

ART

7th grade notebook

Seventh grade art covers the basic shading techniques and skills needed to draw and paint. This course will cover pencil shading, line shading, color shading, composition, and color theory. The seventh grade art course is an extension of the basic drawing learned the year before. Everyone can draw if exposed to the proper information. Learning shading along with the basics can give the artist within us the permission and freedom to relax and unfold

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Value

Value is the lights and darks in a picture. The term, value, can be applied to the range of grays between white and black or to the darkness or lightness of a particular color. A good value drawing would show at least 3 values. Avoid too much of the same gray value. You want areas of rich black and pure white. Drawings can be made more interesting by creating values in different ways such as smooth controlled shading, dots, crosshatch, and lines. Using a variety of value changes and contrast in your pictures makes your drawings look more interesting.

Value is used to separate objects in a drawing or painting.

Value is used to create atmosphere or mood in a picture.

Values show space, depth, and perspective – all 3 of these things create a 3dimensional look.

The value or color of an object can change with its surroundings (especially objects with a reflective quality.)

Value colors that are light are called high values.

Value colors that are dark are called low values.

Values can be used decoratively. Decorative value is created when value areas in a picture have their own light source and conventional light sources are ignored.

Value Contrast is having a very light area next to a very dark area. Value contrast in a drawing will intensify a picture and make objects and the edges of objects to show up.

VALUE CONTRAST CREATES INTEREST!







SHADING

Shading represents the darkness and shadows in a drawing. Shading helps an object look more three-dimensional. The shaded area and cast shadow are always opposite the light. When shading round objects, blend the shading (smooth and gradual changes from light to dark). The blended shading helps give objects a rounded look.

Shading is the darkness added to an object.

Shading is on the opposite side from the light source.

Shading is also the shadowing that occurs under overhangs and from overlapping. Shading makes shapes and objects look more realistic by giving them form and volume. Shading makes the objects you are drawing look as if you could walk around, sit under it or climb on it.

Shading is drawing from dark to light or from light to dark to make things look more interesting.

Round shapes have "blended shading." The darkness blends from dark to light, defining the curve of the object. Flat objects, such as a box, use "dark shading" or "solid shading". This is a solid tone from edge to edge, making the corner appear sharp and the box appear solid.

There is shading under overhangs, in folds, and overlapped shapes, and inside open areas of objects like a cup. The shading is effective if you have light areas next to the dark shaded areas, "value contrast".







SHADOWS

The shadows are the dark shaded areas of an object. The shadows are the darkness cast onto the ground or another object. There are different types of shadows such as <u>cast shadow, overhang</u> <u>shadow, hovering shadow, and surface shadow</u> (shading on the objects.)

Cast Shadow

 The cast shadow is the shading that is cast by the object onto a surface and the shadow of depth which occurs down into the object. The cast shadow is always shaded darkest next to the object and gradually becomes lighter as the shadow moves away from the object. The cast shadow is always opposite the light side. The deeper into an object, coil, or fold you go, the darker the shadows become, ranging from light gray to black. There is also a cast shadow when two or more objects overlap.



Overhang Shadow

2. Overhang shadowing is the shading underneath an overhang. The shading is always shaded darkest under the bottom line of the overlapping shape. This shadowing allows the top shape to appear to protrude out.



Hovering Shadow

3. Hovering shadow is used when there is an object that is slightly floating above the surface. The hovering shadow is the shadow on the surface below the object. As long as the shadow does not touch the object, the object will appear as if it is hovering above the surface.

Surface Shadow

4. Surface shadows are the shadows on the object. Surface shadows define the shape of the object and give the object form and volume. Surface shadows consists of the turning edge, shadow side, reflective light, and value changes. The shadow always begins at the turning edge. The shading on round objects is always curved to fit the form of a rounded shape. A ball shape is never shaded with a straight line.













Surface Shadow Shading

Turning Edge

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The shaded area inside the object where the light and dark sides meet. The turning edge is the darkest shaded area of the object. The turning edge is not a line, but a dark shaded area that gradually lightens to the middle grays of the shadow side. The turning edge is on the inside area of an object, not the outside edge. The box shape has <u>2</u> turning edges on the shadow side.







Reflective Light This is a light shade of gray on the outside edge of the shadow side of the object. When light passes an object and hits the surface the object is on, the light bounces back. Some of that light that bounces back and hits the back of the object on the shadow side causing a reflection on that object. This reflection is the reflective light. Light travels in straight lines. It can't bend around corners.



