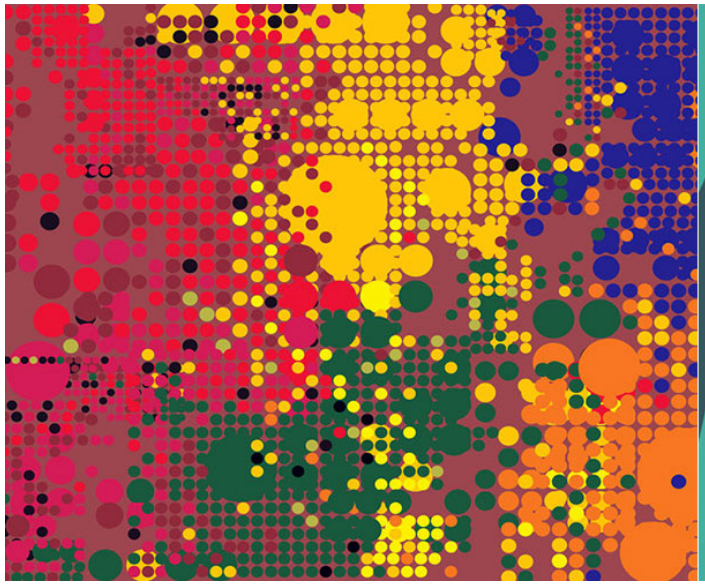
Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/introduction

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Introduction

The course is explorative in nature and teaches the fundamentals of colour, relationship between colour and form, colour interactions, colour composition etc. The course is taught within the Design framework.

The topics covered under this course are outlined below:
• Colour Manipulation
• Colour Wheel
• Colour Contrast
• Colour space
• Relationship between Colour and culture
• The psychology of Colour
• Colour Effects
• Colour Harmony

The course involves lectures, suggested reading, exercises and few small applied research assignments. The students will learn how to use colour and form in the context of design.

Colour Basic:
• The colour imparted by an object is produced by the mixture of wavelengths reflected from the surface.
• The perception of the colour of an object is dependent upon various factors as illumination, media, techniques, quantity, relationship to other colours present, memory and culture.

Colour Mixing and Colour Wheels:
Colour mixing happens according to three different systems:
• Subtractive colour is the process of mixing pigments together as is seen in paintings.
• Additive colour is the process of mixing coloured light as in theatrical lighting or television.
• The partitive colour system is based on the viewer's reaction to colours when they are placed next to each other. Normally colours are seen in relation to other colours rather than in isolation.

Colour wheels are arrangements or structures that enable the viewer/perceiver to organize and predict colour reactions and interactions. Specific colour wheel choice depends on the effects of colour and imagery desired in the art medium employed. The painter uses both the subtractive and partitive wheels. The photographer uses the additive and partitive wheels.

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/introduction

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Types:

• **Pigment Wheel:**
The mixing or pigment wheel is the basis for working with subtractive colour; it imparts information about the reactions colours have when they are actually mixed. In this system the primary colours are red, yellow, and blue, which are used in combination to form the oter hues.

• **Process Wheel:**
The process wheel provides us with three basic primaries- yellow, magenta, and cyan and when these are mixed purer hues are created.

• **Partitive Colour System:**
The partitive colour system (known as Munshell wheel) is based on five primary hues or as they are known as five principal colours-yellow, red, green, blue, and purple.

• **Light Wheel:**
The light wheel system is based on the additive colour system and provides information concerning light rays and transparent colour. In this system the primary colours are red, green, and blue. Other hues are created by combining the primary colours which are basically coloured light.

Hue:
The most important dimension of colour is hue. **Hue** is simply the kind or name of a colour. A hue without any white, black, gray, or any complementary colour in it is termed a pure hue. The hue name is the term used to describe a particular wavelength. A broken hue, or a broken colour, is a combination of unequal proportions of all the primary colours. Primary, secondary, and tertiary hues create different visual reactions when used. The primary hues attract the eyes; they are the most stable; most easily recognizable; and they offer the greatest contrast. Secondary hues are less stable than primary hues and are compatible with other colours. Tertiary colours are the least stable of the hues and they impart the least contrast. Hue dominance imparts tonality.

Value:
Value refers to the lightness or darkness of a hue. Value creates space, turns shape into form, and delineates objects. Value clarifies space and form through shading, creating pattern and texture, imparting emotion, and giving definition and emphasis. Different values create contrast. A composition of few hues but with a wide range of values is always visually appealing.

Intensity:
Intensity, also known as saturation, defines the degree of purity of a hue, or, termed differently, how bright or how dull a hue is. All pure hues are fully saturated. Pure hues are the brightest possible. Intensity affects spatial

Design Course

Colour and Form - I

The Fundamentals of Colour

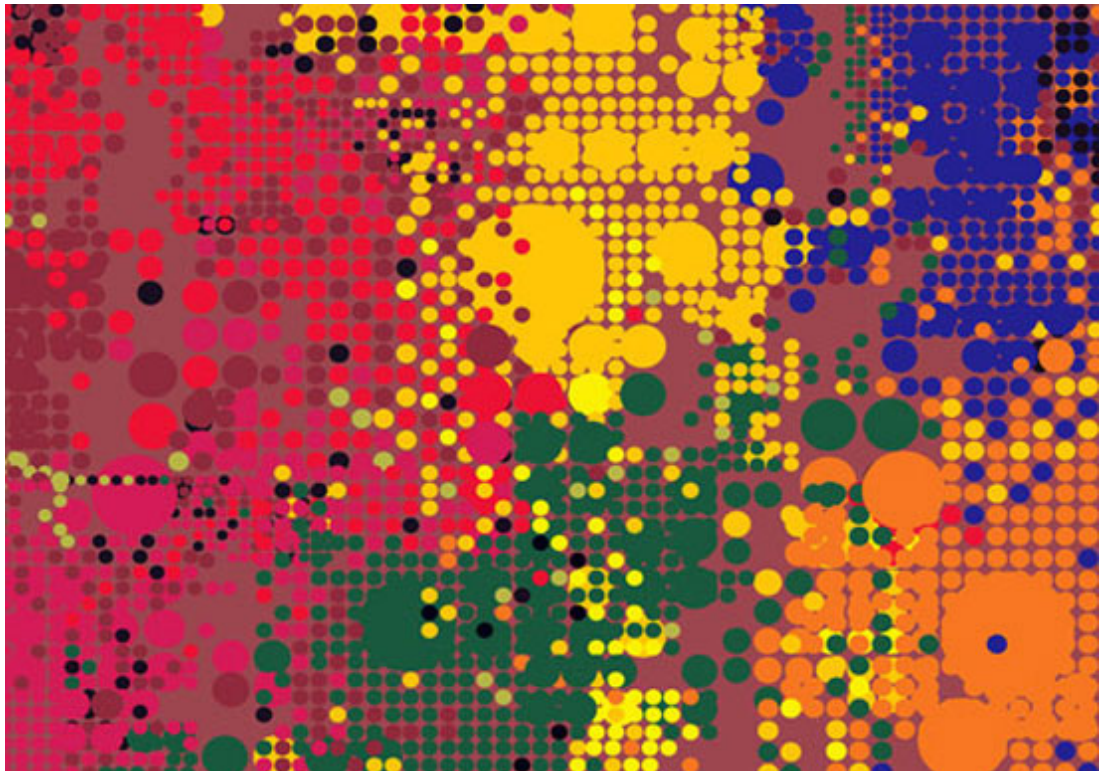
by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/introduction

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

feelings.

