HOW TO DRAW MANGA

Pen & Tone Techniques

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How to Draw
Manga
Pen and Tone Techniques
A Word about the Book

The most basic technical skills required for creating manga are without doubt penning and using screen tone. Even if you suddenly get the idea to draw manga using new materials or software, the original impetus spurring you to create manga in the first place was likely that image of yourself as the artist moving your ink-dipped pen rapidly across the paper, or that image of yourself carefully trimming the screen tone and with all your might pressing it down on the under drawing, or perhaps from that feeling of elation or desire to shout with joy at the image of yourself holding the completed artwork in your ink and glue caked hands after having expended sweat and tears on its creation.

This volume is not intended for professional artists, but rather for aspiring manga artists or those manga hobbyists who would like to try their hands at creating themselves. It offers thorough explanations of pen and screen tone techniques taking a fun and easy-to-understand approach. The author provides invaluable assistance to the readers based upon his lengthy years of practice as a manga artist and his bountiful experience in instructing aspiring manga artists.

We would like to express our gratitude to Art Color K.K. for supplying the specialized art paper for all of the original manga artwork used in this book. We would also like to extend our sincerest thanks to Too Corporation and Art Color K.K. who provided all of the other materials and tools used in the artwork for this book.
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Pen Techniques
When drawing the background, make an effort to evoke the sense of an inhabited space (i.e. that people actually live in the houses or town you are drawing).

The telephone wires, curtains, street signs, TV antennas, etc. generate the sense of an inhabited space.

Keiko, I'm sort of worried about getting along with this professor.

Don't worry! One of the editors told me he's ultra nice.

What suggests inhabitation in this panel is the slightly soiled wall. Things touched frequently by hands tend to build up grime.
I heard he told you that if you really wanted to become a manga artist, the first thing you would have to do is study how to use a pen.

Keiko, right? I heard you were coming from Tashiro with editing.

Thump!

This is, um...

Um, hello.

Also, let me introduce to you a classmate of mine, Manabu. I always like to have company with me, so I brought him along.

That's correct. Thank you in advance for helping us out.

Looking forward to working with you two.

You should be glad for the opportunity.

Thank you sir for helping us out.

What suggests inhabitation in this scene is touches like the piled up old newspapers and magazines and the grime on the wall.
Think carefully about proportions when drawing characters together with a background setting. The desks, bookshelves, chairs, and other objects in this scene all must be drawn in correct proportions.

Q: What is a manga artist's studio really like?
Wow! This is sooo exciting!!

I heard from Tashiro that you had shown him a penciled manga you had drawn on school report paper.

That's right. I figured manga can be drawn on just about anything.

Yes!

All righty then!

Let's talk first about the manga drawing process.

Well... it can be drawn on any kind of paper, but some papers are better than others.

Perhaps we should just get started right away learning the basics.

Please take a seat wherever you like.

A real manga artist's studio is actually much, much messier than what you see on page 8. However, I decided to tone it down a bit. Studios tend to be cluttered with huge piles of reference or source materials; there are usually model guns, radios, and a TV lying about—not to mention light tables. There also usually cords dangling all over the place for hanging original drafts to dry.
Establish the page layout (determine the placement of the panel frames and add speech balloons in order to develop the story).

Use pencil(s) to sketch the under drawing. (HB, B, and 2B leads are about a sufficient hardness. Leads that are either too soft or too hard will be difficult for you to erase.)

Trace over in ink those pencil lines best placed. Do not use slow, overly cautious lines when tracing. Be decisive and bold when inking.

How much detail should be added to the penciled under drawing?
Clean up lines extending beyond the panel borders or smudges with white poster paint (white ink or correction fluid can also be used). (When inking artwork, some artists who tend to have few lines extending outside of the panel borders add screen tone before doing touch ups with white poster paint.)

Don't worry about tracing penciled lettering in ink. The publishing company will redo any lettering in typeface.

Pencil anything you are able to ink yourself later. I leave out eyes, mouths, and noses when I am drawing small panels. This is because I can easily just jot down the position for their placement (by just penciling some form of marking) and add them later in pen.
Art Color high quality 135 kg manga art paper was used to produce all of the artwork in this book.

I hope you got a pretty good general picture. Now I'll explain the process in a bit more detail.

First, you need to select the paper you want to use. Paper with a reasonable thickness seems to be easier to use.

Also, you will want a type of paper that won't peel or become rough when you use an eraser on it and that won't allow ink to bleed.

Be careful in that while you will find it easy to sketch on drawing paper, some types of drawing paper allow the ink to bleed.

On top of that, if you use an eraser on drawing paper, it can distort the lines you have drawn.

This is why I like to use high quality 135 kg manga art paper.

This seems to be the easiest manga art paper to use available on the market.

What sort of paper thickness is easy to use?
Manga is usually produced on a format 1.2 times larger than the dimensions used for Japanese magazines. This is because it makes the final product look better. 1.3 or 1.4 times the layout dimensions used for magazines also look good, but the larger layout will require more drawing time and the use of more screen tone, so it tends to make things more difficult.

B4 Sized Art Paper

84 Sized Art Paper

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(1.2 times the dimensions used for magazines)

364 mm

272 mm

= 10.71 in.

180 mm

= 7.08 in.

364 mm

= 14.33 in.

257 mm

= 10.12 in.

A: The dimensions of the paper itself
B: Do not draw any further than this point if you are planning on cutting off the margin.
C: Outside margin. finishing touches are not added beyond this boundary.
D: Inside margin—this is the standard margin used for dividing panels, etc.

Absolutely!

Approx. 90 to 135 kg/m² (approx. 198 to 297 lbs/yd²) makes for a satisfactory thickness. If the paper is overly thin, it may cause the paper to ride up or wrinkle when you use an eraser. Likewise, the ink may bleed through to the other side of the paper. Still, there are some artists who swear by drawing paper because they like the way the pen glides over the surface. One of the artists likes to use paper about the same thickness of copier paper. But this is again just a preference.

B5 (25.7 cm X 18.2 cm or 7.17" X 10.12") is the typical format used for manga, and is also the format of this book. In the case of this book, all printing is contained within 22.6 cm X 15 cm (8 7/8" X 6") margins.
Well then, let's move on now to our discussion of pens and different types of strokes.

**Types of Pens**

**Technical Pen**

The lines tend to be even, which makes drawing a breeze.

The various drafting supplies companies put out an assortment of pens. Try them out and pick the ones you like best.

**School Pen**

The school pen is similar in appearance to the "G-pen," but quite unlike the G-pen, the school pen feels "stiff" and does not glide smoothly over the paper.

When I say "pen," I am actually referring to a wide assortment of drawing instruments used by the manga artist.
Recently, some artists have even been using technical pens to draw characters.

The technical pen can produce lines like these as well. It's a handy-dandy little tool.

The lines the pen draws do tend to lose clarity if you draw too quickly with it, so it isn't suited for crosshatching.

Since the school pen is stiff, it produces a clean, even line.

A thin, even line does tend to result in a stiff, dispassionate image, but I don't mind it.

Wood grain is a cinch as well!

If you bear down when you use the pen, the nib will soon become dull. Conversely, if you use a relatively light hand, the nib should keep for a while. I went through about 5 to 6 nibs to produce the artwork on page 20. Here is a funny fact for you: Manga artist S claims that manga artist M's used nibs are the best for drawing and swears that he doesn't know what he'll do if M ever quits being a manga artist.
**Maru Pen**
(Crow Quill Pen)

I have a penholder exclusively for use with the maru nib.

This pen is superb for drawing thin lines.

