HOW TO DRAW MANGA

Putting Things in Perspective

K's Art
Collect all volumes of the exciting HOW TO DRAW series.

HOW TO DRAW MANGA
FEMALE CHARACTERS

HOW TO DRAW MANGA
ILLUSTRATING BATTLES
ISBN: 4-7661-1147-8

HOW TO DRAW MANGA
BISHOJO - Pretty Gals
ISBN: 4-7661-1148-6

HOW TO DRAW MANGA
BISHOJO Around the World
ISBN: 4-7661-1149-4

HOW TO DRAW MANGA
OCCULT & HORROR
ISBN: 4-7661-1150-8

HOW TO DRAW MANGA
BODIES & ANATOMY

HOW TO DRAW MANGA
COUPLES

HOW TO DRAW MANGA
MALE CHARACTERS
ISBN: 4-7661-1240-7

HOW TO DRAW MANGA
MAKING ANIME
ISBN: 4-7661-1239-3

Distributed by
NIPPON SHUKNP HANBAI INC.
4-3 Kanda Surugadai,
Chiyoda-ku, Tokyo
101-8710 Japan
Tel: +81-3-3233-4083
Fax: +81-3-3233-4106
E-mail: nippan@metaputa.ne.jp

Distributed Exclusively in North America by
DIGITAL MANGA DISTRIBUTION
1123 Dominguez St., Unit “K”
Carson CA 90746, U.S.A.
Tel: (310) 604-9701
Fax: (310) 604-1134
E-mail: distribution@emanga.com
URL: http://www.emanga.com/tmd/
HOW TO DRAW

MANGA

Putting Things in Perspective

Backgrounds/Crowds
Introduction  Why Draw Backgrounds?

Backgrounds indicate where characters are. They are drawn to illustrate places and situations.

A cut with the background included

A cut with only the character

What backgrounds provide
- Give depth to a picture and create spatial expansion.
- Allow expression of the time of day and season.
- Bring out the characteristics and moods of characters.
- Convey a clear image without use of words.
In this scene, a girl in a hurry collides with someone at a corner. The scene is much easier to grasp with the background.
• Example with background

I'm leaving for school!

AH

PITTER-PATTER

Aaaah!!

THUD

SHRIEK
Table of Contents


Chapter 1
Basics: Standing on the Earth .......... 11
Begin Drawing Backgrounds with a Single Horizon Line ........ 12
  • Drawing manga is just like filming a movie.
  • Presentation: Long shots and close-ups
  • Vanishing point
  • Simple way to pick a vanishing point

How to Draw in One-Point Perspective:
Let's Try Drawing while Looking at a Photograph .... 23
  • Drawings suited to one-point perspective
  • When to use two-point perspective

Chapter 2
Drawing the Outdoors:
From Everyday Scenery to Outer Space .......... 29
  How to Draw a Roof .......... 30
  How to Draw Slopes .......... 34
  How to Draw Forked Roads .......... 36
  Drawing Houses
    — When the Vanishing Point is Far Away .......... 38
  Drawing a Gymnasium .......... 40
  How to Draw Characters and Backgrounds .......... 42
    • Placing multiple characters — Slide method
    • How to draw groups of students going to
      or coming home from school

Creating Effects by Changing the Composition of a Picture .......... 56
  • Drawing upward views
  • Three-point perspective drawing
  • Ariel view of scenery — Bird’s-eye view
  • Making a group of buildings
    in the distance look cool
  • Perspective when the ground is curved

Let's Draw Outer Space .......... 65

Chapter 3
Distance of natural objects:
Tree-Lined Roads/
Light and Shadow/Sky .......... 67
  How to Draw Trees .......... 68
    • Drawing roadside trees
    • Drawing a tree-lined road
    • Drawing shrubbery
    • Leaves of roadside trees
  How to Draw Shadows .......... 72
    • Sunlight
    • Light from streetlights and indoor lights

Effective Use of Backgrounds
Basic concepts and techniques .......... 74
Chapter 4
Drawing Indoor Scenes
Hallways/Stairs/Small Objects

How to Make a Narrow Hallway Look Wide

Classroom: How to Draw Desks

- Common chair/desk composition and the horizon

Distance Between Characters and Walls

How to Draw Indoor Scenes (Living room)

1. Drawing the opposite wall
2. Drawing a rough sketch
3. Drawing a couch.
4. Drawing a table.
5. Drawing a TV stand.

Drawing Small Indoor Objects

- Small objects on tables and desks — 1
  Drawing without using perspective
- Small objects on tables and desks — 2
  Drawing using perspective
- How to draw cups: Circles on tables
- Drawing small objects
  Using cellular phones as an example

Drawing Beds

Drawing Doors

- Structure of doors
- Opening doors
- Examples of open doors

Drawing Stairs

- Looking down a flight of stairs
- Side view of stairs
- Distinguishing features of stairs

Chapter 5
How to Draw Backgrounds
Learning by Doing

Process of Drawing Manga Backgrounds

1. Drawing a residential area
2. Drawing a school
3. Pen drawing
4. Erasing and white correction fluid
5. Adding tone 1 - Residential area
6. Adding tone 2 - School

Comparison of Characters and Objects

Chapter 6
Special Effects and Character Representation Using Perspective

Drawing Special Effect Lines and Sound Words Using Perspective

Creating a Greater Sense of Existence

Using Minor Techniques

Drawing with Perspective Rulers

Special Effects Using Perspective Techniques

Various wide angles

Examples/Changing Camera Angles
Chapter 1 — Basics

Standing on the Earth
When you want to draw a picture with the main character standing in a wasteland, draw a dividing line between the earth and the sky (horizon). All backgrounds begin with drawing of the horizon.

The expanse of the earth differs depending on the position of the horizon.

Column: In Japanese class, the dividing line between the earth and the sky is called chiheisen (horizon) and the dividing line between oceans and the sky is called suiheisen (horizon), but both are referred to as suiheisen in drawing.
Drawing manga is just like filming a movie.

When drawing the horizon, pretend like you are filming a movie and think about where you will hold the camera.

Three types of horizons
① That drawn above a character
② That drawn in a character
③ That drawn under a character

In manga, the height of the camera is the horizon.

Column: Why is the horizon on land also called suiheisen in drawing? It is called suiheisen because it is a horizontal (suihei) line (sen).
Drawing the horizon at foot level expresses the expanse of the wasteland. This is a low-angled composition.

