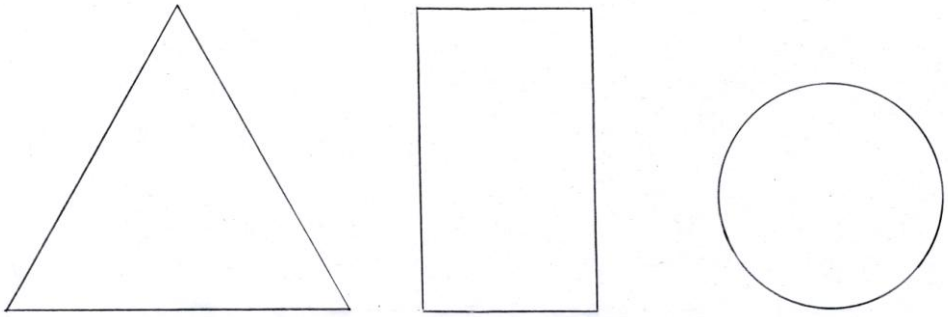
Module 5

Lecture-1

Nature drawing - to study form and structure and various shapes

Basic forms:

There are four basic forms you should know: the triangle, rectangle and circle. Each of these forms can be an excellent guide at the beginning of a complex drawing or painting. Below are some examples of these forms in simple use.

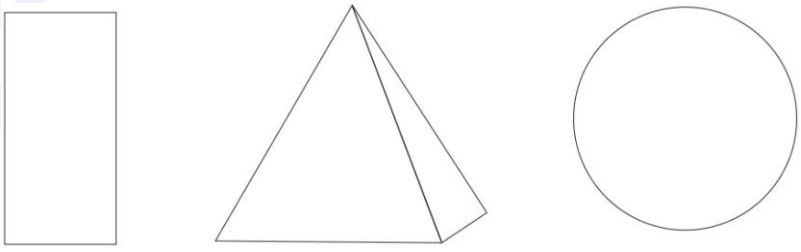


Triangle Rectangle Circle

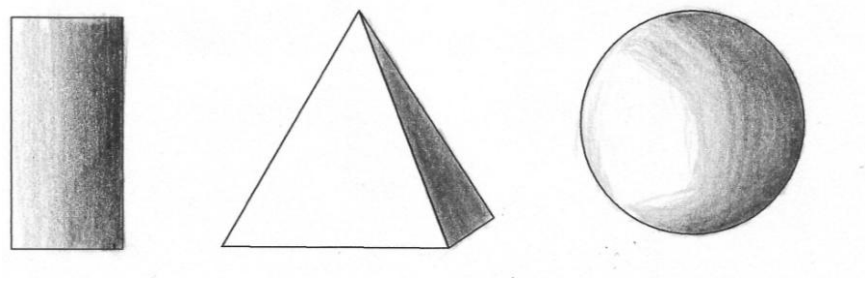
Fig.49: Three basic shapes: the triangle, the rectangle and the circle.

Creating depth with shading:

To create the illusion of depth when the shapes are viewed straight on, shading must be added. The shading creates different values and gives the illusion of depth and form. The examples given below show a cylinder, a pyramid, and a sphere in both the line stage and shading for depth, where light source is from left.



a b c



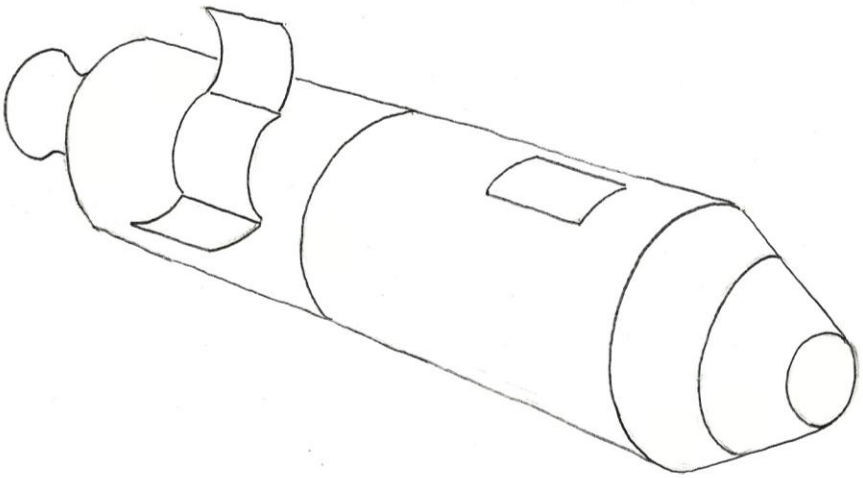
a b c

Fig.50: Three basic forms: the cylinder, the pyramid and the sphere.

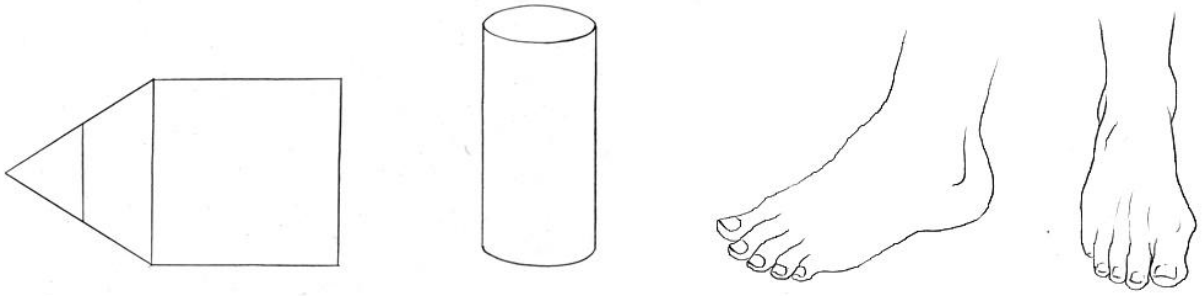
Foreshortening:

To foreshorten is "to represent the lines (of an object) as shorter than they actually are in order to give the illusion of proper relative size, in accordance with the principles of perspective." Foreshortening is most successful when accurately rendered on the picture plane to create the illusion of a figure in space. Foreshortening occurs when an object appears compressed when seen from a particular viewpoint, and the effect of perspective causes distortion. Here are a few examples of foreshortening to practice.

Fig. 51: a,b,c,d



(a) A rocket.



(b) A cube (c) A cylinder (d) Human feet.

Fig.51: Examples of foreshortening.

Ellipses:

An *ellipse* is a circle viewed from an angle. Looking across the face of a circle, it is foreshortened, and we see an ellipse. The axis of the ellipse is constant, and it is represented as a straight centreline through the longest part of the ellipse. The height is constant to the circle. See the image below to show how a circle is viewed as an ellipse and finally one can draw a wrist watch from an angular position known as perspective.

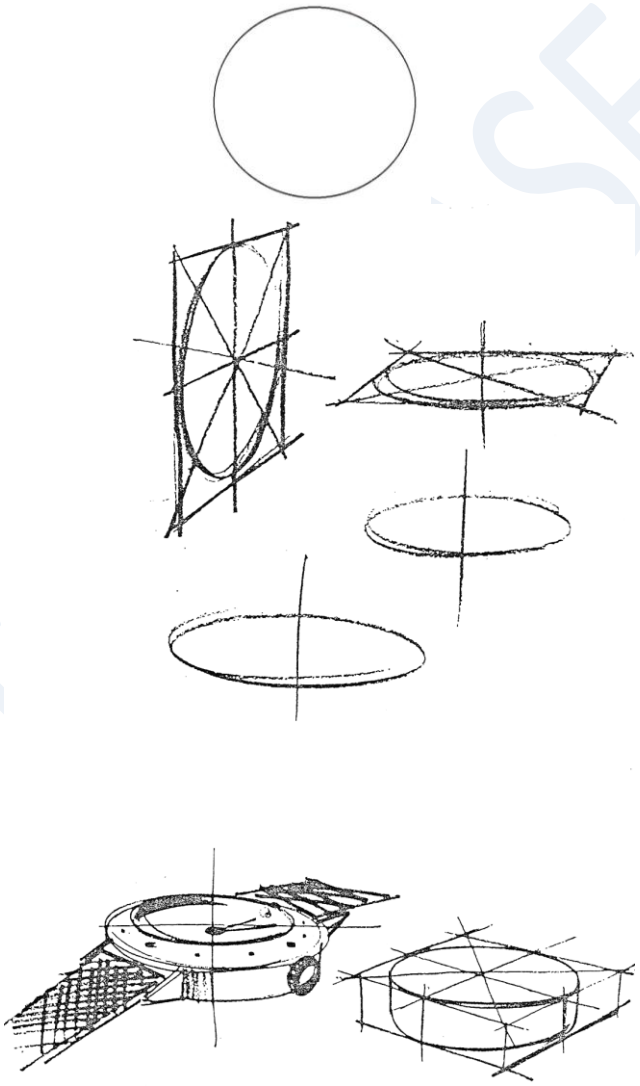


Fig.52: A circle easily can be transformed into a product.

Casting Shadows:

When there is only one light source (such as the sun), all the shadows in the picture are cast by that single source. All the shadows read from the same vanishing point. This point is placed directly under the light

source, whether on the horizon line or more forward in the picture plane. The shadows follow the plane on which the object is sitting. Shadows also follow the contour of the plane on which they are incident.

