Chapter Five

Value for Emotion and Focus

VALUE FOR EMOTION AND FOCUS

INTRODUCTION

We only perceive the world surrounding us because of light. Light is made of the brightest of lights, the darkest of darks, and all the *values* in between. If there were no light we could not see shape, colour, space or the objects within it. Light is the first cause of visual perception, and *values* are the result of light. *Value* is the quality of brightness or darkness that we perceive a particular thing to have. The *tone* we perceive on any particular thing is its *value*. But objects, and the environments we encounter are comprised of many *tones*, many *values*. The difference between any one of these *values* and another is called *contrast*. When we speak of *tone* we speak the language of *value* and *contrast*.

This chapter is devoted to developing a basic understanding of the nature of light in general, but will focus mainly on the compositional applications of *value*: why *value* and *contrast* are so important and how they may be controlled to elicit a desired response from an audience. At the end of the chapter the reader should expect to be familiar with these topics:

- 1. The definitions of *Light, Shade* and *Shadow;*
 - a. Value gradients within a Tonal Range;
 - b. Contrast levels within a Tonal Range;
- 2. The creation of *Focus* through *Contrast*;
 - a. Single and Multiple Points of Value Focus and their relationship to Directional Patterns;
 - b. Contrast levels for Rest Areas;
- 3. The use of *Value* in the creation of *Mood*;
 - a. How Brightness and Contrast affect the Emotion of a picture;
 - b. Expressive Values;
- 4. Value and Storytelling;
 - a. The relationship between *Contrast* and *Narrative* and *Emotional* Arcs.

LIGHT SOURCES AND SHADOWS

Value refers to the brightness or darkness of a colour. Black, white and grey are typically considered separately from other colours in that they create an *achromatic value spectrum* (*III.2*) when isolated from other colours. That is, they create a scale of greys with pure black at one end of the spectrum, pure white at the other and a potentially infinite number of grey *tones* between (this is called *greyscale*). This is distinct from a *value spectrum* comprised of colours: a *chromatic spectrum* (*III.1*). Both *value* and *tone* can be used when referring to distinct instances of either the *achromatic* spectrum, and *value* when referring to the chromatic. For our purposes in this chapter, *tone* and *value* are roughly synonymous.



Ill.1: Chromatic Value Spectrum.

Ill.2: Achromatic Value Spectrum.



Ill.3: Achromatic Tonal Range and Contrast Levels.

Contrast refers to the degree of separation between any two points on either a *chromatic* or *achromatic* spectrum. The number of *values* in between the contrasting *values* constitute the *tonal range* of those *values*. *Achromatically*, the greatest degree of *contrast*

and *tonal range* exists between instances of pure black next to instances of pure white. The smaller the distance that separates any two *values* on this spectrum, the lower the degree of *contrast* between them, and the lower their *tonal range (III.3)*. A picture that has a high degree of *contrast* and representations of the linking *values* in its make-up would have a high *tonal range*. Pictures that have little *contrast* between their darkest and lightest *values* would be said to have a low *tonal range*.

Typically, the brightest value in a picture will be interpreted by an audience as that picture's 'white' and the darkest value as its 'black'. This is just to say that *contrast* and *value* are *relative* terms, and it is only when comparing a picture with a *high tonal range* to one with a *lower tonal range* that the perceptual difference becomes apparent. The image in *III.4* has a much higher tonal range than that of *III.5* because the distance between its darkest darks and brightest brights is greater. An increase in *contrast* means an increase in *tonal range*.



Ill.4: High Contrast and High Tonal Range. Student Work.



Ill.5: Low Contrast and Low Tonal Range. Student Work.

When the Japanese developed the term Notan (meaning: dark, light) it was to refer to the harmonic balance of lights and darks and their importance to the creation of what the American artist Wesley Dow (1857-1922) referred to as a 'universal manifestation of The control of *value* beauty'. and *contrast* guided the creation of Dow's (and many others') paintings, and is in large part responsible for their success (*III.6*). Because of the way in which our visual system is structured, we have very little



Ill.6: Controlling Value to control focus and emotion. August Moon, Arthur Wesley Dow, c. 1905, Pennsylvania Academy of the Fine Arts.

control over how we respond to different degrees of illumination and contrast in our perception experiences, whether they be pictures, creations of any other kind, or the

natural world. By understanding how an audience is likely to respond because of these biologically and perceptually embedded tendencies of our species, a great deal of control can be exerted on the creation of a picture, and the efficacy of its impact on an audience.

