types of fasteners.

Magnetic fastener

Snap-lock clasp

Buckle

Front

Profile View

The edge of the right shoulder strap is just barely visible.

3/4 View

This area should form a side "V" as a reflection of the shoulder's volume.

Draw the right and left fasteners so they lie parallel to the shoulder line.

Picture an ellipse when you draw the shoulder straps.
Sketching Tips: Draw the Character as a Standard Solid

- **Schoolbags**
  
  Make the bag’s depth equal to or greater than the wearer’s head.

  ![Diagram of Schoolbags](image)

  **Rear Side**

  **Side Facing Back**

  - Shoulders
  - The upper half is wide.
  - Chest
  - Waist

  **Sketching Steps**

  1. Sketch the layout.
  2. Adjust the forms.
  3. Clean up the lines and add the details to finish.

  ![Sketching Steps](image)

  *Make sure that the shoulder straps taper.*

  *Sketch the torso’s layout as a block.*

  *Give the torso volume.*

  *Use a block as the backpack’s base form.*

  *Use the horizontal layout lines as guides to proportion the shoulder straps correctly.*

  ![Diagram of Sketching Steps](image)
Footwear

The Slipper Is the Most Basic Shoe

Key Points in Portrayal

While the foot is a more complicated shape, the slipper forms a simple ellipse.

This line defines the toe as well as describes the arc of the top of the shoe.

This portion covers the top of the foot.

Slipper Line
This curved line denotes the beginning of the vamp.

Cover Line
This curve covers the toe.

Steps to Sketching a Slipper

1. Draw the slipper line (the curved line denoting the beginning of the vamp).
2. Draw the line covering the back of the foot.
3. Draw the cover line, which covers the toe.
4. Draw the sole.
5. Give thickness to the sole.
6. Finished slipper

You can draw any type of footwear following these steps.

Basic Points on Feet

The sole's contours of the right and left sides do not look the same.

Big toe side: The sole's contour displays bumps and dips.

Little toe side: The sole's contour is a relatively flat curved line.

Anklebone

Top of foot

Heel

Tnee tips

Ankle

Foot's top

Sole

Back

Little toe side

Big toe side
**Common Footwear That Tells about a Character**

**Penny Loafers**

Penny loafers are popular articles for portraying school students. Artists tend to use them with school uniform-sporting female junior high and high school students.

**Sketching Tips**

1. Draw a strip of leather at the slipper line.
2. Cover line
3. This slope forms the typical vamp.
4. This zigzag line is the heel line. It is present in shoes with heels.

**Sketching Steps**

3/4 View

1. Locate the center of the top of the foot. This marks the visual center.
2. Using the center as a guide, draw the slipper line.
3. Drawing the slipper line slightly above the visual center brings it close to the actual center.

3/4 Rear View (Starting with a Slipper)

1. Slipper line
2. Cover line

**Key Points in Portrayal**

The leather strip is located approximately at the shoe’s center.

This is slightly rear of the halfway point.

The toe rises when there is no foot in the shoe and falls somewhat when worn.

The heel is 1/4 the foot’s total length.

Draw 1 and 2 and add the foot’s sole.

Draw the shoe’s sole and give it depth to finish. The same applies to the loafer.
Athletic Shoes

Sketching Tips

1. Use the slipper line to achieve a sense of three-dimensionality.

2. Cover line

3. These slope lines enable you to draw the eyelets and tongue.

4. The ankle line is a curve that follows the rounded anklebone.

Sketching Steps

3/4 View

1. After sketching an outline of the foot, add the centerline of the foot’s top.

2. Draw the slipper line.

The eyelets lie in two parallel rows to the right and left. You would normally draw a shoe as a standard solid.

Front View

Use the visual center, the slipper line, and the cover line to draw the shoe.
High-heeled Shoes

Key Points in Portrayal

Draw the centerline of the foot’s back and establish the toe’s depth.

Quarter

Heel: Play around with the heel’s height and thickness.

Rear 3/4 view

Front view

Sketching Tips

Sketch the foot’s layout.

The shoe’s toe extends slightly beyond the foot’s actual toes.

Make the toe narrow to the degree that it does not become pointy.

Make the quarter rounded and have it protrude.

The quarter and heel should form an "S" silhouette.

Assorted Heeled Shoes

Shoes with Enclosed Toes

This variation shows laces going up the leg.

Wedge

Shoes with Open Toes

Because no part of the vamp holds down the toe, the shoe requires a back strap.

These open-toed sandals have no rear strap.
Boots

Sketching Tips

This line defines a cross-section of the leg according to the angle of perspective. It allows you to create the boot's top.

Play Around with the Forms

Simplify the toes of the feet and sketch the boots' outlines.

Leave the length alone but widen the ankles to create scrunch boots.

Keep the narrow ankles to maintain the fitted boot look, but lengthen the boot.

Fold

Belt

This design features a fold at the top and a belt around the ankle.

Assorted Boots

Differences in Form

Fitted boots: These boots taper as the eye moves from the top to the ankle. They adhere to the leg's natural form.

Scrunch boots: These boots retain a relatively uniform width from the top to the ankle.

Above-the-knee boot: This boot extends above the knee.

Knee boot: This boot extends just below the knee.

Mid-calf boot: This boot extends to midway between the knee and the ankle.

Ankle boot: This boot rises to around the ankle.

Differences in Length
Chapter 3

Letting Props Narrate a Scene
What Is Meant by "Props Narrating a Scene"?

Placing dishes and utensils on a table or a motorcycle or car on a road tells the reader at a glance where the character is and what he or she is doing. The prop explains the character's situation.

- Indoor Scene

In the panel to the left, the characters are merely present. The scene is unclear to the reader. They could be waiting for a meal or waiting for someone else to arrive.

But, if the artist has clearly included food and drinks, now the reader immediately realizes, "Ah hah! It's a dinner scene."
• Outdoor Scene

This panel shows a street scene and a person. There is no sense of people inhabiting the space. It has the feel of a ghost town. The woman seems more like a shadow than a person.

Now the scene includes a motorcycle and cars, and the woman holds an umbrella. The panel now feels alive. Props imbue a composition with life.
This section teaches how to draw glasses, cups, mugs and other drinking vessels held in the hand.

The rim and the thickness of the glass's base become important when drawing a thin glass.

**Sizing a Glass**

Determine the scale of the glass in comparison to a hand before beginning to draw.

**Sketching Steps**

1. After sketching the layout and determining the glass's height, draw the right and left sides equidistant from the centerline.

2. Draw ellipses for the lip and base. After drawing the base, add a guide to establish the base's thickness.

3. Draw lines for the sides and add an ellipse for the base to finish.

The base is thick.
Drawing Ellipses for the Lip

1. Draw an ellipse.

2. Add a slightly smaller ellipse just inside the first.

3. The gap between the two ellipses constitutes the glass’s thickness.

4. Erase half of the exterior ellipse’s front.

5. Erase the interior ellipse’s far side.

6. Draw a line from the exterior ellipse.

The rules of drawing interior ellipses dictate that drawing a second ellipse inside a first gives the illusion of thickness to a glass or cup.

Portraying Water and Other Liquids

Portraying Liquids

- Use hatching to create a play of light and dark that evokes the sense of a liquid.

Portraying Light Refraction

- Use wavy lines to create the illusion of agitated water.

Portraying Movement

- Use wavy lines to create the illusion of agitated water.

Incorrect

- Be careful. Liquids do not have corners.

Straws and other objects appear bent when viewed from outside a liquid.

Wavy lines form at various different angles on the liquid’s surface.
**Holding a Glass**

- **Holding a Glass or Cup in One Hand**

  1. The fingers wrap around the glass and grip it.
  2. The thumb supports the glass.

  Draw four fingers wrapping around the glass and the thumb supporting the glass.

  **Drinking**

  1. The four fingers merely rest against the cup.
  2. The thumb gives support.

  While our typical image of a person holding a glass in a hand is one of "gripping," the style of holding a glass depicted here contains the nuance of "offering" the glass.

- **Holding a Glass or Cup with Both Hands**

  Show the fingers of both hands wrapping around the cup.

  The thumb supports the cup from the other side.

**Paper Cups**

- **Correct**
  - The lip's exterior ellipse and its interior ellipse share the same center.

