

Visualizing works

This project is to visualize 63 works that I have done from 2002 to 2010. And I focus on how to imprint works to user with colors and find the 3-Dimension structure that can represent the data effectively.

Two years ago, one of my teachers let me a paper, *An algorithm for generating color scales for both categorical and ordinal coding.*

According to the paper, they study a program to combine advantage of the absolute recognition by the hue and advantage of the relative recognition by the lightness for a information design. The point of result is that if the data is composed to a scale of the lightness and hue changes to random, information design that hue doesn't interrupt the information of the lightness can be made. I inspired the result and decided to study the way to imprint the information by a color system. In addition, I consider how to show the information dynamically because I think that users remember the information according to the impact of their experience. For this reason, I study this project in a 3-Dimension environment with color system to imprint the information.

What to read...

Getting data

All works (only title) that I have done from 2002 to 2010 are listed up in a random. And I choose 63 works that have value as a project from them.

- 1. zone maneger
- 2. neverland
- 3. gl
- 4. enneagramme
- 5. mbti
-



63

I add detail data on the each work kinds of date,tool,award,client,exhibition,company,institute,image,movie and so on.

Temperature of my mind

Date	2007.6
Design Type	Information Design
Workshop	Dynamic Information Design Workshop
Lecture	Dan Boyarski (Cannegie mellon University)
Award	Adobe Design Achievement Awards_Hornerable mention winner
Tool	Adobe Illustrator,After Effects

Data Mining

To show the data clearly, I have to decide not only a categorization but also a explicit axis that I want to let read the data to user. In this process, it is defined that I want to say to user and the data have a insight as a information finally.

At first, I classify the data to various categories and choose 3 categories (design type, date, product type) that are relevant to all works in common for the main axis.

컬러로 소팅한 자료들을 분류하는 작업 사진

Date
Design Type
Workshop
Lecture
Award
Tool
.....



design type(Interaction, Graphic, Motion, E.t.c)
date(year,month)
product type(Individual,Academic,Commercial)

Among the three categories, product type is a minor issue less than others. It means that it is more subordinate information than others hierarchically. Also, month has not a important insight than year according to my work history. For these reason, I make a decision to choose only design type and year as main category.

design type(Interaction, Graphic, Motion, E.t.c)
date(year,month)
product type(Individual,Academic,Commercial)



Main category

Design Type(Interaction, Graphic, Motion, E.t.c)
Year



Sub category

product type(Individual,Academic,Commercial)

This main purpose and insight of the information design are created based on previous process.

By Design Type...

How many works have been created for each different design types from 2002 to 2010.

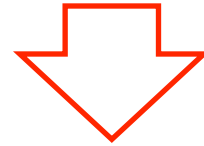
Which design type is created mainly from 2002 to 2010.

By Year...

How much amount of works are created each year.

How much percentage of different design types of works in a year.

How much percentage of different product types of works each year.



The flow the work history

The most interesting design type

Inferring work position from the product types for each year

Information Architecture

Objective information

Relative information

Design Type

Year

Depth 1

Check a number of works each design type with date, title, award, institute, client

Compare amount of works each year
Check the year of same design type is with selected work.

Depth 2

Detail description, image, movie

- Check design type and product type of selected work
- Check percentage of design types and product types of selected year

How to read...

Design insight from 2002 to 2010

I think that color and visual structure show the entire impression about the project. For this reason, I analysis expression elements of the 63 works and isolate design key words of the project.

Line, layered, mixed, organic, smooth, musical, time based

Sketch

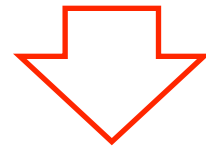
Basically, Structures are concerned in 3D space.

Wireframe

Color

Basically, one of the goals in this project is to imprint the information by colors. And it is good for risibility and imprinting effect that each design type has obvious different hue. However, Using excessive strong saturation and lots of colors could easily be made a design shoddy. Moreover, adjusting color level to the hierarchy of information is important as well. Accordingly, I try to find a set of color which has not only a risibility but natural color harmony and study a lot of color sets according to the below criteria.