The *maru* pen produces lines more smoothly than the G-pen. Those who use the *maruu* pen nib claim it's extremely versatile, but first-timers may experience some difficulty with the nib initially.

Lines like these are a snap with the *maru* pen.

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**G-pen**

This is the nib *manga* artists use most commonly.

The smooth handling makes the G-pen excellent for producing drawings like this one.

---

**Kabura Pen**
(Spoon Pen)

This is probably the easiest nib to use for beginners. The pressure put on the nib affects the smoothness with which the pen writes and allows for clean, sharp lines.

The *kabura* pen is terrific for lines like these.

---

When drawing a given character, will a *manga* artist use different pen nibs for the outer contours of the face, the clothing, etc.?
It also makes drawing hair a relative breeze.

The maru pen is also suited to ink drawings.

All pen nibs other than the maru pen nib share the same grip.

The G·pen will allow you to draw characters just the way you had imagined them.

The G·pen has a soft, gliding touch, so it tends not to take well to drawing ruled lines.

The G·pen is perfect when scratchy lines are desired.

The kabura pen is multifunctional. I use the "Nume" nib for this pen. Still, once you become accustomed to the nibs, none of them will be hard to use.

The kabura pen also allows for strokes like these.

Some do, yes. In my case, I find it too much of a nuisance, so I don't bother. But, maru pen is probably the best pen to use for drawing hair (e.g. when drawing white hair).
There are many other nibs than what I have mentioned here, so it's important that you see what is available at your nearest stationery store or art supplies shop to find out which nibs best suit your needs.

...previously I had a favorite nib that was produced by a foreign manufacturer, but the retailer then stopped importing the nib, leaving me in a lurch.

I recommend becoming accustomed to whatever is consistently available at your neighborhood stationery store. That would probably be your safest bet.

Professor Pen, does manga have to be drawn with a pen?

Are you kidding? Obviously it does!

Not necessarily.

You could even use your finger.

Any instrument is sufficient, provided that it allows you to create dark, clear strokes.

Q: There are inks that become water resistant once dry. However, are these inks appropriate for manga? In addition, is it safe to use sumi (India ink) that is several years old?
Sometime in the future it may become acceptable to draw manga in pencil. However, today artists are still required to use either black ink or India ink.

A felt-tip marker

☆ A feather brush is a necessity for drawing manga. Be sure to clean up eraser bits frequently.

If you are going to use sumi, then you really should use something new and fresh. Still, I think sumi that is only about 1 to 2 years old should work well.
While there are a wide variety of different materials and tools for creating manga, the pen is by far the most common.

Try to accustom yourself to drawing with a pen.

All righty then, let's look at how to hold the pen and draw.

Keiko, what part of your body do you use to draw a line?

You use your fingers, don't you?

Yes...

...but not your fingers alone.

Before anything else, try to remember this point.

It is extremely important.

Manga is really drawn with the artist's whole body. If you practice drawing properly, you will find yourself able to produce more confident brushstrokes.
Next, I'll explain how to hold the pen in detail.

Let's begin with using the fingers to draw.

The shoulder, elbow, and wrist are all held relatively in the same position (i.e. don't move), while the drawing is done with the fingers. Use the same movements as when writing.

This way of moving the pen would be used for example...

To draw face contours and other short lines.
To draw relatively longer, dynamic lines, such as for hair.

Next, is holding the fingers, wrist, and shoulder in place, while drawing with the elbow. This you would use for example...

To draw long, horizontal lines.
Once you master this technique...

It is really quite useful.

For example, you could turn your manga art paper sideways...

...and use this technique to draw pampas grass.
You could also produce wavy, flourished strokes without requiring the aid of a French curve.
Incidentally, the angle of the pen when drawing from the elbow...

...should be something like this.

Approx. 45°

Again, this varies. Try a number of angles until you find the position that best suits you.

An angle I find comfortable may not necessarily be the same angle everyone else finds comfortable.

Clunk

So, this wraps up our discussion on holding the pen and drawing.

Give me some lines too!

What about the shoulder?

Huh? Oh yeah!

Prof. Pen!

The shoulder!

The shoulder is extremely important.
Once you get used to it, you'll come to draw like this automatically.

Conversely, you will never be able to draw well until varying the way you move the pen like this becomes second nature.

Sheesh! Get used to this. Practice that. Practice, practice, practice.

Isn't there anything fun we could do that would help us get better?

Many strokes require the simultaneous use of your fingers, wrist, elbow, and shoulder.

The shoulder is used to draw strokes like these on large formal artwork, such as for manga magazine covers. In actuality, the elbow is also used along with the shoulder.

I wrap kite string around the grip of my pen to prevent my fingers from slipping.
EVERY UTILE POINT REQUIRES PRACTICE!
Okey-dokey, next let's practice effective ways of drawing freehand.

First, is basic hatching drawn using the fingers.

The lines are always drawn uniformly from two fixed directions. The trick is to rotate the drawing in order to arrive at satisfactory hatching.

In Japanese, this is referred to as "single-hatching" or "ichikake."

"Triple-hatching" (sankake) consists of lines added at 45° to double-hatching.

Adding more lines running at 45° in the opposite direction yields "quadruple-hatching" (yonkake).

Here is gradated shading created using cross-hatching.

Next, lines are added at 90° to the original hatching lines to create cross-hatching or "double-hatching" (nikake) as it is referred to in Japanese.
The key when adding hatching or cross-hatching is to maintain consistency in the distance between the hatching strokes and in their thickness.

Try using hatching in scenes like this.

Strokes like these are sloppy and unacceptable.

Drawing from the elbow instead of from the fingers produces hatching of a different flavor.

In this case, the fingers, wrist, and shoulders are all held in place.

As I mentioned earlier, being able to draw from the elbow is extremely important, so make sure you master the technique. Strokes drawn from the elbow have endless possibilities of use.
The above panel of the skyline was created by turning the drawing to the side and using extra paper to mask areas of the buildings.

Use flyers or any other scrap paper for masking.

Once the masking paper is removed the cityscape is complete. Masking paper can also be used with hatching to ensure that the hatching strokes do not extend beyond the contour lines of the object they are shading.

Thick clouds (This also appeared a little on a previous page.)

A city's evening skyline

Q: I heard that recently the trend in manga is toward thin lines and realism. Is that true?
See?

Hatching can be used for just about anything.

Hatching is so critical that basically a beginner artist unable to use hatching just can't draw manga.

This stroke can be used as necktie designs and other patterns.

Next, let's go over a few strokes that can be used to create simple patterns.

Do not lock yourself into that mindset. The world of manga would be boring if everyone drew in the same style. You should draw in whatever way you like best.
When a rough, grainy look is desired, use a sort of scribble shading. This is effective for giving the lower part of walls a sense of being inhabited.

Today, all of these patterns can be purchased in screen tone format. However, practicing them will help you get used to handling a pen. Plus, using screen tone for absolutely every detail down to hatching could cause your artwork to lose its sense of an individual style, so make an effort to draw as much as you can on your own.

Our next topic will be a little on the difficult side: "nawa-ami" or "cord hatching."

Q: Is nawa-ami mostly for the background? Also, what sort of mood or psychological state does it suggest?
1. Create a rectangular block using oblique lines.

2. A similar block is then drawn at a different angle slightly overlapping the first.

The key here is that the lines should be spaced equidistantly and have the same thickness.

3. This process is repeated.

The key is here, at the juncture of these blocks. This juncture should not be open.

It should be as if two of the blocks are contiguous.