Illumination is the imposition of a perceptible light gradient upon the inherent brightness of an object in an environment (objects have their own innate brightness, but it is the imposition of *external* illumination that is our concern). *Highlights* are areas of brightness on an object created by this illumination. To what degree an area of an object is highlighted is dependent upon the position of the light source in relation to the object, and the nature of the object's surface. A light source will also create shadows on an object and its surroundings. Shadows can either be attached or cast, but both occur where light is scarce. An attached shadow is any area on an object that is darkened because the light source is blocked by the contour and volume of the object itself (i.e. the light source cannot penetrate beyond a point on the volume of the curved surface in III.7). Beyond that point the object is in shadow (this is similar to how our vision cannot see beyond the intersecting point of our horizon line and the geodesic curvature of the earth: light cannot travel passed this intersecting point either). A cast shadow is any darkened area caused by an object blocking the light source and resulting in a shadow falling (being cast) upon another portion of that same object or on another object (III.7). Applying these value characteristics to representational objects (such as the baseball of III.7) which give them a realistic sense of volume.



Ill.7: Highlights, Attached and Cast Shadows create the perception of realistic volume

Where a light source is placed with respect to objects will affect how both the highlight and attached shadow gradients appear, and how clearly the objects are perceived. For instance, objects have a tendency to lose an appearance of 3-dimensionality when symmetrically lit, and gain perceived volume when asymmetrically lit. This is just to say that how an object is lit will affect how it is perceived...and perhaps if it is perceived at all as the object you wish it to be perceived.



Ill.8: Symmetrical lighting makes objects less clear than asymmetrical lighting. How an object is lit will affect how it is perceived.

Attached shadows are part of an object and help define its volume, shape and surface. Abrupt changes in brightness on an object will be interpreted as a change of *plane*, whereas a steady gradient will imply a continuous surface. *Cast shadows* on the other hand are created by the interference of an object with a light source, and appear to project darkness from themselves onto another object. In this way light helps define the shape and contour of objects and their spatial position in our field of vision.

For example, the more gradual transition of *value* across the surface of the bucket in *III.9* implies a more continuous surface than do the abrupt changes of value being cast by the rim of the bucket on the bucket itself, or upon the surface on which it sits. The abrupt



Ill.9: Continuous surfaces and changes in plane direction are implied by gradual value gradients and abrupt jumps between values respectively. The Bucket Theory, Jay Senetchko, 2007, Private Collection.

contrast leaps on the bucket or ground imply shifts in plane. We know the bucket to be smooth and continuous in parts, and to have projecting surfaces in others as a result. We also know the bucket to exist on a separate plane and be distinct from the surface upon which it rests as it appears to project darkness from itself along another horizontal surface.

Light sources can take many forms, but the brightest of all possible luminaries are the sky and sun...everything else does the same basic job to a lesser degree. All light sources create *highlights* and *shadows* to some degree, and these help to orient the viewer as to the nature of the space they are viewing. Highlights and shadows aid in the definition of vertical versus horizontal planes as they separate themselves perceptually from each other, and as they do so, they help the viewer position themselves in relation to a light source.

Because of our familiarity with the position of the sun there is an expectation that realistic lighting situations involve overhead lighting, that these light sources will be stationary (because the sun transverses the sky so slowly), and that there is only one source of illumination. As a result of these preconceived notions of light sources there is a natural expectation on the part of a percipient that light sources from directions other than overhead are unnatural; that when a *highlight* changes position on an object it is interpreted as the object having moved as opposed to the light source having changed position; and that multiple light sources are to be associated with unnatural, or odd, circumstances.

David Rittenhouse (1732-1796, builder of the first telescope in the United States) noted in 1786 that we expect objects to be lit from above and will interpret them as such. Take for instance the 'muffin pan' of *III.10*. The image on the left appears to have five bumps and one dent, all lit from a consistent 'overhead' light source. The image on the right however (the same 'muffin pan' turned upside down) now shows five dents and one bump lit from the same direction. We do not reinterpret the image to account for a different light source, rather, we change the nature of the objects in an image to maintain the consistency of an expected light source.



Ill.10: The 'Muffin Pan'. Our expectation of over head lighting will cause us to interpret the image on the left as being 5 bumps and 1 dent lit from a consistent 'overhead' source, and the image on the right as being 5 dents and 1 bump lit from the same overhead source rather than an alternate light source from below.

The fact that we have such strong preconceived notions as what constitutes 'realistic' lighting opens up incredible expressive opportunities through the manipulation of light sources and intensities. Renaissance and Mannerist paintings provide good examples of realistic and unrealistic lighting effects respectively. Renaissance pictures typically have a single identifiable overhead light source illuminating their scenes, whereas Mannerist pictures are characteristically defined by their use of multiple, and often contradictory light sources.