Line, layered, mixed, organic, smooth, musical, time based



soft harmony

not strong saturation and too much different hue

For the information

high risibility

accurate separation between each design type



For the visual value

soft harmony

not strong saturation and too much different hue

Color



Dimmed works that can't be accessed to the detail information in the design type mode have to be expressed differently with activated works. Normally, shaded or tinted color give a feel more minor than original color. So shading color of each original one be used for dimmed works.



Except that, others are restricted to back and white or vary dark color include a background color.

Test I Applying different Hue on each design type



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

Primary color has accurate color identity and these can be shown clearly on a dark background color. For this reason, I test 4 colors which have different hue and similar brightness, on a dark background color.

1. Red, Yellow, Blue and Green
(50% warm color, 50% cold color)

This composition is clear for a risibility however, primary colors are too strong.



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

2. Secondary and tertiary colors
(50% warm color, 50% cold color)

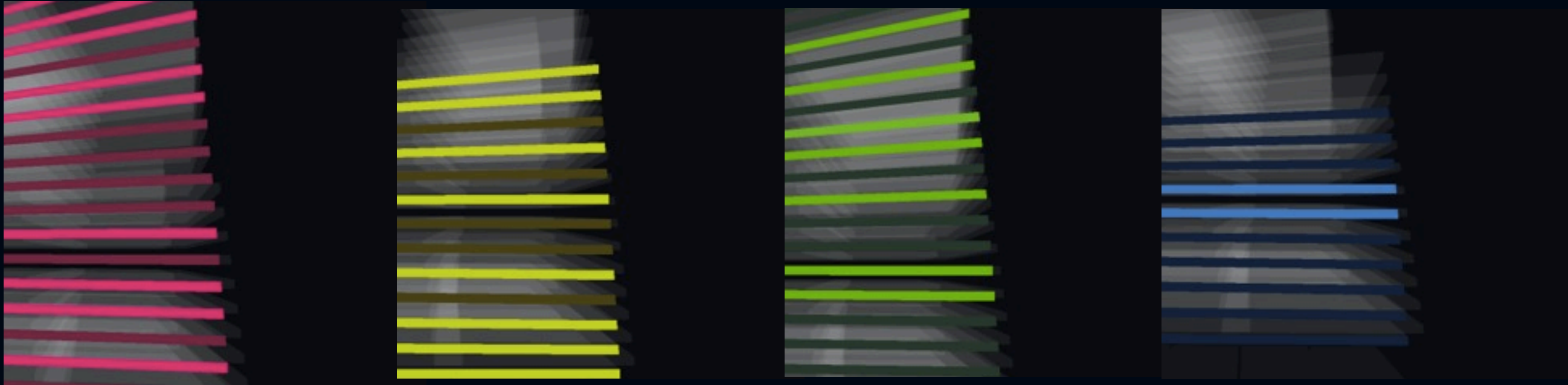
Risibility is maintained but it is still strong, moreover magenta stands out conspicuously.



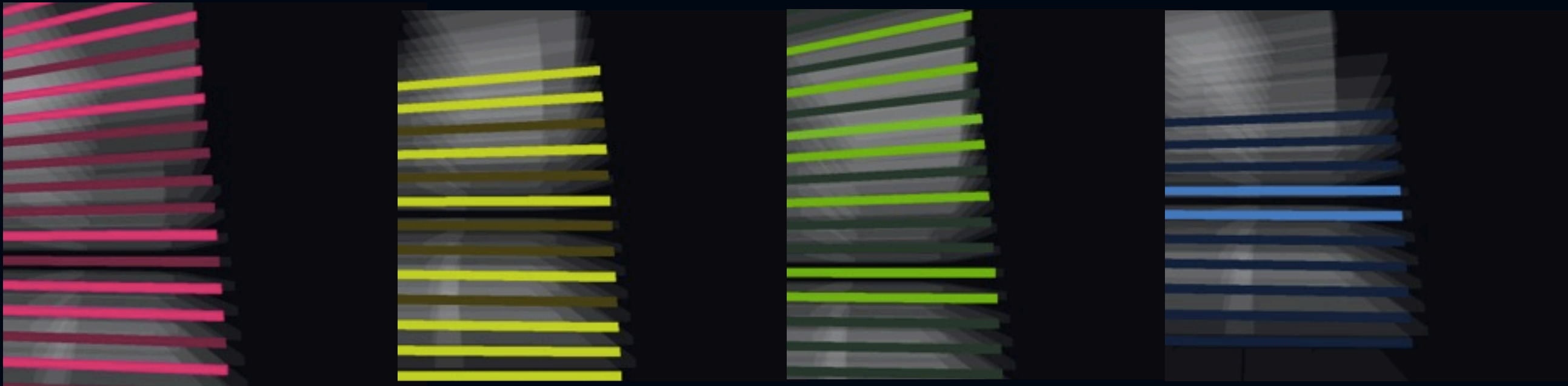
0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