- **Incorrect**
  - Shifting the exterior and interior ellipses' centers so that they do not align results in a cup lip that does not look right.

The character may hold the glass in one hand or two.

If the character has big hands or long fingers, then he or she might hold the glass with the balls of the fingers and thumb.
Water Volumes and Glass Angles

Full of Water

If the full glass were tilted any further, the liquid would spill out.

If the glass is full, then the glass does not need to be tilted much to drink from it.

When the water spills out of the glass, its surface becomes virtually horizontal. The center of the ellipse creating the water’s surface almost matches that of the cup’s lip.

Half-Full of Water

If the half-full glass were tilted any further, the liquid would spill out.

Position of the liquid’s surface

Small Amount of Water

The position of the liquid’s surface sinks all the way to this level.

When a glass contains hardly any liquid, the character has to tilt the glass until it is almost horizontal and must raise his or her head to drink.

If the glass with a small amount of water were tilted any further, then the liquid would finally spill out.

Scenes of a character drinking often call for a liquid to be present in the glass. If the glass is tilted, the liquid will shift.
Mugs are essentially tubes with handles. Include a lip on the mug.

**Sizing a Mug**

- **Width**
- **Height**
- **Top**

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**Sketching Steps**

**Sketching a Mug**

1. Produce an overall layout of the mug.
2. Draw the central axes and sketch the ellipses. Take care to ensure that the tube’s sides are parallel.
3. Follow the rules of drawing interior ellipses to finish the mug.

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**Sketching Handles**

- **Mug**
- **Handle**

Both the mug and its handle form rectangles.

Imagine that you are attaching tape to the mug. Now you see that the handle forms a rectangular shadow against the mug.
Drinking

The mug's rim hides the girl's nose tip.

Drawing the centerline according to how the mug is tilted.

Include the mouth and nose when sketching a character drinking from a virtually frontal view.

Hand's Appearance When Grasping a Mug

Even small mugs are about as tall as a person's fist is wide. The handles are generally able to fit two to three fingers.

Planning the pose out with thumb sketches will solidify your image and make it easier to draw.
Coffee Cups and Teacups

Use ellipses of different sizes and angles to describe the cup's rim, foot, and saucer.

Demitasses and Coffee Cups

Demitasses are small and will fit into a square.

Coffee cups are wider than they are tall.

Because demitasses are tiny, only a fingertip fits into their handles.

Coffee cup handles are large enough for the fingers to get a firm grasp.

Coffee Cup

Teacup

Multipurpose Cups

Coffee cups do not significantly taper from top to bottom.

Teacup rim and foot ellipses display dramatic differences in size. The cups are shallow, and their rims are expansive.

These cups may be used for both coffee and tea. Some do not have accompanying saucers.
Common Pitfalls and Remedies

Two common pitfalls when sketching the rim of a cup is to make the sides pointy and to forget to add thickness to the rim.

Incorrect

The curve of the foot is less dramatic than that of the tip.

Giving a character accurately rendered props draws out the character.

Reasons for These Pitfalls

The artist attempts to produce cleanly drawn ellipses for the rim.

Incorrect

The artist draws two ellipses that are the same size, but shifting them apart.

Artist attempts to draw the rim using only the lower half of Ellipse 1 and the upper half of Ellipse 2.

Saucer Pitfall and Remedy

Incorrect

In this incorrect example, both the cup and the saucer look flat. Something feels lacking.

All of the ellipses forming the saucer are drawn along the same horizontal centerline.

The ellipse describing the cup’s foot should be rounder.

Take careful note that the ellipse’s appearance changes when the cup is resting on the saucer.

The key to correcting this mistake is to move the horizontal centerline of the foot’s ellipse down a little.
Teahouse Props

Texture

Note where shadows form.

Direction of light source

Add thickness to the saucer’s edge.

Shadow

Common Dimensions

Approx. 70 to 90 mm (2 3/4" to 3 1/5")

Size the teaspoon proportionally with the cup and saucer.

The handle should be approximately 2.5 times the spoon head’s length.

130 to 150 mm (5 1/8" to 5 3/5")

Adding black hatching to the spoon’s edge generates a metallic look and a sense of three-dimensionality.

Creamer

Saucers curve inward, allowing shadows to form along their sloped faces. Add shading, leaving a narrow gap equidistant from the saucer’s perimeter line. Have this gap follow the saucer’s perimeter. This white gap allows you to give the saucer the illusion of volume.

Coffee creamer
Dramatizing Cups

Picking Up and Putting Down Cups

As long you do not draw a cup “spilling,” a hand holding onto a cup’s handle could signify either “picking up” or “putting down.”

While both the cup below and the cup above have virtually the same ellipse describing their lips, the sketch above shows a hand from a distance, while the one below shows a close-up of a hand.

Slamming Down a Cup

Cups are round. Consequently, when a cup is lowered rapidly, its liquid contents slosh around its interior. Visualize a whirlpool when sketching.

Breaking/Shattering

Use curved lines and the cup’s exterior contours to create large fragments.

Leave fragments that hint at the cup’s original shape.

Using a combination of thick and fine lines to define cracks is effective.

The center is shattered into the tiny fragments, suggesting that something dropped on this section of the dish, causing it to shatter.
"yunomi"

(*A handle-less mug used to drink hot tea)

Draw the yunomi using a cylinder (tube) as its base form.

Key Points in Portrayal

The base is round.

The yunomi has a foot.

Key Points in Sketching

Lip

Use ellipses of the same size for the lip and the base.

Base

Foot

Draw a cylinder according to the picture in your mind’s eye.

Texture Differences

Modify the exterior contours.

Use straight lines for yunomi with smooth finishes.

Give undulating forms to the sides of rough yunomi, like the one above.

Common Styles

Cylindrical

Barrel-shaped

Bowl-shaped

To create a yunomi, take a cup, remove the handle, and add a foot.
Holding a *yunomi*

**Using Two Hands**

- Use your eye to judge how tall to make the foot.

This is the basic way to hold a *yunomi.* The drinker positions one hand underneath the *yunomi*'s base.

**Using One Hand**

- [Diagram of using one hand to hold a *yunomi*]
Add layouts of a handle and spout to a round body and check the overall proportioning.

**Kyusu and Dobin**

**Kyusu**

*Key Points in Portrayal*

- **Lid handle**
- **End of widest section**
- **Height centerline**
- **Height**
- **Establishing the spout’s position**
- **The body is virtually a circle.**
- **Use approximately the same width for the lid handle and the spout.**
- **Radius of body**
- **Handle**
- **The handle is somewhat longer than the body.**

Draw the spout and the handle perpendicular to one another.

Guide for where spout broadens dramatically and attaches to the kyusu’s body.

Nothing appears on the side opposite the handle.

Posture when pouring with a kyusu.
Key Points in Portrayal

First determine the height and width of the **dobin**'s body (not including the lid) and establish its shape. Next, establish the spout's position.

Pouring with One Hand

Sketch the layout. Imagine adding a horn to a circle.

Draw the loops to which the handle attaches and the spout so that they align.

Unlike the **kyusu**, the **dobin** is used to pour **mugicha** (barley tea) and other cool drinks.

Sketching Tips

The handle attaches at the **dobin**'s front and back and the spout's tip align neatly in a row.

The handle hooks through a loop attached to the body.

The handle oscillates.

Position of spout tip

Horizontal width of body

Height of **dobin** body (not including the lid)

Height of handle when raised perpendicular to the ground.
Add a long, thin stem to a regular glass.

Ref.: These show wineglasses drawn in correct perspectives.

The above shows a model drawing of a wineglass. The lip and the foot are drawn using straight lines.

When the foot appears flat, the rim is naturally seen from a low angle.

When the lip appears flat, the foot is naturally seen from a high angle.

Common Stemware Shapes and Sizes

Stemware bowls come in a host of lengths and shapes, and the bowls of stemware swell at the sides in a variety of ways.

- Human hand and palm
- Multipurpose wineglass (red and white) and water glass
- Champagne flute (Tall and slender)
- Red wine glass (Also non-alcoholic beverages)
- White wine glass (Also non-alcoholic beverages)
- Champagne saucer (Low and wide)
- Brandy snifter
Key Points in Portrayal

- Height
- Lip width
- Widest point
- Where stem attaches
- Foot width

Make the foot approximately the same width as the glass's lip. (The foot is actually as wide as the bowl's widest point. However, drawing the foot so that it is as wide as the lip results in a more visually satisfying wine glass.)