Filming conditions

1. Gentle slope

2. Dig a hole to film from ground level

3. The edge of a cliff is the height of the horizon

The character will float in the air when the horizon is drawn below foot level.
Drawing the horizon above (the head of) a character

Drawing the horizon above the head of a character creates the sensation of looking down on the character. The so-called bird's-eye view. This is a high-angled composition.

Filming conditions

Viewing height

Filming from radio-controlled airplane or stepladder

Actually looking down on person (bird's-eye view of character)

Bird's-eye view and the horizon

When you take a picture from the normal bird's-eye view (looking down), you cannot see the entire character when you attempt to include the horizon. About all you can see is some of the character's head. In real life, you cannot film the entire body of a character and the horizon unless you film from a high place that is far away.
3 Drawing the horizon in a character

You draw the horizon somewhere between the head and feet. This will create the most ordinary view.

Filming conditions

1. Eye level
2. Bust level
3. Low angle

Manga are drawn at eye level
Eye level? It means the height you are viewing. The objects we see every day are all at our own eye height. Manga are drawn at eye level because that is what we are used to.

Draw the horizon line at the face of a character. It is the same as focusing on someone’s face when taking a photograph.

Bust shot
Upper body of character from eye level. This is a typical manga composition. The horizon is at face (eye) level.
1. **Eye level (face height)**

- This is often used in scenes with dialogue.
- Draw the horizon at eye level when a character is moving in this direction or for close-ups of the face.

2. **Bust level**

- This is often used for full-body shots.
- Draw the horizon at bust height when drawing the entire body (down to feet).

3. **Low angle**

- This is often used for dramatic presentation.
- Draw the horizon below the knees of a character when you want to make a strong impression or give the picture a sense of depth or vastness.

Here a character between a close-up of feet in the foreground and a character in the distance create a good sense of depth.
Presentation: Long shots and close-ups

Think of the difference between long shots and close-ups as a difference in camera work (presentation).

Long shots

There isn’t much need to think about the perspective of small objects in scenes using long shots.

A long shot is a distant view. It is a form of presentation that makes it look like you are viewing an object from far away. Long shots are also used when you want to fit both characters and background into one picture. Use long shots (viewed from a distance) both indoors and outdoors when you want to show the entire body of characters. Long shots are often used for scene changes.

A cut using a long outdoor shot

Long shot...zoom out

Close-up...zoom in
Close-ups

Close-ups are used to present hands or small objects.

Advice

Use a long shot when you want to illustrate something with an overall view. Use a close-up when you want to emphasize one part.

Close-ups
- A close-up is the presentation or technique of showing an object up close or magnified.
- Close-ups are used when you want to clearly show a specific small object or a part of a character.
- An extreme perspective is sometimes used to make a strong impression.
- A picture using an extreme perspective is called a wide angle (wide angle expression).

Column: Technically, wide angle is a word used in photography. A thicker lens than usual is used to make an impressive effect by making a picture extremely distorted.
Vanishing point

The vanishing point is the point where all perspective lines converge.

A drawing technique that uses one vanishing point is called one-point perspective. There are also two- and three-point perspectives, but let's learn about the vanishing point using one-point perspective first.

Changing the position of the vanishing point changes how the sides look.

Column: When you draw a building, for instance, think about whether you want to see the building from the right or from the left. If you want to see the building from the right, place the vanishing point in the position shown in the right frame.
Imagine you are taking a picture. If you stand directly in front of your subject, the vanishing point is in the middle. If you move to the right, the vanishing point moves to the right as well.

This is taken from the right side of the road. You can see more of the wall on the left side.

This is taken from the left. You can see more of the right side of the road.

Vanishing point
• Location
  On the horizon line
• Nature
  All perspective lines converge on it
Simple way to pick a vanishing point

When you want to draw a simple building roof or other objects behind characters, use one-point perspective. The vanishing point could be in a variety of positions, depending on the diagonal lines of your outline. Pick a vanishing point by choosing an angle you like.

Process

1. Draw outline

2. Draw horizon

3. Pick vanishing point

Column: Once you have picked a vanishing point, draw a rough sketch. Ignore the other perspective lines of the outline and draw all the lines in the direction of just the one vanishing point.

Regarding background and perspective, once you get used to this, you can begin drawing a rough sketch by first picking a horizon and a vanishing point when drawing the outline of the image.
How to Draw in One-Point Perspective

Let's Try Drawing while Looking at a Photograph

When drawing backgrounds, artists often refer to photographs that they have taken. Perspective drawing is the most efficient way to produce a good drawing, so let's get comfortable with it.

Reference photograph

1. Draw a rough sketch of the background and choose a horizon and vanishing point.

   Make a rough drawing of the photograph while noting the depth lines of buildings and the road.
   It is important to grasp the overall picture.

2. Draw a rough sketch.

   First choose the road lines.
   When drawing the background, simplify and omit parts depending on your tastes and needs (note that the photograph is used for reference only).

Column: Horizon and vanishing points — In photographs the vanishing point is often not clear. It is important that you choose a clear horizon and vanishing point for your drawing.
Completed rough sketch

Start with the foreground.
Make foreground lines bold and lines in the distance thin.
Leave windows and other details for last.

Pen drawing

Drawing thin non-contour lines creates a three-dimensional effect.
Completion of pen drawing, erasing and applying white-out

Erase completely after finishing the pen drawing.
Correct protruding lines and other anomalies after erasing.

Applying tone/completion

Do not use solid colors if you want to create an overall white drawing with a light feeling.
The drawing is complete. Lightly apply tone to shaded areas.
Think about where the light (sun) and shadows are when applying tone.
Generally, tone is applied under the eaves and to the sides of buildings.
One-point perspective is short for "one-point perspective drawing." This technique is suited to drawing indoor scenes and creating a sense of depth.

Road (main road and side roads, etc.)

Road with wall and buildings with windows, etc.
Features of one-point perspective drawing

- Horizontal lines are parallel to the horizon.
- Vertical lines are perpendicular to the horizon.
- Diagonal lines expressing depth (width) all come from a point on the horizon.

In a one-point drawing, you can only see the front of an object when the vanishing point comes from within the object.
When to use two-point perspective

Two-point perspective drawing is a technique suited to creating a three-dimensional effect or a demanding presence. Use two-point perspective drawing when there are many buildings standing side by side or when you can see two sides of buildings.

Office buildings drawn with one-point perspective

Office buildings drawn with two-point perspective

Advice

Use a long shot when you want to illustrate something with an overall view. Use a close-up when you want to emphasize one part.
Chapter 2
Drawing the Outdoors
From Everyday Scenery to Outer Space
Think of a roof as being on top of a box. Anybody can draw a roof as long as you know the height and how the eaves overhang.