When shading remember these tips about values!

Areas of intense highlight lose their outline (broken outline)

Shadows move in the opposite direction of the light source.

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3 different surfaces can't have the same value. The difference may be slight, but it's there!

There is always a dark line where any object sits on a surface.

Texture Lines and Line Shading

<u>Texture Lines</u> are groups of lines that combine to give a sensation of touch suggesting roughness or smoothness.

Texture lines or contour lines <u>add variety to a picture</u> and keeps a drawing from looking dull, uninteresting, and incomplete.

Textures are also made by creating patterns using different types of lines.

Texture lines <u>contribute to the skillful creation of depth</u>. Lines in the distance become thinner than the lines in the foreground. There is less texture in the background. Lines and dots close together appear darker. Lines and dots drawn further apart appear lighter.

Enough texture (contour lines) should be used to produce an interesting variety in the picture, but don't over do it. *There should be enough texture in a picture to identify the forms and the materials of which the objects are made of.* Keep in mind that you can simplify and suggest texture without drawing every detail. Too much texture can be as harmful to a picture as not enough texture. Strive for a pleasing balance between texture and non-textured areas.

When using textures you can create patterns by repeating line combinations. Textures can also be achieved my mixing different types of lines. Other types of lines are dots, dashes, a combination of dots and dashes, curved lines, irregular, wavy, and uneven lines.













By changing the texture and values in a picture the same picture can look like a different picture as shown below. Texture lines are placed more in the shadows and where any of the shading would occur creating dark values.





Types of Lines

Transitional Lines are lines that gradually go from thin to thick or light to dark.



<u>Accented Outline</u> is using a slightly thicker line in some areas on the contour of the object. This accent can suggest shading.



Broken Outline is breaking up a solid line whether thick or thin to show texture, shading or highlighted areas.



Implied Line is the edge of an object in a photograph, still life, landscape, etc. The implied line is not and actual line but is where the form stops and space begins. This implied line is drawn as a contour line on the drawing paper.



<u>Graded Lines</u> are a <u>group</u> of lines where the heavier, thicker, dark lines gradually change to lighter, thinner lines. When drawing graded lines, place heavier lines close together. As you move to the other end, decrease the width of the line and increase the space between the lines. Some examples of graded lines are shown below.







<u>Stippling</u> is creating values, edges, and lines with dots only. Stippling produces a delicate tone. With the stippling technique, values can be darkened by enlarging dots or by drawing more dots closer together. The dots should be of the same relative weight, so apply even pressure to your pen.



<u>Crosshatch Lines</u> crossover each other to create dark values and textures. The crosshatch lines should be drawn more careful than other lines. The crosshatch lines should be drawn very close together to be effective or else a plaid pattern will result.



<u>Lines create value</u> by the pressure applied or by the grouping of lines. Lines close together make an area appear darker. Lines further apart make an area appear lighter.



Contour lines may overlap or stop where they join. When lines overlap care must be taken or confusion of the objects in the drawing may result. Contour lines look the best when they are drawn as smooth flowing lines that are not sketchy. Plan ahead how and where you want your lines to go.



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COLOR

Color Shading

Color shading has all the same shadows as shading with a pencil or black and white. The trick to **shading with color is to blend different colors by layering**. Simply pressing harder with the colored pencil does not make a color darker.

A dark blue (indigo blue) is the main color used to blend with or layer with other colors to darken an object. The dark blue would be used for turning edges, cast shadows, under areas that are being overlapped and other shadow areas on an object.

Purple can also be used to darken an area if a dark blue is unavailable or if the color of the object is yellow. Complementary colors can be used to darken colors, because they cause a graying of colors and make a brownish color.

Coloring with Colored Pencils

When using colored pencils the colors need to be layered in order for them to blend together. The layering needs to be a gradual darkening of the color, otherwise the coloring will look too streaky.

An example of shading a red object:

- 1st lightly color with dark blue where all of the shadows and turning edges will go;
- 2nd color over the object with the red pencil color, press lighter in the light areas and press heavier in the dark areas. **Color over the dark blue**.
- 3rd if you have darker and lighter shades of red, blend them with the other colors. Yellows and oranges can also be used.
- 4th if the color needs to be darkened some more go over the shadows and turning edge with the dark blue again repeating the steps again.

Remember, when shading using colored pencils, crayons, chalk, or other dry mediums that the coloring process must be done smoothly or the colors will not blend together properly. If the colors are applied in streaks with the white paper showing through you will see streaks of the different colors used and not a blending of colors.