Key Construction Points

- Round the lip to create the appearance of thickness in the bowl.
- Attaching the stem to the bowl requires melting glass. Consequently, this area is moderately distorted and rounded.
- Make the foot thicker than the lip.

Decide Which to Emphasize: The Form (Glass as a Material) or the Contents (Wine)

Glass as the Emphasized Element
- Modulate the exterior contour to portray light reflections. This creates the illusion of a glass texture.
- Accentuate the appearance of thickness and glass texture.
- The glass appears thick at this area. Use solid black to heighten the sense of contrast.

Wine as the Emphasized Element
- Use a uniform exterior contour, placing importance on portraying the wine.
- Use double lines for the edges of the lip and foot.
- To suggest shadow, add hatching to create a play of light and dark, keeping in mind how liquids move.

Stemware is often handcrafted, so it is perfectly acceptable for some misshapenness in the lip's ellipse or in vertical and horizontal lines.
Raising a Stemware Glass to the Mouth

Show the figure's neck tilting to create the sense of a head leaning forward.

Draw the glass's centerline to give it an incline.

Holding Stemware

Show the figure grasping the stem with four fingers on one side and the thumb on the other. This projects a sophisticated atmosphere.

Correct

Show the glass tilting toward the head's centerline.

Incorrect

The stem should not be grasped with a fist. (This makes it difficult to balance the glass as well as to drink from it.)
Portraying Wine

Use sinuous curves to portray movement in the wine. Maintain consciousness of the curved surface of the glass.

Draw the line denoting the wine’s surface so that it adheres to the glass’s curved sides. Let’s look at how to portray a wineglass with an emphasized light source.

The portrayal of reflected light evokes the sense of the glass’s texture and curved surface.

The above glass of wine rests stilly in place.

Light against the glass and the play of light and dark within the wine give the glass movement.
The angle of the centerline alters as the wine's volume changes.
Holding Out a Glass

The glass held forward is this composition's focus. Enlarge the hand so it matches in scale how big you visualize the glass to be.

Grasping the Bowl

Drawing the fingers angled with the fingers upward suggests that the glass is being lifted.

Showing the forearm touching the stem creates the illusion of a raised glass.

Draw the hand so that the fingers wrap around the glass's curved surface.
Plastic Bottles and Beer Bottles

Plastic Bottles

Key Points in Portrayal

Establish the position of the sloped sides.

Opening the Cap

Align the fingers along the bottle's surface, vertically.

Tip! Cap Corners

The cap's corners are not squared off. Imperceptibly erase the corners.

Proportioning

500 ml (approx. 17 oz.)

250 ml (approx. 8.5 oz.)

Two liters

Combine a cylinder with a cone.
Pouring

Draw the knuckles so that they align. The bottle should be tilted at the same angle.

Drinking from the Bottle

Show the face tilting slightly upward.

In this side view, the plastic bottle is shown at a profile view. The composition is quiet and still.
**Beer Bottles**

A character in normal spirits would pour a bottle, holding it tilted slightly upward.

However, a character feeling dejecting might tilt the bottle until it lies virtually horizontal.

**Key Points in Portrayal**

- Neck
- Body

Shoulders: Where the neck and body connect

**Sketching Tips**

Establish the slope in the shoulders while determining the widths of the neck and body.

The above shows a comparison with the human head and hand. The bottle should be slightly larger than the hand.

**Portraying Texture**

This shows dark, medium, and light shades added using vertical and horizontal lines and hatching to evoke the sense of a curved surface. Note the effect of ordering the shades—light, dark, medium.

This bottle displays only a contrast of light and dark shades.

This shows a tinted bottle, creating a weak light-to-dark contrast.
Beer Mugs

Sketching Steps and Tips

Attach an ear-shaped handle to a cylinder to create a beer mug. The distinguishing features are the thick lip and thick handle.

1. A cylinder drawn as a standard solid constitutes the mug’s base form.
2. Draw a second ellipse inside the first leaving a noticeable gap to create the lip.
3. Establish how thick the foot will be.

Roughly sketch the lip, which you previously composed as flat, as a three-dimensional object in perspective and determine the positioning and thickness of the handle, checking the proportioning.

Adding Final Touches to the Handle and Giving It Volume to Finish

Top

Use thick, angular lines where the handle curves in a new direction.

Side

This indicates how thick the foot is. The foot looks enlarged owing to the glass distorting its appearance.

Base

The handle is attached by pressing a glass rod against the mug’s body. Consequently, the handle spreads and swells slightly where it attaches.

Glass thickness

Clearly define the handle’s top and sides. Use angular, rugged contours to evoke the sturdiness of thick glass.

This line is a reflection of the handle.

Show this as a distorted ellipse.

Assorted Beer Mugs

The lips, feet, and handles of all three are equally thick.

Metal mug
Making Props Look Authentic

This section covers how to evolve your artwork from "precise" to "authentic" to developing your own style.

Accuracy and Authenticity

The Strength of Accuracy

Correct

As far as we can see, this is a scrumptious parfait. Not only do the ice cream, the banana slices, the wafer cookies, and other treats take center stage in this parfait exude exactness, but the well-rendered, simple parfait glass displays the power of accuracy as well.

Incorrect

The foot appears awkward, and because of it, even though you spent so much effort drawing the parfait, it is all for naught.

What Distinguishes Accuracy from Incorrectness Is Appearance

Correct

While Japanese swords are not perfectly straight, this sword still evokes that impressive authenticity of a sword, allowing it to narrate the scene.

Incorrect

The sword we see here is a sloppy portrayal. This sword blade fails to narrate the scene for us.

The Power of Accuracy and the Ability to Exceed Accuracy

Here we see a carefully rendered champagne flute. The glass's texture and the sparkling wine contained within are authentically portrayed.

The flute itself is slightly misshapen and cannot be considered accurate. And yet, don't we still feel that the diagonal hatching portraying the glass texture and the liquid rendered using a contrast of shading evoke a sense of presence that makes us overlook the misshapen flute?
Authentic Portrayal That Allows Narration

Do you draw glasses with wine in them or wine in glasses?

Here, the glass takes center stage over the wine it contains. Light and reflections on the glass constitute the primary elements.

Here, the wine takes center stage over the glass containing it. The composition shows off the wine.

Empty Glasses

This glass is rendered solely using contour lines. This empty glass plays purely a "supporting role."

This glass hints at the thickness and weight of the glass.

This glass has an antique feel, displaying curved surfaces and evoking the sense of glass.

The goal of this glass is to portray the shine and glossiness of glass.

Using Portrayal Styles Effectively

Although you might be drawing the same subject matter, you will need to modify the portrayal to suit your goal.

The goal of the above is a realistic portrayal.

The goal of the above is to show a colored-glass bottle.

The goal of the above is to show a bottle.

Even if multiple artists were asked to "Draw an empty glass," no two would produce the same drawing.

This example suggests a glass with white wine.

How you approach "authenticity" changes depending on your goal. Once you have achieved accuracy, the next step is to seek a style of your very own.
Composing Cooking, Eating, and Dining Scenes

This section discusses props one finds in meal scenes.

**Pots and Pans**

Pots and pans are combinations of large and small cylinders. Take careful note of the differences in width between the various rims and bases of the pans.

**Skillets**

**Key Points in Portrayal**

- Straight region
- Curved region
- The handle lies at an angle.
- The handle is slightly longer than the pot's radius.

**Sketching Tips**

Only a short portion of the pan's side is straight. Consequently, the more the top of the pan is visible, the rounder the sides become visually.

Use fine strokes to add hatching to the cylinder.
Sauce Pans

Key Points in Portrayal

- Straight region
- Curved region

Width of base
Width of rim

The handle is longer than the rim's diameter.

When seen from an oblique angle, the sides appear straight.

Ladle  Metal spatula  Wood spatula

Metallic Textures

Use a relatively horizontal, gently curved line.

Draw a somewhat vertical line.
Pots with Two Handles

The radiating fine strokes that adhere to the lid’s sloped surface create a light luster.

