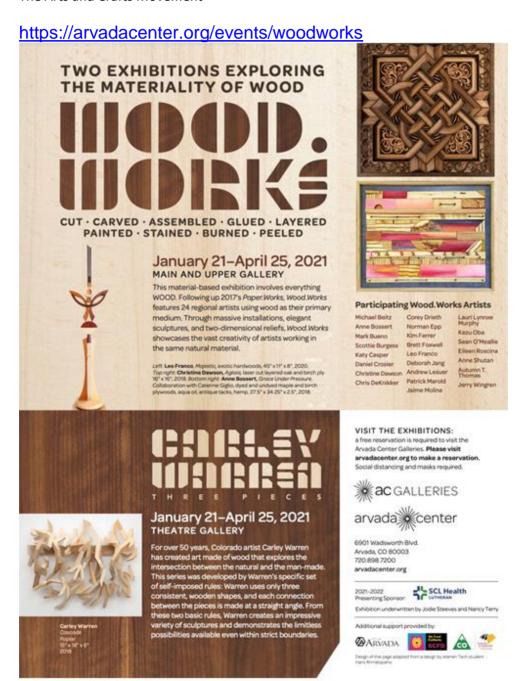
09 Light and shadow, finish Gothic

Friday, February 5, 2021 2:45 PM

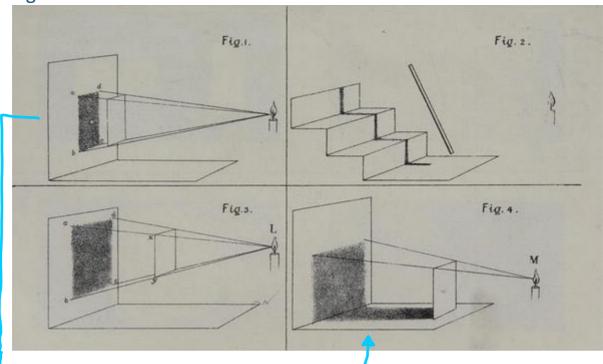
Today

Admin
Light and Shadow
Finish Gothic Revival
The Arts and Crafts Movement





Light and Shadow



LIGHTS, SHADES, SHADOWS.

9

corners of the rectangle; and this you will find true, no marter at what angle you may turn the card.

We learn then:—(1) The shadow falls immediately behind

We learn then:—(1) The shadow falls immediately behind the object, and along the straight line joining the object with the source of light.

Keeping the light and the sheet of cardboard as before, place the small rectangle nearer the light. The points of the shadow can be found as before; necessarily the shadow as a whole must be larger (Fig. 3). But you will notice that the tone of the shadow is not so deep as in the last instance, and that its edges are not nearly so distinct.

Hence:—(2) The farther the object from the surface receiving the shadow, the larger and fainter will that shadow abover.

If you now rest the rectangle upon the lower sheet, you will find its shadow cast as in Fig. 4. Here the part of the shadow along the floor, so to speak, gradually decreases in darkness of tone until it reaches the upright, upon which, according to the last experiments, it appears approximately of the same depth throughout.

It will be readily understood why the shadow gets wider along the horizontal plane as it recedes from the object, for the parts receiving the shadow are removed at greater and greater distances from the object. This experiment, therefore, really gives the principles underlying Figs. 1 and 3 in one.

Thus:—(3) The shadows cast on flat surfaces by objects resting on those surfaces appear darkest along the portions nearest the object, whence they gradually decrease in depth.

Lastly, bend the perpendicular sheet into any shape, as in Fig. 2. Place a stick of pencil so that its shadow may be caught, and notice how the shadow bends according to the surface.

Hence:—(4) The shape of the shadow will depend largely upon the surface receiving the shadow.

It would be well to bend the cardboard in all directions, and to use other objects for casting shadows.

Such simple experiments, varied according to your

ingenuity, will be found extremely useful.