Light rays travel in straight lines. When they strike an object, the object blocks the rays from continuing and creates a shadow relating to the shape of the blocking object. Given below is a simple example of the way to plot the correct shape and length of a shadow for the shape and the height of the light.
If the light is raised, lowered, or moved to the side, the shape of the shadow will change accordingly.

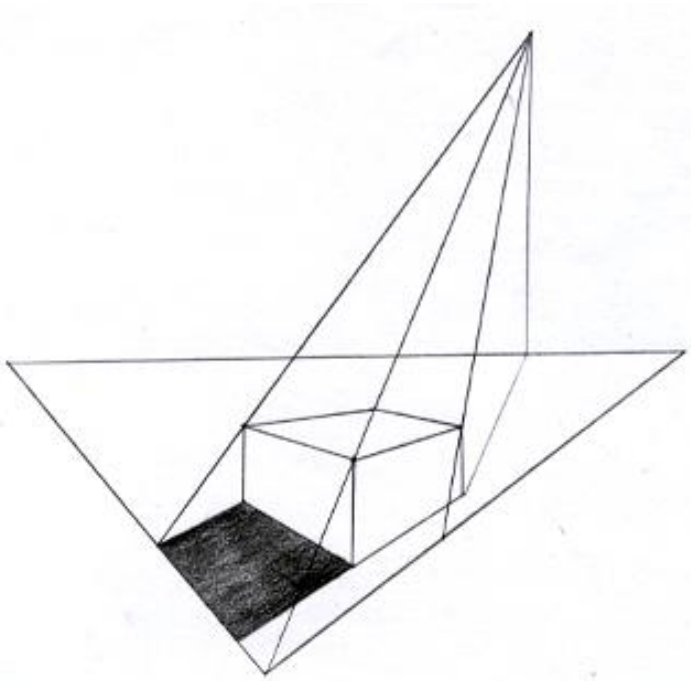


Fig.53. Casting shadows considering only one point of source of light.

Lecture-2

Sketching

Using Circular Strokes:

Loose, circular strokes are very effective for quickly recording of simple subjects or for working out a still life arrangement, as shown in Fig.54.

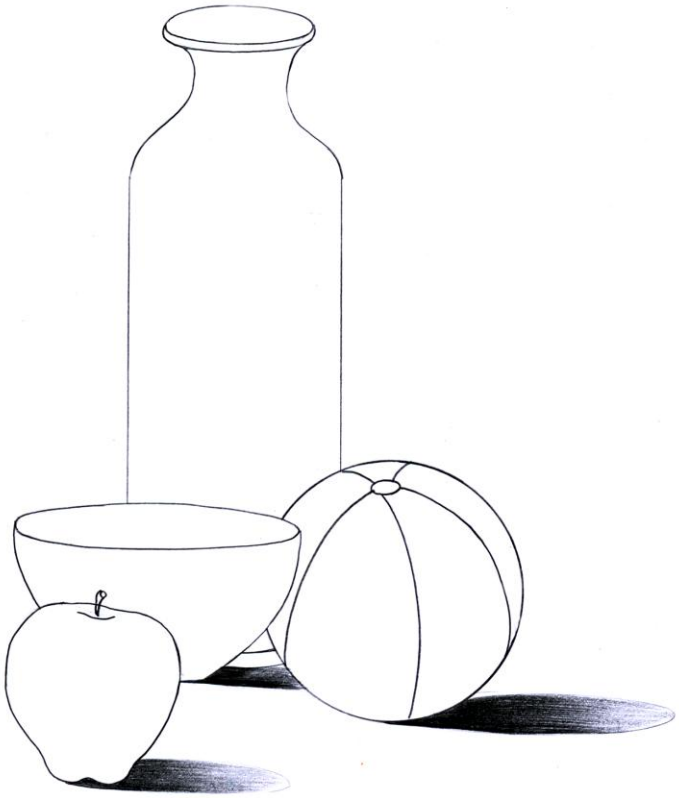


Fig. 54: Circular strokes.

Scribbling:

Free and scribbled lines can also be used to capture the general shapes of objects such as clouds, treetops, or rocks. It is suggested to use a soft lead pencil with a broad tip to sketch the outlines of the clouds; then roughly scribble in a suggestion of shadows, hardly ever lifting your pencil from the drawing paper. This technique effectively conveys the puffy, airy quality of the clouds.

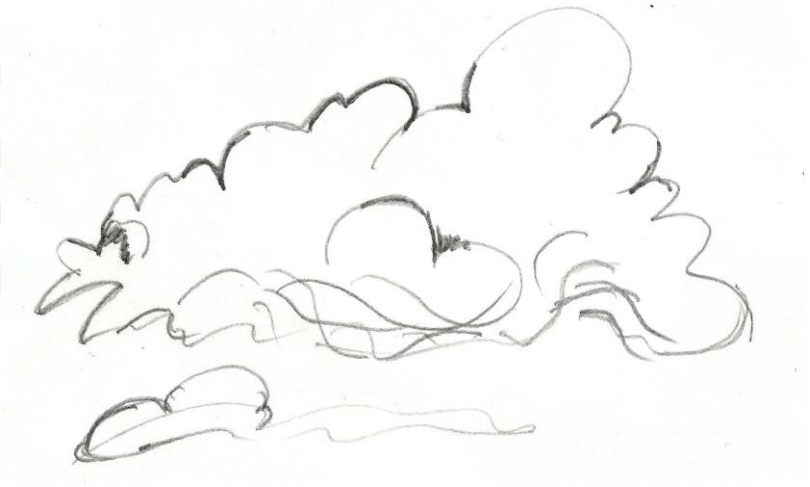


Fig. 55: Cloud scribbling.

Using Wide, Bold Strokes:

This method is used for creating rough textures and deep shadows, making it ideal for subjects such as foliage and hair and fur textures. For this example (Fig.56), the side of a 2B pencil have been used, varying the pressure on the lead and changing the pencil angle to produce different values (lights and darks) and line widths. This creates the realistic form and rough texture of a sturdy shrub. These strokes can create depth on 2 D surface.

Fig. 56: Wild bold strokes representing shrubs.

Sketching for Reference Material:

Here is an example of using a rough sketch as a source of reference for a more detailed drawing. Use of loose, circular strokes to record an impression of the flower's general shape, keeping the lines light and soft to reflect the delicate nature of the subject. Then use the sketch as a guide for a more detailed rendered flower as sown in fig 57.

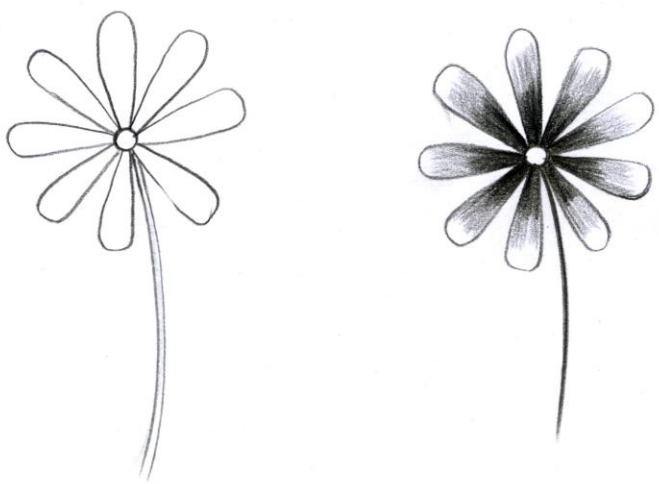


Fig. 57: A quick reference sketch and a detailed rendering.

Conveying Movement:

To show movement in a drawing, we need to follow the viewer's eye and make it appear as if the object is moving up or down, or sideways. In the example shown in Fig.58, the arrows indicate the direction of movement—but the pencil strokes should actually be made in the opposite direction. Press down at the beginning of each stroke to get a strong line, lifting your pencil at the end to taper it off. These lines convey the upward and downward direction of water and the rising and billowing movement of smoke.

Fig. 58: Conveying movement

Rendering Wave Action:

Quickly sketch a wave, using long, flowing strokes to indicate the arcing movement of the crest, and make tightly scribbled lines for the more random motions of the water as it breaks and foams. As in the example below, the strokes should taper off in the direction opposite the movement of the wave. Also sketch in a few meandering lines could be sketched in the foreground to depict the slower movement of the pooled water as it flows and recedes.

Fig. 59**:** Rendering of Wave Action

Lecture-3

Focussing On Negative Space:

Sometimes it's easier to draw the area *around* an object instead of drawing the object itself. The area around and between objects is called the "negative space." The actual objects are the "positive space." If an object appears to be too complex or if anyone is having trouble "seeing" it, try focusing on the negative space instead. We will find that when we draw the negative shapes around an object, we are also creating the edges of the object at the same time. The examples below are simple demonstrations of how to draw negative space.

Filling In:

The white picket fence is created by filling in the negative spaces around the slats. The draw the slats are not drawn—instead the shapes surrounding them are drawn and then filled in the shapes with the side of a soft lead pencil. Once we establish the shape of the fence, we refine the sketch a bit by adding some light shading on the railings. Once the shape of the fence is established the sketch is refined by the background shades. More layer of shades, shell give more realistic appearance of the subject.