This is perfectly suitable for buildings' shadows as well. When it is used as a backdrop for a character, it tends to suggest unease. It can also be used as shading for a character.
One way of ensuring a satisfying outcome is first to roughly sketch the cord(s) in pencil.

Other nawa-ami patterns.

Q: What is the difference between the types of lines and strokes used for shonen manga (manga read by boys), shoujo manga (manga read by girls), and seinen manga (manga read by guys in their teens and twenties).
Flat brush

Hence

You could trim lined screen tone into rectangles and match them up to create nawa-ami.

However, this method takes time, and it often comes out muddled. So, I recommend practicing until you become competent at the technique.

These strokes were created by lightly dipping a flat brush into India ink and then softly sweeping the brush across the paper. This is something a beginner can become proficient at rather quickly, so practice!

A similar effect can be created by cutting an old sponge brush (for creating solid black patches) with scissors or a craft knife.

I don't really think there is a difference in the types of lines and strokes used; although, there are differences between the drawing styles for the three. Still, I can't say definitively what style is appropriate for which genre. If I were forced to make a distinction, I guess I would have to say the three project a different mood. Does that help out or make things even more confusing? Sorry.
Rough, uneven strokes are often necessary as well.

However, manga does not necessitate solely beautiful, fluid strokes.

Groovy, dude! That's all I ever draw!

Sloppy lines!

A rough stroke is not the same as a sloppy line. But, do you understand everything we discussed up to now?

Good. Then, let's talk about when you will need rough, uneven strokes.

To suggest the coarse, jagged texture of a brick.
Rough strokes are effective when rendering the walls of an old, rundown building.

However, just because you are adept at drawing this sort of stroke does not mean you should overuse it. Overusing this type of stroke could backfire on you.

Take care not to overuse it.

Roger!

All right, team. Next comes drawing with a straightedge. Are all systems go?

Yes!

Yo!
Straightedges can be of any length, but one that is too long will be unable to draw a panel frame line. A straightedge around 30 cm (approx. 12") should be reasonably useful.

A 30 cm (approx. 12") straightedge

Raising the straightedge in this manner is handy, because it will prevent the line from touching it, allowing you to continue working even while the lines are still wet.

Use glue or some form of adhesive to affix coins (approx. the size of a nickel) to the underside of the straightedge at these locations.

It would also be useful if the straightedge had beveled edge, referred to as an "ink edge," on one side.

Some of my assistants use modified straightedges like this.

Since we are on the topic of straightedges, you might have noticed that straightedges usually contain a groove.

This side is beveled.

This is the groove.
The glass rod is drawn through the groove on the straightedge.

Draw the rod slowly through the straightedge, moving to the right.

Lettering designers produce letters effortlessly using a flat brush.

I realize you are probably fed up by now with all of this practice, practice, practice.

You will probably have difficulty with this at first. Just practice it again and again.

This groove is to allow you to create parallel lines by drawing a grooving rod through the groove while holding a brush in a technique called "mizohiki." Once you become adept at this technique, you will find it useful for producing clean lines in colored pigments when using a brush.

Hold the glass rod and brush in the same manner that you would hold a pair of chopsticks.
Now, let's draw a line using a pen and straightedge.

The pen nib should be faced in the direction that the line will be drawn.

If the nib is positioned at a different angle, then it could snag on the straightedge, potentially resulting in a sloppy line.

The pen can really be held at any angle relative to the line. However, in order to draw a thin, uniform line, the pen is normally held at about a 45° angle.

Keep the hand at a distance from the straightedge will allow you to draw lines more easily.

Drafting pens and technical pens tend to produce clean, even lines when held perpendicular to the paper.

The key point here is not to move the fingers, wrist, and elbow.

Only the shoulder is used to draw the pen directly to the side.

Does copying someone else's work really constitute a good method of learning? Also, what sort of point should be focused on when copying?
It doesn't really matter if you position the straightedge sideways or up and down, just as long as you are able to draw an even, clean line.

Of course, everything I have been discussing constitutes the absolute basics to drawing manga.

The ideal is for you to do a little innovating on your own and arrive at a method that will allow you to draw cleaner lines faster.

All righty then. Now let's look at different effective lines that can be drawn using a straightedge.

Copying is a great way to learn! The key is to produce as faithful of a copy as possible, from the thickness of the line to the way it is executed. Some artists feel that copying someone else's work will cause a beginning artist to lose his or her individuality (personal style), but if something as simple as copying for practice is enough to cause the beginner to lose his or her style, then maybe it's for the best. Even when you are copying someone else's work, your own personal style should still come through. It is next to impossible to come up with a perfectly faithful rendition.
This is the most commonly used line for creating "special effects." It is produced by slowly drawing the line from the left while applying strong pressure and then rapidly moving the pen until the line fades out.

This sort of line is used to create "special effects."

This... is called in Japanese "beta flash" because it is a flash or burst effect moving from solid black to light.

Determine where the point of focus will be and mark it with an X.
Use a pencil to draw a circle, determining the size of the flash effect.

Next, stick a thumbtack into the center point.

Rest the straightedge alongside of the thumbtack.

And, draw lines toward the center point.

Placing the original draft directly on the desk will cause the thumbtack to make a whole in the desk. Instead, use a desk pad to protect the desk's top surface. This should also make it easier to draw lines as well.
Remember to cover up the hole created by the thumbtack with white poster paint or correction fluid. Otherwise, it will show up during the printing process.

And, voilà!

Color in the areas marked with X's in solid black.

Assorted beta flash patterns
If you come up with something really interesting, by all means, let me know.

If you use your ingenuity, you should be able to come up with any number of interesting patterns, so give it a try.
Since we are on the topic of lines, let's go over panel lines.

There are both German and British versions of the ruling pen.

The ink is not discharged directly from the pen. Rather, it is applied to the tip.

When drawing a line, the ruling pen works best when held perpendicular to the straightedge.

Artists often say that frame lines for panels would probably come out best if they could be drawn with a ruling pen.

The line will lose its clarity if the ruling pen is held down too closely to the paper.

If the ruling pen is held down too closely to the paper, the lines will become uneven.
The ruling pen is an extremely handy tool that it allows you to modify the thickness of the line at will or to maintain inconsistent thickness.

However, it does have the drawback of quickly forming rust if you don't remember to wipe it immediately after use.

Use a pair of pliers to trim off the tip of the old nib and then smooth it down with 800 grit sandpaper. Then the tool is ready to draw panel lines.

Plus, it takes considerable time for the line (i.e. the ink) to dry.

Consequently, to draw panel lines, I use this.

An old pen nib
If you want to draw thin panel lines, then only cut off a small portion of the nib's tip.

If you prefer thick panel lines, then cut off a bit more of the tip.

Recently, artists have occasionally been using 0.8 mm technical pens to draw panel frames, but I don't recommend copying this.

This is a simple tool. Plus, if it gets rusty, you can easily throw it away. After all, at the end of every day you will find yourself with more old nibs.

Why not? It seems practical and easy enough.

That may be true, but the technical pens available on the market today do not produce lines with sufficient weight.

Panel lines should have considerable weight to them. A nice black line will make your artwork appear pulled together.

Huh?
Some people may argue that once the artwork goes through the printing process, it all looks the same, but it is more effective if the original draft has enough of an impact that it can be shown to the editors and impress them regarding your talent.

And that is the panel's corners.

Corners like this occasionally turn up. It is sloppy and makes your work appear slipshod.

Extend the panel lines beyond the corner and then clean up the excess portions using white poster paint, etc. later.

This will result in a clean, sharp 90° angle.