Temperature:
Temperature refers to the warmth or coolness of a colour/ hue. Warm hues are those hues related to red and cool hues are those which are related to blue. A colour or hue's temperature changes depending on the warmth or coolness of the adjacent hues and colours. The addition of black will warm a hue, white will cool a hue, and the addition of the hue's complementary will reverse the temperature.



Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/nature

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Nature

Exercise - 1:

From Nature's Palette:
A Study and replication of colours found in nature.

Duration:
1/2 day, Individual exercise

Objective:
To enhance sensitivity and observation.

Mode:
- Collect three-four samples of flora/fauna in the campus.
- Cut cartridge sheets in to A-5 size.
- Observe as many colours as seen on the flora/fauna by the naked eye.
- Each colour has to be reproduced and should be painted on an A-5 sheet.

Materials:
Flora/fauna in the campus, cartridge sheet, poster colours, brushes.

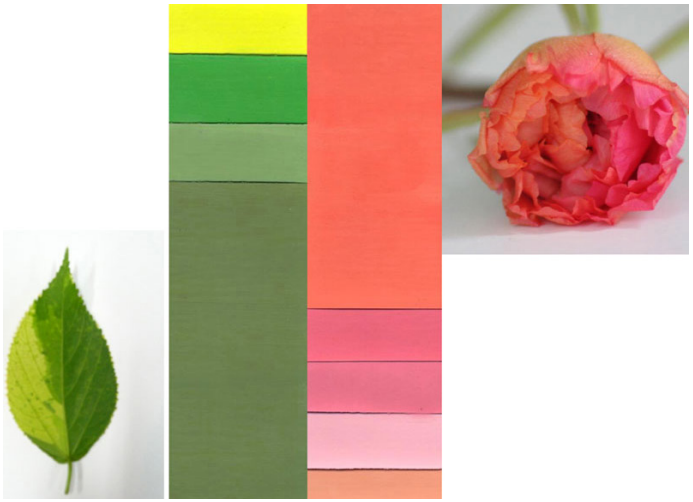
Discussion in the Class:
Colour Harmony, The Colour Wheel, Primary, Secondary & Tertiary Colours.

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/nature

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/nature

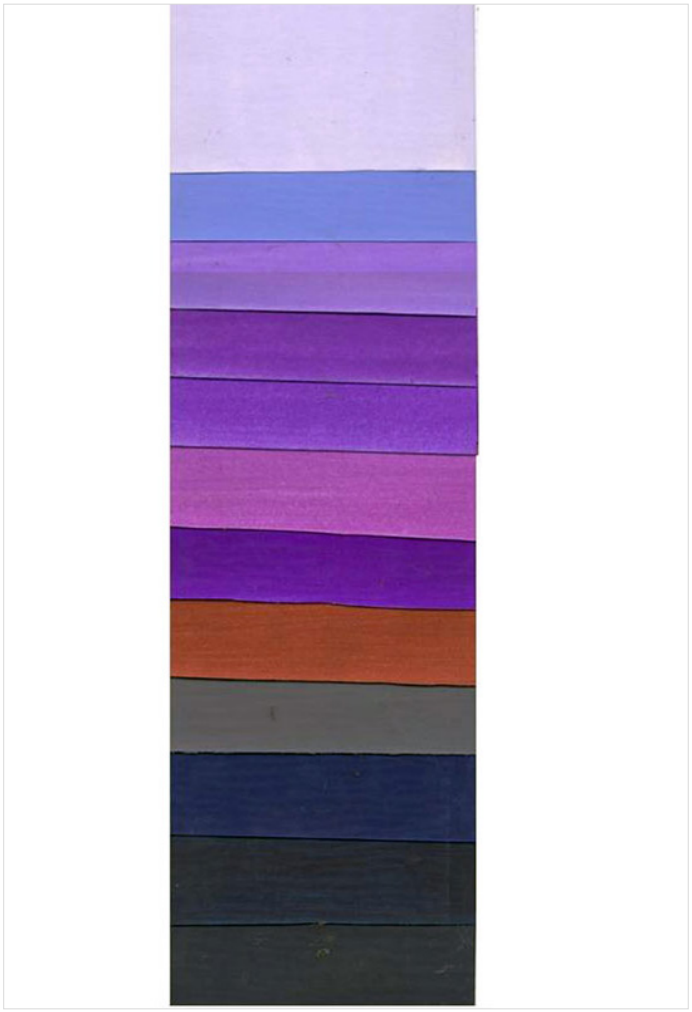
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/nature

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/colour-gradation

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Colour Gradation

Exercise - 2:

Colour Gradation:

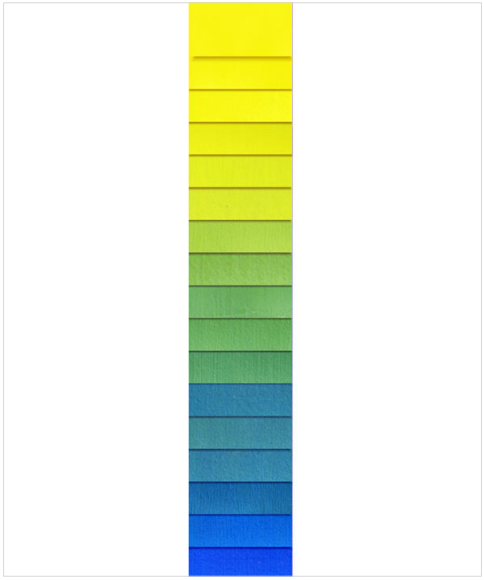
Duration:
1/2 day, Individual exercise

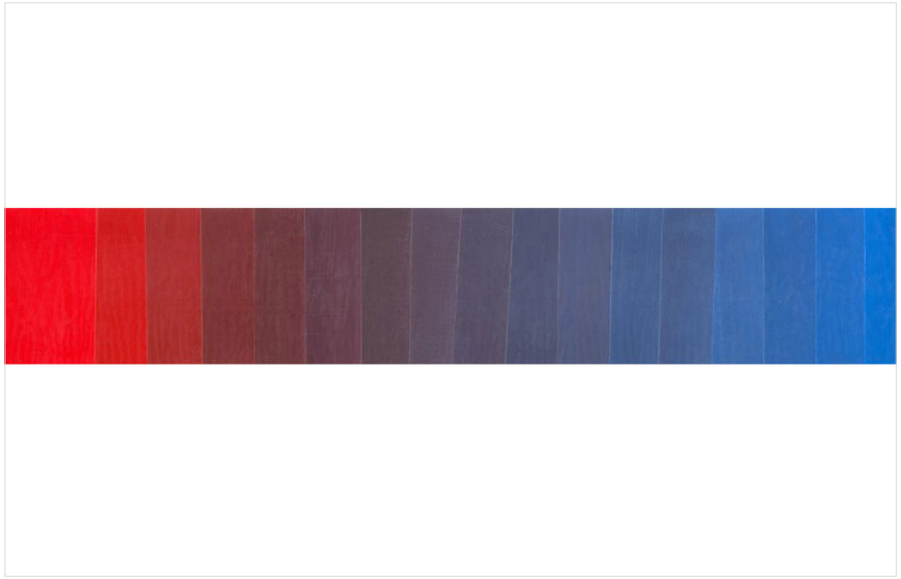
Objective:
To increase the response threshold of the observer.