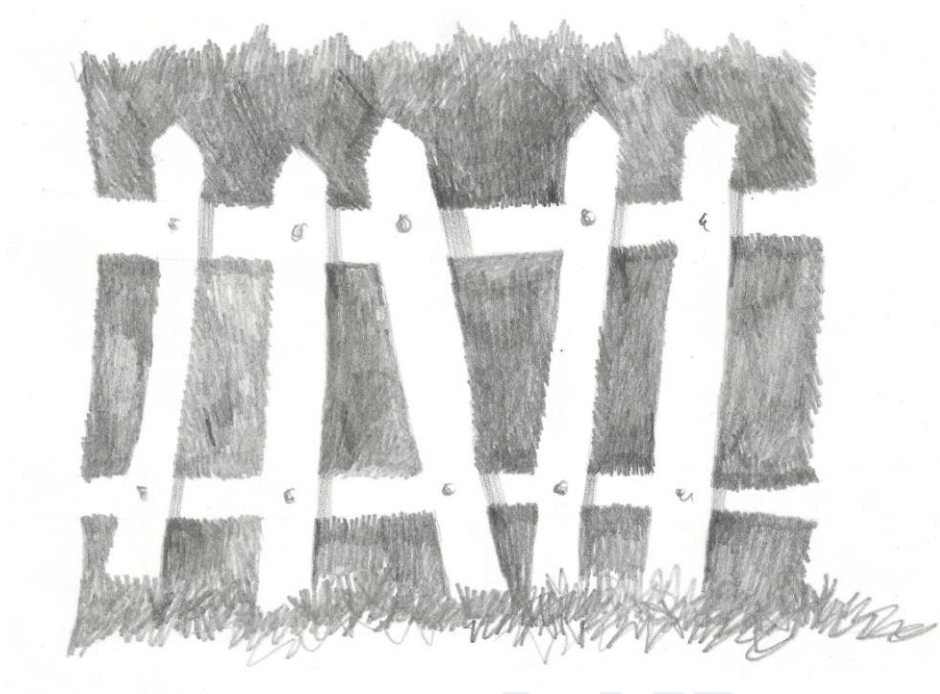


Fig. 60: Filling in the negative spaces of a scene and its structure.

Silhouetting:

For the trees sketching the negative spaces simplifies the drawing immensely. The negative shapes between the tree trunks and among the branches are varied and irregular. This adds a great deal of interest to the drawing. Right kind of shading may give accuracy of the subject. Student should practice this in the class room itself.

Fig. 61: Silhouetting out the deep jungles.

Lecture-4

Drawing with a grid:

An effective way to understand how to draw what is seen is the grid method. The viewing grid shown below is an open, frame like device divided with string into several sections of the same size. This tool helps us break down the scene into small manageable parts, giving us clues as to where our subject should be placed on the paper. A grid stand will hold it steady and in the same place for us.

Step One:

We can also make one using cardboard and string (see the drawing below). Cut a rectangle out of the center of a piece of cardboard. Find the exact center of all four sides of the outer rectangle and make a small cut on the outside border. Slip two pieces of string through the slits—one horizontally and one vertically—to divide your viewing grid into four equal sections.

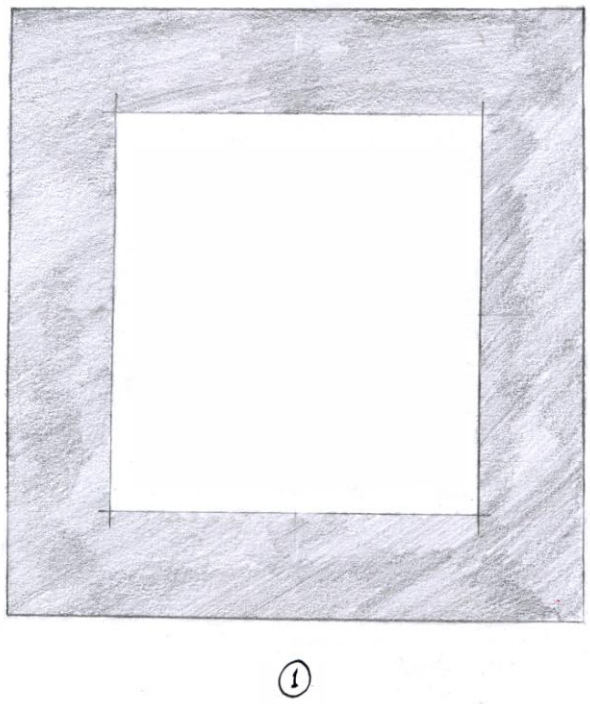


Fig. 62: Making a viewfinder.

Step Two:

Use a ruler and a pencil to lightly draw the same size grid (or a proportionally larger or smaller one) with the same number of squares on a piece of drawing paper. To draw a larger or smaller grid, multiply or divide each measurement by the same number, usually two or three.

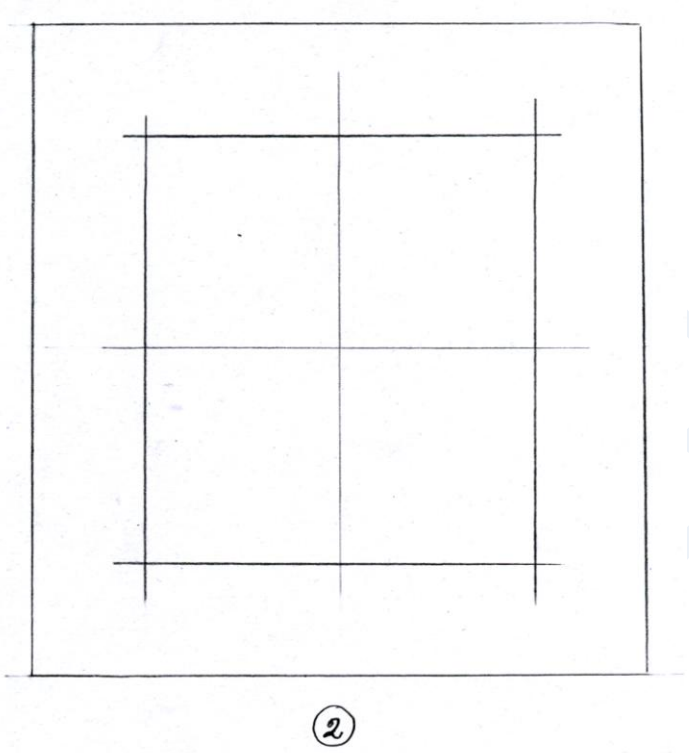


Fig. 63: Drawing the grid

Step Three:
Hold the cardboard grid at arm's length and use it to frame the scene or object we want to draw. The grid and the position of our head must be kept in the same position. To be comfortable from the beginning is useful in the same position for the duration of the drawing.

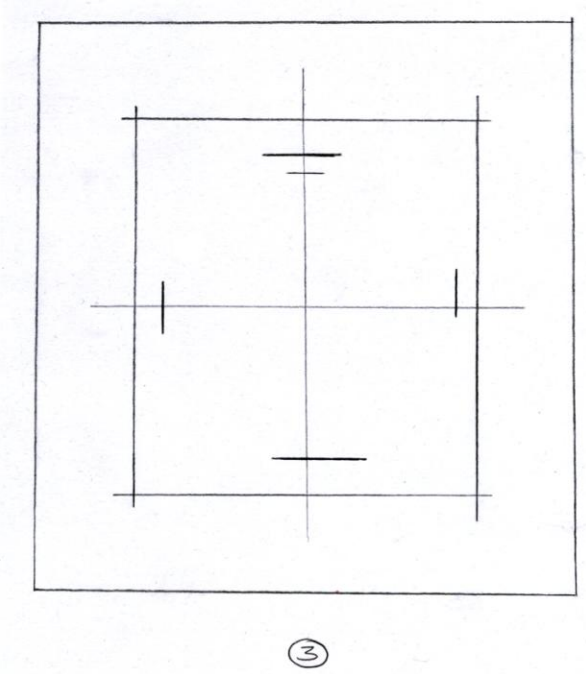


Fig. 64: Framing the scene

Step Four:

With one eye closed, we observe our subject through the grid and notice at what points its outlines cross the grid lines. Then carefully transfer these points to the grid on our drawing paper.