Using hatching to create a dark that is near black evokes thickness and heaviness.

Draw the handles parallel to one another.

Omitting the base’s exterior contour creates the impression of a metallic luster.

This shows a play of light to dark to medium.

Determine the pot’s size according to the appearance of where the pot will be used, the height of the table, counter, or stove on which it will be placed, and other such factors.

Oven mitt
Kitchen Knives and Paring Knives

The blade's spine and the back of the hand should be virtually parallel.

Supporting hand

Angle of knife

Common Kitchen Knives

Chef's knife

Deba bocho (*Japanese carving knife used for fish)

Sashimi bocho (*Japanese carving knife used for sashimi)

Chinese-style cleaver

Scale Comparison with the Human Hand
At the Table

Western-Style Meals

Artists use ellipses to create dishes on a table and hatching to create the food, which primarily requires suggestion of texture. This section discusses Western and Japanese dining styles.

Sketching Steps and Tips

1. Sketch a layout, including horizontal lines, vertical lines, and approximate proportions of objects.

2. Add the dishes, glasses, and flatware.

- Bread: Lightly applied hatching using curved strokes creates shadows that portray the rolls as spheres.

- Salad: The shapes of the leaves play a key role.

- Knives, forks, and other flatware should lie in directions adhering to the table’s perspective.

- Use this shaded side to portray how thick the steak is.

- Steak: Add fine-lined cross-hatching in a regular pattern.
Eating

Eating soup

Cutting a steak

Sipping soup from a spoon

Determine where the fork's handle begins and ends in order to make it look good.

Cutting up a steak

Eating a piece of steak from a fork

Flatware (Silverware)

Front

Side

Dessert fork

Spoons

Fork and knife

Spoons and forks bend at the same angle.
Japanese-Style Meals

Sketching Steps and Tips

1. Roughly sketch the menu items and their positions.

2. Draw the horizontal and vertical lines, and sketch a layout of the dishes.

3. Add the food after sketching the dishes.

Use cross-hatching to suggest charred areas.

Drawing rice grains in two to three locations interspersed throughout the bowl creates the illusion of a bowl full of rice.
Eating Scene

Inserting chopsticks into a dish

Bringing the food to the mouth

The index finger and the chopsticks should point in the same direction, so sketch them as a single unit.

Eating

Picking up an *umeboshi* (*Pickled plum*)

Use long, curved lines to portray wrinkles in the *umeboshi's* flesh.
These compositions involve serving food to a guest and include bottles, cups, glasses, and other props.

Maids

This shows the pose used when serving food on a tray. Both elbows are held close to the sides to stabilize the tray.

Despite that the elbows should be held close to the sides, sometimes showing a character with the arms held away from the sides is just visually more attractive.

Maid holding her elbows close to her sides

Maid holding her elbows away from her sides

Waitress

Ozen: This is a complete serving for one diner arranged and delivered on a tray. It is a dining style that features prominently in Japanese cuisine.
Butler

Serving Tea

This butler is wearing a style of dress coat known as a “morning coat.”

The butler tips the tray ever-so-slightly toward his chest when serving.

Positioning the butler’s fingers underneath the saucer when serving a cup of tea lends a sophisticated air.

Butler carrying guests’ bags
Pouring from a Bottle

The butler holds his body erect from the waist and leans slightly to the side.

The butler holds the bottle's mouth slightly closer to himself than the glass's center.
Wiping the Bottle's Mouth after Pouring

1. This shows a butler pouring wine. Note that his right and left elbows are bent at similar angles.

2. Without changing the angle of bending in his elbows, the butler uses his wrist to raise the bottle's mouth.

3. Without adjusting his posture, the butler turns his torso, bringing in his left elbow. The butler touches the bottle's mouth with a napkin he is holding in his right hand.

4. The butler straightens his back as he presses the napkin against the bottle's mouth.

Sketching a Bottle

Establish the degree of tilt. Use a rectangular layout to draw the bottle.

Obtain a balanced proportioning.

This is how large the napkin is. Note that it is folded.

While drawing parallel lines might not seem like anything fancy, you will find it surprisingly difficult. Parallel and vertical lines lie at the heart of successful compositions.
Carrying Dishes on a Tray

Include the hand positioned underneath the tray when sketching the layout.

This shows the fingers supporting the tray.

Glass Tumblers

The ellipse used to portray the tray lies at an angle, while lines perpendicular to the ground define the glasses.

Wine Glasses

Tea Set

Tea cozy
Bunnies

From a low angle

The bunny is holding the tray level with her shoulder. This draws the reader’s eye to her.

Bunnies normally hold trays at chest level.

From a high angle

A minor curved line indicates whether a glass is seen from a high or low angle.

From a moderately low angle

Sketch the tray approximately level with the chest and add the arm.

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This is an advanced use of a drinking glass and a coffee cup.

**Desserts**

**Parfaits**

1. Sketch according to the parfait's picture in your mind's eye.
2. Draw the vertical and horizontal centerlines according to how you picture the parfait.
3. Add a rough sketch of the parfait's confectionary contents as you adjust the parfait glass's shape.
4. Foot: Connect the diagonal lines to the ellipse, while preventing sharp corners from forming.

**Parfait's Contents**

1. Capture the general shapes of the parfait's contents according to how you pictured the parfait.
2. Use geometric solids to capture the forms of the parfait's contents.
Fruit Bowl

1. Sketch the bowl according to how your pictured it in your mind’s eye.

2. The bowl will have a wavy rim, so use undulating lines in the layout.

3. Add the handles as you clean up the form.

4. Add the rim’s contours.

5. Sketch the fruit.

Fruit Bowl from a Low Angle
Activity Scenes

Tennis Racquets

This section covers props that frequently appear in everyday scenes. Try to capture the distinguishing characteristics of each.

The average tennis racquet head is about 2 cm (approx. 4/5") thick. Capture the racquet’s overall form as a block.

General Proportioning

The frame is about 2 cm (approx. 4/5") thick.

Divide the racquet up into the following three parts—the head, the shaft, and the grip—when capturing its overall form.

Sketching Tips

1. Produce a general thumbnail sketch to check the proportioning.
2. Produce a rough, general sketch of the racquet.
3. Clean up the form and add the details to finish.

Use the human head as a basis of measurement.

A racquet is about three and a quarter heads in length.
Sketching Steps

① Produce a layout sketch.

② Add thickness and draw the centerline of the ellipse you plan to use for the racquet’s head. Since you are using an ellipse for the head, the two centerlines do not intersect at a perpendicular angle.

③ Clean up the contour lines and add the string holes.

④ Add the details to finish.

As the grip’s basic form, use a rectangle that is longer horizontally than tall.

Appearance of Passersby

Dress passersby so that the reader will know at a glance that these are fellow tennis players.

This girl is wearing a polo shirt, a tennis skirt, and is carrying a large tennis bag with a shoulder strap.

This girl is carrying a racquet bag.
**Shinaí (Bamboo Swords)**

Draw a long tube. The end and the guard are circles. However, these will become ellipses, depending on the shinaí’s angle.

**Profile View**

The shinaí bulges slightly at this point.

This portion extends from the hilt to cover the bamboo portion.

Guard

Grip

String securing the bamboo

Leather cord securing the bamboo

The bamboo portion is approximately three times the hilt's length.

**Sketching Tips**

1. Draw a cross to represent the shinaí’s basic framework.
2. The guard should be about three-times the bamboo portion’s width. Draw an ellipse for the guard.
3. Draw an ellipse where the bamboo bulges.
4. Clean up the contour lines to finish.

The shinaí comes to about waist level.
A leather casing covers the tip of the bamboo.

The hilt’s leather stops around here.

A leather casing covers the hilt.

This part of the guard should have thickness as shown.

Incorrect Example

This area bulges too much.

The leather cord lies too close to the bamboo’s tip.

Correct

The shoulder is narrower than the grip.

Even though we are looking at the guard’s top, the **shinai** is pointed downward. Also, when the **shinai** is held in this manner, the string should be shifted to the **shinai**’s top.

Appearance of Passersby

Passersby would carry a **shinai** case and an equipment bag.

- **Baseball**

Adjust the lengths of both **shinai** and baseball bats according to the characters holding them.