The *Lamentation* scene by Andrea del Sarto in *III.11* provides an example of the type of logical lighting that Renaissance painting tried to create. The painting's light source is

clearly somewhere above, to the left and in front of the scene and its players. This lends a convincing sense of realistic space to the image as it corresponds with our expectations with respect to light sources. *The Vision of Saint John* by El Greco in *III.12* by contrast is full of the lighting contradictions characteristic of Mannerism. There seems to be equally strong light sources from both the upper left and upper right depending on which figure you are examining. This provides the painting with a strange surreal quality that distances it from realistic space and lends it an unnatural feeling.



Ill.11: Single, overhead light source creates a more realistic space. Lamentation over the Dead Christ, Andrea del Sarto, c. 1519-20, Kunsthistorisches Museum, Vienna.



Ill.12: Multiple and conflicting light sources create a more unnatural space. The Vision of Saint John, El Greco, c.1609-14, Metropolitan Museum of Art, New York.

It is *emotional* and *structural* effects such as these, that is of compositional interest in regards to light. There are three main uses of *value* in this respect that this chapter focuses on: the creation of *realistic depth, focus* and *directional paths,* and *emotion.* This chapter will close with a more in-depth look at how the expressive characteristics of *value* can be used to elicit desired emotional responses from audiences, but it is first to the creation of realistic space and picture structure that we must turn.

REALISTIC DEPTH

Realistic space is created through the perception of an appropriate level detail, value and colour saturation associated with objects at varying distances from the percipient (*III.13*). As mentioned in *Chapter One*, all gradients create a sense of depth, but the most effective in creating this perception are *value* gradients. As a *value* gradient gradually moves from dark to light or light to dark, the perception of a continuous recessive space is formed for the percipient. While both dark and light *values* can be associated with the *Fg* or *Bg* of an image depending on the context of the picture, darker *values* are typically

VALUE	LEVEL	TONE	DETAIL	DESCRIPTION
	Foreground And Midground	Black	High Detail	 Appears closest to camera – Foreground Set against white, creates the highest degree of contrast, and thus the highest degree of focus, and the most dramatic emotional effect
	Foreground And Midground	Dark Grey	High Detail	Typically used as a foreground tone
	Foreground And Midground	Mid-Grey	Implied Detail	• Greatest tonal range found in the midground
	Midground And Background	Light Grey	Implied Detail Silhouette Icon	 Useful density for information that must be included in composition, but that should not draw focus
	Midground and Background	White	Silhouette Or Icon	• Tones that approach white will appear furthest from the camera - Background

Ill.13: Levels of tone and detail that are typically associated with the different levels of an image.



Ill.14: Continuous spatial recession (top) versus recession via abrupt tonal shifts (bottom).

The steadiness of a gradient helps determine not only the surface being shown, but also the 'speed' at which the viewer feels as though they are moving through the created space (see Chapter One). Just as light helps to define the shape of an individual object through gradual gradations or abrupt changes in value, the perception of shape and space can also be altered by varying the steepness and continuity of a value gradient. Similarity of value between objects or areas of a picture tends to induce perceptual grouping in percipients and is a powerful tool in the creation of spatial unity and order. If there is an abrupt change in a value gradient there would be an associated perceptual leap in distance as well. As a result of this, the top image in III.14 appears to

represent a more continuous spatial recession from back to front than the bottom one. There is a seamless transition from one *value* to another in the top image which creates the impression of continuous space, while the distinct separations between *values* in the bottom image also creates distinct chunks of space. This creates a visual leap from one area to another. Both images recede, but do so in different ways.

As the distance between the position of a viewer and any object increases, the *value* and detail associated with that object decreases. Realistic *value* recession can be accentuated by associating the appropriate level of detail to objects with respect to their position within the picture. The drawing in *III.15* achieves its sense of realistic space through the use of recessive *value* along a fairly continuous gradient, decreasing levels of detail as

the image gets 'further away' from the front of the picture, as well as some implied perspective recession (noticeable *horizon line* and *vanishing points*).



Ill.15: Realistic depth created through value, detail and perspective recession. Student Work.

Focus

FOCUS AND STRUCTURE

As discussed in *Chapters One, Two* and *Four,* the *structure* of a picture is caused by the different kinds of *structural skeletons*. These are the abstract and invisible patterns that organize the distinct objects and details of a picture. Blocks of of *value,* be they *highlights* or *shadows,* are subject to *structural skeletons* just as any other perceptual category within the frame: they occupy space within a picture, they create *visual weight,* and they affect a picture's *balance.*

An object and its shadow are generally perceived as a single object in the creation of a larger overall pattern in a picture. But, objects are just shapes, and those shapes are comprised of smaller details. A very simple subdivision of a single object will separate it into two smaller basic shapes: *highlights* and *shadows*. The *highlights* and the *shadows* of a shape not only define what that shape is and how we perceive it, but they can also be thought of as objects in their own right. The *highlights* and *shadows* of a picture are referred to as *tonal blocks*. These *tonal blocks* are what are organized when aligning objects with the *structural skeleton* of a picture.