To create depth, shadows, and shading with colors the hues must be mixed and blended together.

Shading is a gradual change from dark to light. Shading is not a dark blue thin or thick line.

<u>Never</u> use the black color by itself, even if you are coloring a black object. Blend colors together to make a black or dark area. Black is a dull and overpowering color by itself and does not blend well with other colors.

To make a black use a layering of dark blue, dark red, and dark green. Build up the colors gradually using the dark blue first and last.



Color Terms and Theories

All colors have **three** qualities or physical properties. These three qualities of color are HUE, VALUE, and INTENSITY.

- HUE is another word for color. Hue has nothing to do with whether the color is light or dark, strong or weak. Instead of calling colors by their names such as red or blue you can say "hue". Example: What hue is a warm color? Different colors have different wavelengths of light. A color can only change its hue when it is mixed with another color in the spectrum, because the mixture changes the wavelength of the ray of light. Hue can be any color.
- VALUE is the lightness or darkness of a color. Value is the most important quality of color. The value of a color is changed by adding white or black to make the color light or dark. You can lighten or darken the value of a color and not change the hue. For example you can add white to blue and lighten it or add black and darken it, but the hue (color) is still blue. The lightening of a color by adding white is a <u>tint</u>. Darkening a color by adding black is making a <u>shade</u> of that color.
- INTENSITY is the purity, strength, brightness of a color. No color is more pure or at its highest intensity than when it comes fresh from the tube. Mix any other color or medium with a pure color and you change the color's intensity. You can change the intensity of colors by adding white, black, or mixing the color with other colors, especially its compliment. The intensity of a color changes when the value of the color changes.

Primary Colors are the three basic colors from which all other colors are mixed. These three colors can not be made by intermixing any other colors. The primary colors are **red**, **yellow**, **and blue**.

Secondary Colors are the colors made by mixing two primary colors together. On the color wheel the secondary colors are always in-between the primary colors that made it. Yellow + blue = green

Blue + red = **purple** Yellow + red = **orange**

Tertiary Colors are the colors that result from the mixture of a secondary color and the primary color next to it, also called *intermediate colors*. The tertiary colors are red-purple, red-orange, yellow-orange, yellow-green, blue-green, & blue-purple.

COLOR SCHEMES

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<u>Monochromatic</u> means using one color mixed with white to lighten (tinting) and mixed with black to darken (shading). The monochromatic scheme has varying values and intensities, but the hue stays the same.

<u>Analogous</u> colors are colors that are close to one another on the color wheel. Analogous colors are a group of three or four neighboring colors that are related and are harmonious together. They are harmonious because each color contains some of the color lying next to it. The closer together hues are on the color wheel, the more related and harmonious they are. The hues are harmonious because each color contains some of the color lying next to it. Basically an analogous color scheme consists of two primary colors and the secondary color that they make. **Analogous color schemes**: *yellow, green, blue; blue, purple, red; red, orange, yellow; Yellow-green, green, blue-green, blue; blue-purple, purple, red; red, orange, yellow; Red-orange, orange, yellow-orange, yellow; yellow, yellow-green, green, blue-green*

<u>Complementary colors</u> are the colors or hues that are opposite each other on the color wheel. Complementary colors tend to brighten each other when they are next to each other, but when mixed together a gray or brownish color is made. Colors which are opposite each other on the color wheel have absolutely nothing in common. Complementary colors are: red & green; yellow & purple; blue & orange; yellow-green & red-purple; red-orange & blue-green; yellow-orange & blue-purple

Warm and Cool Colors

Warm colors are those associated with making us feel hot such as red, yellow, and orange. Cool colors are those associated with making us feel cold such as green, blue, and purple. On the color wheel, the dividing point is the line from red-violet to yellow-green. The colors red-violet and yellow-green can be either warm or cool, depending on the colors surrounding them. Warm colors advance (come forward) in a picture and cool colors recede (push back), which means the artist can use color to create a feeling of depth in a picture. A touch of a cool compliment in a warm color field, or vice versa, is pleasing to the eye. Pastel colors tend to be either warm or cool. Generally warm colors are used in the foreground and cool colors are used in the background. The quality of warmth or coolness in color is affected or even changed by the hues around or near it.