There is one more point you should note when drawing panel lines.

While this may seem a nitpicky point, if you pay attention to the details, a high quality original draft will result.

Beginning artists will naturally produce lower quality originals. Still, a beginner could at least make the effort to use an eraser to clean up penciled lines, draw crisp, sharp panel lines, and clean up excess white poster paint.
Well then, our next topic is creating lines using a French curve.

However, the thinness of the French curve means that it is easy for the ink to come in contact with the curve.

While this may seem somewhat like a waste of money, what I do is buy two identical curves and glue one on top of the other, shifting them slightly.

Now let's take a look at the different lines that can be created with a French curve.

Basically, there is no difference in usage from that of a straightedge.

Q: When should special effects created with a French curve best be used?
Use them to express excitement or bounding emotions in the main character, or to express stirred emotions.

You can create many other different effects with a French curve, so use your ingenuity and experiment.
Manga artists also have the crucial weapon of white poster paint at their disposal.

Recently, many artists have been using correction fluid with a brush or pen applicator, but white poster paint truly is the best for correcting details.

The key point to using white poster paint is to ensure that the desired consistency is obtained.

There are both solvent and water-based types of correction fluid. Which is the most versatile to use?
Also, occasionally when the screen tone is applied after the poster paint, etc., the poster paint may come off owing to the adhesive on the back of the screen tone.

Conversely, if the poster paint is too thin, then it fails to cover up the lines it is supposed to eliminate, and they in turn show up during the printing process.

One more point. Always make sure you put the lid back on tightly after using the white poster paint.

Poster paint tends to harden quickly, and you may find it difficult to use the paint if you don't close the jar properly.

All right! So, next we have SPECIAL EFFECTS IN WHITE!

Oops! The white was a little too clumpy.

Special Effect 1
(This effect works well for depicting rain or water spray)

1] Take a brush and flip it against the lip of the bottle.

Either is acceptable. Which type of correction fluid you use again is a question of individual preferences. For creating manga, the ideal situation is for you to determine the materials and tools that you find the easiest to use or best suit your needs.
2 Special Effect 2  (This effect works well for depicting snow or stars)

Tap the brush against a finger, spattering the white poster paint, etc. across the panel.

3 Special Effect 3  (This effect works well for depicting the Milky Way or creating a fanciful, dreamlike scene)

Spread the white poster paint, etc. over some form of wire netting, and rub a toothbrush or similar utensil over the netting to spatter the paint.

Q How much usage can one expect to get out of a single jar of white poster paint? Also, can a pen nib be used to paint with white poster paint?
when sputtering white paint to create these effects, always use a masking sheet to cover these areas where white will not be applied.

Failing to use a masking sheet could cause the white paint to spray panels or areas outside the target, spoiling those areas.

There are still many other uses for white poster paint that we haven't covered. For example...

Rendering hair in delicate white lines.

I find that a single jar of white poster paint usually lasts me about 6 months. Of course, this depends on the work volume. I occasionally use a pen nib with white poster paint for example to draw hair over solid black areas, etc.
Alternatively, white poster ink could be used on a pen nib instead.

The white paint tends to lose its density when as a thin line, making it more difficult to render a satisfying, flowing stroke.

When looking to create strokes even finer than that possible by a thin brush, use the very tip of a stiff brush. Select a medium or large brush.

If you find the bamboo handle thin and difficult to hold, wrap kite string around it as shown. This will also serve to prevent your grip from slipping during the summer months.

Incidentally, I have a thin brush whose tip I had been using for white poster ink, but after 2 to 3 years, the bristles lost their point, so now I use it to apply black ink when spotting blacks.

There are still more effects that can be obtained using white poster paint. Let's take a look at a few other possibilities.
More Special Effects in White

1. **A Galaxy Created over Solid Black**

2. **A Snowy Landscape**
   Snow covered landscapes look most effective at a ratio of 7:3. A ratio of black:7, white:3 creates a sad, lonely landscape.
   
   A ratio of white:7, black:3 paints a brighter, more cheery scene. [Use a brush pen (fude pen) for dark shadows underneath the snow.]

3. **A Far Town with the Foreground in Solid Black**
   In this scene, white poster paint has been used over the solid black. (The city's downtown has more lights and appears brighter, while the area closer to the picture plane, which is more distant from the downtown, has less light and is consequently darker.)
4 Light Filtering through Trees
Like you would with beta flash, draw lines radiating toward a center point and add white to suggest leaves and light playing through tree branches.

5 Sea Spray
I created this scene by first drawing the rocks and then affixing IC 433 screen tone, etching it to suggest waves. I rendered the spray from the waves crashing against the rocks in white. In order to emphasize the white of the spray, I used black for the rocks.

6 Adding Lettering on Top of Screen Tone
I created this scene by affixing a sheet of IC 62 screen tone to the window and then writing "Ai shiteiru" ("I love you") in pencil on the reverse side of the drawing. I then placed the drawing on a light table and wrote over the penciled words in white.
As I mentioned earlier, any sort of material may be used in the creation of manga, provided that the drawing is clearly rendered in black.

Since we are on the topic, I thought I might mention a few more effects that can be created using other materials.

<table>
<thead>
<tr>
<th>A Piece of Gauze Coated in <em>Sumi</em> (India Ink)</th>
<th>Pressed onto the Surface of the Draft</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Cotton Handkerchief Coated in <em>Sumi</em> (India Ink)</td>
<td>Pressed onto the Surface of the Draft (Handkerchief tapped to achieve effect)</td>
</tr>
<tr>
<td>A Plastic Kitchen Scrub Brush</td>
<td></td>
</tr>
</tbody>
</table>
This can be used to suggest the bloody foot prints left by someone injured.

(According to a medical book I read, all blood droplets form the same shape.)

Trimmed, No-Longer-Usable Brushes
This works well for showing trees in the distance or smoke.

A Sponge Coated in India Ink and Pressed onto the Draft
If a large bee were added to the front of the composition, then this could appear to be a swarm of bees.

A Drop of India Ink Released with a Syringe from 1 m. (approx. 1 yd.) Above
This takes considerable time to dry, so do this about 2 to 3 days in advance of using it.
There are likely many other potential materials out there that produce interesting effects. Try discovering them on your own. When I was young, I would dip just about anything in India ink and press it onto my drawings.

Now let's look at how to cut out and replace any botched areas.

Lay one sheet on top of the other and hold them in place using thumbtacks (The paper may move if only 1 thumbtack is used, so be sure to use 2.)

The thumbtacks do not necessarily have to be in the same position as that shown here, but you should still be sure to use 2.

Using a craft knife, cut away simultaneously both the area of the original draft bearing the mistake and the clean sheet underneath.

Cut out an identically sized section of the clean sheet underneath. Fit this into the appropriate spot of the original draft and attach with tape on the reverse side.

In order to protect your desktop, lay down a cutting mat first.

Draft knives do have nick blades, and occasionally the line where the original draft was cut becomes visible during the printing process. For that reason, you may find using a razorblade, which is thinner, more effective. If you do, be careful not to cut yourself.

It is not necessary to use an entire clean sheet of manga art paper. An amount capable of covering the area with the mistake is sufficient.

With the extra piece attached with tape from the reverse side, the original draft now should look something like this. (Naturally, there would be no outline.)

Lay the original on top of the clean sheet.
Draw back in the missing portion.

Since craft knife blades tend to be thick, using a razorblade instead will allow you to rematch the missing section to the original cleanly with hardly any trace of cutting visible.