1. Determine the roof height

Draw diagonal lines

The "center" of the wall
In the case of a square, the point where the two diagonal lines intersect is the center.

2. Draw the roof

Determining the roof height...
Draw a vertical line from the center of the wall. It can be whatever length you prefer (the longer it is, the steeper the angle of the roof will be).

- Connect the slanted lines with the wall corners.
3. How to draw eaves

Where you turn the corner does not have to be exact.

Link this corner and the vanishing point and then extend the line.

The line drawn straight to the side of the apex of the roof makes the roof look more realistic.

Draw line 5 parallel to the slanted line on this side of the roof.

Draw line 6 right along the center.

Line 6 can be drawn only after the supplementary line 4 has been drawn.
4. Making the roof thicker

Completed roof

Different types of roofs

All lines are parallel

Thickness lines are at right angles to the slanted lines. Judge the length with your eyes.

Draw shadows under the eaves.

Advice
You can draw these kinds of roofs with this technique.

A wall in the samurai house style.
How to Draw Slopes

Create a vanishing point for slopes in addition to the normal vanishing point on the horizon line. Buildings are drawn based on the normal vanishing point, while slopes are based on the slope vanishing point.

When you draw two vanishing points vertical to each other, make sure they are on a straight vertical line.

Slope vanishing point

Guardrails are located on the edges of roads, so their lines converge on the slope vanishing point.

Drawn incorrectly

Slope vanishing point

Draw buildings in one-point perspective using the normal vanishing point.

Points where vertical building lines and the road (slope) intersect. The extended lines that link these points and the vanishing point become the lines for the floors (foundations) of buildings.
For downhill slopes, place the downhill slope vanishing point below the horizon.

Advice

Create a vanishing point for slopes in addition to the normal vanishing point.

When drawing a house on a slope, it is important to draw a foundation so that the house will stand straight up. Express a slope by the difference between the road line and the floor line of the building.

Column: Characters on slopes — Draw characters above the horizon as if you were looking up at them and characters below the horizon as if you were looking down on them.
Think of a forked road as an intersection of two roads with differing vanishing points.

Aerial photograph

Roads B and C intersect at a right angle
Choose road vanishing points

Draw roads from each vanishing point

Roads and vanishing points

Forked and T-shaped roads have their own vanishing points. Buildings and guardrails along roads use the same vanishing points as the roads.

The closer the road is to the horizon, the narrower it will look, so be careful not to make roads B and C too wide.

Buildings stand along the road, so the road vanishing point serves as the perspective.
What do you do when the vanishing point of the building you want to draw is located off the paper? There are three things you can do.

1. Add paper
2. Use a copier
3. Draw guidelines

### 1. Add paper

Attach temporarily with masking tape, etc.

### 2. Use a copier

① Draw a rough sketch in a size that is easy to draw

② Make an enlarged copy

Use a copier to enlarge the rough sketch to the desired size.

③ Trace

Put tracing paper or transparent PPC (copy) paper over the enlarged rough sketch and draw with pen.

---

**Tracing**

Tracing is easier if you use a light box. You will not get a sharp picture if you draw in pen and then enlarge. The pen drawing should be done in the actual size you want. The completed picture can be pasted to the manuscript as is or copied in the same size and pasted.
3. Draw guidelines-Partition

Once you have decided on the outer border of the building, partition the vertical lines.

① Partition

② Link each partition point

③ Start drawing using the lines as a guide

Column: One trick is to draw the partition lines using yellow or blue colored pencils (yellow and blue will not show up when printed). It is usually on one side or the other that the vanishing point becomes so far away that you cannot reach it with a ruler.
When drawing a building, capture the distinctive features of the building.

Draw wide buildings like a gymnasium using two-point perspective.

**Distinctive features of gymnasiums**
Exterior: Many are wide and have a round roof.
Interior: Spacious. Try to present them in a way that makes them look spacious.

**How to draw a round roof**

1. Give the gymnasium shape
2. Find the apex of the arc
3. Draw the roof using an oval template

When giving the gymnasium shape, enclose the roof portion in a box.

How to align the oval template:
The type of oval you choose depends on your preferences and the image you have of the roof.
Make the floor and walls big to express the spaciousness and height of the building.

When you draw a scene close to a wall, create the atmosphere of a gymnasium by including windows near the floor, protective bars on windows and other distinctive objects.

Advice

You can present a wide-open space by putting the floor lines higher and drawing windows smaller.
When drawing backgrounds, the size of characters is very important. Here you will learn how to draw a background from the perspective of characters.

**Sense of distance of characters standing in a straight line**

Let's try figuring out the vanishing point and horizon from the wall drawn behind these characters standing in a straight line.

**Where is the horizon?**

The horizon is the same height as the face of Girl A. These three characters are standing in a straight line, so even if there is a height difference between the characters, the relationship of the other two characters is like that shown in the side view.

**Revision process**

1. Link the feet of Girl A with the vanishing point.
2. Since the three characters are standing in a straight line, move the other two characters to the same line as Girl A.

The three characters are pretty much in a straight line when seen from above.

When viewed from the side, Girl A is the only one that fits in with the background.
The characters on the same perspective line are in a straight line.
Placing multiple characters — Slide method

Characters walking along a straight line

1. Draw the original character.
2. Choose an appropriate vanishing point, link it to the character and draw characters in front of and behind the original character.

Note: All the characters are the same height

When drawing in front of the original character

You can choose any number of vanishing points for placing characters.

When you want to place characters randomly

New vanishing point

Randomly choose vanishing points

Column: Place multiple characters by sliding one character. You can think of it as placement by reproduction/movement.
How to draw groups of students going to or coming home from school

1. **Draw one character**

   Drawing groups of characters can be quite difficult. If you don’t draw them carefully, characters can look like they are floating or sinking or they will not fit in with the background.

   **Process:**
   1. Draw a character around which the other characters will be based.
   2. Choose a horizon and vanishing point and draw a rough sketch of the background.
   3. Based on the first character you drew, begin placing all the other characters from the vanishing point (this is called the slide method).
   4. Lastly, draw the background.

   The other characters will be drawn based on the first character.

2. **Draw a rough sketch of the background you want to draw.**

3. **A Mark the top of the head and the feet.**

   **Column:** It does not matter if the background changes a little later on. When drawing the first character, it is important to choose the horizon and vanishing point, which are the core of the picture.