Mode:
Select two hues and by mixing one into the other create a gradation.

Materials:
Poster Paints (any 2 colours), brush and paper.

Discussion in the Class:
Simultaneous contrast, after image.



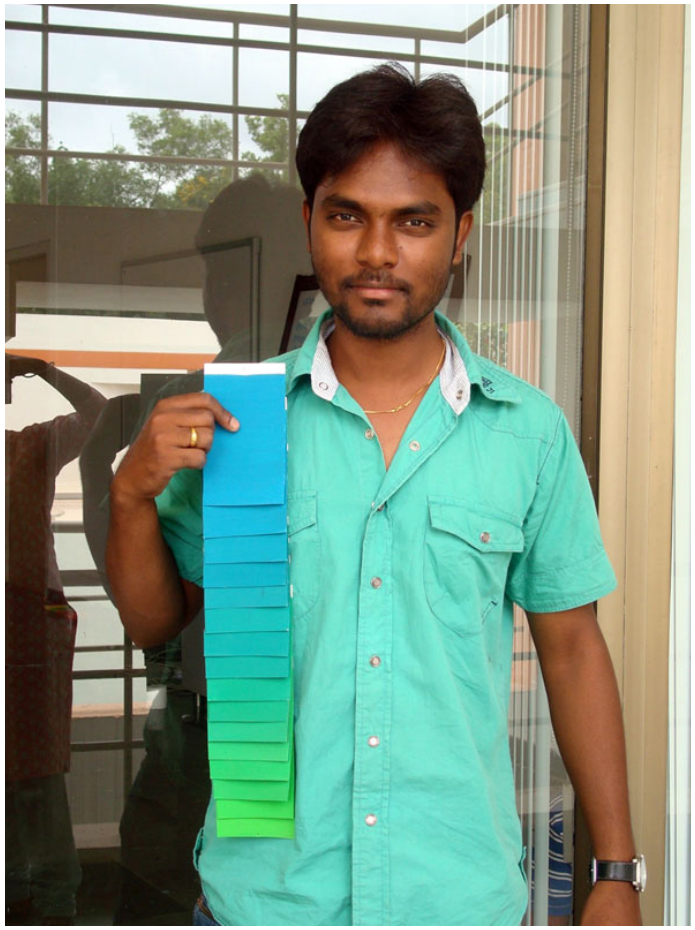


Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/colour-gradation

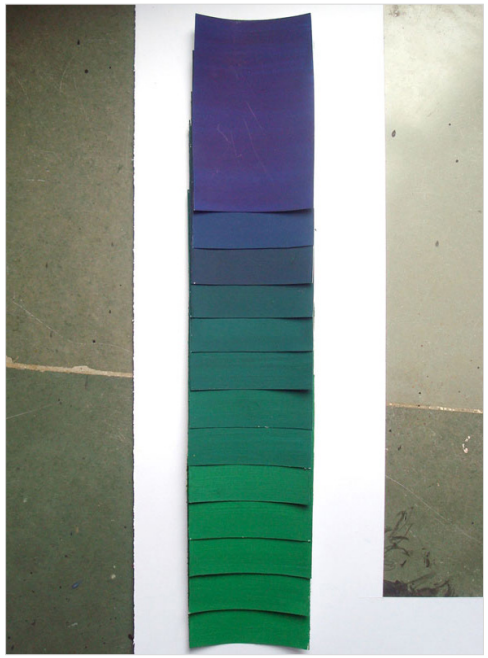
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

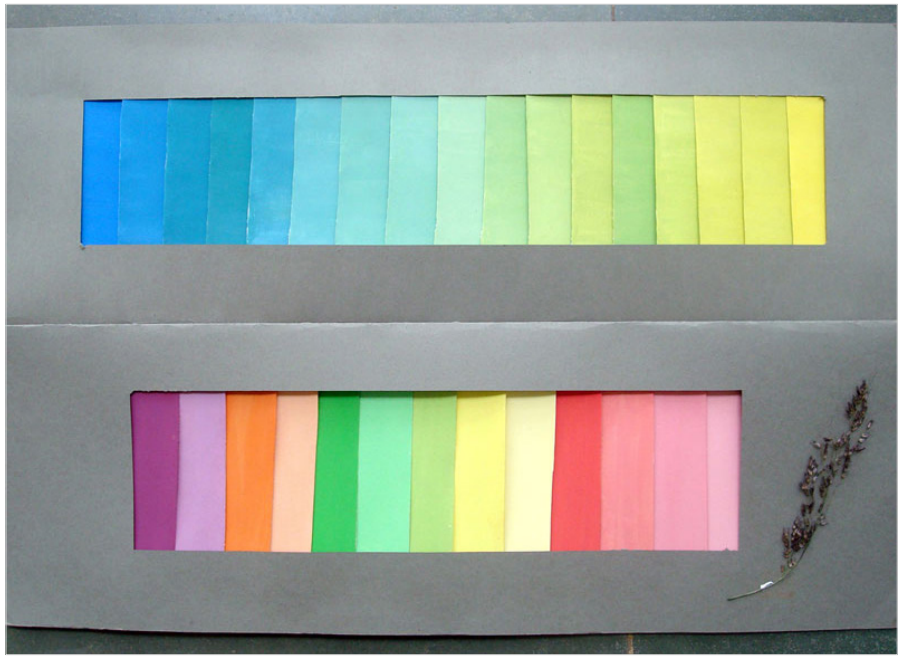
Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru





Source:
https://www.dsource.in/course/colour-and-form-i/colour-gradation

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/collage

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Collage

Exercise - 3:

Collage:

Duration:
2 days, Individual exercise

Objective:
To make a composition in Colour

Mode:
- Select a colour from the 11colour cultural set.
  Namely: white, red, black, yellow, green, blue, orange, purple, pink, brown and grey.

- Collect snippets of the colour from magazines, newspapers or any other coloured paper medium. Arrange the snippets in a gradation from light to dark and cut them into 4 rectangles.

- Mount the 4 rectangles on a cardboard/ sheet of paper painted in a middle tone of the gradation.