Bats

Bats come to about the bottom of the character’s torso.

The bat should be divided into three equal parts: a straight side, a curved side, and a straight side.

**Knob**

Baseball bat bag
The guitar is an advanced application of the tennis racquet. Guitars involve complicated curves, so it is critical that you include centerlines and sketch a layout in order to achieve proportional balance.

**Sketching Steps: Characters and Guitars**

1. ** Produce a thumbnail sketch. 
2. ** Use simple lines and geometric forms to draw the human figure and guitar. 
3. ** Flesh out the figure and give the guitar volume. 
4. ** Final image

**Sketching Steps: Guitars**

1. ** Sketch a layout. 
2. ** Sketch a block and draw the guitar while checking the proportional balance. 
3. ** Give the guitar volume and clean up the drawing. 
4. ** Final image

Guitar centerline: Draw centerlines according to the picture in your mind's eye.
**Two Types of Guitar**

- **Electric Guitar**
  - The electric guitar has no fixed shape.

- **Acoustic Guitar**
  - The acoustic guitar comes only in the shape shown above.
  - The acoustic guitar is about twice as deep as the electric guitar.

**Appearance of Passersby**

These passersby are carrying guitar cases. Guitar cases may be hard or soft.

**Soft Shell Cases**

These are used to carry both electric and acoustic guitars.

This case includes a shoulder strap.

**Hard Shell Cases**

Molded hard shell cases like the one seen here typically carry acoustic guitars. Electric hard shell cases tend to be more rectangular.

Draw guitar cases as a standard solid.
Use a standard solid with a cylinder as its base form.

Scale Comparison with a Human Figure

The above shows the spatial relationship between the character and the taiko. The taiko’s center should come to about chest-level on the character.

Incorrect Example: Here, the taiko is too low and is too small. At this height, there would be no power when striking the drum.

Taiko and Bachi (*Drumstick) Scaling

40 cm (approx. 15 3/4"

20 cm (approx. 7 7/8"

30 cm (approx. 11 4/5"

Sketching Tips

Draw the same ellipse on both the right and left side and then sketch the layout.

Wearing Tasuki

Tasuki are fabric stays that cross at the back and are designed to hold back the sleeves. Wearing a tasuki is called, “tasukigake.”
Dressing a character in a summertime, cotton kimono called a "yukata" and showing her with treats commonly sold at festivals allows you to create a convincing festival or fair-like atmosphere.

**Goldfish scoop for catching goldfish**

**Cotton candy**

**Water balloon**

**Candied apple (Baby apple-sized)**

**Goldfish**

**Ring Toss**

**Rings used to play ring toss come in two sizes—small and large.**

**Yukata**

Boys wear *obi* (*sashes*) around the hips.

Girls wear *obi* just under the chest.

The sleeves are shorter.

The sleeves are longer.

*Obi* bow

*Obi* bow
The key ingredient to drawing umbrellas, bicycles, motorcycles and cars lie in properly drawing circles and ellipses.

Let's start with a cross.

**Sketching Tips**

**Draw a Cross**

1. **Canopy underside**
2. **Diameter (Horizontal axis)**
3. **Handle (Vertical axis)**

Draw the handle and the horizontal axis at perpendicular angles to form a cross. Next, use this cross to draw an ellipse.

**Drawing the Ribbing**

Most umbrellas have eight ribs. Draw four lines passing through the canopy’s center point.

Use curved lines to connect the rib tips.

**The Handle and the Horizontal Axis Are Perpendicular**

Correct

Incorrect

Use the cross to show in which direction an umbrella is angled.
Sketching Steps (Front View)

1. Sketch a layout of the character and draw a cross.
2. Draw a guideline for determining the umbrella's height.
3. Sketch a rectangular layout and produce a rough sketch.
4. Draw the ribs so that they adhere to the umbrella's curved surface.
5. Clean up the shapes to finish.

Drawing the Handle

1. Sketch a hand grasping the handle.
2. Draw the tube's end.

Draw the handle in profile so that you will have some familiarity with its form.

The guideline for determining the umbrella's height and the horizontal axis lie parallel to one another.

Draw the ribs moving toward four points, each with another point on the umbrella's opposite side.
Sketching Steps (Rear View)

1. Draw a sketch to match the image in your mind's eye.

2. Sketch the character and draw a layout of the umbrella.

3. Add the ribs and clean up the shape.

4. Add the details to finish.

Ref.: Try to draw a see-through umbrella.

The above shows a Western-style umbrella. The tube is metal and the canopy contains eight ribs.

This is a Japanese-style umbrella. Both the handle and ribs comprise bamboo. Japanese umbrellas have a large amount of ribs.
Umbrella Scenes

Walking with an Umbrella

The woman leans her umbrella against her hip.

Closing an Umbrella

This woman carries the umbrella in her hand.

Opening an Umbrella

Running

This figure represents either a child or an abstracted, "mini character."
Use the character and the bicycle's wheels to establish the length and height. Use the wheels' size as a standard for scaling the bicycle as a whole.

**Establishing the Length**
The bicycle's overall length should be approximately 2.5 times that of one wheel.

**Scale Comparison with Human Figure**
Size the bicycle according to the visual impression it projects. Sketch the layout positioning the handlebars approximately level with the character's hips.

**Key Points in Portrayal**
Draw front and profile views of the bicycle to establish the height and positioning of its various parts.

- The handlebars are located one half wheel-length above the wheels.
- The seat's height is located midway between the handlebars and the wheel.
- The axes are located at the wheels' centers.
- The front and rear axes should be positioned along a straight, horizontal line.

**Checking the Layout**
The above shows a thumbnail sketch capturing the heights of the characters and the bicycle, before embarking on composing the actual drawing.
Sketching Steps

Steps to Drawing a Bicycle

1. Capture the form at the rough-sketch stage.
2. Draw the layout sketch with horizontal handlebars and a horizontal seat.
3. Use parallel lines for the frame’s layout.
4. Draw the wheels and the frame.

Steps to Showing a Character Riding a Bicycle

1. Sketch the bicycle’s layout and add the character.
2. Establish the seat’s position and determine the proportioning of the legs and figure in general, making sure that you center the figure’s posterior.
3. Final image
**Drawing Bicycle Wheels**

**Giving the Wheel Volume**
1. Establish the axle (centerline) and draw an ellipse.
2. Draw the same ellipse once again slightly to the side of the first. This gives the wheel volume.

**Making a Tire**
3. Round out the top.
4. Repeat the same process for the wheel's bottom. Draw a small ellipse and connect it smoothly with the other two.

**Drawing the Wheel, Itself**
- Add another ellipse to this gap.
- The rim appears underneath the tire.
- Add one more ellipse.

Try your hand at drawing a wheel from this angle. Use a combination of ellipses to draw the wheel.

The above consists of only the tire.

Add the axle (hub) and spokes to finish.

The above is a high-angle view of the rear wheel's hub.
Riding a Bicycle

Running

Moderate High Angle, 3/4 View

1. Sketch a layout, using a block for the bicycle.
2. Give form to the bicycle and flesh out the character.
3. Add the details.
4. Final image
Riding down a Hill  Moderate High and Wide Angle, 3/4 View

1. Sketch a layout of the bicycle.

2. Sketch the layout of the character.

3. Draw the character’s legs as you would normally to establish her pose. The groin’s position remains the same.

4. Final image

Centerline of the wheel’s ellipse

Axle

The wheel’s direction changes, while the axle remains in the same position.

Draw the centerline of the wheel’s ellipse perpendicular with respect to the axle.
Stopping a Bicycle and Looking Back

Moderate High Angle, 3/4 Rear View

Draw the handlebars (when drawing a front view), seat, and axles along parallel lines.

① Sketch the layout.

② Sketch the character.

③ Final image

This shows a study of the pose.
Draw the character astride a motorcycle as if he or she were astride a block.

Model drawing

Compose the motorcycle's parts as simple blocks.

Use the "X method" to locate the center.

This shows the portion of the motorcycle that the leg covers.
Proportioning

Wheel height
Axle height
Front wheel
Rear wheel

Center

Tank
Seat
Engine
Muffler

The above shows the engine, which is connected to the muffler.

Use the wheel size to scale the remainder of the motorcycle.

The rear wheel is slightly bigger and thicker than the front.