   **Point**
   - Choose a horizon and vanishing point.
   - Choose a clear road line.
Draw characters directly in front of and directly behind the first character

Side view

The character you want to draw

View from above

Draw a short horizontal line where you want to put the character.

Supplementary line to find the size of the head

When you want to draw a character behind the first character

Column: Standing directly in front of or directly behind is the same as standing in a straight line. This is called "characters on the same line."
Randomly place characters

When you want to place characters like this and not in a straight line, there are two ways to do it.

1. Sliding backward and forward - Draw a placement vanishing point near the dummy.
2. Parallel translation and sliding backward and forward - On the basis of dummy.

View from above

Original character

Where you want to place new character

Character on this line will be "in line" with the original character in relation to the road.

How to randomly place characters
1. Draw by just sliding backward and forward
2. Combination of sliding to the side and backward and forward.

1. Sliding backward and forward - Draw a placement vanishing point a little to the left of the original vanishing point.

2. Parallel translation and sliding backward and forward - On the basis of dummy.

Slide the original character into a parallel position (height is the same).

Put a placement vanishing point near the dummy.

Slide from the dummy.
**Column:** For scenes of students going to school, place blocks of two or three students walking side by side and place a single student behind, in front of or beside them.
Column: When there are many characters in the foreground, pen in the characters before sketching the background and painting.
How to create height differences — Raising and lowering the head

All the characters will be the same height if you just slide backward and forward and use parallel sliding. When you want to express height differences, do so by raising and lowering the head, leaving the feet as they are.

A human head is about 30 cm (11.81 in.). Use a height of 160 cm (5.25 ft.).

One head shorter
Height about 130 cm

2/3 head longer
Height about 180 cm

All characters are the same height
160 cm

180 cm = 5.90 ft.
160 cm = 5.25 ft.
150 cm = 4.92 ft.
130 cm = 4.27 ft.

Not good

Good

Raising and lowering the feet make a character float or sink.

Column: Give each person in a crowd a different direction and different clothes to make a picture come alive.
An easier way to draw crowds

Draw various sized heads on the horizon line. Then draw the bodies using the heads as a measure of each person’s height.

Cut with rough image of background

Relationship between human head and body
This is generally called the “head-to-body ratio.”
Example: The height of a person with a head-to-body ratio of 1:6 is six times the length of the head.

Draw various sized heads

Draw outline of bodies

Column: This technique is perfect for scenes with a close-up of a face in the foreground and many people in the background.
**Drawing the entire body beginning with the head**

Measure the length of the head and multiply to get the total length of the character. Multiply by five if the head-to-body ratio is 1:5 and multiply by six if the head-to-body ratio is 1:6.

Reference: In the case of a head-to-body ratio of 1:6, heights were determined using the same head-to-body ratio before individual differences in head-to-body ratio were added.

After the total length has been determined, balance the characters to taste.

*Note: Always multiply the head length by the same number for all characters.*

In this drawing, heights were determined using the same head-to-body ratio before individual differences in head-to-body ratio were added.

**Head-to-body ratio of 1:5**

**Head-to-body ratio of 1:6**

Characters drawn with a head-to-body ratio of 1:5
Backgrounds for bust shots of characters

When drawing backgrounds for bust shots of characters, draw the entire body of the character even if it won’t all appear in the picture. The height of the building door and guardrail should be drawn in proportion to the height of the character.

**Point**

Draw the two sides of the sidewalk using the vanishing point.

**Rough image**

**Theme** Sidewalk, building and entrance on the right, guardrail on the left

Drawing building on right

Determining height of building door

1. Slide character horizontally (draw dummy)

2. Building door = 2 m (6.56 ft.)
   Character (adult male) = 1.8 m (5.90 ft.)
   The height of the door is about one head higher than the character.

**Column:** Synchronize the scale of the character and the background. When drawing the background, clearly show how high background parts are above the ground. When you try to do it by eye, you end up with doors that are too big or houses that are too small in relation to the character.

Synchronize the scale of the character background and the character using a dummy.
**Drawing guardrail 1**
**Determining height of guardrail**

1. Slide the character to the edge of the sidewalk.
2. Draw a supplementary line horizontally at a little above thigh height.
3. You get the right guardrail height in relation to the size of the character.

The height of the guardrail is a little above the thighs.

**About 80 cm (31.5 in.)**

**Drawing guardrail 2**
**Guardrail poles at even intervals**

1. Determine the positions of the first two poles.
2. Draw a supplementary line.
3. Determine the position of the third pole.
4. Determine positions of remaining poles.

The interval between guardrail poles is uniform. You are free to choose any interval.

Divide at 1/2 the height of the supplementary line in direction of vanishing point.

Guardrail structure
Pole-to-rail ratio is about 1:1

Rail portion
Pole portion
Do not use perspective drawing indiscriminately when drawing long shots of buildings and upward and downward views, etc. Simple ideas can create large effects.

**Drawing upward views**
**Vertical two-point perspective**

When drawing an upward view, assume the location from the placement of buildings in a rough sketch. The technique you will use is vertical two-point perspective.
Vertical two-point perspective
Upper vanishing point: Emphasizes distance in the upward direction.
Lower vanishing point: Emphasizes depth of buildings, etc.
Note: As was the case with drawing slopes, draw the two vanishing points on the same vertical line.

Generally, in one-point perspective and two-point perspective drawings the vanishing point is always placed on the horizon and objects are composed of lines perpendicular to the horizon. In vertical two-point perspective, the vanishing points are placed near the top and bottom of the picture.

Use vertical two-point perspective for powerful upward views.

Column: Why place vanishing points on the same vertical line in vertical two-point perspective drawing? Because you are stopping and looking up and down at the same time.
Three-point perspective drawing

Two-point perspective is a technique for creating a cubic effect by giving a sense of distance to the left and right of a picture.

In three-point perspective, a third vanishing point is added to give a sense of distance to height. Unlike one-point and two-point perspectives, the usual vertical and parallel lines are not present. In addition, the horizon line and vertical lines intersect perpendicularly.

Three-point perspective allows you to draw powerful pictures.
Aerial view of scenery

Bird's-eye view

When drawing a bird's-eye view and the horizon is not visible, there is no perspective (vanishing point). Draw buildings parallel lengthwise and crosswise.

Advice

Do not think too much about perspective in bird's-eye view pictures.

For placement of buildings, try drawing a map.

Roofs of buildings seen from bird's-eye view
- Draw building roofs squares parallel lengthwise and crosswise.
- Do not think of perspective in the normal sense of the word.
- To emphasize height, draw using one-point perspective from below.
When drawing a bird's-eye view and the horizon is visible, use one-point perspective.