- Make sure to leave a margin of 2 cms on all sides and 1 cm gaps between the rectangles.

Materials:
Poster paints, brushes, coloured paper from scrap.

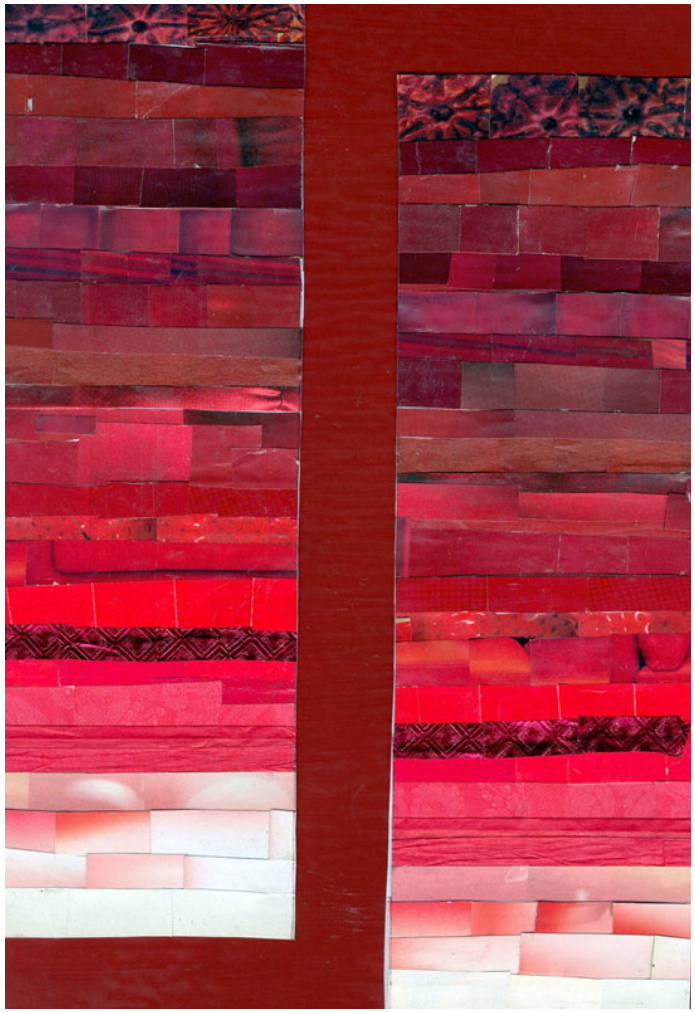
Discussion in the Class:
11 colour cultural set, colour and culture, colour interaction.

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/collage

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by

Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/collage

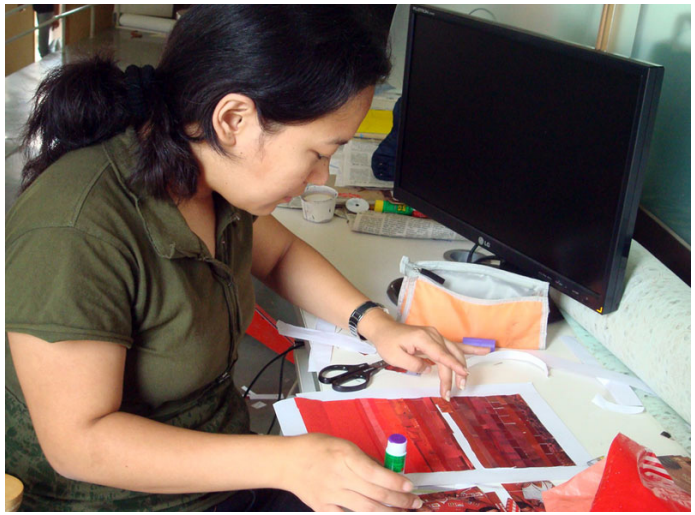
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

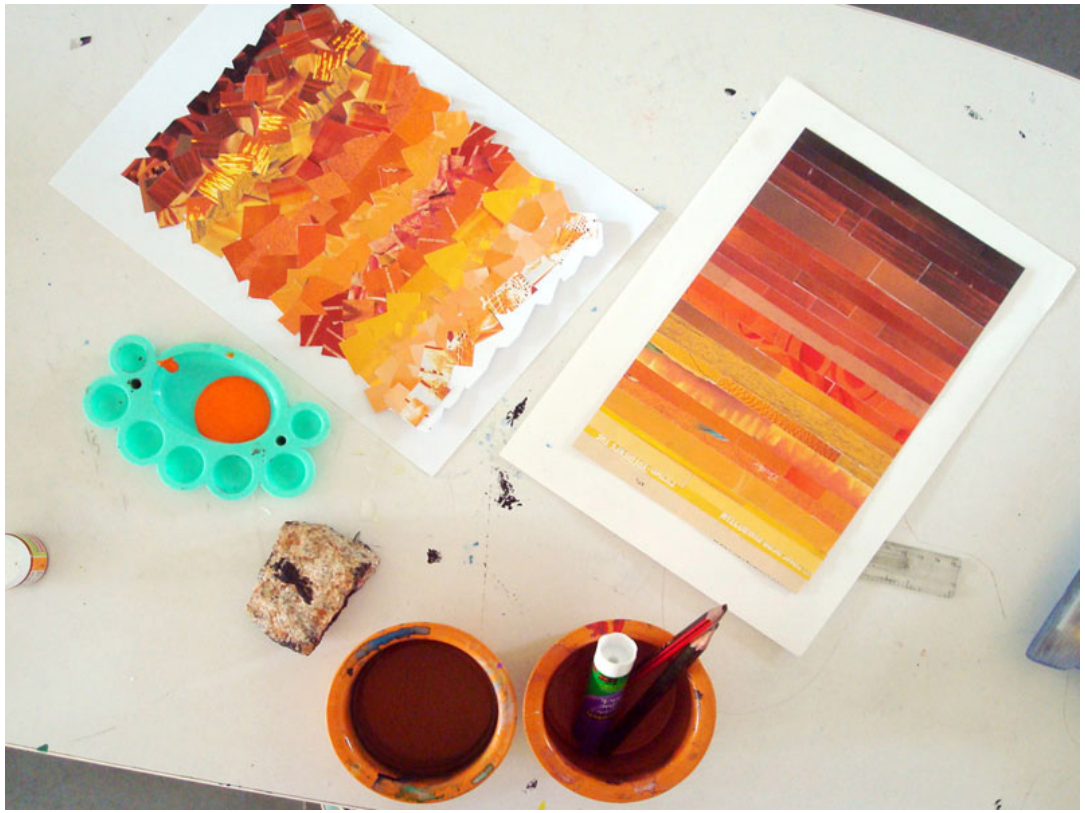
The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/collage