Front

Foot peg (This supports the foot.)

The tank is visible.

Rear

The seat is low, hiding it from view.

The rear wheel is wider than the front.

Posture Effects

Normal riding posture

While this shows the same motorcycle and the same character, the character now leans forward, creating the illusion of speed.

Ref.: This shows a motorcycle with a cowl covering the front. The cowl blocks the entire engine from view.
Sketching Steps

① Draw vertical and horizontal lines to use as bases for composing as you draw the motorcycle. Render the various motorcycle parts as blocks.

② Clean up the shapes of the various parts.

③ Adjust the contour lines and add the details. Add shading around the engine and to the wheels to finish.

Sketching the Wheels

① Draw the tire. (Follow the same steps outlined for a bicycle wheel.)

② Draw an ellipse to create line A, which gives the tire volume.

③ Add another ellipse that is slightly smaller than A to create line B, which divides the tire from the metal rim.

Disc brake rotor

C: Rim

A: This line gives the tire volume.

B: This line divides the wheel's rim from the tire.

④ Draw an ellipse to create C, which defines the rim.

⑤ Add the disc brake rotor, the front fork, and other parts.

⑥ Add shading to finish.

Make the shadows' contours adhere to the tire's curved surface.

Motorcycles should appear tilted when they are parked.

This shadow gives the wheel a sense of weightiness and presence.
Riding a Motorcycle

The above shows line drawing of a motorcycle.

Draw the character with one leg on each side of the motorcycle. Both feet should be able to touch the ground comfortably. Position the character's groin and hips to match the motorcycle's height and then compose the remainder of the figure.

Final image
Use the wheel size as a basis for composing the drawing.

Scale Comparison

Proportion the scooter to match the human figures in the composition. Position the scooter's handlebars approximately level with the human figures' groins.

Proportioning a Scooter

From a front view, the wheel obscures from view parts that are far from the picture plane. Use the shapes and proportions in these views as reference and maintain awareness of perspective.
Sketching Steps

1. Produce a thumbnail sketch.
2. Draw a rough sketch of the scooter.
3. Sketch a layout of the character.
4. Flesh out the character, capturing the overall form.
5. Final image

Key Points in Portrayal

Showing the character leaning slightly creates the illusion of speed.

To make the taillights, use a broken exterior contour and add hatching to create a play of light and dark.

Use hatching on the headlight to evoke the texture of glass.

Add a shadow that mimics the fender's shape.
Draw the entire car so that it fits within a box. Draw the vertical wheels so that they lie perpendicular to the car’s axles.

Proportioning

Standard Car

2 m (approx. 6 1/2’) or taller

1.7 m (approx. 5 1/2’) or longer

Compact Cars and Subcompact Cars

Compact Cars
1.6 m (approx. 5 1/4’) to 2 m (approx. 6 1/2’) or shorter

1.7 m (approx. 5 1/2’) or shorter

4.7 m (approx. 15 2/5’) or shorter

Subcompact Cars
2 m (approx. 6 1/2’) or shorter

1.48 m (approx. 4 4/5’) or shorter

3.4 m (approx. 11 1/8’) or shorter

Bottom of chassis: This should be lower than the axles.
Sketching Steps

1. Sketch a layout of the overall car based on the image in your mind’s eye.

2. Draw the front and rear axles so that they lie parallel to one another.

3. Draw block layouts of the body and windows, using the chassis as a basis.

4. Draw the chassis’s base line lower than the axles.

5. Draw a vertical centerline of the wheel ellipse that lies perpendicular to the axle.

Key Points in Portrayal

• Balance the car’s proportioning from a profile view.

• Capturing the Forms Using Large Blocks
  - Roof and window block
  - Body block
  - Chassis and wheel block

6. Produce a rough line drawing, while adding a quick and crude sketch of the interior.

7. Round the corners and clean up the wheels and overall form.
Sketching Wheels

Know the Meaning of Each Line

Front view

Tire

Rim

Profile view

This region lies at a slant.

Sketching Steps

1. Draw an ellipse.
2. Draw a second ellipse that is identical to the first, but shifting it to the side.
3. The ellipse drawn in Step 2 is actually the circle appearing just inside the outer circle.
4. Draw the interior circle.
5. Draw the hub's interior circle.
6. This shows the finalized form. Now it is time to add shading.
7. Shade the wheel, alternating white (light) and black (shadow) to finish.
Producing a Line Drawing of a Car

1. Sketch the silhouette of a car based on how you envision it.
2. Give the body form and establish the directions that the axles face. Sketch layouts of the wheels.
3. Clean up the contours.
4. Add the wheels to match the axles' positions.
5. Fill in the details and add the character to finish.
Spotting Blacks

Line Drawing with Minor Shading

Adding solid black (black fill) will give the car an extra sense of weight and presence.

Shadow reflected on front windshield

Car with Solid Blacks Added

Car shadow

Backseat

Wheel

Tire

Using Diagonal Hatched Lines to Portray Speed

Using diagonal hatching on the front of the car and each corner gives effective results.

Hatching defines the shadows on the front windshield, the wheels, and underneath the car in the above image.
• Basic Car Interior Structure and Key Points in Portrayal

Front View, Moderate High Angle

Establish the size of the gap between seats.

Position of male character’s head

Guide for positioning steering wheel

Seatbelt

The seats are spaced apart. The characters cannot sit so that they touch one another.

3/4 View, High Angle

Position of female character’s head

This portion would normally not be visible from outside the car.

Profile View

Establish the windows’ sizes.

Window height

Head’s position

The figure’s shoulders and the steering wheel are almost level.

Note the figure’s posture. The figure leans back.

The amount of legroom in both the front and back seats changes according to the car model.

Dramatized car interior as seen from a front view
Drawing Attention to Characters inside a Car

This composition draws attention to the woman in the driver's seat.

We see the characters virtually in profile. The differences in head sizes between the two characters give us a sense of depth.

The above sketch is composed from a high angle. There is relatively no difference in size between the two characters.

This composition draws attention to the woman in the passenger seat.
Chapter 4

Spicing up a Scene with Weapons
Weapons That Narrate a Setting

Swords and guns frequently appear in action and fantasy settings. The kind of weapon that a character wields gives enough information to tell the reader about the environment, world, or age in which a character lives or his or her national culture.

**Real World-based Scene**

The character seen might have “found” or was “given” the weapon or is a military person of some kind. While the setting has endless possibilities, it still requires research.
However, this composition is totally original, every form present is based on reality.
Swords comprise three parts: a blade, a guard, and a hilt. The appearance of the hands as they grip the hilt is crucial.

Japanese swords are not straight. Envision a bow’s silhouette when drawing.

**Key Points in Portrayal**

- **Point**
- **Blade**
- **Guard**
- **Hilt**

- The hilt is approximately one head-length long.
- The guard has depth.
- The character should place one hand at the hilt’s end when wielding a Japanese sword.
- Cloth is wrapped around the hilt.
- The hilt has a rhomboid pattern with gaps.
- The hilt is an elliptical cylinder. The end is also an ellipse.

**Assorted Guard Shapes**

- Round
- Four-leaf clover-shaped
- Cross-shaped

Use an ellipse as the base form.
Wielding a Sword

Front

Show the figure slightly arcing.

Profile

Use the hilt length as a basis for determining the sword's full length.

The guard covers the right hand, obscuring almost all of it from view.

The hilt is also bowed. Draw the hilt so that it tapers toward the end.

Portraying the Point

Blade
Ridge pattern

Use two lines to define the spine. This makes it appear three-dimensional.

Fuller
Leave a narrow gap of white in between solid black and the exterior contour.

Hilt Sketching Steps

1. Sketch layouts of the hilt and guard as you envisioned them.

2. Sketch a layout of the guard.

3. Draw the guard as you locate the ellipse's center.
How to Draw a Hand Gripping

Holding a Sword in One Hand

Draw a hand gripping a sword or a shinai forming a fist.

Brandishing a Sword

Establish the centerline before drawing.

Showing the hand touching the guard gives the impression of strength.

Raising a Sword

Incorrect Example

Incorrect

The hilt’s girth is inconsistent.