Color Unity

Color is used to unify a composition by repeating a color theme. Color themes can have a limited palette (using only a few colors), or using a color that is mixed with other colors. Instead of throwing in a bit of every color, you may want to choose only a few non-contrasting hues that can be combined with neutral whites, browns, grays, or blacks. There is unity because no one color pulls away from the central colors. Using one main color through out a picture will help to unify a picture.

A simple way for creating unity and balance is the *repetition of similar color tones* in different parts of the composition. The pleasing quality of a color pattern depends frequently on the amounts or proportions of color used. Equal amounts of different colors are not as interesting as a color arrangement where one color or one kind of color is dominate.

When artists create, they may choose to use color in a:

<u>Representational</u> way by using the actual or real color of the objects they are painting

Decoratively to ornament or enhance a composition

Emotionally to express a strong feeling

Symbolically to express an idea

Other Terms To Know

<u>**Pigments</u>** are the coloring matter, substances, or powders used by the artist to create the effect of color on a surface. Pigments react differently than color light.</u>

Local Color is the actual color of an object as we see it.

<u>Chromatic Hue</u> is any color other than black, grays, and white. Black, grays, and white are not considered colors but a mixture of colors.

<u>Limited Palette</u> is using only a few non-contrasting colors. This method is one way to unify a picture.

<u>Split Complements</u> are when the hues to either side of the complements are used. This softens the complement colors slightly. Example: yellow, blue-purple, & redpurple; purple, yellow-green, & yellow-orange; blue, yellow-orange, & red-orange; orange, blue-green, & blue-purple; red, blue-green, & yellow-green; green, red-orange, & red-purple.

<u>Triad Color Scheme</u> is the use of three colors equally spaced from each other on the color wheel. Examples are red, yellow, & blue: orange, green, & purple; yellow-orange, red-purple, & blue-green; red-orange, blue-purple, & yellow-green.

<u>Spectrum</u> is the band of individual colors which results when a beam of light is broken up into its component wavelengths. It is the white light divided into the rainbow colors. Each color has its own wavelength.

<u>Silhouette</u> is the flat dark shape next to a bright background. The dark foreground (shape) lacks detail.

<u>Collage</u> is art work that is created by attaching real materials and textures to either the whole or part of the picture. Some materials could be wallpaper, fabric, wood, wire, rope, and sandpaper.

<u>Neutrals</u> are tones which do not reflect any single wavelength of light. Neutrals create only effects of darkness and lightness as in black, white and gray.

<u>Opaque</u> are colors that reflect all the light that they receive and send nothing back, so that they completely cover the colors underneath. You can not see through opaque colors.

Transparent Colors are colors that can be seen through another color.

<u>Translucent</u> are colors that are semitransparent, milky, or foggy. The reflection of the light rays are altered so that an object is not transparent but not completely opaque.

Transparent



Translucent





These three illustrations show how light rays are affected when they strike three different densities of paint pigment. The illustration on the left shows that rays can totally penetrate a transparent layer of paint and then reflect from another surface back through to the eye. The middle one shows that the rays are absorbed by some of the particles of paint that get in the way and reflection is altered. This is what would happen if we mixed a transparent pigment and an opaque pigment together. The illustration on the right shows that with opaque pigment the light rays cannot penetrate and are therefore changed by the surface of the paint only.

Composition and Design

The composition of a picture is the structure and arrangement of shapes in a painting or drawing. A COMPOSITION IS AN ORGANIZATION OF SHAPES AND THE BASIC ELEMENTS OF FINE ART. It is the sum total of many parts. These parts of the composition are not only the shapes of the objects, but the shadows, the background, the foreground, the color and value.

A COMPOSITION HAS MANY ELEMENTS TO CONSIDER (the sum total of many parts.) The elements of a composition are overlapping, variety, repetition, overlapping, dominate and subordinate parts, spacing of shapes, size changes, and drawing objects to and off the edges of the border. The other elements of a composition are also called the Elements and Principles of Design. These elements and principles are used to set up and develop a good composition. Composition is combining or putting together these separate elements into one artistic expression.

Elements of Design are line, shape, form, color, value, texture and space.

Principles of Design are balance, movement, rhythm, contrast, emphasis, pattern and unity.

Line - The path of a moving point that makes a mark. Lines create shapes, value, and motion. See the section on lines for more in depth information.

Shape - An area which stands out from the space next to or around it because of a defined boundary or because of a difference of value, color, or texture. Shapes are the building blocks of art structure. There is no end to the variety of shapes, ranging from basic squares, rectangles, circles, and triangles through limitless combinations of angular and curvilinear configurations.