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details



Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/collage

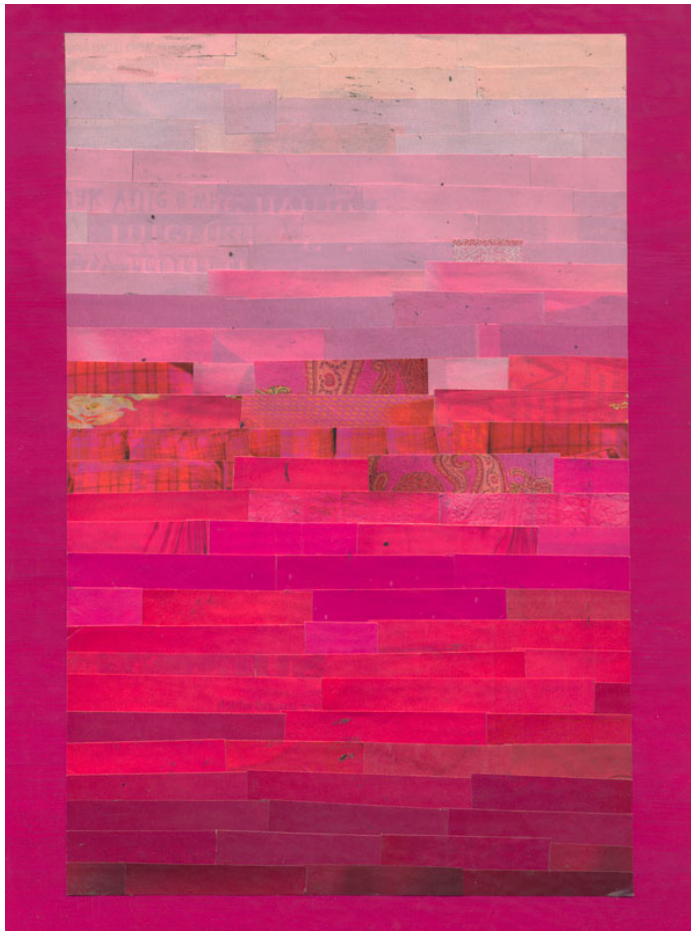
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

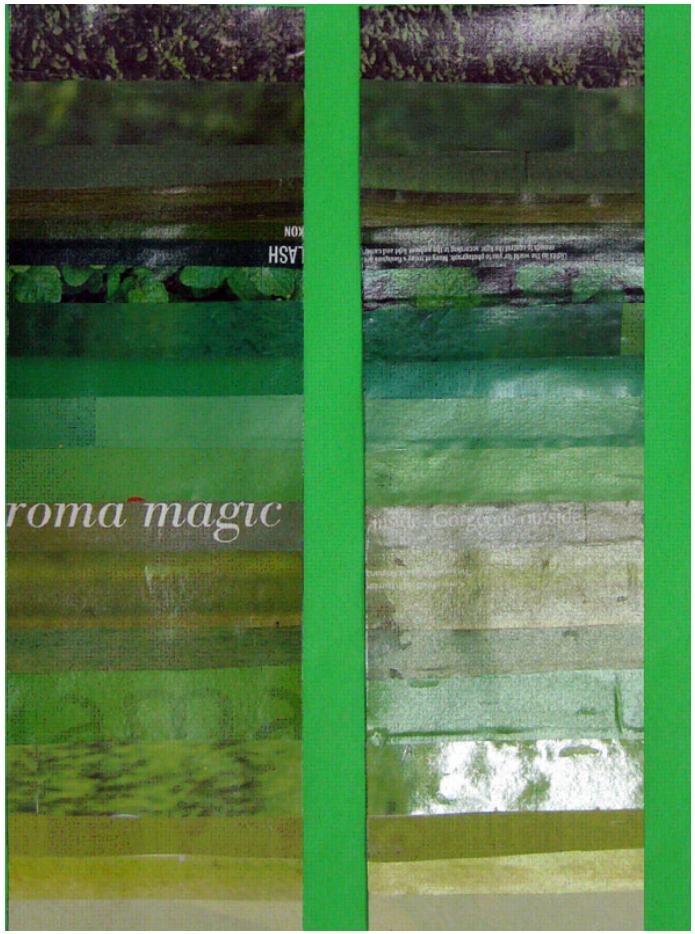
Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru





Source:
https://www.dsource.in/course/colour-and-form-i/collage

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/colour-interaction

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Colour Interaction

Exercise - 4:

Colour Interaction:

Duration:
1 day, Individual exercise

Objective:
An exciting exercise, it simultaneously exposes the student to three most important phenomena of Optical mixture, Colour interaction and Bezold effect. It also fine tunes the student's composition making capabilities.

Mode:
• Make a composition using colored paper as background and 2 differently coloured strips.
• Make the same composition as above by replacing 1 of the 2 used colours in the first compostion with a different hued strip.
Or
• By changing the colour of the background paper.

Materials:
Satin ribbons or coloured paper strips, glue, coloured paper.

Discussion in the Class:
Impressionism, Optical Mixture, Bezold Effect.

Observation:
Observing the discussion in the class it was very evident that the exercise provided an excellent opportunity of collective learning as the work of each student demonstrated atleast two of the three above mentioned phenomena.

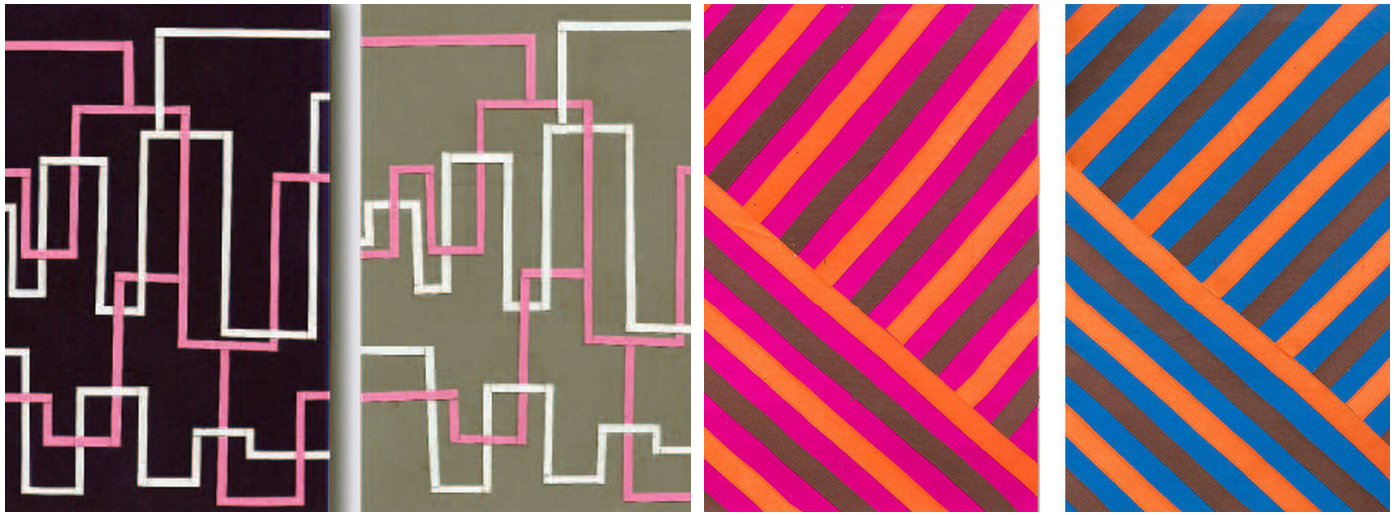
As the coloured paper available in the market is in limited shades the alternative to the pre painted coloured paper provided by the studio was that the student could use poster colours and paint the background on their own. The coloured background paper provided by the NID-Asian Paints Colour Research Studio reduced the time taken doing the exercise and eliminated the errors made due to skill in painting.

