

## Module 2: "Color Theory"

### Lecture 4: "Elements of Color"

The Lecture Contains:

- Elements of Color
- Tint, Shade and Tone
- Tint
- Shade
- Tone
- Volume and Space
- Space in 2-D work
- Vertical Space

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## Module 2: "Color Theory"

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## Tint, Shade and Tone

Color in painting and design use the elements of colors- tint, shade and tone. At this stage it is necessary to explain the elements and distinguish their characteristics and properties.

## Tint

Tint- "Tint is the mixture of colors with white which increases lightness ..."



Plate 8.A. Rubens's Painting



8.B Raja Ravi Varma



8.C Product Design

Source: 8.A. [http://www.google.co.in/search?hl=en&q=rubens%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=ISG\\_T\\_SbF5DirAft8QS5CQ](http://www.google.co.in/search?hl=en&q=rubens%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=ISG_T_SbF5DirAft8QS5CQ) ; May 25, 2012

8.B. [http://www.google.co.in/search?hl=en&q=raja%20ravi%20varma%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=jyK\\_T4LfGY-0rAfQ2tDNCQ](http://www.google.co.in/search?hl=en&q=raja%20ravi%20varma%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=jyK_T4LfGY-0rAfQ2tDNCQ) ; May 25, 2012

8.C [http://www.google.co.in/search?hl=en&q=realist%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=NyO\\_T8XSI4nmrAesr\\_DICQ](http://www.google.co.in/search?hl=en&q=realist%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=NyO_T8XSI4nmrAesr_DICQ) ; May 25, 2012

Shade- "shade is the mixture of a color with black, which reduces lightness."

Tint and shade are the two opposite techniques that are used by all the designers and artists in order to create pleasing attractive appearance of the product. Based on the choice every designer would choose lighter tint or darker shade for creating the desired composition or effect. The above examples

Rubens's paintings (plate 8.A) reflect the style of Renaissance period that shows their fascination towards the soft tint and tonal variations with the help of shading. Similarly Ravi Varma's painting (plate 8.B) shows the application of tint and shade in his painting. The example of the product (plate 8.C) uses the combination of tint and shade both to create attractive appearance. The shade of silver-gray of the product and contrast of red color tint makes attractive combination. Hence the application of tint and shade with balance proportion can create better visual appeal.

The gradation of colors based on hues applied may create three dimensional effects. It produces the illusion of 3-D on a 2-D surface plane. The gradation of color is basically intends to create softer blurring effects compare to hard-edge contours.

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## Tone (light and shade)



Plate 9A Photograph



9B. Color Tone in Design



9.C Turner's Painting

Source: 9B [http://www.google.co.in/search?um=1&hl=en&biw=1272&bih=577&tbn=isch&sa=1&q=Tone+in+Design&oq=Tone+in+Design&aq=f&aqi=g1g-S1&aql=gs\\_l=img.3..0j0i24.130426.136641.0.137329.14.10.0.4.4.0.505.2327.2j1j4j2j0j1.10.0...0.0.1DT7BfPe6h0](http://www.google.co.in/search?um=1&hl=en&biw=1272&bih=577&tbn=isch&sa=1&q=Tone+in+Design&oq=Tone+in+Design&aq=f&aqi=g1g-S1&aql=gs_l=img.3..0j0i24.130426.136641.0.137329.14.10.0.4.4.0.505.2327.2j1j4j2j0j1.10.0...0.0.1DT7BfPe6h0) ; May 25, 2012

9C. [http://www.google.co.in/search?hl=en&q=turner%27s%20paintings&bav=on.2.or.r\\_gc.r\\_pw.cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=-DG\\_T7LxNlBirAepq525CQ](http://www.google.co.in/search?hl=en&q=turner%27s%20paintings&bav=on.2.or.r_gc.r_pw.cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=-DG_T7LxNlBirAepq525CQ) ; May 25, 2012

Tone is similar to tints and shades that shows the followings-

"TONE is light and dark. Light reveals, shows the world to us, and shadow gives meaning to the things we see.

TONE can give solidity, volume and weight to an image

TONE gives the impression of distance. Darker tones come forward and lighter tones go back into the image.

TONE can give emotion to an image. Highly contrasting tones give life and energy, softer tones give a gentle mood.

TONE can create rhythm, with the eyes jumping from one dark tone to another.

TONE is the property of color. Yellow is light, blue is dark.