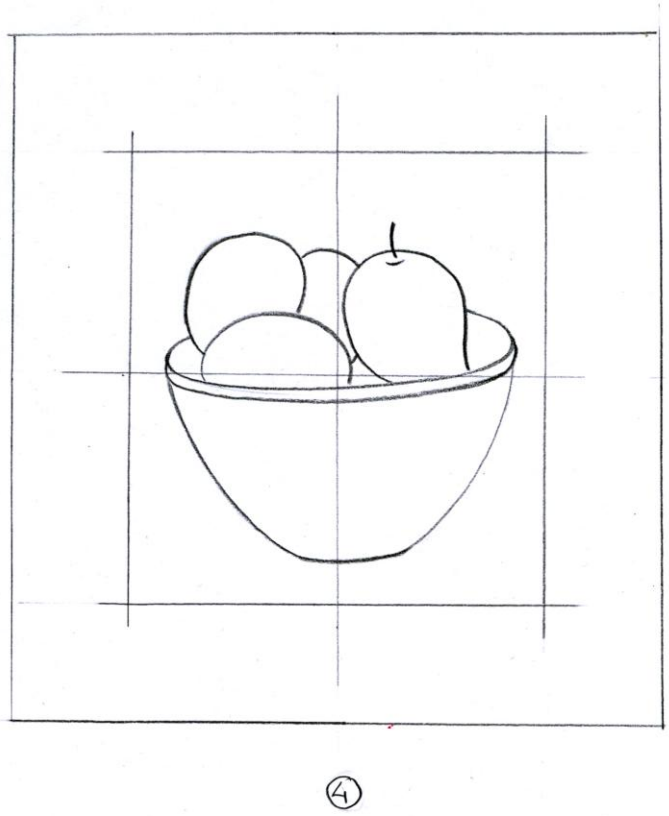


Fig. 65: Observing the subject against grid lines

Step Five:

Now that we have plotted these important reference points, we can begin to fill in the lines between the points. Draw one section at a time, looking through your grid and noting where the shape fits within the grid lines. Just draw with lines initially

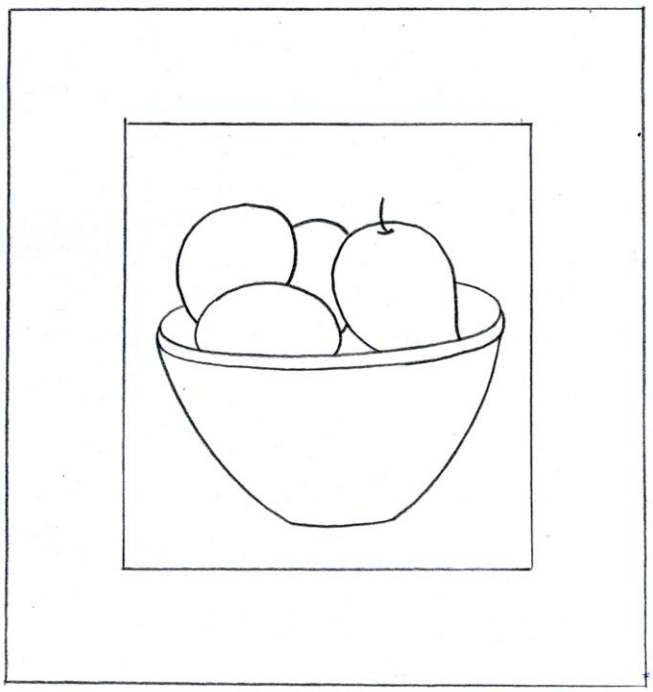


Fig. 66: Drawing the scene

Step Six:

We keep drawing, square by square, frequently studying the subject through the grid until the drawing is complete. Then erase the grid lines, and we will have an accurate line drawing of our subject. In order to add 3 dimensional effects to the drawing you can put proper shading to it, the depth of the bowl, and roundness of the fruits see fig.67.

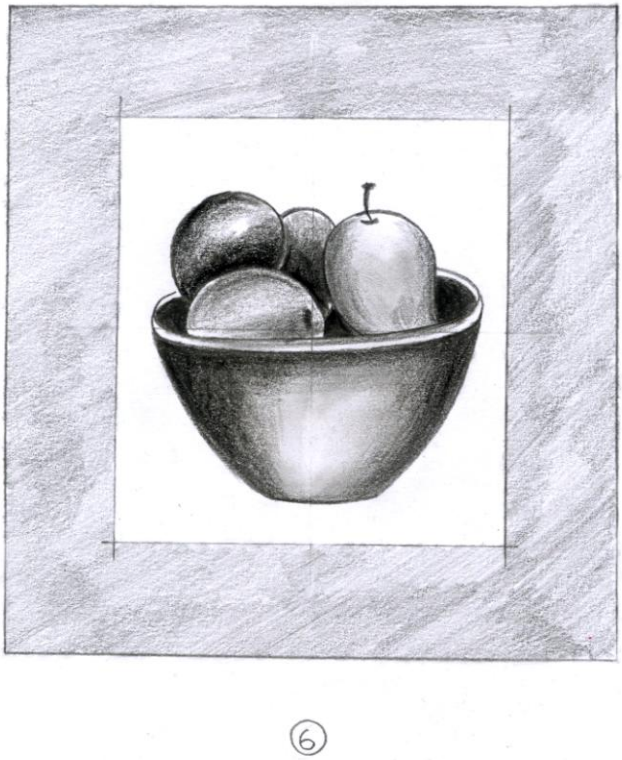


Fig. 67: Completing the drawing and erasing the grid lines

Lecture-5

Beginning with basic shapes:

We can draw just about anything can be drawn by simply breaking down the subject into the few basic shapes: circles, rectangles, squares, and triangles. By drawing an outline around the basic shapes of our subject, we can drawn its shape. But our subject also has depth and dimension, or *form.* As we have seen earlier the corresponding forms of the basic shapes are spheres, cylinders, cubes, and cones. For example, a ball and an apple are spheres, a glass and a tree trunk are cylinders, a box and a building are cubes, and a pine tree and a funnel are cones. This is the first step of every drawing: sketching the shapes and developing the forms. After that, it is essentially just connecting and refining the lines and adding details.

Combining Shapes:

Here is an example of beginning a drawing with basic shapes. We start by drawing each line of action, then build up the shapes of the dog and the chick with simple ovals, circles, rectangles, and triangles.

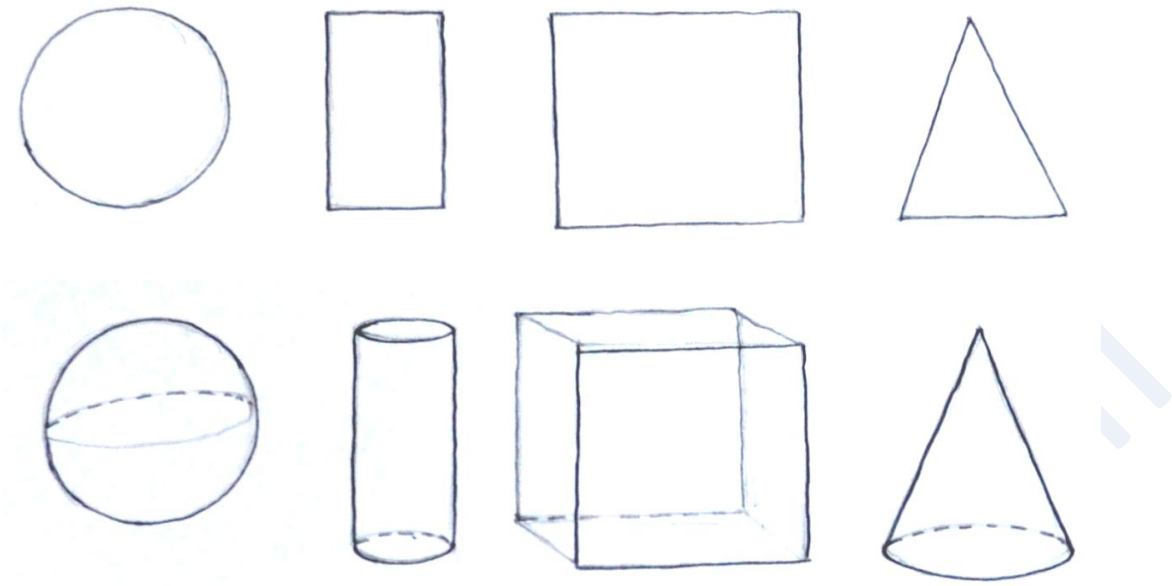


Fig. 68: Shapes turn into forms

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Building Form:

Once we establish the shapes, it is easy to build up the forms with cylinders, spheres, and cones. We notice that the shapes are now beginning to show some depth and dimension and turn into forms.

Creating Forms:

Here are diagrams showing how to draw the forms out of the four basic shapes. The ellipses show the backs of the circle, cylinder, and cone, and the cube is drawn by connecting two squares with parallel lines.

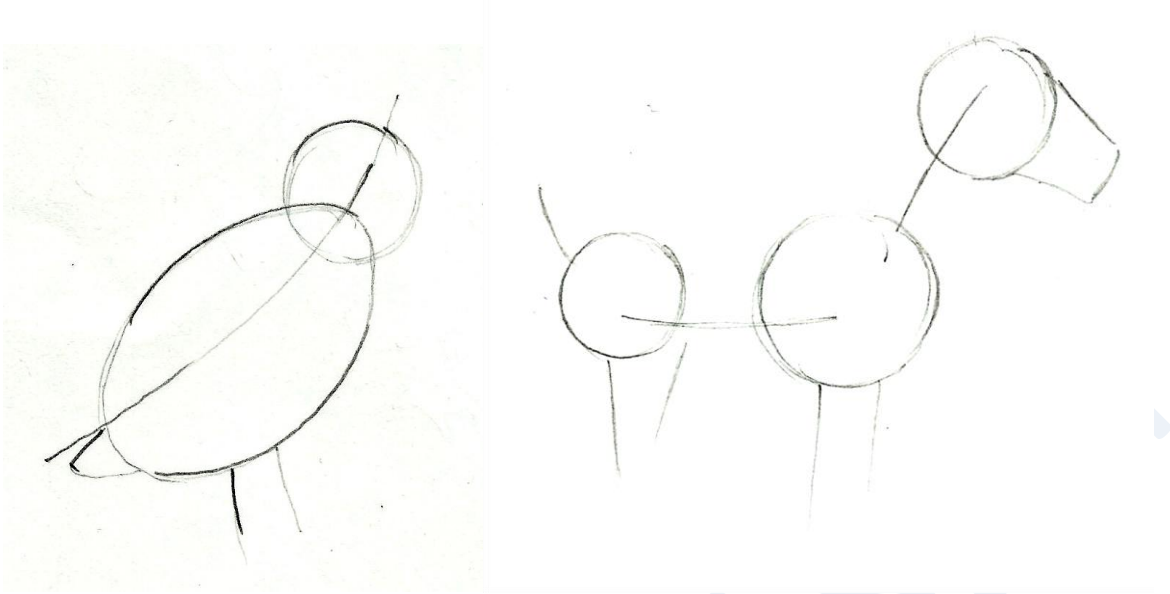


Fig. 69: Drawing a bird and a dog with basic forms

Drawing Through:

Drawing through means drawing the complete forms, including the lines that will eventually be hidden from sight. We assume that basic form of anything in the nature are formated by geomatric shapes fig.69. Therefore, here showing how few basic geomatric shapes can help in producing basic layout of a drawing. A chick and a bird. Here we have taken cercle, ovel and elipces as basic shape to develope the drawing on a centre line.