Draw the fingers wrapping around the hilt. The fingers’ joints should lie parallel to the hilt’s contours.
Common Styles of Gripping a Sword

The angle at which the arm grips the sword affects the impression projected.

Typical style of gripping a sword.
Grabbing a sword.

A round gap forms inside the fist.

This is how the hand appears when holding a pole or other long object.

Finger view
Back of the hand view
Side of the hand view

This suggests the hand is thrust straight out to the side.

Palm view
Back of the hand view

This suggests the hand is swinging the sword downward.

While the arm is primarily responsible for brandishing a sword, make sure that you draw the hand as a fist gripping it.
Holding a Sword with Both Hands

Note 1
Align the fingers as they grip the hilt.

Ensure that this line lies parallel to the hilt when you draw the hands.

Note 2
The blade and hilt share the same centerline. Be aware that they connect when you draw a sword.

Note 3
If the sword's point ends in a rhombus, draw the hilt line parallel to the diagonal that divides the rhombus into two halves.

Incorrect Example: Inside the hands, the sword appears bent.

Incorrect Example: The centerlines of the hilt and the blade do not align.

Incorrect

This line, which extends directly from the hilt, is the correct centerline.

The blade's centerline does not match the hilt's.

Rhombus's diagonal line
Staves and Spears

Staves

The staff is a long cylindrical pole. Attaching a blade to the end results in a spear.

Target Lengths

- 5.2 m (approx. 6 1/2')
- 1.8 m (approx. 5 9/10')
- 1.6 m (approx. 5 1/4')

Use the character's height as a guide for determining the staff's height.

The Hand's Appearance and Where It Grasps the Staff

Hand placed high along the staff
Hand virtually centered along the staff
Hand placed low along the staff

Attach a blade to a staff's tip to create a spear.

Portraying wood grain

Vertical
Horizontal
Vertical and horizontal

While staves made of stiff materials, you may take artistic liberty and show a staff bending wildly.
• Actions with a Staff

Preparing for action

Swinging a staff
Use an ellipse for the staff’s tip.

Apply hatched diagonal lines that reflect the staff’s direction of movement.

Spinning a staff overhead
Draw an ellipse to describe the staff’s trajectory.

Drawing echoes of the staff lying vertically, horizontally, and at oblique angles creates afterimages.

The spinning action takes place primarily at the hands, so do not leave much distance between them.

Swinging down a staff

Apply hatched diagonal lines to darken an area of the staff. This gives the appearance of heaviness.

Draw the figure with both arms raised and crossing at the wrists.

Swinging a staff
(This shows the character after she has swung a staff. The sketch portrays motion.)
Spears

Javelin

The head has four sides.

Looking straight on at the head reveals that the head forms a square.

This shows the javelin head in perspective. You might use a perspective drawing to show a javelin thrusting or hurling through the air.

Common Spearheads

Stone

Bamboo

Triangular (This is a flat spearhead.)

Lances primarily belonged to European knights, who were horse-mounted soldiers.

Scale

3 m (approx. 9 7/8')

2 m (approx. 6 1/2')

1 m (approx. 3 1/3')

Main Attack Styles

"Umgh"

"Jab"

"Aaah!"

"Swoosh!"

Trident prongs

Halberd (The halberd is a pole with an axe head.)

Thrusting (The halberd is swung downward or the like.)

Cutting (The halberd is swung downward or the like.)

This manga-style spear features a trident head.
Bows, Arrows, and Weapons with Chains

Bows and Arrows

Make sure that you understand how these weapons are structured when you draw them.

Bows comprise a flexible stick with a taut string. Arrows are sticks. Establish the correct proportions before you draw.

Longbow (Japanese-style bow depicted.)

Shortbow (Western-style shortbow depicted)

Shortbows come to about the chest in length.

Western longbows are about as tall as a person. Japanese bows are approximately two additional head-lengths above the height of one person.

Sketching Tips

1. Draw the extended arm. Where the hand grips the bow becomes the bow’s center.
2. Sketch the layouts of the bow and arrow so that they lie perpendicular to one another.
3. Make the upper tip and lower tip equidistant from the bow’s center and produce a layout sketch of the bow in a pulled back position.
4. The bow describes a large arc when it is pulled back. Draw the arcing bow so that the upper and lower tips bend equally toward the center.

Bow Structure

Western Bows

Grip

Point where string attaches to bow

Iron/wood grip

String

Cloth/tape-wrapped grip

Ref.: Japanese Bows
Shooting an Arrow

The arm holding the bow is straight.

Correct

Threaded an arrow

Ready to shoot

Incorrect

The bow forms a crescent.

This bow is incorrect. Although the bow is pulled back, it is still straight.

If you draw an archer ready to shoot from a front view, the archer’s face will not be visible.

Arrow Structure

Length

Arrows extend from approximately a person’s throat to the fingertips.

The arrow might be longer, depending on the distance it is meant to travel.

Quiver: The quiver holds the arrows at the archer’s back.

Fletchings are approximately 15 cm or about 6” long.

Differences in How Far Back an Arrow Is Pulled

The arrow’s end has a groove for the bowstring.

When using a shortbow, the archer will pull the bow back so it is level with the chin.

Archers will pull arrows back differently, depending on whether they are using a longbow or a shortbow.

The arrows’ points are held approximately at the same position.
**Weapons with Chains**

Flails are iron spheres covered in spikes and attached to a chain.

**Flails**

Some flails do not have grips.

Morning stars were mace-like weapons with a spiked sphere at the head.

**Points in Sketching the Flail Head**

The spikes are all conical.

The three shapes below are essential to drawing the flail's spikes.

- **A**: 3/4 view
- **B**: Front view
- **C**: Overhead view

Use B to portray horizontally and vertically positioned spikes. Use C for the center spike. Use A for all other spikes.

The chain attaches here.

The main portion of the head is a sphere.

This layout circle indicates how far the spikes' points extend.

**Sketching Steps**

1. Draw a circle and add its center point.
2. Add vertical, horizontal, and diagonal lines. These form the centerlines of the flail's spikes.
3. These lines mark the spikes' widths. Use the centerlines as bases for drawing bands that indicate the spikes' widths.
4. Connect where the vertical and horizontal lines intersect with the original circle. The resulting points mark each spike's position.
5. Draw the spikes.
6. Attach a chain to finish.
Spinning a Flail

The flail's trajectory describes an ellipse.

Flatten the circle of the spherical flail head into an ellipse as well.

Overhead view

The flail is heavy, so it pulls the wielder's arm. Showing the arm rocking as the flail spins evokes a sense of heaviness.

Draw two circles to create a doughnut. This creates the interior and exterior circles of the spinning sphere.

Tricks to Drawing Chains

Spherical (round) link  Rectangular link

The cross-section is circular.

Maintain awareness of how the links' widths change as you draw.

The links alternate positions.
Firearms

Handguns

Use blocks and tubes as the base forms.

Use perspective to create compositions that pack a punch. Normally, you would draw a gun as a standard solid.

Semi-Automatics and Revolvers

Semi-Automatics

Beretta M92F

The Beretta forms a rectangle from both angles.

Front
Rear

Revolvers

Colt Python

The round cylinder stands out when viewed from either the front or rear.

Front
Rear

Handguns can be roughly divided into two categories
1) semi-automatics and
2) revolvers.
**Gun Basics**

- **Guns Are Not Symmetrical**

  - **Left Side**
    - This shows the safety catch engaged.

  - **Right Side**
    - This side does not show the safety catch.
    - An open, rectangular hole is visible.
    - Spent cartridges are ejected from that port.

- **Semi-Automatics and Revolvers Are Loaded Differently**

  **Semi-Automatics**

  - The magazine is inserted and released here.
  - To the left appears the magazine, which contains the cartridges. A single magazine holds at least seven cartridges.

  **Revolvers**

  - These are the chambers, which hold the cartridges.
  - A single cartridge fills each chamber. A revolver holds a maximum of six cartridges.
  - The cylinder, which houses the chambers, can only roll out to the side. (Some revolvers’ chambers do not roll out of position.)

To the right is the pose adopted when loading a magazine.
**Semi-Automatics**

**Sketching Steps**

**Low Angle**

Locate the gun's center and produce a rough sketch of the overall form.

Whether composing from a high, low, or wide angle, use the "X-method" to locate the gun's center.