**Column:** When drawing a bird's-eye view of scenery using one-point perspective, freely place the vanishing point in accordance with the objective of the picture or the composition.
Making a group of buildings in the distance look cool

When drawing a group of buildings in the distance, reduce the depth of the buildings.

Reducing the depth of buildings is effective when the main subject is in the foreground and the buildings are used for pure scenery in the background.

Reference: Town in the distance

Distant view
This composition is often used for depicting a town on the edge of a wasteland in fantasy, science fiction and other manga. This technique is used to make it look like something was filmed from far away. Note that fundamentally the farther away an object is the less thick it will be.
Application: Reducing depth of buildings

When drawing a line of buildings using one-point perspective, making the width (depth) of buildings narrower eliminates the cramped feeling.

Point

Draw objects far away with thin lines. For lines that run into characters, draw them thin as if they fade away and do not make contact with the character.

There is a big difference even then the frames are the same size and the vanishing points are in the same position.

Buildings drawn with reduced width

Buildings drawn with normal width

Column: When you want to avoid drawing a confusing group of buildings in a long, narrow frame, draw buildings as if they were in the distance using narrow depth lines.
**Perspective when the ground is curved**

Distorted ground used for dramatic presentation can be used in a picture where you are looking up from a low place. Place the vanishing point in the middle directly above the picture.

**Group of buildings - When drawing using vertical two-point perspective**

View from above

The amount of distortion of the curved surface depends on individual sensitivity. Draw freely. In the case of a group of buildings, use vertical two-point perspective.
Let's Draw Outer Space

When depicting outer space in manga, compose pictures in a way that creates a sense of distance.

1. Part of a large planet in the foreground
2. Many small stars in the distance
3. In the middle, place planets that are just big enough for you to discern their patterns.

Splatter white correction fluid for the dots representing very small stars.

How to splatter correction fluid

1. Put oil-based correction fluid on tip of pen
2. Flick with brush

Dots will be small if you do it close to the paper.

Dots will be large if you do it away from the paper.

Column: Correction fluid will splatter in the general vicinity, so put tape around the manuscript and frame to mask them.
Making planets realistic

Use a template for planet circles.

Give planets a touch of color and apply tone to make them round and to make them look heavy.

Representation of outer space
Present the depth and mysteriousness of outer space using special tone patterns and applying layers of tone.

Layered tone

Special tone
Chapter 3
Distance of Natural Objects
Tree-Lined Roads/Light and Shadow/Sky
How to Draw Trees  Roadside trees/Tree-lined roads/Shrubbery

**Drawing roadside trees**

To draw roadside trees planted at even intervals, choose the positions of the first and second trees and use the technique to an even interval. Think of tree trunks as poles.

1. **Draw one tree**

2. **Draw supplementary line.**

3. **Choose interval between trees.**

4. **Draw "pole" for second tree.**

5. **Determine where to plant the rest of the trees.**

6. **Turn into trees.**

---

**Column:** When drawing roadside trees and tree-lined roads, first clearly sketch the road and sidewalk. (Needless to say, you need a vanishing point and horizon.)
Drawing a tree-lined road

Draw a line of trees on one side of the tree-lined road and slide it to the opposite side.

1. Draw a line of trees on one side of the road.

2. Draw a perspective line where the trees will be placed.

3. Slide to the opposite side.

The trick is to raise vertical lines from the perspective line where trees will be placed.

Column: This technique can also be used for drawing opposing doors in condominiums and hotels and opposing windows on trains.
**Drawing shrubbery**

Shrubbery can be round or square. It is best to simplify it.

There is no need to draw everything. In the case of both trunks and leaves, do not draw the parts with light hitting them.

Think about the direction of the light and draw the shadowed parts. Give the trunk the feel of a trunk and leaves the feel of a leaf.

A tree consists of leaves and a trunk. Like tree-lined roads, round shrubbery is often planted at even intervals.
Reference - Leaves of roadside trees

Chinese parasol/Maple
Sycamore
Cherry/Zelkova
Chinaberry/False acacia

Example: Roadside trees drawn close together

Example: Roadside trees drawn far apart
How to Draw Shadows

Ask yourself the following questions when drawing shadows. "What is the light source?" "What direction is the light coming from?"

Shining from directly above:
Shadow is short (around noon).
Shadows could be various shapes depending on the shape of the ground and the presentation.

Shining from an angle:
Shadow is somewhat long.

Morning or evening:
Shadow is long.
The lower the sun is, the longer the shadow will be.

Sunlight

Morning sun
East
18:00
16:00
14:00
North
12:00
10:00
Sunlight

Evening sun
West
8:00
6:00

The lengths of shadows created by sunlight are different depending on the time of day. When drawing shadows in manga, choose the length and direction of shadows by thinking about what time of the day it is.

Shadows below eaves

Sunbeams and shadows
Shadows are long in the morning and evening.
Shadows are dark in the summer — Make them solid.
Rays are weak in spring and fall, so shadows are also light — Use tone and diagonal lines.
The rays of the sun reach the earth as parallel lines.

Shadows are in line with the rays of the sun.
Light from streetlights and indoor lights

Perspective is used for shadows created by artificial light.

Place the vanishing point in the center of a streetlight and determine the shape of the shadow by connecting it with the object being lit.

The candle is emitting light in all directions. Shadows are formed in perspective to the center of the flame. The shadows are faint since the light itself is not very bright.
At the heart of this matter is how to place objects. Draw objects in the foreground bigger and objects in the background smaller, and place mid-size objects between them.

**Background techniques**

- **Pen and tone basics**
  Lines: Draw objects in the foreground with bold lines and objects in the background with thin lines.
  Tone: Use darker tones in the foreground and lighter tones as the distance increases.
Rain

For rain in town, draw buildings and shadows in a free-hand using short lines.

Gradate parts in the distance.

Draw trees and other objects using slanted lines.

Technique for solid parts

Use slanted lines drawn free hand.

Add rain lines using white correction fluid on solid parts.
Rivers

Draw rivers using the techniques for drawing roads. Choose a vanishing point and draw free hand.

Normal river
(use technique for straight road)

Use two vanishing points for meandering river.

Technique for river surface

1. Add touches with pen in accordance with the direction and strength of the current.

2. Apply tone and shave.
Clouds

Depending on the clouds, keep perspective in mind when drawing them.