TONE in sculpture is the way it catches the light, so that sharp changes are made by deep corners, and gentle ones by smooth gradual changes."

Hence, 'tone' has various properties that influence the qualitative difference in art and design.

Color hue and color tone are same. From one color to lighter or darker tone is the hue of colors. It helps to get soft and blurred edge compare to sharp edge. Colors in each of the above works display the soft tonal variations that are achieved through the application such colors. In a way tone is also linked to tint and shade.

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## Volume and Space

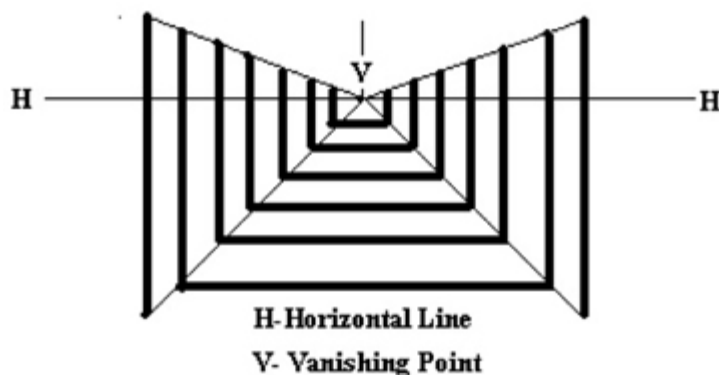


Fig.1 Linear Perspective

In order to create depth of field or volume with the help of color one has to apply tint, shade and tone. Depth of field or volume may be created with the help of line. However, if one desires to create volume and depth of field with the help of color, tint, shade and tone has to be applied in right proportion.

Creating the illusion of 3D space on a 2D surface is an important aspect in design. In 2D flat surface plane we try to create illusion of space. Perceiving space and recreating on 2D surface needs to create volume with the help of mass. In order to create a perceptual space in design, particularly in architecture, ancient Greek and Roman civilization invented principles of linear horizontal-vanishing point perspective.

"Perceptual space is the view of things at a particular time and from a fixed position. This is the stationary window view recorded by the camera and represented in the later periods of ancient Greek and Roman paintings and in most Western schools of painting since the Renaissance. Illusions of perceptual space are generally created by use of the linear perspectival system, based on the observations that objects appear to the eye to shrink and parallel lines and planes to converge as they approach the horizon, or viewer's eye level."

Ref. <http://www.britannica.com/EBchecked/topic/438588/painting/60793/Volume-and-space> ; May 25, 2012

## Mass (or volume)



Plate 11.A. Michelangelo



11.B Rubens



11.C Picasso

Source:

11.A [http://www.google.co.in/search?hl=en&q=michelangelo%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-](http://www.google.co.in/search?hl=en&q=michelangelo%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-)

[8&tbn=isch&source=og&sa=N&tab=wi&ei=e2XAT7qPEcH5rAfUhK2vCQ](http://www.google.co.in/search?hl=en&q=rubens&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=e2XAT7qPEcH5rAfUhK2vCQ) ; May 26, 2012

11.B. [http://www.google.co.in/search?](http://www.google.co.in/search?hl=en&q=rubens&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=D2bAT_CNHonUrQe8q8DQCQ)

[hl=en&q=rubens&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-](http://www.google.co.in/search?hl=en&q=rubens&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=D2bAT_CNHonUrQe8q8DQCQ)

[8&tbn=isch&source=og&sa=N&tab=wi&ei=D2bAT\\_CNHonUrQe8q8DQCQ](http://www.google.co.in/search?hl=en&q=rubens&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=D2bAT_CNHonUrQe8q8DQCQ) ; May 26, 2012

11.C [http://www.google.co.in/search?](http://www.google.co.in/search?hl=en&q=picasso%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=4WbAT_a-LMG4rAfJrvm5CQ)

[hl=en&q=picasso%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-](http://www.google.co.in/search?hl=en&q=picasso%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=4WbAT_a-LMG4rAfJrvm5CQ)

[8&tbn=isch&source=og&sa=N&tab=wi&ei=4WbAT\\_a-LMG4rAfJrvm5CQ](http://www.google.co.in/search?hl=en&q=picasso%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=4WbAT_a-LMG4rAfJrvm5CQ) ; May 26, 2012

The above are the excellent examples of creating volume and depth of field with the help of color tint, shade and volume along with other principles of perspective. The above three 2D paintings (plate 11 A,B & C) by the great masters show the use of technique of foreshortening that helped to create the linear perspective in 2D space. Foreshortening is the fundamental technique in creating illusion of 3D space on a 2D surface plane. Along with the principles of perspective artists have applied tint, shade and tone to create the desired balance of mass and void to create volume. Thus volume has helped to create the illusion of depth of field (3D).

