1- Course title - Introduction to Visual Art (Practice)
2- Course Code - TEXD-5107
3- Program name - B- Textile
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5- Semester - 2nd
6- Instructor - Shumaila Islam

## Ostwald Color Theory

## Basic Function of Theory

The Ostwald system creates a color space based on dominant wavelength, purity, and luminance, mapping the values of hue, saturation and brightness.


## Wavelength

- Wavelength: the distance between continual peaks of a wave, especially points in a sound wave or electromagnetic wave.



## Hue

In painting color theory, a hue is a pure pigment-one without tint or shade (added white or black pigment, respectively).


## Value

Value is defined as
the relative lightness or darkness of a color.

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TINT = pure hue + white
TONE = pure hue + grey
SHADE = pure hue + black
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## Saturation

Color saturation refers to the intensity of color in an image.

## Color Testing Step 1

Establishing the values for these parameters is done with a disc colorimeter which mixes on a disk amounts of the pure spectral color at the dominant wavelength with white, and black.


## Color Testing: Step 2

Thus the point in the Ostwald color space is represented by values $C, W$, and $B$ to represent the percentages of the circle. The full colors are arranged around a complete circle starts out with four basic colors: yellow to the north; red to the east; blue to the south; and sea-green to the west.


## Color Testing: Step 3

With these eight colors, Ostwald constructs 24 color-hues with equal spacing and numbers them from yellow upwards, arranging them into a circle.


## Who was Ostwald?

Ostwald was a German chemist born in Latvia in 1853 who received the Nobel Prize for Chemistry in 1909. Also a keen self taught painter, he combined his knowledge of chemistry to study pigments and the stability of painting materials. After a meeting with Albert H. Munsell and the Munsell's 'color atlas', Ostwald pursued color theory and was inspired to develop his own color classification system.


## Ostwald Theory

- According to Ostwald there were three groups or classes of colors. The first group consisted of neutral colors; those which do not contain color and are made only from black and white. The second group are pure 'full colors', and which contain no black or white. The third group contain mixed colors, combinations of colors with black and/or white. Ostwald identified that all of these groups had at their core four basic hues: yellow, red, blue and sea green. Four further hues - when placed in between the core hues - created orange (between yellow and red), purple (between red and blue), turquoise (between blue and sea green), and leaf green (between sea green and yellow). Finally, two further hues between these colors, created a circle of 24 evenly spaced color.


## Artist Adopted the Ostwald Color Theory

- Ostwald's ideas about colour standards were enthusiastically received by the Dutch group of artists, De Stijl (which included Piet Mondrian) in the 1920s, who read (and reviewed in their 1918 journal) Ostwald's 'The Color Primer' and were heavily invested in notions of geometry. De Stijl was a movement which went on to influence the Bauhaus, founded in 1919, two years after De Stijl group.


## Contributions to Art World

- Between 1926-27 Ostwald delivered lectures in colour at the Bauhaus in Dessau, and Walter Gropius' wife, Ise Gropius, recorded on 12th June 1927, that Ostwald was giving daily talks which were well received, with Bauhaus pupils praising Ostwald's vitality - the manuscripts of which are still available in Ostwald's written estate.
- Ostwald died in 1932, the year before the Bauhaus was closed by the Nazis, who considered this a centre for 'degenerate art'. As artists fled Europe, they continued to disseminate the Bauhaus philosophy across the world, with many, including Josef and Anni Albers and Mondrian, finding refuge in America where ideas about colour and materiality would become central to a new generation.
- Ostwald’s ‘Color Harmony Index' was published in 1942 and consisted of 12 handbooks containing 680 colour chips and showing the full range of complementary hues. Modified editions were released, and its fourth edition was published in 1958 and sold until 1972, when it went out of print.


## Class Activity: Online Testing

- The X-Rite Color Challenge and Hue Test
- Are you among the 1 in 255 women and 1 in 12 men who have some form of color vision deficiency? If you work in a field where color is important, or you're just curious about your color IQ, take our online challenge to find out. Based on the Farnsworth Munsell 100 Hue Test, this online challenge is a fun, quick way to better understand your color vision acuity.
- https://www.xrite.com/hue-test


## Week Assignment

- Exploration of Tints and Shades.
- Write any 2 Names of Allah in Calligraphic form using straight and curvilinear shapes.
- Apply shades of color in one and tints of any one color in other.
- Medium: Available
- Surface: Available
- Size: A4

Thank You