Perspective and natural objects
You can use the concept of perspective without alteration for drawing rivers, mountains and other foreground objects that move off into the distance. Basically, perspective can be used to draw any object with a sense of distance or any object you want to give a sense of distance.
Various techniques for drawing clouds

**Cumulonimbus**
Blur by cutting out, erasing with a sand eraser and shaving.

**Cirrocumulus**
Use the back of a cutter.

**Setting sun**
Apply layers of tone and shave.

**Wispy clouds**
Scratch with the tip of a cutter.
Chapter 4
Drawing Indoor Scenes
Hallways/Stairs/Small Objects
How to Make a Narrow Hallway Look Wide

There are two ways to make a hallway in a narrow frame look wide.

① Draw using irregular two-point perspective.

Hallway drawn using regular one-point perspective

② Widen hallway

Irregular two-point perspective
Method that uses two vanishing points to draw something normally drawn in one-point perspective (one vanishing point).
In this instance, you place separate vanishing points for the left and right walls.

Vanishing point for right wall
Vanishing point for left wall

Method to widen hallway

Use irregular two-point perspective when the width of the hallway is fixed due to the setting.
Irregular two-point perspective: 1. Distance between two points

The farther apart the two points are, the wider the space will be.

Narrow space
The two points are close together.

Wide space

When you reverse the points, the walls are drawn from, it becomes narrower than one-point perspective (when the two points are close together).

Draw the right wall from the right point and the left wall from the left point.

The two points are close together.

The two points are far apart.

The closer the two points are, the closer it will be to one-point perspective.

Use when you want to create tension or pressure.
Irregular two-point perspective is a technique used to emphasize buildings in the foreground. Use this technique when drawing dead ends and T-shaped junctions.

Example:

- This technique is often used for drawing the background when you want to put the character in the center.
- When drawing scenery alone, buildings should end before and after the vanishing points. (unique to this technique)
  Example: Dead ends, three-forked roads, insides of cars and airplanes, etc., that serve as a background to characters.
- When using this technique for T-shaped junctions, draw a wall or house directly ahead (on the horizon).

Irregular two-point perspective comes in handy when you want to make a narrow space (hallway, etc.) look wide or make a scene in a narrow frame look wide.
Classroom: How to Draw Desks
A character sitting at a desk in class. First imagine the composition you want and draw a rough sketch.

View from above

Rough sketch
Find the vanishing point from the shoulder line of the character and the desk line.

Vanishing point
Desk line
Shoulder line

The horizon is determined after the vanishing point has been determined. After finding the vanishing point, draw a line directly to the side.

A character sitting at a desk. The character, chair and desk are usually parallel to each other.

Not drawn in perspective
You may draw round corners free hand, but they will look sharper if you use an oval template.

You should also draw the parts that will not be visible.

The height of the chair is about half that of the desk.

Draw straight from around this point.

Legs angle out slightly.
Common chair/desk composition and the horizon

Vanishing point

Horizon
Distance Between Characters and Walls

The distance between a character and a wall is represented by the relationship between the position of the character's feet and that of the floor line.
Various ways to create sense of distance between characters and walls

Indicate the presence of a wall by drawing a shadow.

Draw a line separating the ceiling and walls.

Give the wall a sense of presence by drawing shadows on both the floor and wall.

Draw a window or bookshelf behind a character.

Use shadows and the room layout to create a sense of distance between characters and walls.
How to Draw Indoor Scenes (Living room)

When you want to draw a room with a person sitting on the couch watching TV as seen from one wall, start by drawing an outline of the room.

Draw the opposite wall and draw a door, the ceiling, the floor and walls on either side.

Then draw furniture and the person.

1. Drawing the opposite wall

- **1.** Draw shape of wall.
- **2.** Draw door so it looks natural relative to the ceiling.
- **3.** Determine horizon and vanishing point based on the height of the door.

**Point**
- The room may be any width you choose.
- Since the view is that of a standing person, draw the horizon at about 150 cm. Placing the vanishing point a little to the left or right of center will make the picture look better.
- The ceiling, floor and sidewalls are drawn using lines coming from the vanishing point and passing through the corners.
- Draw a perspective line on the left and right walls that are the same height as the door.

**Column:** The perspective line that is the same height as the door acts as a guide for determining the height of furniture. Drawing a perspective line with a distinct height is the key to drawing backgrounds in both indoor and outdoor pictures.
2. Drawing a rough sketch

Draw the interior on the basis of the plan.

Reference: Completed drawing with character
3. Drawing a couch

1. Draw a projection.

2. Draw thickness.

3. Draw shape.

Determine the height of the couch based on the 150-cm wall line (same as height of horizon in this drawing). Determine the thickness from this.

Horizon

150 cm = 59.06 in.
80 cm = 31.5 in.
70 cm = 27.56 in.

Create the overall shape of the couch by connecting the vanishing point and the top of each vertical line.

Vanishing point

Horizon

Make corners and edges round to make it look like a couch.

80 cm = 31.5 in.
40 cm = 15.75 in.
25 cm = 9.84 in.
15 cm = 5.90 in.
1. Draw a projection.

Vanishing point

2. Determine height.

With the table against the wall, determine the height of the table from the height of the couch.

3. Draw shape.

Slide and draw a square box.

4. Add thickness.

When drawing the legs, also draw the portions that will not be visible.

Size of table

Height is about half that of the couch.

80 cm = 31.5 in.
40 cm = 15.75 in.
5. Drawing a TV stand

Like the couch and table, start by drawing a projection.

Determine the thickness and width in relation to the couch drawn earlier (they do not have to be as exact as the depth and height).

Looking at the floor plan, draw it in line with the table, for instance.

Completed drawing

Column: Draw indoor scenes using one-point perspective. (Two-point perspective is not used very often.)
Small objects on tables and desks — 1
Drawing without using perspective

In a scene where one side (or two corners) of a table is not visible, draw without using perspective.

Do not show this portion.

Show this part of the table.
Tables and perspective
- The top of the desk farthest away will look wide if perspective is not used to draw objects on a table when the edges of the table are visible.
- Perspective is not needed when all the edges are not visible.

Horizon

Use perspective for drawing objects when the edges of the table or desk are visible.

Small objects on a table drawn using one-point perspective each have their own vanishing point on the horizon line (they all share the same horizon line).

Tables are often drawn using one-point perspective, but objects on a table seldom use the same vanishing point as the table.
How to draw cups
Circles on tables

• When the top of the table and the horizon line are close, use an oval that looks like this.