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/colour-interaction

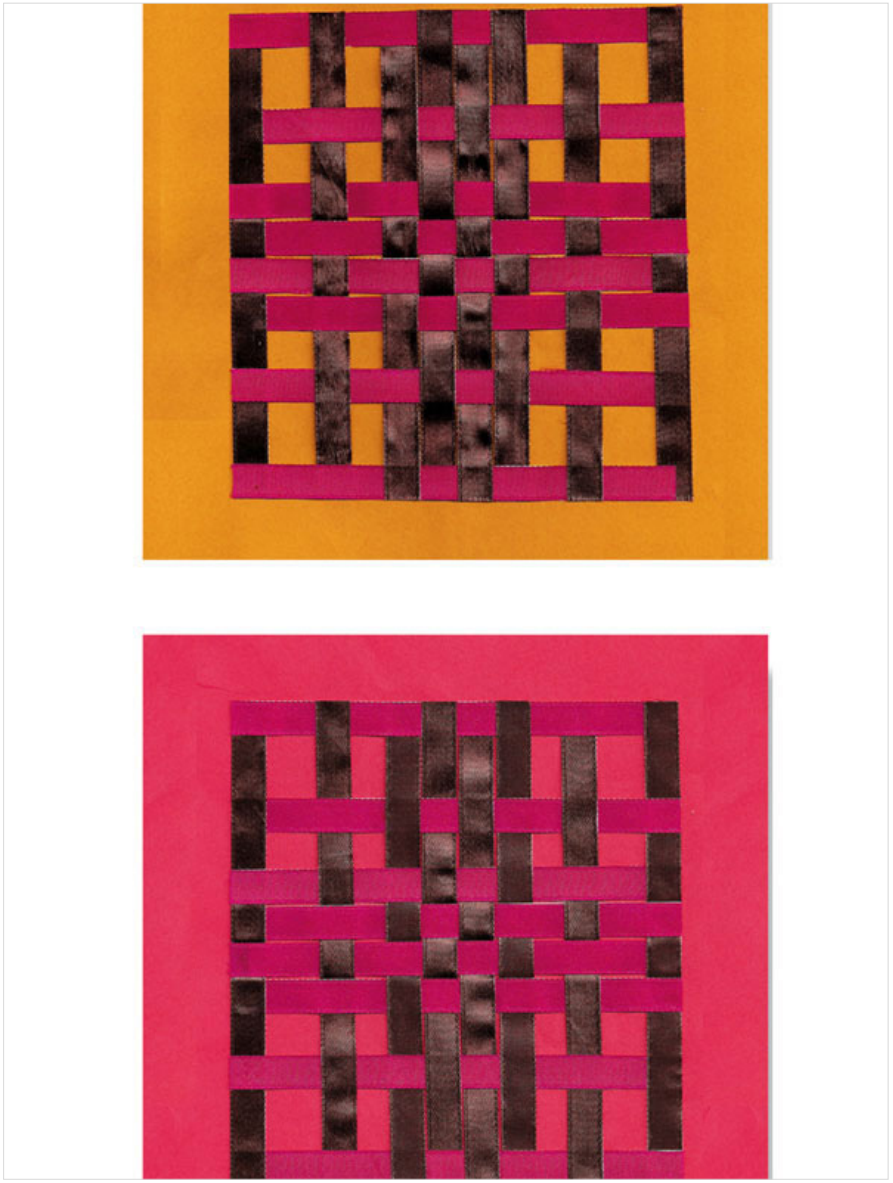
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/colour-interaction

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Street Exercise

Exercise-5:

Pulse of a Street:

Duration:
2 day, Group exercise

Objective:
Colour inspirations can come from the most unexpected places and can be derived from various sources both internal and external. To equip the learner with a "colour inspiration tool", the exercise entailed the students to experience a culturally rich space, capture it through photographs and cull it out in key emotions, words and images. In the final stage a colour palette for each space was made.

Mode:
• Study any of the below listed "**public space**" having a coherent character.
For eg. a street (residential or commercial), a temple complex, institutional complex and capture the essence of that space in a collage (photographs, material samples, any other interesting materials).

• The exercise started with the students making a field visit in a group of 3-4 to an iconic street in the city and capturing the energy of the space in photographs.

• Brainstorm with the group on the qualities of the space and come up with 4-5 keywords that are the "**emotional quotient**" of the space.

• From the photographs clicked select 10-15 images that most appropriately describe the place.

• From these 10-15 selected images derive a colour palette of 8-12 palette/ family reflecting the essence of that space.

• From this stage on the students work independently on a composition. The theme being one of the keywords selected for the space, using the final colour palette.

Materials:
Camera, Printouts.

Design Course

Colour and Form - I

The Fundamentals of Colour

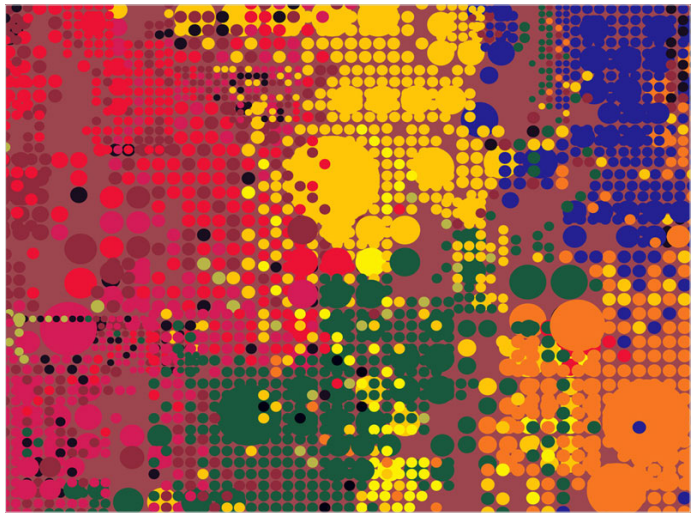
by
Ms. Nijoo Dubey
NID, Bengaluru

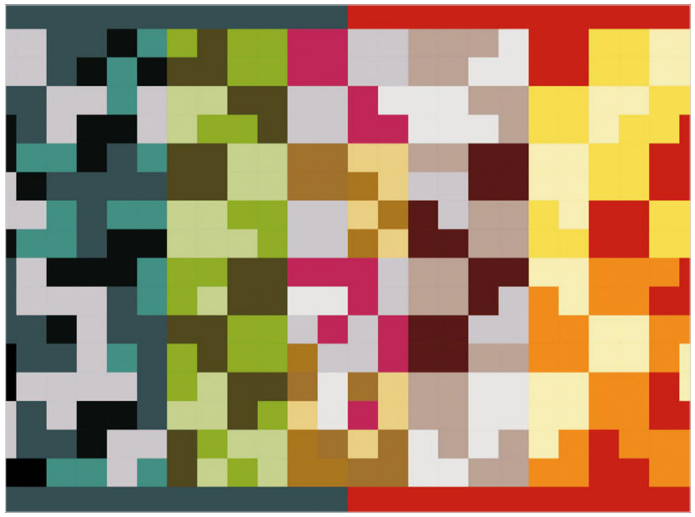
Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