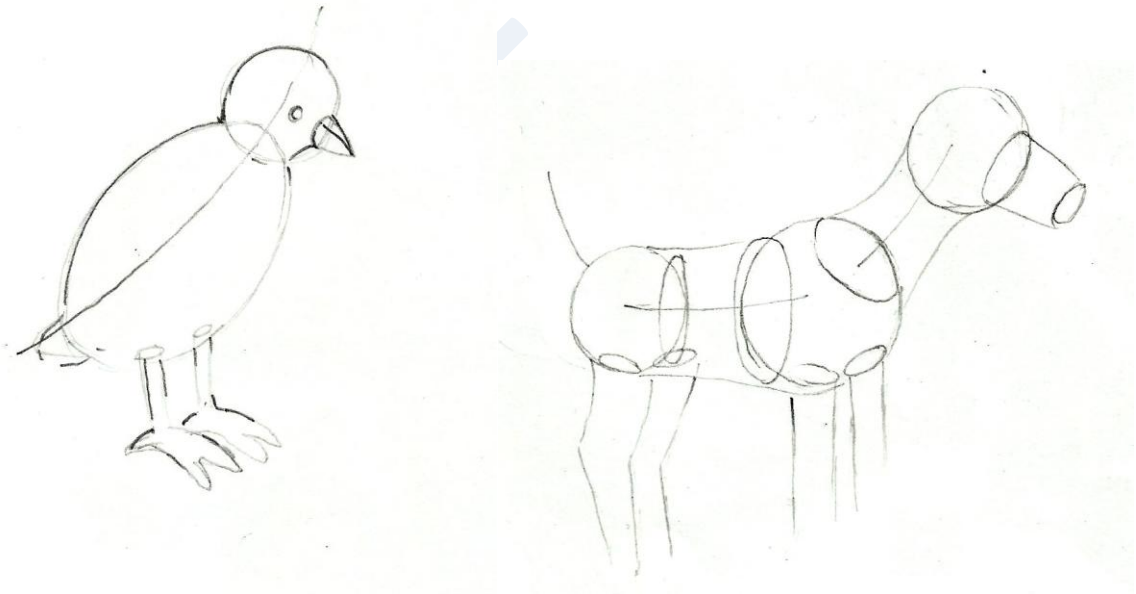


Fig.70: Adding details with basic forms

And when the forms are drawn, the backside of the dog and chick are indicated. Even though we cannot see all sides in the finished drawing, the subject should appear three-dimensional. Therefore, one should have proper knowledge of planes and volume of an object. To finish the drawing, we simply refine the outlines and add a little fluffy texture to the downy chick see fig.71 (a) and (b).

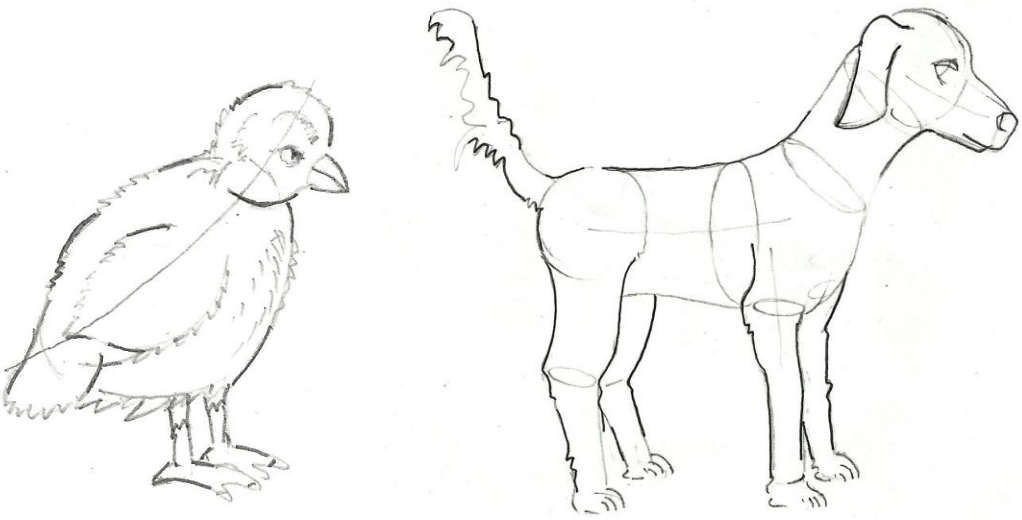


Fig. 71(a): Completing drawing

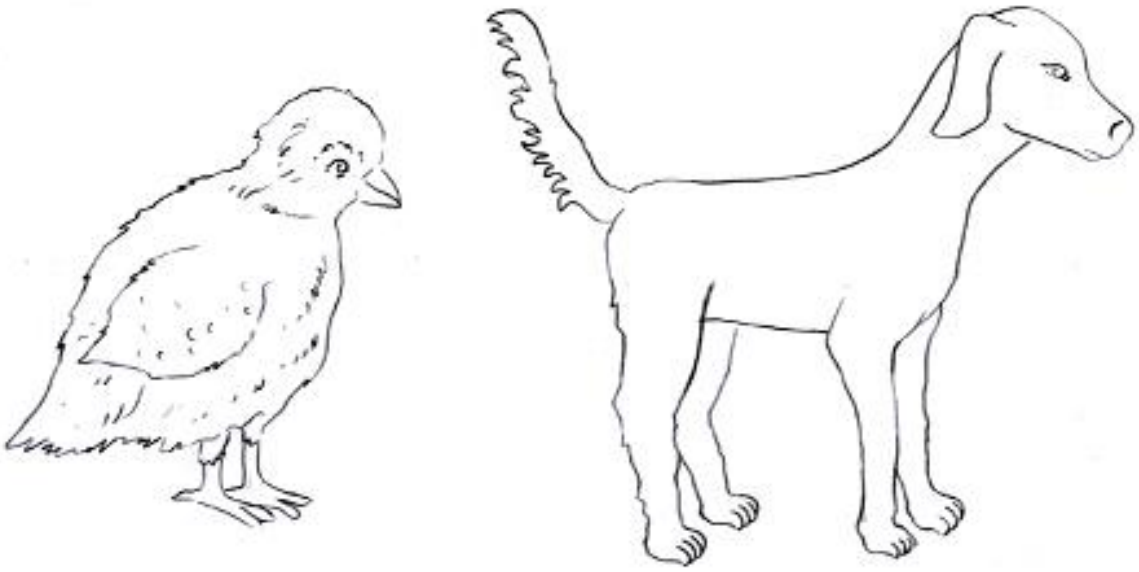


Fig. 71(b): Final drawing

Lecture-6

Seeing the shapes and forms:

At this point, we need to train our eyes and hand by practicing drawing objects around us. We set up a simple still life—like the arrangement below—and look for the basic shapes in each object. We should not be afraid to tackle a complex subject; once we have reduced it to simple shapes, we can draw anything!

Step one (cube and cylinder):

We begin with squares and a circle, and then add ellipses to the jug and sides to the book. We see that the whole apple is drawn, not just the part that will be visible. That's another example of drawing through basic lines and geometrical shape.

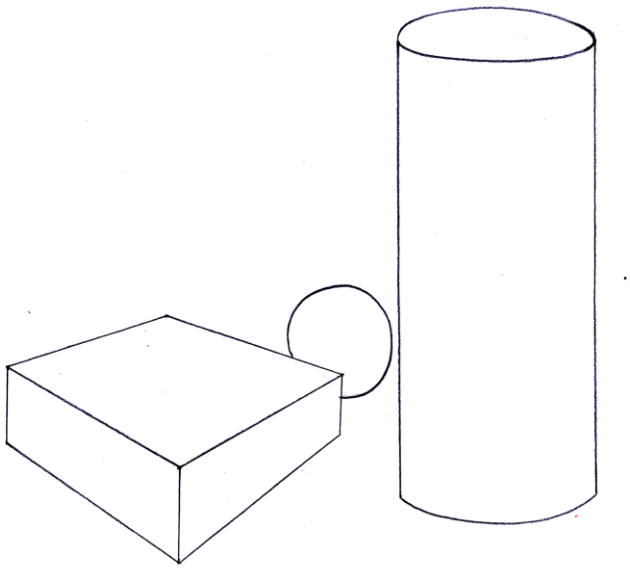


Fig.72: Drawing a book and a jug with basic forms

Step two (cube and cylinder):

Next we add an ellipse for the body of the jug, a cone for the neck, and a cylinder for the spout. Also pencil in a few lines on the sides of the book, parallel to the top and bottom, to begin developing its form. Once the basic form is ready we go for final touch up see step three fig.74.