Advice
Thin ovals look like these are often used for long shots. Long shots are used for explanatory scenes with almost the entire body of a character and background.
When the top of the table and the horizon line are far apart, use an oval that looks like \( \bigcirc \).

Ovals that are almost circles are often used for close-ups. Close-ups are used when you want to make a strong impression or you want to magnify something.

The farther away the circle is from the horizon line, the closer it becomes to being a perfect circle.

Draw the bottom oval of cans, etc., round.
When drawing small objects made up of squares, simply draw all vertical and horizontal lines parallel to each other.

The shapes of small objects will not look good if the vanishing point is not pretty far away.

Use one-point perspective when perspective is used from the standpoint of presentation.
You do not normally think very much about perspective when drawing beds. When drawing a character sleeping on a bed, think of the cubic effect of the person’s body.

Build a simple model when it is difficult to come up with the cubic effect of the mattress and person.

A doll made with a marble, ballpoint pens and an eraser was laid down on a handkerchief mattress. Tissue paper was used for the covers.

Column: Use perspective when you want to create an impressive effect.
Bed legs

No legs

Round leg

Square leg

Do not draw the edge line.
When drawing open doors, place separate vanishing points for the frame and the door.

**Structure of doors**

When viewed from above, draw a circle with the axis as the center.

The doorknob is in the center.

1. Draw a character.
2. Draw a dot about one head length to the side of the character's feet.
3. The floor line is formed by connecting the dot and the vanishing point. (You get a character standing near a door.)
4. Slide the character and determine the height of the door from the height of the character.
5. Determine the height of the ceiling from the height of the door.
6. Draw the ceiling line from the vanishing point.
7. Determine the width of the door last.

**Detemining door width**

- Start drawing the width of the door from the side with the doorknob.
- Make the width of a door drawn in perspective slightly narrow.

**Column:** Make the distance between the top of the door and the ceiling about 80 cm, which is about half the height of the character.
Opening doors

1. Draw the door as seen from straight on.

2. Draw the door open at 180° angle.

3. Draw an oval (locus of door).

4. Open the door.

5. You get an open door drawn in perspective.

- Draw an oval that passes through the apexes representing the corner of the door. (The oval path the door travels when opened.)

- No matter what the perspective of the door you want to draw is, make it look like this when you draw an open door.

- Draw the bottom door line indicating how far the door is open.

- Draw the door as seen from straight on.

- Make the width half the length of the height and draw the door as seen from straight on.

- Top of axis

- Vanishing point of open door

- Door vanishing point

- Door locus
Examples of open doors

Door vanishing point

Vanishing point of open door

Vanishing point of open door

The door vanishing point is far away.

Upper vanishing point

Door vanishing point
Drawing Stairs

Vanishing point for determining inclination of stairs

Move the vanishing point to the left when you want to make it look like you are looking up from the left.

Normal vanishing point

① Draw supplementary line for inclination.

To inclination vanishing point

② Determine step height.

Step height

③ Draw a supplementary line for determining step width.

To inclination vanishing point

④ Draw width.

Inclination vanishing point

Like slopes, draw stairs using two vanishing points. (The normal eye-level vanishing point and a vanishing point for determining the inclination of the stairs.)

Vanishing point

Width line comes from here

Stairs are drawn in one-point perspective using two vanishing points and two supplementary lines.
- Always draw the width line from the eye-level vanishing point.
- Draw the parts that will not visible as well.
Looking down a flight of stairs

Think of there being no horizon when you draw stairs from the top looking down. Draw them using vertical two-point perspective.

Column: You cannot see the horizon in a picture looking down a flight of stairs because of the composition of the picture.
When drawing a side view of stairs, there is no need for an inclination vanishing point. Just pay attention to the eye-level vanishing point and horizon.

The angle of inclination of the handrail and that of the stairs are the same.

**Distinguishing features of stairs: Viewing location and appearance**

- **Difference in appearance depending on viewing location in relation to vanishing point**
  - Left of vanishing point:
    - Can see width of steps
  - Viewing location
  - Right of vanishing point:
    - Can see height of steps

- **Difference in appearance depending on viewing location in relation to horizon**
  - Above horizon:
    - Cannot see upper surface
    - Horizon
  - Below horizon:
    - Can see upper surface

- **Left of vanishing point**
  - Can see width of steps
Chapter 5
How to Draw Backgrounds
Learning by Doing
Let's say you have a name and a character for your manga. All that is left to do is draw the backgrounds. Let's take a look at the actual process of drawing manga backgrounds using perspective.
1 Drawing a residential area

In the case of manga, you usually draw the frame at the upper left or the top row first. This helps keep the page from getting messy.

1 Determine horizon and vanishing point.

![Diagram showing horizon and vanishing point]

2 Draw road.

![Diagram showing drawn road]

**Column:** When drawing, mask the frames you are not working on with paper to keep them as clean as possible.
3. Draw buildings on the left.

Determine the height of the show window and other buildings by sliding the character over.

Raise the character to the level of the sidewalk.

Think of the street entrance of the building as being 2 meters high and the show window as being 2.4 meters high. Use the character as a guide when determining the size of the building, i.e., the height of the character plus number of heads.

The height of the show window is between 200 and 240 cm

<table>
<thead>
<tr>
<th>Height in cm</th>
<th>Equivalent in ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td>7.87</td>
</tr>
<tr>
<td>220</td>
<td>7.22</td>
</tr>
<tr>
<td>200</td>
<td>6.56</td>
</tr>
<tr>
<td>190</td>
<td>6.23</td>
</tr>
<tr>
<td>180</td>
<td>5.90</td>
</tr>
<tr>
<td>160</td>
<td>5.25</td>
</tr>
</tbody>
</table>
Draw buildings on the right

Standard character sizes

- Adult males: 175 cm
- Adult females: 160 cm
- Children: About half the size of adults (80 - 100 cm)

When there is a sidewalk, raise the dummy to the level of the sidewalk.

Slide the character to the right and determine the height of the vending machine, which will be used as the basis for drawing the building.

Advice

When drawing backgrounds, characters act as a kind of scale.

Comparison of character and vending machine

180 cm = 5.90 ft.
175 cm = 5.74 ft.
160 cm = 5.25 ft.
100 cm = 3.28 ft.
80 cm = 2.63 ft.
2 Drawing a school

Next is a school. There will be no character in the scene, but start by drawing the foundation and a dummy character.

1-1 Draw horizon at eye level (middle of ground-floor window).

1-2 Extend sloping line in rough sketch to get vanishing point (point of intersection with horizon line).