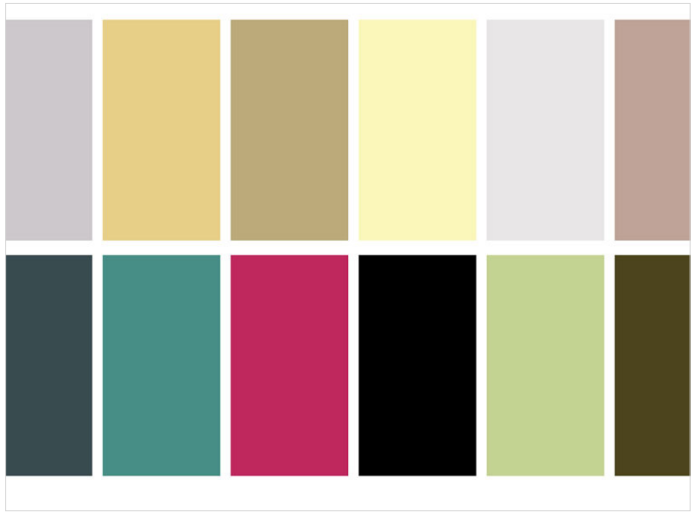
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

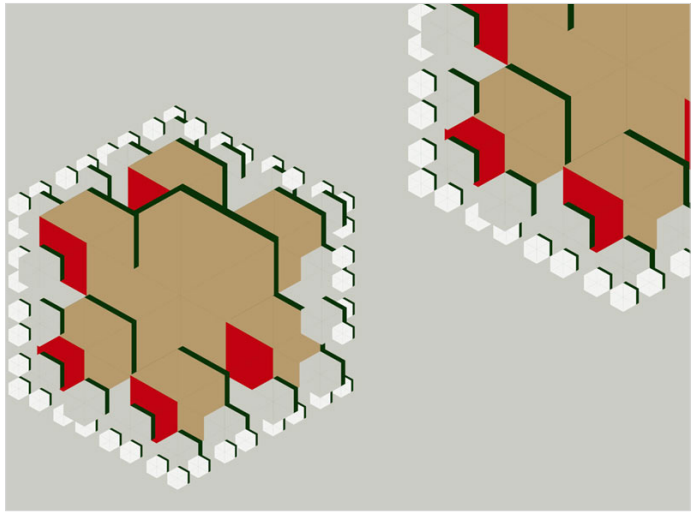
Discussion in the Class:
Gestalt's principles of composition, colour harmony, colour and emotion.

Note:
The number of colours in a palette is kept on the higher side to give the students enough freedom to choose their combinations.







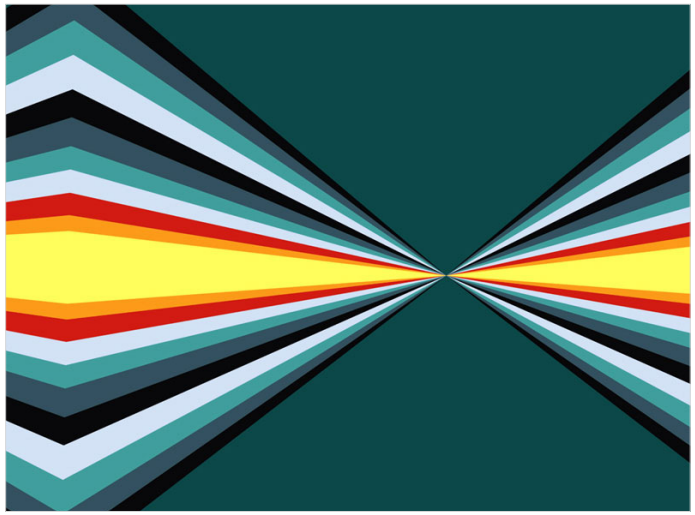


Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

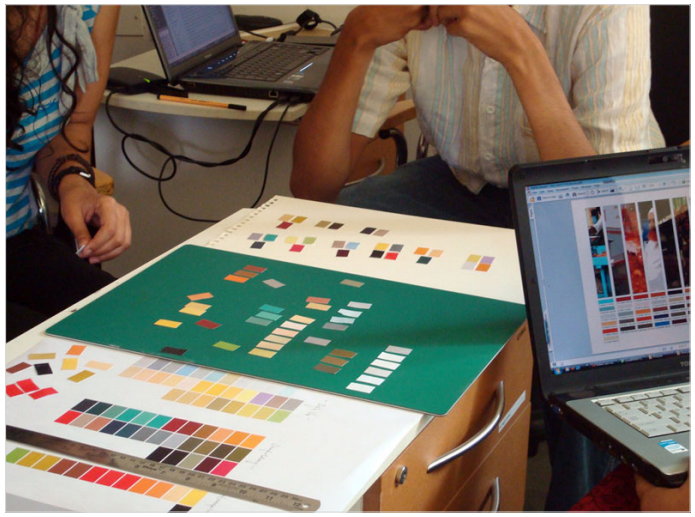
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

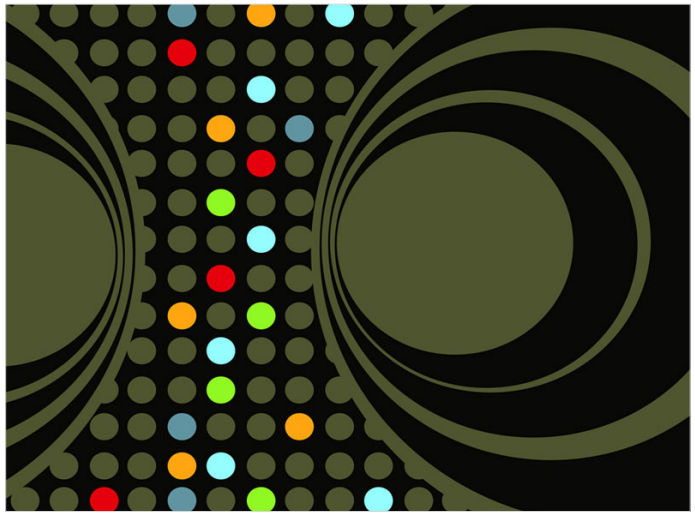
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