Since you can cover your mistakes using this technique, be venturesome and take risks without being afraid of ruining your artwork.
A certain painter once said, "In order to draw satisfying lines, one should practice on the same height of stacked paper that one is tall."

So, be sure to practice using the pen every day. Even 10 minutes a day would be enough.

Got it?!
"The key to skillfully rendering a background is to generate the sense of an inhabited town, house, school, or other such space. Failure to do so results in a simple projection drawing. Drama occurs because people are present. Even if you draw an uninhabited background, it will still be lacking in drama. Look at your room. It probably contains a number of items necessary to living. If you look at someone's room, you will likely find evidence of that person's interests and preferences. Make an effort to imbue your backgrounds in manga with evidence of human life!"
Penning Materials and Tools

Manga Art Paper
High quality Kent paper and drawing paper are often used as manga art paper; however, today specialized manga art paper with preprinted margin lines and ruling marks in blue have made their appearance on the market.

Pencils (Mechanical)
The way a pencil feels when it writes varies from product to product. Try out a variety of pencils and select the one that feels best to you. HB, B, and 2B seem to be the most popular leads.

Erasers
Tree's Air-in and Tombo's Mono plastic erasers seem to be the most popularly used in Japan. With respect to size, erasers that are too large can be unwieldy, so try to select a medium-sized eraser. Eraser pens are thin and the refills fit inside the barrel, making them easy to use.
Pen Nibs
There is a wide variety of different pen nibs available, and each has its own characteristics. G-pens and maru (crow quill) pens glide smoothly over the paper, and consequently artists tend to favor these nibs for rendering characters.

Penholders
The artist spends many long hours grasping the penholder, so try to select one that is comfortable. Only the maru (crow quill) pen comes with its own specialized holder, so take care when purchasing penholders.

Products shown courtesy of Too Corporation
Inks

Film drafting film ink and Kaimei's gold ink are the most commonly used inks. However, there are occasions when these inks may become too wet (such as when white poster paint, etc. has been applied). There are manga artists who, wishing to avoid such a situation, use waterproof inks such as Pilot's ink for certificates and official documents or Kaimei's Lettering Sol.

Brush pens (Fude Pens)

Now, the mainstream method seems to be to use a brush pen when spotting blacks (filling in areas solid black where needed).

Technical Pens

When you require a precise instrument, then a drafting pen is the tool for the job. However, manga artwork is not so exacting, so the majority of manga artists today lean toward convenient, inexpensive technical pens.

Brushes

Brushes used with white poster paint, etc. seem to depend on the individual artist; however, I personally recommend using a fine brush. The effectiveness of the white poster paint or other such material also seems to vary according to the brush used.

White Touch-ups

Long ago, white poster paints was the method of choice. Today, there are many products available, including white ink specifically for manga as well as correction fluid in pen-shaped applicators (correction pens). Correction fluid allows the artist to cover any tiny mistakes in his or her artwork with the fluid, and then to draw directly over that. It is quite a handy material to have around.
**Straightedges and Triangles**

When selecting your straightedge or triangle, seek something beveled. Some form of a grid or other measurement indicators printed onto the tool will prove a helpful addition. Keep on hand 3 sizes: a small one about 14 cm. (approx. 5 3/4") that can be moved around easily over the drawing, a mid-sized one about 30 cm. (approx. 12") for use with margin lines, and a large one about 40 to 50 cm (approx. 15 1/2 to 19 1/2").

**Curves**

Try to select curves with beveled edges as well. Round chips or floating disks may be attached to the curve's underside to prevent the curve from touching the ink. Adjustable curves are also available, which are versatile tools that allow you to create freely your own curves. It should be noted that adjustable curves do not have beveled edges, so try to use technical pens with them.

Products shown courtesy of Too Corporation

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This is a common mistake: the ink slips between the paper and the straightedge, seeping and spreading into the paper. In occasionally seeps under the straightedge when it is beveled, so attaching chips or coins of some kind to the underside is recommended.

---

**Templates**

Templates are handy for rendering simple ovals and circles, which you might use for cups or other such circular objects. I had multiple templates for both ellipses and circles.

Products shown courtesy of Too Corporation
Talk about special bonuses!
Step right up. Don't be shy.

My name is Ton Nijo.

I heard all about you two from Professor Pen.

So, you wanna learn about screen tone, eh?

Oh, yes. Professor Pen told us that if we wanted to learn about screen tone, we should visit Professor Ton.

By the way, I'm Keiko. Pleased to meet you.

This prof. seems a little scary.

Did you make any improvement with your pen studies?

Yes. Definitely.

We've been practicing every day, and I feel we've improved a bit.

And, I'm Manabu.

Looking forward to working with you, sir.

It is important to add a sense of inhabitance (in this case an inhabited apartment building). Take care to ensure the building does not come looking out like a toy model.
Good. It's important that you keep working on it a little every day.

Now let's get started on screen tones.

Unlike pens, with screen tones all you have to do at first is you learn a few simple techniques. The rest all depends on your preferences.

For that reason, you don't have to practice every day, like you do with pen strokes. Anyone can soon learn screen tone.

I really hate all this labor-intensive practice stuff.

Don't think you have it licked so easily, Manabu. What you have waiting for you is pretty intense.

Heh heh heh.

So then, shall we get started?
First of all, there is no way I can show you here all of the different types of screen tone available on the market. There are so many, this entire book could have been dedicated to screen tone patterns and still not cover them all.

What I recommend is that you visit your local art supplies shop or art supplies section of a general store and ask to see their catalogs.

Several different manufacturers put out more than a thousand screen tone patterns at a wide range of prices.

Images courtesy of IC Inc., Ltd. and Letraset Japan Ltd.
On top of that, new patterns of screen tone appear each month. Recently, screen tones of pre-printed backgrounds have been appearing on the market to such the extent that artists are sometimes at a loss as to which to use.

This is because each company uses a different adhesive backing, has different prices, and uses different printing standards.

Your best bet would be to determine your standard tone (which screen tone you plan on using the majority of the time), purchase several brands of that screen tone, and use and compare the tones.

Um, excuse me, professor, but which do you recommend?

Preferences depend on the individual. Plus, there is also the question of price. Consequently, I really can't give you a definitive answer.

Ultimately, what you use depends on you.

Hmm. Good question.
There are tools you will need to attach screen tone.

The non-photo blue pencil is used to mark where the screen tone will be attached to the drawing. The other tools are for pressing or holding down the screen tone sheet.

Plastic plate or block

A bamboo paddle

A plastic spatula or paddle

A non-photo blue pencil

Plus, you will need craft knives for trimming and cutting the tone.

It doesn't matter which brand of craft knife you select, provided that the blade cuts adequately.

In addition to those shown here are many other types of craft knives. Select the one that best suits you.

Furthermore, a sharp knife will allow you to do your tone work faster.

This is because if the blade is overly dull, you could find yourself pressing too hard on the knife to cut the screen tone, causing the blade to cut completely through to the drawing underneath.

Artists use a wide variety of objects and tools to press down the screen tone. When would these different objects be best used?
When using something to press down the screen tone, always lay an extra sheet of paper over the tone and then gently rub the object over the tone.

As I mentioned before, there are many different objects that can be used to press down and attach the screen tone to the drawing.

Myself, I use an extra-special, customized tool.

This is a vitamin drink bottle I wrapped in double-sided adhesive tape and then coiled kite string around that.

Here it is! Ain’t she a beaut!

This is what will result-

Incidentally, when you are attempting to attach a large piece of screen tone, start from about the center, pressing down (rubbing) as you work your way outward. This will prevent the screen tone from creasing.