3. Tinting colors
(50% warm color, 50% cold color)

Risibility and feeling are too weak both. Vary dark background color makes tinted color look like more weaker, Also, all 4 colors not recognized easily because of low saturation.



2.All works are classified to four kinds of design type in general.



3.All works are classified to four kinds of design type in general.

Test 2 Applying less then 3 types of Hue with a gray scale



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

Gray is the true neutral color and Its energy imparts void, emptiness, lack of movement, emotion, warmth and identifying characteristics. Because of this, gray can make stable vibration of other colors. That's why I try to apply gray scale on colors of design type in this test

1. Red, Yellow, Green and Gray

(75% warm color, 25% cold color, 25% gray scale)

Gray color makes relaxing entire mode although 3 colors vibrate.



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

2. Tinting red and blue and light Gray

(25% warm color, 75% cold color, 25% gray scale)

Hue is restricted to 2 colors, blue and red. Also, low saturation and high brightness makes color composition smoothy. But tinted and shaded blue are not be distinguished easily when these are applied the design.

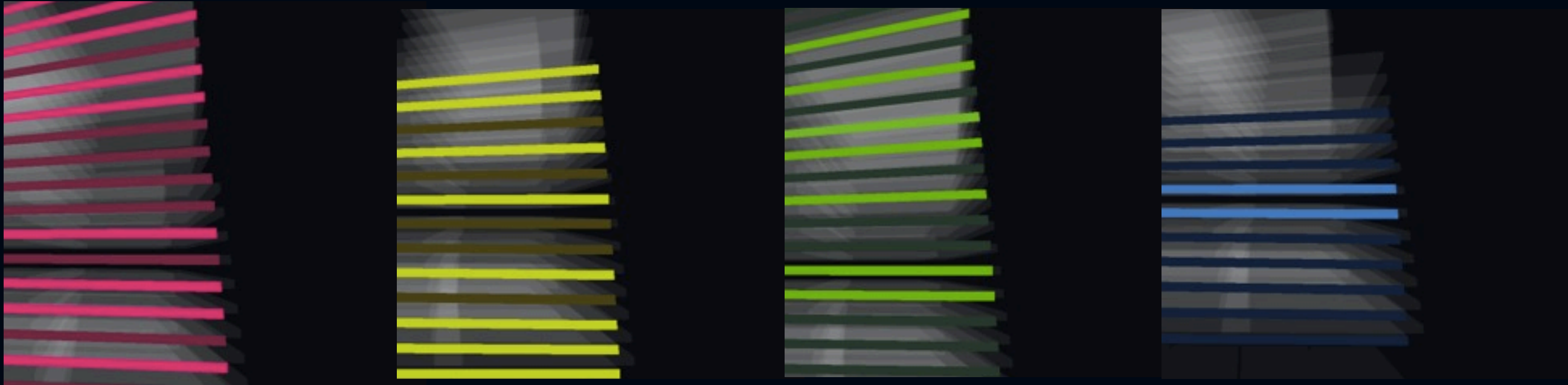


0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

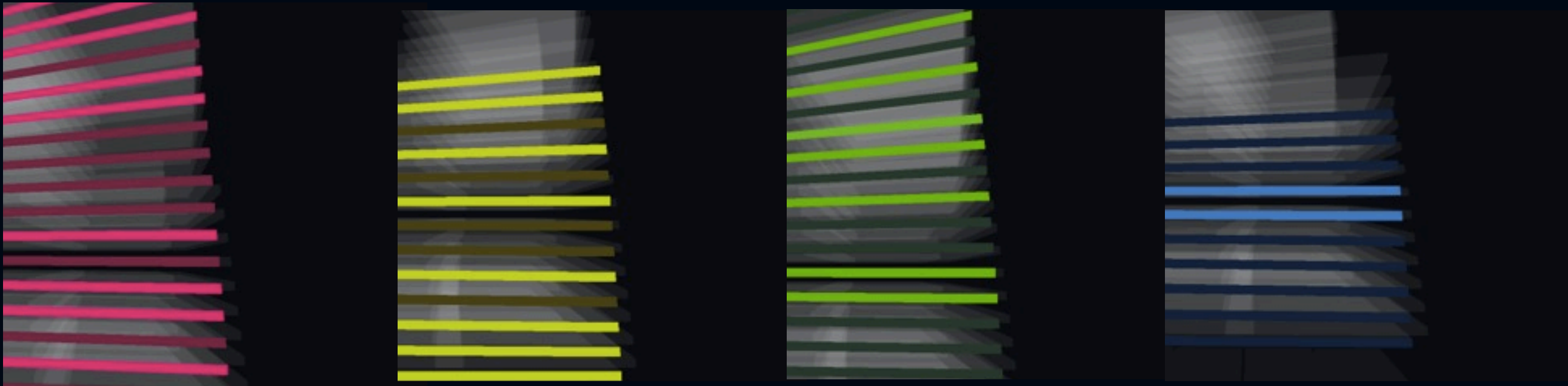
3. Primary Red, Tinting Blue, Primary Yellow and Yellowish Gray.

(50% warm color, 25% cold color, 25% gray scale)

Contrast between high saturated red and tinted blue make mode livelily and similarity of the yellow and yellow gray is stable. However, color variation is not in same level.