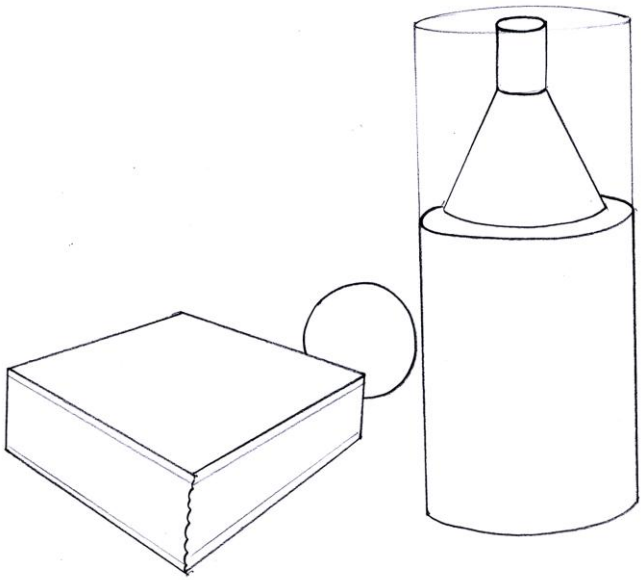


Fig. 73: Adding details to the book and jug with basic forms

Step three (cube and cylinder):

Finally we refine the outlines of the jug and apple, and then round the book spine and the corners of the pages. Once we are satisfied with your drawing, we erase all the initial guidelines in order to complete the drawing.

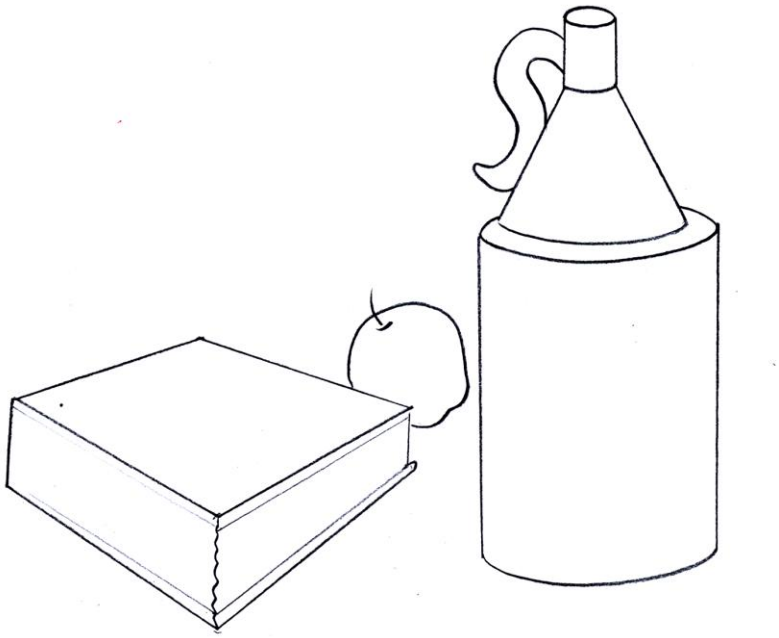


Fig. 74: Completing the drawing of the book and jug

In our next drawing we are taking a car as reference. Here we are using two point perspective in order to have accuracy of the drawing. All the basic lines of this drawing have been generated from two points' e.g.vp1 (R) and vp2 (L).or the lines of the drawing converging into two point as we have discussed this in module 2

Step one (Car):
Even a complex form such as Old ambassador car is easy to draw if we begin with the most basic shapes. At this stage, we ignore all the details and draw only squares and rectangles. These are only guidelines, which are generating from two points on the horizon which we can erase when our drawing is completed, therefore draw the lines lightly and do not concentrate in making perfectly clean corners. But, don't forget to use two point perspective to get proper realistic view as shown in the fig.75.

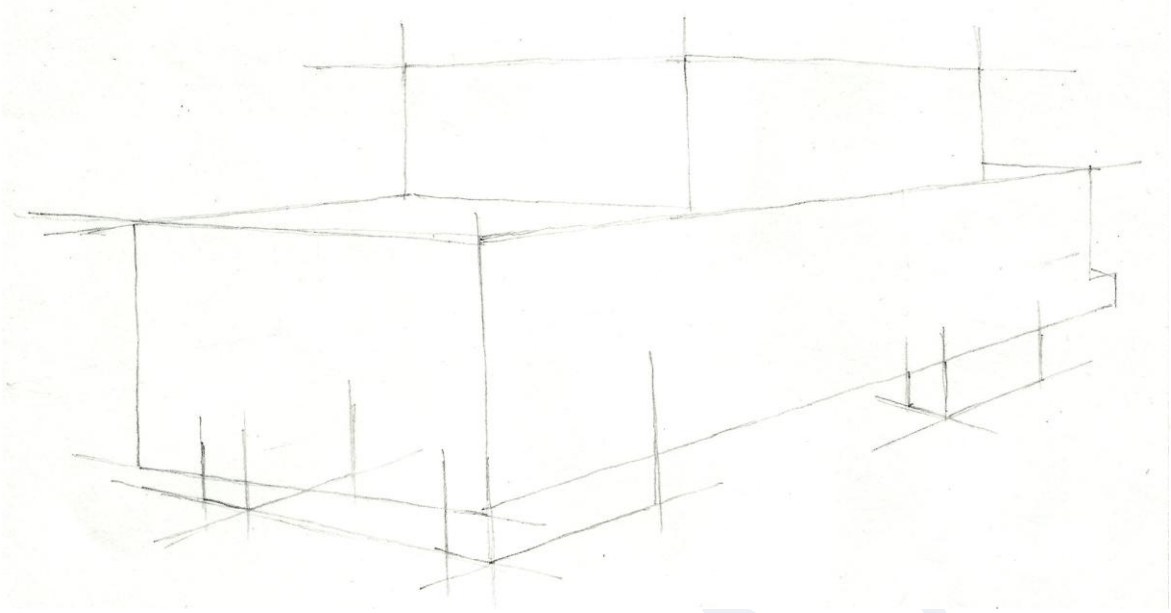


Fig. 75: Drawing a car with basic lines

Step two (Car):

Using those basic shapes as a guide, we start adding more squares and rectangles for the headlights, bumper, and grille. Start to develop the form of the windshield with angled lines, and then sketch in a few straight lines to place the door handle and the side detail and the wheel space etc.

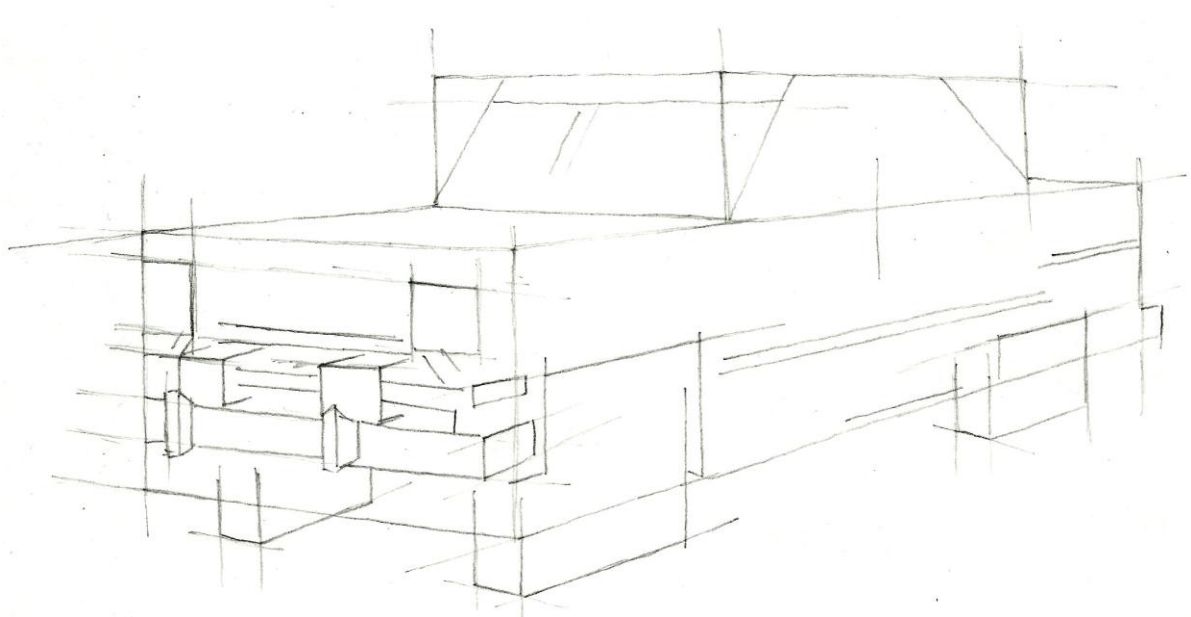


Fig. 76: Adding details to the car with basic forms using perspective

Step three (Car):

Once we have all the major shapes and forms established, begin rounding the lines and refining the details to conform to the car's design. Our guidelines (perspective) are still in place here, but as a final step, we can clean up the drawing by erasing the extraneous lines.