It is essential that the jar or bottle you select not have bumps on the bottom. These are to prevent the jar or bottle from sliding.

If the jar or bottle you select has bumps, they will rub against the screen tone and destroy its evenness.

There really is no need to make a distinction like this. Use whatever you like to press down the tone. Provided that whatever you use will allow you to attach the tone without soiling or ruining it, anything is fine.
The sizes of the dots printed on regular format and wide format screen tone sheets seem to differ, despite the screen tone sheets being of the same brand and identical specification numbers (i.e. the same number of dots per row and identical density), so make an effort to use screen tone sheets of the same format when layering.

So, now that we've finished our discussion of tones, there is one more thing you need to decide above all else.

I surveyed my fellow manga artists, and the vast majority used one or more of the following 6 types.

And that is what your standard dot screen tone number will be.

(Shown at actual size)
For our purposes here, let's use \#62

tone, which is what I use as my
standard screen tone.

This type of tone is generally known
as a "dot" pattern.

\#62

(Shown at actual size)

Whoa, I just
noticed that
my clothes
are all in dot
screen tone!

This dot
pattern
screen tone
has a
number of
potential
uses.

For reference,
take a look
at the
sample
panels
below.
Screen tone is adhesive on the reverse side and comes attached to a non-stick paper backing. This paper backing is peeled off when affixing the screen tone.

So, dot screen tone is used for any number of purposes.

Take a look inside a few of those manga books sitting on the shelf next to you. Now you see why various artists use dot screen tone—because of its versatility.

Now let's go over how to attach tone.

Wait a second! Didn't I just see this composition somewhere else?

Match the tone with the paper backing still attached to the location on the drawing where it will be attached (in the above example, over the clothing).

Using a craft knife, cut only the screen tone on the paper backing slightly larger than the target area. Remove the paper backing and affix the tone to the drawing.

How much pressure should be applied when temporarily attaching the screen tone as in Step 3? 🌐
After having removed the excess screen tone, use an eraser to clean up any remaining adhesive.

3] Use a glass rod or some other tool to press down and rub the tone lightly.

4] Using a craft knife, trim around the drawing. Be sure to use a sharp blade. (If you use a knife blade that is overly dull, you will ultimately press down too hard, causing the blade to cut through to the drawing, the tone to tear, or any number of undesirable hassles to occur.)

5] After having finished trimming around the drawing, slowly remove the excess tone, checking to make sure the periphery of the target area has been completely severed. Pulling off the excess tone too quickly may cause the target tone to tear.

6] After having removed the excess tone, carefully rub down the target tone to prevent it from coming off.

Very, very light. You should not rub down the screen tone at all.
Our next topic is attaching screen tone to areas without contour lines.

A non-photo blue pencil comes in handy on such occasions.

In truth, these pencils are more of a "sky blue."

Non-Photo Blue Pencil

Select the lightest pencil possible.

Using the non-photo blue pencil, lightly draw in those areas of the face where shadow is to be added.

Attach the screen tone as described on the preceding page and trim the tone along the lines drawn in blue.

Carefully erase any remaining penciled lines after having inked the drawing. Failing to do so will cause the lines to turn up during the printing process after you have covered them with screen tone.

Finished!
Use as thin of a line as possible when marking where or what tone to lay. Especially since any blue lines under the tone have the tendency to show up during printing.

Oops! I think I've seen that before in comics. I've seen numbers like 61 or 71 underneath the screen tone.

Eh...~

Those who are worried about using a blue pencil may use a sky blue pencil instead.

But, this doesn't mean you shouldn't use a blue pencil.

Let's say you create an image entirely in screen tone.

I'd be real useful at a time like this.

Eh-hem!
Now let's look at a number of different ways screen tone can be used with faces.

Hmm. Check out his clothes. I think I've seen screen tone attached like that somewhere before.
I created this by attaching a sheet of IC32 and then etching the tone to give the face a sense of volume. I selected IC32, because 62 would have made the face appear too heavy. IC429 was used for the irises.
Shading is used in faces primarily to generate a sense of moods or emotions.

To take this thought even further, it's no exaggeration to say manga basically represents people's emotions (feelings).

Notice anything when you look at this?

A lot. The face seems powerful and intimidating, yet at the same time seems sad and lonely.

You're exactly right!

Excellent!

Wah!

Ah!

I see we've got off the subject. Let's return to our discussion of screen tone techniques.
After having attached the tone, use a craft knife to etch away any tone extending over the contour lines.

In order to etch with a craft knife...

...click the knife until 1 to 2 blade sections are totally exposed.

Using the tip of the blade, scratch away the screen tone pattern.

More tone needed here

Conversely, when the amount you have attached is insufficient and you need a little more...

Prepare yourself for contour lines being someone larger than you originally had intended, and...

...use a technical pen to fill in the lacking areas.

What can be done to fix a small area of tone that has come undone?
If you have missed a large target area when you laid down the tone or if you have laid down the tone incorrectly, you'll have no choice but to peel off the tone and attach it once again.

A neat trick is to warm up the tone with a dryer. This makes it easier to remove.

If it is a small piece of tone, the heat from a lit cigarette may work instead, but be very careful not to burn the drawing.

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So, now you have some idea of how to attach screen tone.

But, you still should be careful of dust, eraser bits, etched tone bits, and other particles becoming attached to the screen tone sheet's adhesive back.

If dust and other particles become attached to the screen tone, then that sheet is ruined and can't be used.

This is what will happen!

When using screen tone, be sure that you first carefully clean the top of your desk.

Yeah, you should clean your room.

My room is way cleaner than yours.

The sale of tobacco products to minors is illegal. It has been determined that cigarette smoking is hazardous to your health.

While most tone is adhesive on the reverse side, there may be spots missing pattern where a mistake occurred in printing. In such cases, simply reattach tone to the area missing the print.
Our next topic are peculiar traits of dot screen tone.

Hmm. Looking at it like this, it doesn't quite seem aligned, does it?

Shifting the direction of the screen tone slightly allows the dots to align horizontally or vertically.

The screen tone as it appears on its paper backing.

Conversely, there are ways at your disposal to put the flat, aligned aspect to good use when attaching the screen tone.

Like this.

IC101
However, the ideal would be for you to attach the dot tone in the same direction the pattern runs as it sits on its paper backing.

So then, let’s take a closer look at etching tone.

To repeat what I mentioned earlier...

Etching is done with either this point

Or this edge

Frequently replace your craft knife’s blade. It is vital that your knife blade always remain sharp.

Take note that depending on the way the old blade was snapped off, there is the risk that while using point A to etch the screen tone, point B may come in contact with the tone leaving unwanted marks.

This part of the blade is the most frequently used for etching.

Marks created by point B inadvertently touching the screen tone.

Area etched using point A.
The etching is done with this point.

When etching, the position of the fingers, wrist, and shoulder are maintained. This is similar to a technique for line drawing discussed earlier.
When etching, there is one thing you should avoid.

Etch the tone in parallel, even (equidistant) strokes. Proceed at a careful, slow pace when etching. Don’t rush. Bokashi (blurring) effects particularly require that you take your time.

By all means, don’t etch along the same directions that the dots are aligned.

If you do, this will be the result.
Etching at a 22.5° angle from the direction that the dots are aligned...

Direction of dot alignment

Approx. 22.5°

Will result in a satisfying bokashi effect.

See? Looks pretty good, dontcha think?
Create this image by drawing in pencil on an IC62 sheet of screen tone while looking at a photograph of clouds. The tone is then etched along the penciled lines.