<table>
<thead>
<tr>
<th>Height (cm)</th>
<th>Height (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>9.84</td>
</tr>
<tr>
<td>280</td>
<td>9.19</td>
</tr>
<tr>
<td>180</td>
<td>5.90</td>
</tr>
<tr>
<td>160</td>
<td>5.25</td>
</tr>
<tr>
<td>120</td>
<td>3.94</td>
</tr>
<tr>
<td>100</td>
<td>3.28</td>
</tr>
<tr>
<td>90</td>
<td>2.95</td>
</tr>
</tbody>
</table>

Vanishing point

Even if it will not appear in the picture, clearly draw the surface where the character and the school come into contact to make sure they are balanced correctly.
The eaves, window and wall ratios of schools and other buildings are the same for each floor.

2-1 Determine each floor by dividing into four parts.

2-2 Divide each floor.

Divide into four parts starting from the first-floor contact surface that is not visible.
3. Draw windows.

The depth ratio of windows is the same for every floor as long as the perspective is not from above. Thus, for the remaining windows all you have to do is extend the window lines from another floor.

- Clearly draw the overall window border (including parts not visible).
- Find center by drawing diagonal lines.
- Divide into two parts.
- Draw supplementary lines.
- Divide each into two (to divide window into four).
Tape a thumbtack over the vanishing point.

When drawing lines in the direction of the vanishing point, tape a thumbtack over the vanishing point. Using a ruler with the thumbtack as the axis makes it easier to draw both rough sketches and in pen.

Do not bring background lines into contact with characters.
Omit intricate parts. Represent them by making use of shadows.

Not joining the edge line to the corner better creates the mood of a building.
Adding tone 1 — Residential area

Soft touch: Use little tone.

Hard touch: Apply tone discriminatingly.

Think of perspective when determining tone cut.

Scrape uniform curve using blade tip of cutter.
Soft touch: Use little tone.

Hard touch: Apply tone discriminatingly.

The page is complete after you have finished adding detailed tone!
Objects that you see around yourself every day can all be used in your drawings. It will be very helpful when drawing manga if you know the size of objects around you. Remember the size of objects relative to the size of human beings (yourself).

---

**Indoors**

- Average adult male: 180 cm
- Average adult female: 160 cm
- Desk: 70 - 80 cm
- Mirror:

---

**Outdoors**

- Height of first-floor: About 3 m
- About 6.89 ft.
- About 5.90 ft.
- About 4.92 ft.
- About 3.94 ft.
- About 2.95 ft.
- About 1.97 ft.
- About 0.98 ft.
One interval = 30 cm (about one character head)

210 cm

135 cm (4.43 ft.)

90 cm

Chest of drawers

Mattress height 30 - 40 cm

Low traffic signs and signals. The signs are 3 meters (9.84 ft.) and tall signals can be 5 meters (16.4 ft.) or more.

Guardrail
Reflections

Adding reflection tone to windowpanes creates a more realistic atmosphere.

Clouds (sky)

Shadow from opposite building
Chapter 6
Special Effects and Character Representation Using Perspective
Drawing Special Effect Lines and Sound Words Using Perspective

Use of perspective is not limited to buildings and backgrounds. It can be used for anything that is part of a picture. That includes special effect lines and sound words.

- Special effect lines when the vanishing point is in the picture
- Draw them toward the vanishing point.

The special effect lines (concentration lines) were drawn from the sword's vanishing point.

This sword was drawn with a vanishing point farther away and the special effect lines were drawn accordingly.

- Special effect lines when the vanishing point is outside the picture
- Draw them away from the vanishing point.

The sword in this picture was drawn in perspective, but the sound word and special effect lines were not.
Some of the contour lines of this sword were represented by slanted lines pointed in the direction of the vanishing point.

Sound words are said to be pictures. Draw them with perspective in mind to make them look cool.
How to draw sound words with perspective in mind

Special effect lines when the vanishing point is outside the picture.
Draw them away from the vanishing point.

Design the word. Draw vertical lines in general direction of vanishing point.

"BANG" was drawn with the inclination of the slanted lines in mind.

"BANG": Sound words do not have to be drawn perfectly in perspective.
Draw them in a deformed, perspective-like manner while thinking of depth and direction.
Creating a Greater Sense of Existence Using Minor Techniques

When a picture strictly drawn in two-point perspective does not turn out to be very interesting, move the perspective upwards. Making vertical lines slightly slanted will create a sense of existence and depth.

Do not go to the trouble of marking a point. Draw a house assuming that the vanishing point is above the house.

Manga and drafting techniques

Many drafting techniques are used to draw manga, but drawing manga is not drafting. If it is effective to do so, use drafting techniques flexibly. For instance, you do not have to use three-point perspective just because the vanishing point is above the picture.
Perspective rulers (Too Corporation) are transparent, plate-type drawing tools with floor and wall perspective lines. They come in one-point, two-point and three-point perspective types. They allow you to easily draw objects with vanishing points far away, so use the type that matches the angle or image you want.

When you align the dedicated ruler that comes with it with the plate's curved surface, slanted lines and depth lines will converge on the vanishing point.

If you assume that one graduation is 20 cm, the graduations are designed so that the height of the horizon is 160 cm. Ceiling heights and room compositions are freely determined by choosing graduation positions.

The two-point perspective ruler can be used as the basis of a one-point perspective background.
Example: Drawing using one-point perspective pattern

1. Rough sketch with horizon line and outline.

Advice:
- Use the graduations on perspective rulers to their full potential.
- It is very convenient to use perspective rulers after drawing a rough sketch.
- Draw a horizon line on your rough sketch when using the one-point and two-point perspective type perspective rulers.

2. Align horizon of perspective ruler.

3. Draw perspective lines in accordance with image.

Using a tracing box
Tracing paper is usually placed over a perspective ruler, but using a tracing box will be more efficient.
The horizon line is two steps down from the top of the stairs. The horizon line is oblique relative to the picture.
Even if you draw a character normally, you will get a powerful composition by tilting the horizon line.

Simple one-point perspective—all the artist did was tilt the horizon line.

The ground has been tilted. The buildings were drawn using vertical two-point perspective.

**Column:** Overuse of this technique of tilting the horizon line relative to the picture can result in a page that is confusing to look at. Save it for special situations.
Looking straight up.
Simple one-point perspective.

One-point perspective where the horizon was tilted and curved.
Draw perspective lines and special effect lines using curved lines.

Rumble
Examples/Changing Camera Angles

Draw manga like you would film a movie or video.

You can make an effective presentation by changing the camera angle.