(ii) Shadows cast by Sunlight.—The point a in Fig. 3 is obtained by drawing a line from the source of light L through the corner x of the cardboard, and b by drawing a similar line from L through y.

If now, keeping the cardboard in the same position, the light t be moved to a greater distance (say, as far as M), and lines drawn, M a and M y, and produced to strike the upright sheet, it is clear the two points a and b will not be so far apart as before. And similarly with the other points, c and d.

In other words, if you move the light to a greater distance the shadow will grow less, until, if you imagine it moved to an finnense distance, from a to b will be almost equal to the line x y.

Now the sun is at such a vast distance from every object on the earth that its rays may be considered to pass through the points of the object, such as a, δ , c, d, parallel to each other.

Simply, then, if you place the cardboard, as in Fig. 1, in the direct sunlight, and move the small rectangle toward and away from the upright sheet, its shadow will remain of the same size in all cases.

You may notice the same fact by observing your shadow thrown on a wall by the sun. Moving your hand to and away from the wall its shadow will not perceptibly after in

(c) Shadows cast by Diffused Daylight.—In addition to the difficulty of obtaining direct sunlight on any group we may wish to represent, it is to be remembered that the sun is apparently moving rapidly through the heavens, so that the direction of the shadow cast by it continually changes.

If circumstances, therefore, render it compulsory that a shading shall be made by daylight, the group or cast must be placed so that it may be lighted from one window only, and that one so placed that the sun itself may not shine on the group.

LIGHTS AND SHADES.

You may find by experiment that if the window admitting the light be smaller than the object, the cast-shadows will be formed along *diverging* lines, as in Figs. 2, 3, and 4; but if the window be larger, the shadows will decrease.

Since artificial light can be so much more readily arranged to suit a group, and since, moreover, the lights, shades, and shadows distributed by it are clearly defined, models and casts are generally shaded by gas-light.

Lights and Shades.

Take two small equal rectangles of white cardboard, and hold them side by side perpendicularly in the full light of the sun or of a gas-jet. Now allow the top of one to fall slowly backwards away from the light, and towards the horizontal. As it falls, compare its brightness with that of the perpendicular sheet. You will then at once gather that the intentity of light on a surface depends upon the angle at which the light strikes that surface. The more perpendicular the surface is to the rays of light, the lighter its tone will be.

The knowledge of this will frequently help you out of a difficulty. For instance, the left-hand leaf in Fig. 74 is almost on the same level as the background, and hence appears mainly of the same tone. Without consideration, you would find yourself apt to make this too light or too dark.

Now, if part of a surface is so placed that no direct rays can strike it (as, for example, in our first illustration, that half of the whitened ball turned from the light), evidently we must find darkness.

Such darkness is known as the shade

Gothic Revival

In pods, go online and find a few examples of Gothic Revival or Gothic Modern. What design elements match this aesthetic? Make 3 minute presentation to class *Friday*.

Pod 1: chair Pod 2: bed Pod 3: wardrobe Pod 4: flatware Pod 5: light fixture Pod 6: jewelry

Rococo

Now used to mean ornate, over-decorated, but is a specific aesthetic that overlapped with Gothic Revival



Arts and Crafts Movement

From

Fiell, Charlotte & Peter. Design of the 20th Century. Taschen America, 2012.

Industrial revolution separated the work of design from fabrication; prior, craftsmen did both.

Design as a stand-alone discipline had no theory or context; as a result, much low quality was produced.

Design in a Nutshell, from the British Open University: http://www2.open.ac.uk/openlearn/design nutshell/index.php#

In pods, go online and find a few examples of <u>Arts and Crafts artifacts</u>. What design elements match this aesthetic? Make 3 minute presentation to class. Same artifacts, how are they different from your Gothic examples?

Make sure your examples are from the 1850 to 1914 Arts and Crafts design movement, not generic 'arts and crafts'.

Pod 1: chair

Pod 2: bed

Pod 3: wardrobe Pod 4: flatware

Pod 5: light fixture Pod 6: jewelry