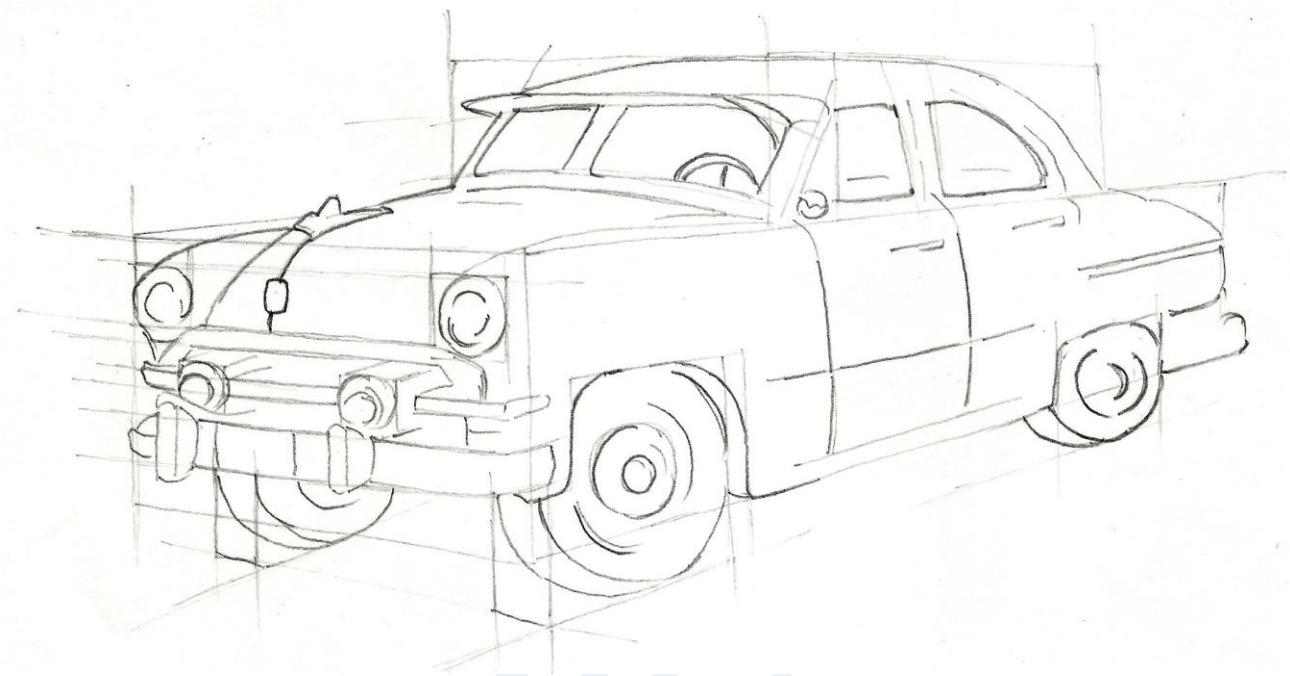


Fig.77: Completing the drawing of the car

Developing form:

Values tell us even more about a form than its outline does. Values are the lights, darks, and all the shades in between that make up an object. In pencil drawing, the values range from white to greys to black, and it is the range of values in shading and highlighting that gives a three-dimensional look to a two dimensional drawing. Focus on building dimension in your drawings by modelling forms with lights and darks.

Lecture-7

Sketching the Shapes:
First lightly sketch the basic shape of this angular wedge of cheese.

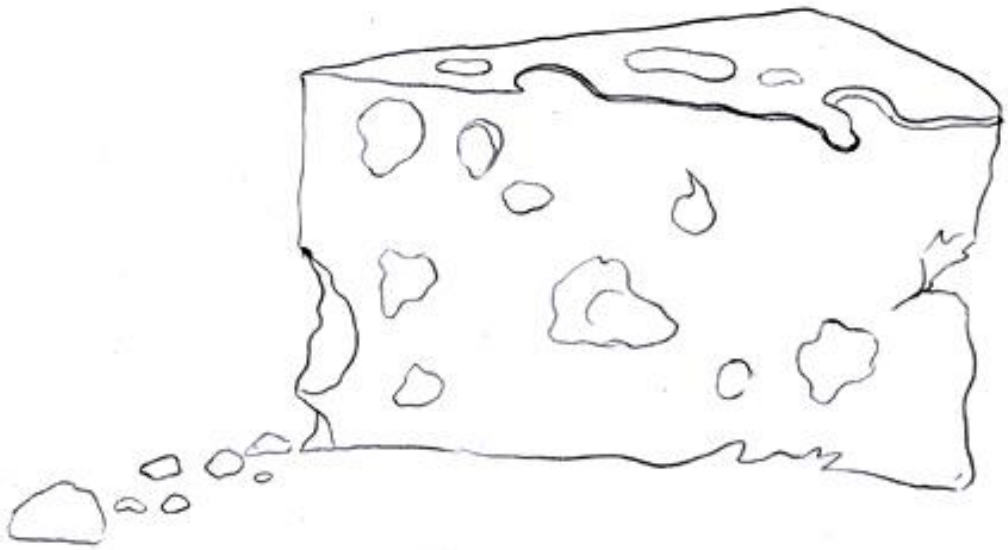


Fig. 78: Light sketching.

Laying in Values:
Here the light is coming from the left, so the cast shadows fall to the right, tightly shade in the middle values on the side of the cheese, and place the darkest values in holes where the light does not hit.

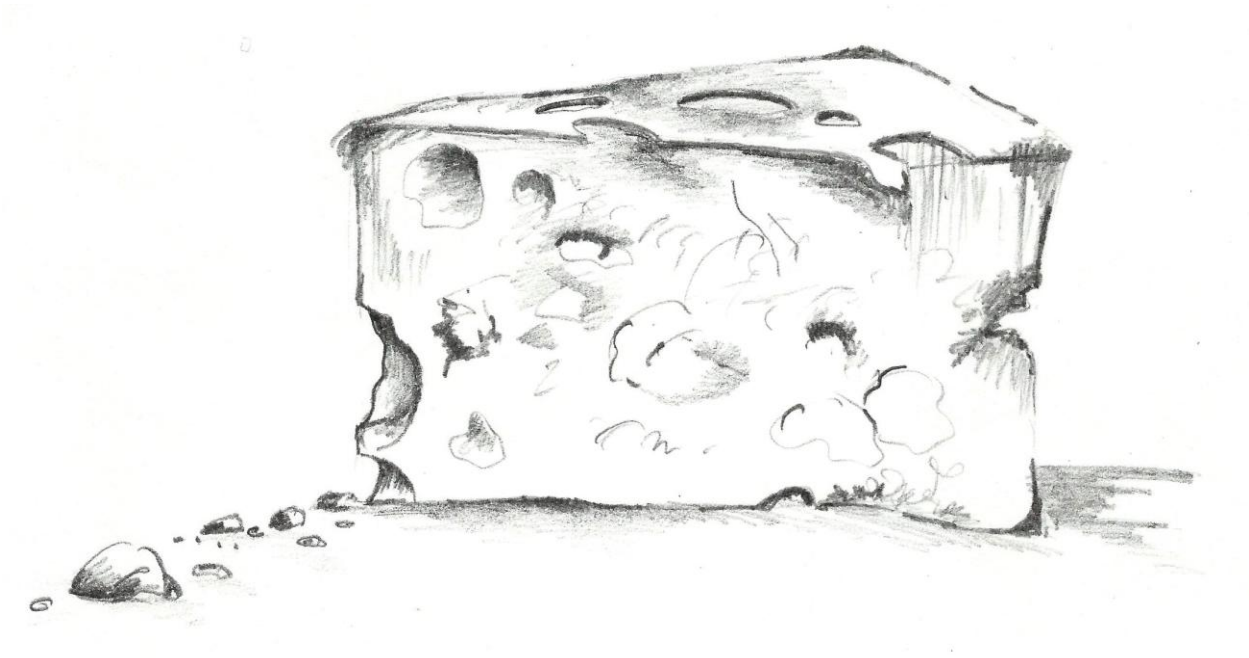


Fig. 79: Laying values to light sketching to give 3-D effect of the subject.

Adding Shadows:

Look at a bunch of grapes as a group of spheres. We can place all the shadow areas of the grapes (form shadows) on the sides that are opposite the light source. Then can also block in the shadows that the grapes throw on one another and on the surrounding surface (cast shadows).

Fig. 80: Adding shadows to sketches based on the source of light.

Drawing Cast Shadows:

Cast shadows are important in drawing for two reasons. First, they anchor the image, so that it does not seem to be floating in air. Second, they add visual interest and help link objects together. When drawing a cast shadow, we must keep in mind that its shape will depend on the light source as well as on the shape of the object casting it. For example, as shown below (Fig.81), a sphere casts a round or elliptical shadow on a smooth surface, depending on the angle of the light source. The length of the shadow is also affected: the lower the light source, the longer the shadow.