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## Space in 2-D work (positive or negative space)

In 2D surface one can create space with the help of negative and positive images. The moment any space is filled with any form (plate 12.C) it tends to suggest the spatial relationship, negative or positive.

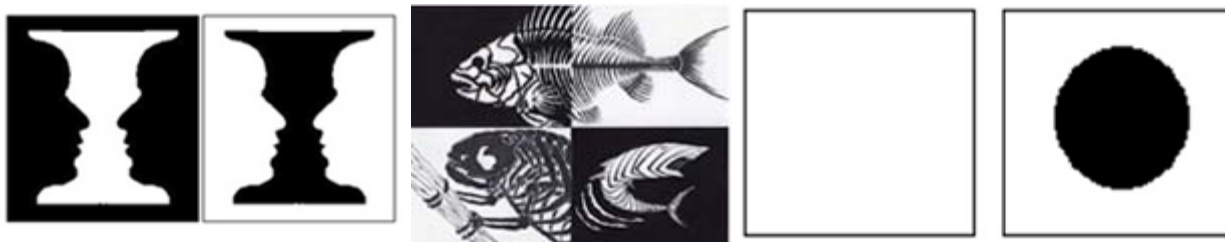


Plate12. A, B &amp; Positive and Negative Space on 2D Surface

Plate12 C Filled space with form



Plate13. A &amp; B Positive &amp; Negative Space on 2D surface

Source:

12.A&B. [http://www.google.co.in/search?hl=en&q=Positive%20%26%20Negative%20space%20in%20d%20design&bav=on.2.or.r\\_gc.\\_r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=vly\\_T7T8NobVrQeenp2vCQ](http://www.google.co.in/search?hl=en&q=Positive%20%26%20Negative%20space%20in%20d%20design&bav=on.2.or.r_gc._r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=vly_T7T8NobVrQeenp2vCQ) ; May 25, 2012

Therefore, in order to create space on 2D surface plane one may apply suitable techniques. To create 2D design space for Web Design the above techniques are popularly implied. The positive and negative space composition on 2D surface has emerged from the Minimalist Design philosophy (Plates13A&B).



Plate 14 Positive &amp; Negative Space in Web Design

Source: [http://www.google.co.in/search?hl=en&q=Positive%20%26%20Negative%20space%20in%20Web%20Design&bav=on.2.or.r\\_gc.\\_r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=5GS\\_T7rNE4TVrQfl6pCvCQ](http://www.google.co.in/search?hl=en&q=Positive%20%26%20Negative%20space%20in%20Web%20Design&bav=on.2.or.r_gc._r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=5GS_T7rNE4TVrQfl6pCvCQ) ; May 25, 2012

file:///E:/color\_in\_design/lecture4/4\_5.htm[8/17/2012 1:33:03 PM]

Space can be created in the following ways-

Following are examples of linear perspective used in creating space on 2D surface plane.

Vanishing point based space (horizontal)



Plate15. Henry Matisse's Paintings

Source: [http://www.google.co.in/search?](http://www.google.co.in/search?hl=en&q=matisse%27s%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=hnC_T4a2L8rIrQe3_ZDTCQ)

[hl=en&q=matisse%27s%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=](http://www.google.co.in/search?hl=en&q=matisse%27s%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=hnC_T4a2L8rIrQe3_ZDTCQ)

[1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=hnC\\_T4a2L8rIrQe3\\_ZDTCQ](http://www.google.co.in/search?hl=en&q=matisse%27s%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbn=isch&source=og&sa=N&tab=wi&ei=hnC_T4a2L8rIrQe3_ZDTCQ) ; May 25, 2012

Henry Matisse (Plate15) in his paintings in general applied flat color instead of tonal variations. Colors create interesting contrast in term of primary and secondary color combinations. Blue-Orange, Green-Red, etc combinations create dominant contrast rather than Renaissance soft tint and tonal variations to create 3D space on 2D surface plane.

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## Vertical Space

Similarly illusion of space can be created on 2D surface plane (Plate16A) through vertical arrangement of the composition. Around the world traditional art has dominantly applied such arrangements. The examples bellow from various traditional cultures have applied such arrangements. Vertically the objects are arranged like ladder-steps (Plates16B&C). The objects arranged in the foregrounds are closer and vertically higher up objects arranged are positioned away from towards the horizontal plane.