A sand eraser and sandpaper may also be used to create bokashi effects.
To duplicate this image, first draw in the rocks. Next, attach IC62 tone over the entire drawing surface and etch the whitecaps using a craft knife. Render the white foam of the waves breaking over the rocks in white poster paint, etc.
For some reason, images rendered solely in tone (without drawn lines) are usually nature scenes.
Create this image by first drawing the silhouettes of the trees and land formation. Next, cover the entire drawing with IC62 tone. Add more 62 tone over the first, layering the tone to suggest the faded, distant islands. Etch the evening or morning sun and then etch the tone to suggest the water with light reflected on its surface.

When etching tone, take care to make sure the tone has been pressed down firmly. If the tone has been only lightly pressed, the tone may tear when large areas are being etched. For this, start by drawing the rocks. Next, cover the entire composition with IC62. Etch the flowing water. Add a second layer of tone over the first (layer the tone) to render the distant background and etch. Finally, render the water flowing over the rocks using white poster paint, etc.
Wow! How interesting! There is sooo much you can create using tone.

Seriously! I really feel like drawing something now.

Well, that is the idea. From now on, screen tone will be an integral part of manga.

Next, we'll take a look at layering tone, which is really not as difficult as it sounds.

If you are aware of a few simple rules, you can just follow the methods of attaching tone discussed earlier.

Rules?

Yup!

Basically, layering tones can result in a wholly new pattern being created.
IC62 Tone Sheets

Overlaying 2 sheets of IC62 and shifting the directions of the sheets can result in different, new patterns.

How can a moiré effect (pattern inadvertently created depending on the way 2 sheets of screen tone are layered) be avoided?
Here is a case where a pattern in the tone is not desired.

Here, the dot patterns were first aligned and then the 2 sheets shifted slightly so the dots did not perfectly overlap.

Here, first one sheet was laid over the entire target area.

Next, the second tone for the darker shadows was added.

Here, the tone for the darker shadows was added first and then etched.

Place both sheets of tone so that the dots align. Keep an eye on the tone overall while shifting the 2 sheets around until the moiré effect disappears.
Use your own sensibilities when determining the order for attaching the tone.

Next, the second tone was added.

Just one more point...

There may be times where you will intentionally layer tone to create a new pattern. For example...

There are many other possible combinations out there. Play around and see what you get.
Using patterned tone without etching it at all will result in a somewhat flat image. Try etching the tone to give your artwork more depth. You will find the result interesting.
First, spot blacks, filling in the darkest areas with solid black. Next, cover the entire drawing with IC62, etching it to allow the next darkest areas to remain. Last, add the 2nd layer of IC62, etching the lightest areas of the image.

This image was created by triple-layering IC62 tone. The key to using screen tone is spotting blacks. The result is play and contrast of darks and lights.
This image was also created by triple-layering IC62. However, this composition lacks any solid black areas, making it seem to lack balance.

This image was created by double-layering IC62. If the silhouettes of the fish are clearly recognizable to you, then I guess we can consider this composition a success.
Our next topic has already been mentioned several times previously.

Gradation tone is an extremely versatile pattern!

This might be the second most popular screen tone pattern after dot tone.

Depending on how you manipulate the tone, gradation tone can be used for noon or evening scenes.

It is also useful for depicting nature.

Now let's take a look at 2 or 3 sample images.
In order to create the scene on page 105...

...photocopy and enlarge the photograph.

Use a craft knife to etch areas of light.

From time to time, remove the original draft from the light table and check the appearance of the tracing.

Lay the enlarged photocopy on a light table (tracing table). On top of that, lay the original draft (drawing) with the gradation tone affixed on top of that, and the photocopy.

Use drafting tape to secure the original draft. (Take care when removing the tape not to damage the drawing.)
This is all you need to complete the image.

Pretty neat, huh?

Sample Artwork Using Gradation Tone

Appearance before etching: IC430

The light section of IC433 was used here.

Border where the gradation screen tone sheet was cut.

Also lighter section of IC433 was used here.

IC430
Establishing the direction of the light source will allow you to determine where to attach the screen tone.

Dot screen tone was used in the background.

Gradation tone was used in the foreground.
if one artist were to teach another techniques in screen tone...

...these would definitely be the basics.

A curved knife is faster and easier than a craft knife when etching broad areas of tone.

A curved knife like this works best.

Tilt the blade when etching the tone.

I forgot to mention this!

This is a secret technique of mine.

Etching with a sand eraser or a fine sandpaper produces interesting effects.

While this somewhat strays from our topic of screen tone, let's wrap up this lesson with a few techniques I use for creating large format backgrounds.
What is the trick to creating daytime scenes?
Screen Tone Added to Create a Daytime Scene

Primary tone used: IC62

Gradation Tone Added to Create a Nighttime Scene

Gradation tone IC433 used

Be conscious of the placement of sunlight when etching. Clearly delineate darks and lights. When depicting night scenes, keep the composition dark and dim. Adding electric lights in 1 or 2 locations will emphasize that the scene takes place at night.
Use a black and white ad from a newspaper when attempting to create a realistic portrayal of a car. Obviously, if you were to duplicate the image as is, you would be guilty of copyright infringements, so...

Use the newspaper ad as reference for your artwork and attach screen tone.

What is the key to depicting mechanical objects?
If you ever come across artwork by a manga artist in which you feel the background or tone work was particularly well executed, cut it out and keep it in a scrapbook for future reference.

As you might expect, it is illegal for you to copy and pass off another artist's work as your own. However it is acceptable for you to use the techniques employed in that work as reference.

When I was younger, I kept a number of scrapbooks for buildings, for cars, for nature, for people, and miscellaneous scrapbooks. I still have them today.

These scrapbooks proved invaluable reference sources to me.

This book has only touched on the very tip of the iceberg that is manga. First, pick up a pen. That is foundation of manga.

Take it step by step and keep plugging away until you are finally able to create manga that is attention-grabbing and appealing.

The key is in the suggestion of metallic textures. Again, the depiction of light plays a vital role.
I have tried using white poster paint, etc. on top of screen tone, but it repels and won't soak in. What should I do?
Sorry, kids. Heh heh. Professor Ton had some urgent business to take care of.

I thought I smelled something fishy. Their voices seemed the same too.

Once you've created your own manga, be sure to show it to me.

I'm looking forward to seeing what you can do.

Lightly rub an eraser over the screen tone's surface. The paint or correction fluid should stick after that.
Hope we meet again!

Catch ya later!

Hang in there!
Screen Tone Materials and Tools

All of the products shown on this page are provided courtesy of Too Corporation.

Useful Items

Feather Brush
This indispensable item is primarily intended to sweep away bits of screen tone, but it is also used to clean up eraser bits and other particles around the drawing.

Tone-Scrubber
Tone-scrubbers are used to rub and press down the screen tone. They come in many shapes and sizes. Make sure you have one with a somewhat pointy tip for detailed areas of tone.

Sand Eraser
This is used to create smooth tone etchings.

Craft and Utility Knives and Replacement Blades
First, select a craft knife. Knives with retractable blades seem to be more popular than pencil-type knives. Craft knife blades dull quickly, so change them frequently. Pencil-type knives require more time for changing blades than do retractable knives, so they are consequently less practical. However, pencil-type knives are excellent when using a straightedge to etch tone. Lay a desk mat underneath the drawing to protect the desk when using a knife.

Non-Photo Blue Pencil (Light Blue)
This is used to mark down lines of areas where screen tone is to be affixed but which do not have drawn contours.
**Bonus: Tone Etching Tips**

When etching, hold the craft knife at an angle closer to the drawing.