Form - An extension of shape. Shape becomes form when it acquires depth and volume. On a flat surface, artists create form through shading and highlighting, More commonly, form is three-dimensional and occupies space. It can be representational, nonrepresentational, geometric, or free-flowing.

Color – It is **derived from light**, **either natural or artificial**. Where there is little light, there is little color. Color is one of the most expressive elements, because it directly affects our emotions.

Value - The lightness or darkness of a color or hue. Repeating a particular value creates movement in an artwork and draws the viewer's eye around the entire piece.

Texture - The "actual" or "visual" feel of a surface such as smoothness, roughness, softness, etc. See the section on texture for more information.

Space - The negative area surrounding positive objects. Most compositions are filled with objects, such as trees, flowers, animals, people, structures, and geometric shapes. The space around them is referred to as negative space and may contain sky, ground, water, and color. This negative space becomes more noticeable to the viewer as the positive shapes become more intricate and interesting. Another aspect of the element of space is space in depth, that is, **creating depth on a flat surface**. There are many techniques that artists use to create depth. They include diminishing sizes of objects as they recede into the distance, clearly defining details in the foreground and blurring objects in the background, overlapping of objects, objects in the distance drawn higher on the plane, high intensity colors in the foreground and more dulled colors in the background, and perspective techniques such as converging lines and horizon levels.

Balance - The principle of design that **refers to the equalization of elements**. There are three kinds of balance: symmetrical (formal), asymmetrical (informal), and radial. In a picture, balance refers to the felt optical equilibrium between all parts of the work. The artist balances forces horizontally, vertically, radially and diagonally in all directions and positions. Factors that contribute to balance are position or placement, size, proportion, quality and direction of the elements.



Movement - An element of visual perception that moves the viewer's eye through a 2- or3-dimensional space. Includes techniques such as repetition of direction of line or shape to create a visual path. The movement of the elements in the picture keeps the viewers eyes interested in the picture

Rhythm - It is a measure such as a meter, tempo, or beat created in art work by using lines, color, value and other elements. Rhythm gives both unity and balance to a work of art. Rhythm is created by repeating shape directions and edges, value differences, and other color modifications. Rhythm is the result of repetition.

Contrast- When two opposites are placed next to each other such as lights next to darks, small next to large, bright next to light. The differences in light, values, texture, color, etc. helps to create the illusion of depth. Contrast adds interest to a picture.

Emphasis - A principle of visual perception that used the elements of design to accent and direct visual attention.

Pattern - Line, value, shape, or color sequences that are repeated over and over.

Unity - When all the parts of a picture fit together nicely. Unity is the <u>harmonious</u> organization of lines, objects, colors, and values.

POINTS FOR A GOOD COMPOSITION:

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1. In a composition some parts of the picture should be large and important, the center of interest (dominate). Other parts will be smaller and less important (subordinate).

2. Avoid drawing the important things in the center. This gives a bulls eye effect. Put your objects off center, but not on the edge.



3. Be aware of pointed shapes. Since a pointed shape attracts the eye, you must decide if you want the attention to go there. If you don't want the attention there, change the point to a gentle curve.

4. Shapes placed the same distance from the corner can become static. Vary the spacing around objects. Use <u>overlapping</u> to vary spacing around objects and break up background shapes.

5. Remember that shadows and reflections are shapes, too!

6. When two shapes come together, but don't meet exactly, look at the space left between them. Is it a good shape? The space between objects becomes shapes, tool

7. Don't forget about the shapes that are in the distance (background). When these areas are colored on the paper, they become shapes, not merely leftover paper.

8. Never line up your subject matter on the bottom edge of your paper.



9. Have your composition touch at least three sides of your border.



10. Always put your subject in a context (environment, background).







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11. Asymmetrical compositions are more interesting than symmetrical ones.











12. Negative and positive areas should be equally interesting and sometimes in equal amounts as shapes.





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REMEMBER:

- 1. There is more than one position in the picture area for the placement of objects.
- 2. To set up your picture you should think about and have in your composition: dominate objects that are drawn large, a variety of sizes, overlapping, texture, value changes, and keep the center of interest out of the middle.

Using exactly the same elements, these pictures show the wrong and right way of putting them together to create a harmonious balance. The figure has been

The space

lines is you oicture area.





center. The space around the figure is evenly divided.



Starting now with the figure at the visual center of the picture space, more variety is present in the working area.



The line of the ground across the center divides the picture into four equal areas. This creates monotony.