Plate16 A. Chinese Scroll



16 B. Indian Miniature



16. C Egyptian Mural Painting

Source:

16.A. [http://www.google.co.in/search?um=1&hl=en&biw=1272&bih=577&tbm=isch&sa=1&q=traditional+chinese+landscape+paintings&og=Traditional+chinese+landscape+paintings&aq=0S&aqi=g-S1&aql=&gs\\_l=img.1.0.0i24.40120.48526.0.50282.9.9.0.0.0.0.257.1659.2j3j4.9.0...0.0.QEtuYPgDDvs](http://www.google.co.in/search?um=1&hl=en&biw=1272&bih=577&tbm=isch&sa=1&q=traditional+chinese+landscape+paintings&og=Traditional+chinese+landscape+paintings&aq=0S&aqi=g-S1&aql=&gs_l=img.1.0.0i24.40120.48526.0.50282.9.9.0.0.0.0.257.1659.2j3j4.9.0...0.0.QEtuYPgDDvs) ; May 25, 2012

16B. [http://www.google.co.in/search?hl=en&q=rajput%20miniature%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=JHm\\_T7rel8bqrQfjtsHWCQ](http://www.google.co.in/search?hl=en&q=rajput%20miniature%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=JHm_T7rel8bqrQfjtsHWCQ) ; May 25, 2012

16C. [http://www.google.co.in/search?hl=en&q=egyptian%20mural%20painting&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=3Xm\\_T7rcFY\\_JrAfH2PXHCQ](http://www.google.co.in/search?hl=en&q=egyptian%20mural%20painting&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=3Xm_T7rcFY_JrAfH2PXHCQ) ; May 25, 2012

Traditional art work followed the 'vertical perspective' leading towards a different space realization. Child Art produces similar innocence towards spatial concept. In most cases the comparative proportion and vanishing line based (horizontal) perspective is not realized.

## 1. Overlapping objects may create space

17. A Paul Cezanne,  
1890-9217.B Amravati Stupa  
2<sup>nd</sup> C AD17.C Rajput Miniature Painting,  
1550 AD

Source:

17.A. [http://www.google.co.in/search?hl=en&q=paul%20cezanne%20paintings&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=8m3AT9DIIIarrAeSkdHICQ](http://www.google.co.in/search?hl=en&q=paul%20cezanne%20paintings&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=8m3AT9DIIIarrAeSkdHICQ) ; May 26, 2012

17.B. [http://www.google.co.in/search?hl=en&q=stupa%20amaravati%20relief&bav=on.2.or.r\\_gc.r\\_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=8m3AT9DIIIarrAeSkdHICQ](http://www.google.co.in/search?hl=en&q=stupa%20amaravati%20relief&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=8m3AT9DIIIarrAeSkdHICQ) ; May 26, 2012



[8&tbm=isch&source=og&sa=N&tab=wi&ei=t2rAT9WvFlanrAf-aTbCQ](http://www.google.co.in/search?hl=en&q=rajput%20miniature%20paintings&bav=on.2.or.r_gc.r_pw.cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=t2rAT9WvFlanrAf-aTbCQ) ; May 26, 2012

17.C [http://www.google.co.in/search?](http://www.google.co.in/search?hl=en&q=rajput%20miniature%20paintings&bav=on.2.or.r_gc.r_pw.cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=KG7AT6fXMIb5rQecy7HRCQ)

[hl=en&q=rajput%20miniature%20paintings&bav=on.2.or.r\\_gc.r\\_pw.cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=KG7AT6fXMIb5rQecy7HRCQ](http://www.google.co.in/search?hl=en&q=rajput%20miniature%20paintings&bav=on.2.or.r_gc.r_pw.cf.osb&biw=1272&bih=577&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=KG7AT6fXMIb5rQecy7HRCQ) ; May 26, 2012

Paul Cezanne's painting (plate 17.A) composition rear the standing figure is overlapped by the frontal three figures. The overlapping of the front figures creating the depth of field. Three figures are seated in a triangle which is also helping to create the depth of field. Similarly The Amravati Stupa (17.B) relief sculpture composition shows number figures overlapped by frontal figures and created the depth of field. The Rajput Painting (17.C) of 1550 AD has number of figures in the forefront overlapping the rear figures creating the depth of field and 3D dimension.

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