When cutting, hold the craft knife in the same manner that you would a pencil.

There are various techniques for etching screen tone, which have been compiled on these pages. The basic technique for holding the craft-knife is illustrated in the figure to the right.

**Basic Etching Techniques**

The key point in etching is to note the direction in which the screen tone dots are aligned and to etch at a 22.5° angle, blurring the screen tone sheet's borders.

---

When using cross-hatching, note the direction of the dots running crosswise.

For tone where the dots lie at a 45° angle, etch at 22.5°.

Another method consists of scratching dot by dot by wielding the craft knife in a tapping motion.

Use a tapping motion to etch the tone. While this may take time, be patient and keep working.

Try using this technique to suggest concrete and other textures.
Holding the knife as illustrated to the right allows you to make fine, detailed etches.

Etch the tone lightly. Avoid applying pressure.

- Use the edge of the blade to etch clouds.

- From time to time, use a straight edge to create straight, clean etched lines using a pencil-type craft knife.

Place a thumbtack in the center of the target area when etching a flash effect.

- Try using a sand eraser as well. Sand erasers allow you to create smooth etchings.

Use the corner to rub the screen tone.

Cut the end off the sand eraser and use the sharp corners formed to rub the screen tone. This will allow you to do fine, detailed etching with the eraser.

Avoid using too much pressure. Rub the tone gently with the eraser.
Knowing Tone: All About IC Screen

42.5/10% S-31

This indicates the product number. The above illustrates that the greater the number of dot lines, the smaller the dots.

The most commonly used screen tone in manga are the 42.5 (for IC tones, the 30s series) to 60 lines (for IC the 60s series). If the dots are too tiny (i.e. there are too many lines per sheet), then the dots will not show up when the manga is printed, making it impossible to recreate the artwork in pristine form. However, the number of manga artists using 65-lined tone (for IC, the 70s series) has been increasing recently.

The number of lines in fact indicates the number of lines per inch (2.54 cm). The screen tone is printed with the dots at a 45° angle with the sheet positioned straight up and down.

For example, 42.5-lined tone has 42.5 lines of dots per inch.

"Dot" indicates the individual marks of tone.

Even with the same initial drawing, the type of screen tone used can change the look of the artwork.

Fewer lines of tone prevent the dots of tone from overlapping, giving the artwork softer appearance. Select tone according to the look you are trying to achieve.

These are the screen tones most commonly used and seen in manga. They are all dot patterns.

The sheet straight up and down is in 0 position.

Hair rendered in S-31
S-51 and S770 were used in both figures for the face shadows and clothing, respectively.
The larger the percentage value, the darker the tone. When tone is too dark, there is the risk that the dots may blur or that drawn lines may become indistinguishable during the printing process.

The tone value darkens as the last digit in the product number increases.

IC screens are available in values from 5 to 50%. Product numbers in the 00 to 95 range are strictly dot tones. The final digit indicates the value density: 0=5%, 1=10%, 2=20%, 3=30%, 4=40%, and 5=50%.

E.g.: S-44= 50 lines at 40% density. Incidentally, 100% density is solid black.

Layering Screen Tone

Different effects can be created by layering 2 sheets of screen tone. The most common method is to layer 2 sheets of identical tone. Unless the angle of the tone is changed, this is the best method for avoiding a moiré effect. Layering tone of different product numbers (different number of lines per inch) is guaranteed to produce a moiré effect, owing to the disparity in densities. Look at the various tones and compare the differences in line densities per inch.

There may be times when you will intentionally layer 2 sheets of different tone in order to create an effect. In addition to the basic dot pattern, random dot tones may also be layered, producing unexpected results. Try playing around with layering different tones.
Knowing Tone:

Letraset's Screentone
Types of Screentone and Their Characteristics

Dots
ST61

You will need to note the indication of the number of lines per inch when purchasing tone to be used in manga targeted for publication. For example, 20 lines, 5% density may be printed on the tone sheet. The "lines" indicates the lines formed by the dots running at a 45° angle when looking at the tone with the sheet positioned straight up and down. If the tone is 20-lined, then that means there are 20 lines of dots per inch-sized (2.54 cm) block of tone. As this number rises to 27.5, 30, etc., the dots become smaller and the print, finer. Dots that are too small may not show up clearly during the printing process. Strive for a maximum of 60 to 65 lines if the manga is to appear in newspaper print or 80 to 120 lines for magazines. It should be noted that the type of paper to be used for the magazine is extremely important when selecting tone.

Random Dots
No. 684

Random dot patterns are also referred to as "mezzotint." The patterns come in 25%, 50%, and 75% densities. This is a popular and extremely versatile pattern, and enlarging or reducing the print size can produce interesting effects.

Gradation
No. 760

No. 742

742, 760, and 764 are the most popular gradation tones. Called by slang-terms such as "chibi-gura" ("mini-gradation") or "obi-gura" ("band gradation"), there is a rich range of gradation tones available, making this a popular type of tone.

White No. 33

Using white print instead of black for the dots, this is a popular tone laid over the drawing when an effect similar to a bokashi is desired. Popular dot and ink line patterns appear in Letraset's Screentone and Screentone II series.

No. 41

Enlarging and Reducing Tone Prints

A final digit of 1 indicates a 10% value density.

100%
Reduced to 80% of the original
Reduced to 50% of the original

Typically, for manga and illustrations, the artwork is executed on a scale larger than the final printing format in order to elevate the intricacy of the printed copy. The concern in reducing the original draft is that the dots may lose their form during the printing process. For example, in the case of Screentone, the following will result:
The reason general periodicals reduce the size of the original draft when they print the manga is because it looks better. Stated another way, it is easier to work with printing when it has been enlarged. Try to work on a scale at 125% of the printed size when drawing the original draft in a format other than the standard. Particular note must be paid to reduction when working with gradation tones. This is because while one portion of the gradation tone may print clearly, the other portions of the tone may lose their integrity.

**Enlarging and Reducing Tone**

**Prints II**

With only a single layer of tone, it is fairly simple to estimate what the final appearance of the printed draft will be after enlargement or reduction of the original. However, in the case of layered tone sheets, even a seasoned expert will have difficulty guessing. On this page are presented the most common forms of layering. In the case of random dots, if the tone is reduced too much, the result will look like nothing more than a common dot pattern, negating the reason for using the random dots in the first place. There is no risk of a moiré effect resulting. Furthermore, there is also the risk that extremely light tone at a 5% value density will be lost and indiscernible. So take care when selecting tone.

**Layering Tone**

The "moiré effect" is a printing term derived from the French moiré, which refers to silk and other sheer fabrics giving "watered" appearance, results when 2 films or screen tones with evenly spaced lines or regular line patterns are laid one over the other. While this is generally not regarded as a desired effect in printing, it can be exploited and used effectively in artwork.

Even more possibilities exist, so experiment with different combinations.

<table>
<thead>
<tr>
<th>Dots + Lines</th>
<th>Dots + Dots</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 102 + LT 266</td>
<td>Dot + Gradation No. 102 + No. 703</td>
</tr>
<tr>
<td>Effect created using Screentones of differing dot line count No. 103 + No. 102</td>
<td>Effect created using identical Screentones No. 103 + No. 103</td>
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</table>

<table>
<thead>
<tr>
<th>Lines + Lines</th>
<th>Curves + Curves</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 601 + No. 270</td>
<td>No. 420 + No. 420</td>
</tr>
<tr>
<td>No. 301 + LT 266</td>
<td>No. 522 + LT 266</td>
</tr>
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