The ground line is now considerably below center. It distributes the space areas more effectively -- the man is more prominent.



The two buildings now seem crowded and touch the figure and frame lines at awkward points.



We now run the two buildings together and behind the figure, there is no awkward touching of contact points.



The line of the mountains seems to rest on the man's head. There is something unsatisfying about this picture.



The lines of the mountains, lower than and behind the man, now give a feeling of depth and balance. This is a more satisfying picture.

3. When all the objects are drawn entirely within the frame lines (border), monotony may develop. But when parts of these are drawn to appear extending beyond the frame lines or behind one another, there is variety in the

composition.

incorrect composition





a better composition

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4. Overlapping forms in a composition help avoid a scattered or broken up appearance. In figure 2 the horizon line was lowered, the column shape was thickened and shapes are overlapping.



 Objects should never be bunched in one area of the picture space - don't cut your picture in two.





Cutting off part of the bowl of fruit and overlapping the picture with the bottle gives a harmonious effect.

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better

6. When more than one object is shown in a picture, there is no need to show all of each object.



Change the size. Part of an object, such as this tree, may be out of the picture.



better

Expressing depth and dimension.

- Use value, size change, and placement to make the composition more interesting, by using variety.
- 8. Draw a border and contain your drawing within that border. Expand the drawing to the border or edges of the paper.
- 9. You can make borders interesting by combining borders with open spaces.







10. To achieve interest in your drawings, you can use a variety of ways to repeat



Repeating shape, color or texture



Repeating the same ideas in different sizes



Repeating different versions of the same idea.

Good compositions need variety and repetition. Unity in a composition can be achieved by repeating colors, lines, values, and shapes. But you also need to add interest by changing the rhythm. You can change the rhythm by having variety.

One way to control planes in a scene is to draw what is in front first, then lay in each receding section. The same principles used to create depth in nature scenes can be applied to still life or design composition.



DESIGN

Design is the <u>arrangement of shapes</u> to make a <u>pattern</u>. The word design is often used the same as composition such as to design a picture. But a design in a picture is the pattern or abstract shapes that make up the composition. Color, value changes, spacing, and size of shapes are important when considering a design.

Examples of Positive and Negative Composition









Landscape Drawings Using Lines To Create Eye Movement



Creating Space, Symmetry, and Balance



Diagram 78. Overlapping helps to create recession.



Diagram 79. Parallel perspective reinforces it.



Diagram 80. A completely symmetrical arrangement.



Diagram 81. How to use the arrangement above.



Diagram 82. A different way to achieve balance.





Diagram 83. How to use the arrangement on the left.



Diagram 84. Here, the centre of interest is at the centre of vision and fulcrum, but the larger mass (the boat) is below the horizon and balances the smaller mass above the herizon.



Symmetrical is balanced art in which the parts are arranged the same way on both sides.

Asymmetrical is balanced art in which



the parts are arranged differently on each side. Two unequal attractions may be balanced on either side by varying the size, value, and distance from the center.





Radial Balance is a balance that is achieved when everything radiates or extends out from a central point. Radial balance is chiefly used to make commercial decorative patterns. This type of balance creates a visual circular movement on the picture surface.



Dominant parts are the important parts, the center of interest of a picture.

Subordinate parts are the smaller, less important parts of a picture.

Pattern is shapes, lines, and colors that are repeated over and over again.

Unity is when all the parts of a picture fit together nicely. Unity is the harmonious organization of lines, objects, colors, and values.

Design is the arrangement of shapes to make a pattern.

<u>Composition</u> is the organization of shapes, patterns, overlapping, shadows, color, value and other elements that must be considered when putting a picture together.

Ellipse is a flattened or foreshortened circle, an oval shape.

Perspective

One of the principal functions of perspective is to fix the point of view of the artist and therefore the spectator. Perspective creates the illusion of distance and creates space and depth on a two-dimensional surface. This is achieved by placing a **horizontal line** across the picture surface and a **vertical line** down it. These are called the **horizon line** and the **center of vision**. They establish the position from which the artist views the scene. These are imaginary lines and may extend beyond the edge of the picture. The parallel lines appear to converge (come together) as they recede, and they will eventually meet at what is called a **vanishing point** on the horizon line. Converging lines are used to make objects diminish in size the further they are from the spectator.