**High Angle**

Clean up the forms as you draw.

**Wide Angle Drawn in Perspective**

Draw the gun as before.

Draw the slide in one-point perspective.

These two lines should be parallel.

Do not draw this line in perspective.

Drawing this line parallel to the others will cause the gun to appear misshapen. Select a line that produces the desired look.
Showing off a Character

Heckler & Koch USP

1. Draw blocks to produce a layout sketch of the gun.

2. Establish the gun's form, starting from the side.

3. While adding the details, clean up their forms.

4. Shade the grip's underside to finish.

The above shows the gun with finishing touches added. Use thicker lines for exterior contours and add shading to create the illusion of weight.

Thicken the contour lines at these areas.

The above is a rough sketch of the gun in profile.

Decide the type of gun to draw. (The above shows a Heckler & Koch USP)

This shows the Heckler & Koch USP from a moderate low angle, 3/4 view.
1. Use blocks to establish the gun’s general form.

2. Draw ellipse layouts to represent the barrel and cylinder while adjusting the gun’s overall form.

3. Clean up the drawing. Now you have a completed line drawing.

4. Use hatching to shade the gun’s underside, the barrel, and the muzzle.

Study sketch: If you are drawing a certain make of gun for the first time, start by producing a sketch to study particularities in the gun’s proportions and where it has volume.
**Showing off a Character**

Key Points in Drawing Hands Holding Guns

- The index finger is touching the trigger.
- The fingers form a line that should echo the grip's curve.
- The hand is wrapped around this section of the gun, obscuring it from view.

**Sketching Tips**

Draw a block from the angle you pictured in your mind's eye and capture the general form.

How much this portion of the gun is visible depends on the size of the gun and the hand.

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**Cartridge Structure**

- **Bullet**
- **Casing:** This contains gunpowder.
- **Spent cartridge (Casing)**
- **45ACP**
- The cartridge comprises both the bullet and casing.
- The bullet is sent hurtling.
- Cartridges used with fully automatic rifles (a.k.a. "machine guns") and the like.

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- **9 mm Parabellum**
Muzzles

Sketching Tips

Draw a cylinder.
Add a hole inside the cylinder to represent the gun's muzzle.
If you use an ellipse template, simply drawing a second ellipse that is slightly smaller than the first will not yield a satisfying gun muzzle.
Using the ellipse template results in unusually large gaps forming at the top and bottom.
Use your eye to judge how narrow to make the gap.
Draw the ellipses so that the side of the muzzle close to the picture plane is wider than the far side.
Final image

Common Muzzles

Smoothbore muzzle
Muzzle with spiral rifling
Muzzle with straight rifling

The grooves visible just inside the muzzle are called "rifling." Rifling is present to put a spin on the bullet as it travels through the barrel.
The type of composition shown here would be used with a close-up panel or the like.
The above shows a wide-angle lens effect. Use wide-angle lens compositions to exaggerate the impression of an object thrusting toward the viewer.

This shows a full-figure drawn as if it were a photo taken with a standard lens. The gun does not stand out visually. The gun's muzzle is a mere dot.

What Is Blowback? And Basic Automatic Design

In a pistol with a "blowback" mechanism, the slide moves backward when the gun is fired.

"Click"

The welder must pull back the slide once manually before firing.

Exposing the Insides of a Gun

This shows a gun with the barrel exposed.

This shows a gun with the entire barrel removed.
Showing off a Gun
(Compositions with Impact)

Firing Poses

Standard Firing Pose
The wielder holds the gun erect.

Firing Pose, Movie-Style
The wielder holds the gun sideways.

The top of the gun is visible when viewed from overhead.

Overhead view
Sketching Tips

1. Sketch the gun's general form according to the pose layout.

2. Capture the gun's form.

3. Give the gun volume and add the details.

Character and Gun Proportioning

In *manga*, artists match the gun size to the character.

Character with a small hand

The same gun's size can look quite different, depending on the character holding it.

If the character were holding a correctly proportioned gun, it would look humongous in her hand.

Big, hulking character

This character is so immense, he makes the same gun look like a pea shooter.

Here, the gun is enlarged to match the character.
Imagine you are drawing a broom when you draw shotguns.

High angle

Profile (of the shotgun)

High angle

Profile

To fire the gun, slide the forearm and pull the trigger to release the bullet.

Stock

Main mechanics section

Barrel

US M1897 Trench Gun
Readying to Fire a Shotgun

Positions where the hands support the gun

Front view

Right handed position

Use blocks to capture the shotgun's form.

Barrel centerline

Incorrect

If the ellipse's axis is drawn parallel to the figure, then the gun will become distorted.

Draw the axis of the muzzle's ellipse so that it lies perpendicular to the barrel's centerline.
Fully Automatic Rifles ("Machine Guns")

Combine simple blocks to capture the general form.

*The AK-47 is categorized as a military assault rifle, but in this book, we will treat it as a machine gun, owing to its speed of fire.

This shows the character being thrown off balance by the recoil.
Firearms Often Seen in *Manga* and the Cinema

- Colt Government
- Beretta M1915
- Beretta M92F
- FN Browning Hi-Power MkIII
- Desert Eagle
- Heckler & Koch USP
- Colt 1872 Conversion
- Colt Single Action Army ("Peacemaker") 7.5 inch
- Ingram M11
- New Nanbu M60
- Ruger Super Blackhawk
- Smith & Wesson M28 "Highway Patrolman"
- Colt Python
- Mauser M712
- AK-47 Kalashnikov's
- Walther P38
- Heckler & Koch G3A4
Echoing Ellipses

Using Ellipses to Portray Tunnels as Three-Dimensional Spaces

Using a sequence of ellipses that start as very oblong but gradually become smaller and more circular creates the illusion of depth as well as a wide-angle lens effect.

Picture a character traveling through a pipe.

Profile view

When the tunnel is made straight, repeating the same ellipse, but making them progressively smaller produces the illusion of depth.

Making ellipses close to the picture plane narrower and those far from the picture plane rounder heightens the illusion of depth.

Study sketch: This shows a tunnel or tunnel-like space approaching the picture plane and depicted from a high angle.

Incorrect

In the above, the ellipses close to the picture plane are rounder and those far are narrower.

Correct

If the ellipse close to the picture plane is round, then those far from the picture plane should not be made more oblong.

The book's cover illustration shows a tunnel-like space portrayed from this angle.
Ellipse's centerline: The ellipse's centerline should lie perpendicular to the tunnel's centerline.
The Myriad Props of *Manga* Characters

Members of the *Manga* and Animation Department of Nihon Kogakuin College contributed to the production of this book. I look forward to these young artists leading and paving the way in Japan and abroad for a new era of *manga*.

Sakura Mugen

Shichimi

Marco

Hajime Tsuzuki
Afterword

Manga originated with artists attempting to draw things familiar to them. The Chōju-giga or "Scrolls of Frolicking Animals," considered the world's first manga, shows frogs and rabbits holding objects such as ladles, bows, and arrows, and wearing garments, such as hats.

Some argue that manga is pure fiction and does not resemble real life. And, certainly, this position has a point.

Perhaps you have thought to yourself, "It would be so nice if I could make my composition just a little more convincing," or "I wish I could design cool characters."
If you can draw successfully personal affects and items, in other words, "props," then even an object that is difficult to draw, albeit commonplace, you will become able to produce appealing compositions that exceed the viewer's imagination.

Conversely, a single slipshod "prop" could ruin a well-designed character or scene. One aspect of props is that they have the power to make or break a composition.

"I want to add props, but my artwork never comes out right." "I feel like I have to add props, but I'm not sure what to do."

I wrote this book to teach a few key techniques to those of you who have felt this way.
Applying a little of your knowledge of perspective or going all out to distort objects' forms when creating a composition that includes props for characters imbues that composition with an authenticity unique to manga and unlike what we see in drafted drawings.

You will be astonished at how much a single glass held by a character can appeal to your readers. An ordinary, inanimate "prop" is able to breathe life into a composition. Like the background or the character, the "prop" becomes an "actor" in its own right and with a heart of its very own.

A composition teeming with life speaks to the reader. What gives birth to "props" imbued with a heart and life is your artistic ability.

It is my hope that this book helps you achieve this.

Hikaru Hayashi
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