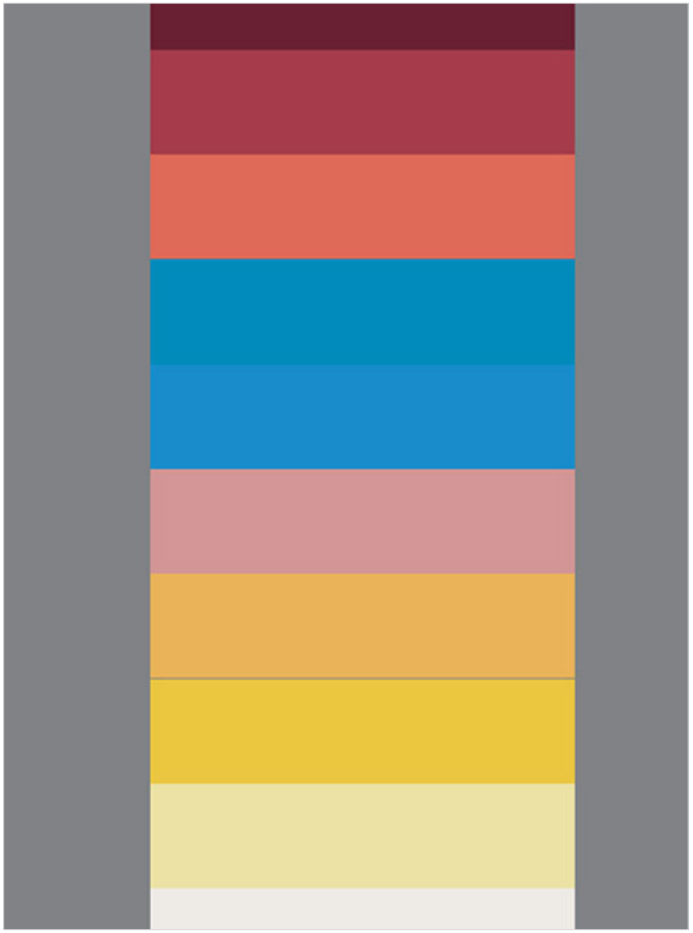
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru



Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

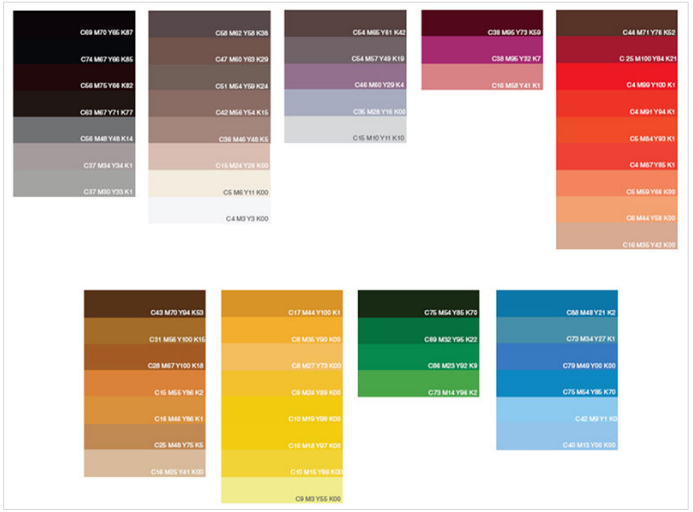
1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

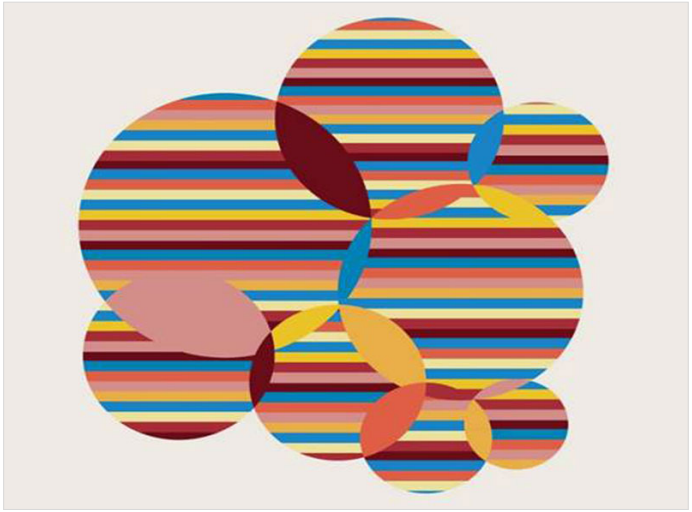
Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru





Source:
https://www.dsource.in/course/colour-and-form-i/street-exercise

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Course

Colour and Form - I

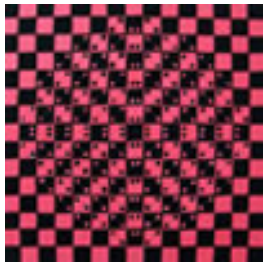
The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/case-studies-examples

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Case Studies - Examples


Example 1

Example 2

Example 3

Example 4

Example 5

Example 6

Example 7

Example 8

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/design-tools

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Design Tools

Fundamentals of Colour:

Fundamentals of Colour is a comprehensive design learning tool developed by IDC, IIT Bombay. It is an interactive webspace where students and aspiring designers can learn about colour, its attributes and multiple applications. The tool is divided into three chapters.

First is the Colour Overview containing colour basics and colour schemes. The second chapter Colour Attributes contains technical aspects of colour such as Temperature and Contrast, Hue, Saturation and Value and Colour and Its Varied context. The third chapter is Colour Applications. Along with studying colour, applying that knowledge becomes necessary for one's learning process.

The Fundamentals of colour tool can be a demonstrative tool for teachers to show the scope of colour. For beginner design students it can play a role of developing colour sensitivity to produce high-quality and informed design. It can also be used as a self-study tool/ revision tool.

For more information visit: https://www.dsource.in/tool/colour/

Design Course

Colour and Form - I

The Fundamentals of Colour

by
Ms. Nijoo Dubey
NID, Bengaluru

Source:
https://www.dsource.in/course/colour-and-form-i/contact-details

1. Introduction
2. Nature
3. Colour Gradation
4. Collage
5. Colour Interaction
6. Street Exercise
7. Case Studies - Examples
8. Design Tools
9. Contact Details

Contact Details

This documentation for the course was done by Ms. Nijoo Dubey, NID, Bengaluru.

For more details, please click on the following link:
https://www.nid.edu/people/detail/nijoo-dubey

You can write to the following address regarding suggestions and clarifications:

Helpdesk Details:
Co-ordinator
Project e-kalpa
R & D Campus
National Institute of Design
#12 HMT Link Road, Off Tumkur Road
Bengaluru 560 022
India

Phone: +91 80 2357 9054
Fax: +91 80 23373086
Email: dsource.in[at]gmail.com