History

The use of perspective started about fifth century B.C. in Athens and some in wall paintings in Pompeii. Many of the paintings created by European artists during the Middle Ages were commissioned by the Church. The art was symbolic; that is, people and objects in the paintings were symbols representing religious ideas. Artists were more interested in creating a symbolic scene than in accurately representing people and objects. The background in these religious paintings was usually a solid color and people were sized according to importance rather than distance from the viewer. There was no attempt to put people or objects in perspective.

The symbolic nature of art began to change in the Renaissance. Renaissance artists delighted in nature and the human form. They began to search for ways to represent the three-dimensional world more naturally on flat, two-dimensional surfaces.

Many of the Renaissance artists were engineers or architects well versed in mathematics. The Renaissance artists turned to geometry to solve the problems of perspective. Perspective is the technique of portraying solid objects and spatial relationships on a flat surface so that they appear true-to-life. Raphael's *School of Athens* is a perspective painting paying homage to science and philosophy. The size of each figure is determined by the distance from the viewer to the figure. The receding arches enhance the realism of the scene.



The School of Athens, Vatican fresco by Raphael of Urbino (1483-1520)

Linear Perspective

There are several different types of perspective that artists can use in order to create the illusion of depth in a picture. The Renaissance artists used linear perspective in order to create spatial representation in their art. Linear Perspective is a geometric system that uses size, position, and converging parallels to create distance and a 3-dimensional quality on paper. It is also referred to as measured perspective used by engineers, architects, and designers in technical illustrations. When looking down railroad tracks toward the horizon, the parallel lines running directly away from the viewer are drawn so that they come together at a point called the vanishing point. The vanishing point is located on the horizon line. This is a one-point perspective. You can also use two and three-point perspective when drawing. One-point perspective has one vanishing point, two -point has two vanishing points and



Can you find the vanishing point in this perspective study by Jan Vredeman de Vries?



Perspective study by Jan Vredeman de Vries (1527-1604)

One-Point Perspective

A rectangular solid, or box is one of the simplest objects to draw in perspective. Follow the steps below to draw a rectangular solid with one face viewed straight on.



Step 1: Begin by drawing a rectangle for the front face. Draw a horizon line that is parallel to the horizontal edges of your rectangle and select a vanishing point on it.

- Step 2: To create the edges of the box that recede from view, draw lines lightly, called vanishing lines, from the corners of the rectangle to the vanishing point.
- Step 3: To create the visible back horizontal edge, draw a line parallel to the horizon line. Use this line to determine the position of the back vertical edges.
- Step 4: To complete the figure, draw hidden back vertical and horizontal edges. Erase the horizon line and the unnecessary portions of the vanishing lines.

Notice that only the edges of the box that appear to move away from the viewer are drawn to meet at a vanishing point. The horizontal lines that are parallel to the picture's plane are drawn parallel in the picture and are not drawn to the vanishing point. The same is true for the vertical lines that are parallel to the picture's plane.

In a perspective drawing the location of the horizon line tells you something about the position of the viewer. If the horizon line is high in the picture, then the viewer is looking from above, perhaps from a hill. If the horizon line is low, the viewer is low to the ground.



Here the viewer is looking at the rectangular box from above and to the right. Notice that the horizon line is located high in the picture and the vanishing point is placed to the right.



Here the viewer is looking at the rectangular box from below and to the left. Notice that the horizon line is located low in the picture and the vanishing point is placed to the left.

Two-Point Perspective

When the front surface of a rectangular solid is not parallel to the picture's plane, then one needs two vanishing points. This is called **two-point perspective**. To demonstrate how to draw a figure with two-point perspective, look at a rectangular solid with one edge viewed straight on.



- Step 1: Begin by drawing a vertical line segment for the front edge. Draw a horizon line and select two vanishing points on it.
- Step 2: To create the edges of the box that recede from view, draw four lines (vanishing lines) from the endpoints of the vertical line segment back to the two vanishing points.
- Step 3: To create the length and width of the box, draw vertical line segments intersecting the vanishing lines. The endpoints of these line segments determine the position of the back edges that recede from view.

Step 4: Draw the four remaining vanishing lines and he back hidden horizontal edge.

Step 5: Erase the unnecessary portions of the vanishing lines.

In the drawing above the lines that recede to the left meet at a vanishing point on the left of the horizon line. The lines that recede to the right meet at a second vanishing point on the right. All the vertical edges in the rectangular solids are parallel to the picture's plane and therefore they do not meet at a vanishing point but are drawn parallel in the picture plane.