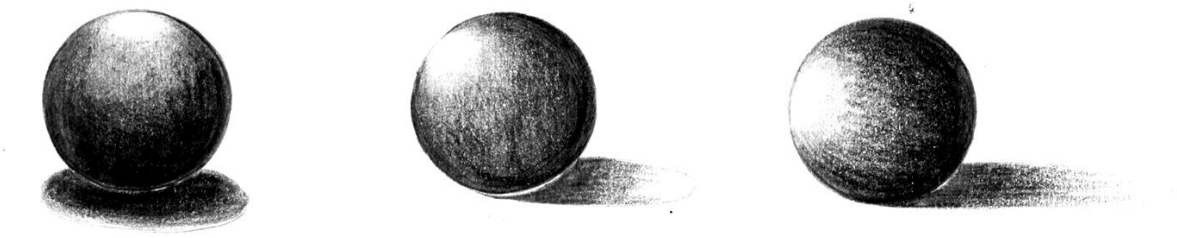


Fig. 81: Casting shadows.

Understanding Lights and Shadows:

To develop a three-dimensional form, we need to know where to place the light, dark, and medium values of your subject. This will depend on your light source. The angle, the distance, and the intensity of the light will affect both the shadows on an object (called "form shadows") and the shadows the object throws on other surfaces (called "cast shadows"). We might want to practice drawing form and cast shadows on a variety of round and angular objects, lighting them with a bright, and a direct lamp so that highlights and shadows will be strong and well-defined.

Highlighting:

We either "save" the white portion of our paper for the brightest highlights or "retrieve" them by picking them out with an eraser or painting them on with white gouache.

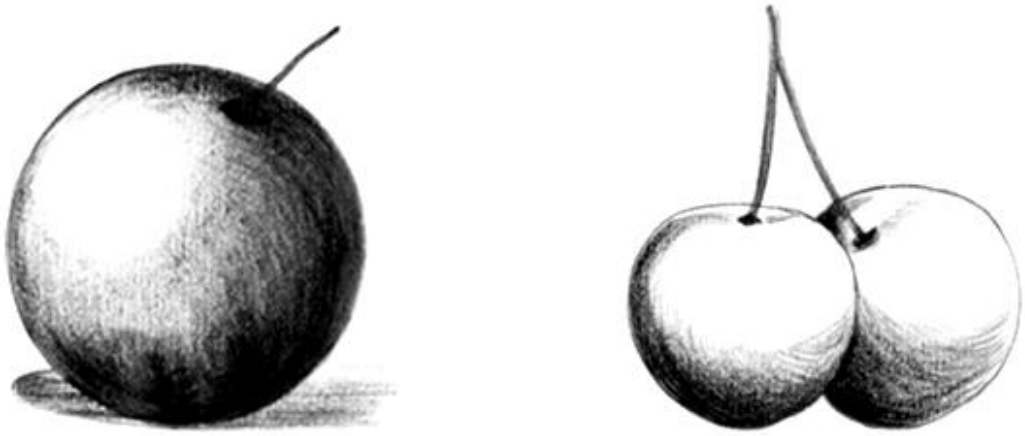


Fig.82: Adding highlight

Shading:

The middle values of these gaps have been shaded with a couple of swift strokes using the side of a soft lead pencil. Then increase the pressure on our pencil for the darkest values, and leave the paper white for the lights.

Shading Consistently:

If we have only one light source, make sure that all the highlights are facing a single direction and all the shadows are oriented in the opposite direction. If we mix them up, our drawing would not be believable.

Getting to Know our Subject:

Quick, "thumbnail" sketches are invaluable for developing a drawing. We can use them to play with the positioning, format, and cropping until we find an arrangement we like. These are not finished drawings by any means, so we can keep them rough.

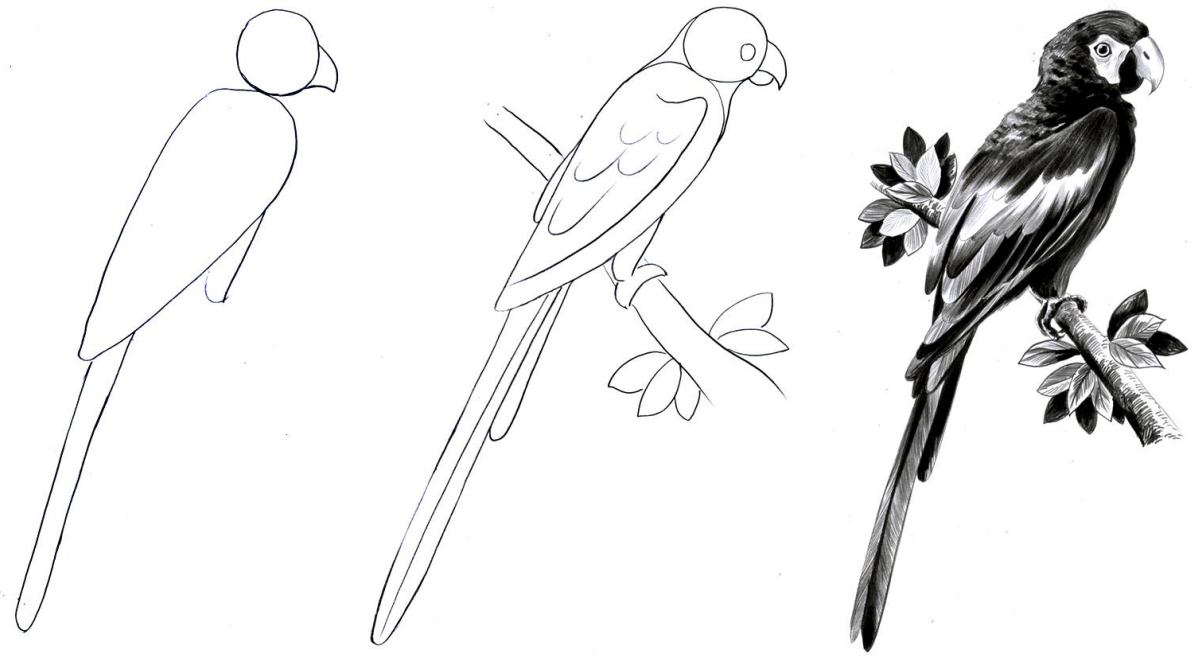


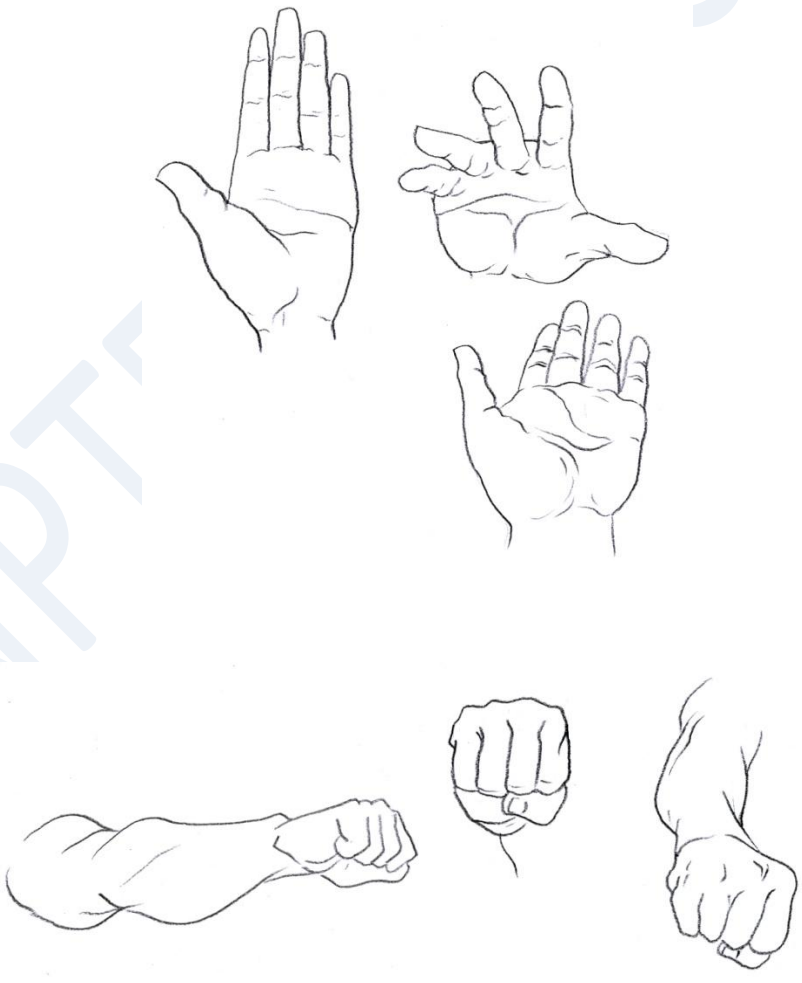
Fig.83: A quick thumbnail of a parrot and a detailed rendering

Question & Answer

Module 5

1. What do you mean by foreshortening? Explain with illustrative example

    - See lecture 1, and see the illustration given bellow



1. As we know how we can draw an ellipse from a circle (using two point perspective). Using this basic shape (circle) how we can make a product sketch? Show by an illustration.

- See lecture 1 ellipses. by taking reference (fig.52) from the lecture 1 showing another illustration of a product drawing.