Sometimes an object is drawn below the horizon line (viewer is above the object), and occasionally an object is drawn above the horizon line (the viewer is on the ground and the object is in the air). Many times, however, the object is so large or the viewer so close that the object is drawn both above and below the horizon line. Observe the location of the horizon line in the figure below.



Three-point Perspective

Three-point perspective has three vanishing points and is used when looking down or up at an object or building.



Drawing Skyscrapers

One of the more challenging perspective drawing problems is that of drawing skyscrapers. Drawing skyscrapers are challenging because there are many different rectangular solids and thus many different vanishing lines.

Drawing a skyscraper in two-point perspective is demonstrated below.

Step 1

Begin with a horizon line and two vanishing points. Draw the front vertical edge of your first building with all the vanishing lines.







Complete the two-point perspective view of the first building.

Step 3

Next, draw in a couple of the taller buildings. Start with the front vertical edge of each building and draw the vanishing lines. Complete the perspective view.







Aerial Perspective

Aerial Perspective is also called atmospheric perspective. It is the illusion of deep space by using light values, soft contours, reduced value contrast, sizes changes, and neutralizing colors in objects as they get closer to the horizon. Aerial perspective uses these concepts to create foreground, middle ground, and background. Aerial perspective is a freehand perspective used by artists to convey depth and solidity. This is a freer perspective that isn't restricted by measurements.

The objects in the foreground are larger, darker, warmer in color, and show more texture. As objects move towards the horizon line they become smaller, less textured, lighter, more pastel, and cooler in color.





Terms to Know





High Value - The light values of shading or color.

Low Value- The dark values of shading or color.

Value Contrast - When there are very light areas next to very dark areas.

Blended Shading - The smooth gradual changes from light to dark.

<u>Pattern</u> - The repetition of line patterns, values, shapes, and colors.

- <u>Horizon Line</u> The implied line where the sky meets the earth (ground). It is a horizontal line drawn across the picture plane and is at the viewers eye-level.
- <u>Eye Level</u> This is a space, point, or line that shows the level of the artists viewpoint. Many times the eye level is the vanishing point on the horizon line. You would see the bottom of objects drawn above the eye level. The direction of the lines on the top of the object would point down towards the horizon line. You would see the top of the object and the direction of the

lines would slant up. If a box is below EYE LEVEL/HORIZON LINE, then you will see the top.



<u>Vanishing Point</u> - The point at which parallel lines appear to meet on the horizon line. An example of the lines of a railroad tracks that seem to come together as they recede into the distance. Pictures can have several different vanishing points.

Background - This is the scenery behind something. The background is any part of the picture that is furthest from the observer. Objects in the background are smaller and lighter in color, and have very little or no detail. The colors used in the background are generally light pastel or bluish. The background can be objects, one or more colors, texture lines, or a value shade. Most of the time the background is the subordinate part of the composition. The background is usually considered to be the negative space in a picture. The background is always painted first.

- <u>Foreground</u> is the part of the picture which seems nearest to the observer. The colors of the foreground are the brightest and have the most texture or information. The objects in the foreground are larger than those in the background. The foreground usually has the dominate object or objects. The foreground is the last thing painted.
- <u>Medium</u> A particular material and/or process that an artist would use to do his work such as oil paints, pastels, watercolor, pencils, etc.
- <u>Perspective</u> A method of representing 3-dimensional objects in a space on a 2-dimensional surface. Perspective is used to draw the basic shapes and show distance in a picture. There is aerial and linear perspective.
- <u>Aerial Perspective</u> Also called atmospheric perspective. It is the illusion of deep space by using light values, soft contours, reduced value contrast, sizes changes, and neutralizing colors in objects as they get closer to the horizon.
- <u>Linear Perspective</u> A geometric system that uses size, position, and converging parallels to create distance and a 3-dimensional quality on paper.
- <u>Abstraction</u> The visual simplification, distortion, or rearrangement of a recognizable image.
- <u>Tempera</u> A paint made of powdered pigments mixed with an egg yolk binder. Tempera is a paint that is mixed with water. It is a durable medium with several distinct characteristics: it dries rapidly; it is difficult to blend so shading is achieved through hatching: the colors are lighter dry than wet; completely dry paint is extremely durable and almost water-resistant. Tempera with an egg yolk binder was the most important medium used for panel-painting in Europe from the twelfth to the fifteenth century.
- <u>Fresco</u> Wall painting in which the pigments are mixed with water and applied to lime plaster which is still wet. The work must be done in small sections and the artist is virtually unable to make corrections. The white plaster serves as the only source of white for highlights and light.

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