2.All works are classified to four kinds of design type in general.



3.All works are classified to four kinds of design type in general.

Test 3 Tinting color on a tinting and saturated background color



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D



0xEA0F6B 0x14213D 0xBAD80A 0x54BC00
0x7C1E3F 0x3A75C4 0x494411 0x233A2D

A color is influenced by a background color. According to last tests, although tinting colors are applied, these are swelled quite much against dark background color because saturated and tinted colors appear more brilliant against a black background than shading colors. Moreover, strong color tinting makes colors weak to be read. For this reason, I increase the range of the saturation and brightness of the background color and test some sets of colors

1. High tinting Color with different hue (75% warm color, 25% cold color, 25% gray scale)

The high tinting colors balance on a background color that is changed to raising saturation a bit. And gray can make stable vibration of other colors. On the other hand, it is not easy to have accurate identity compare with saturated colors. Consequently, using gray is impertinent for identifying design types because of its character regardless the background color.

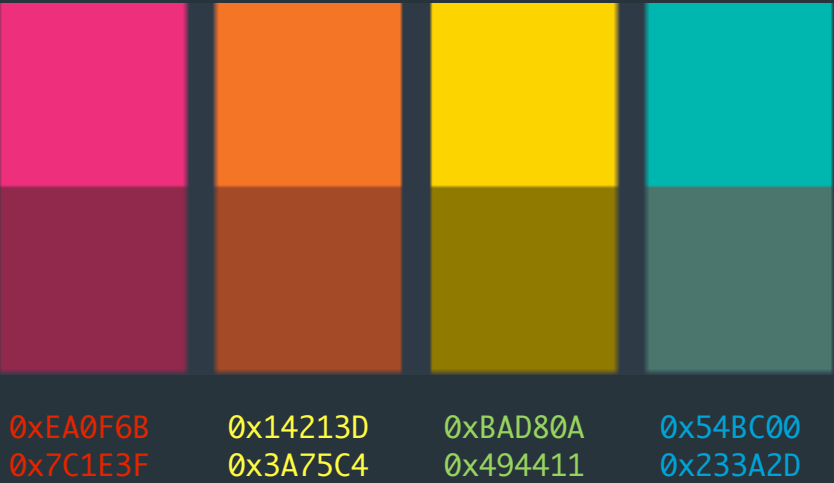
2. Tinting Color with different hue (50% warm color, 50% cold color)

Brightness is reduced and different hue are used. However, yellow and green look like similar colors.

3. Tinting Color with different hue (50% warm color, 50% cold color)

Brightness is reduced more and different hue are used. Saturation is increased also.

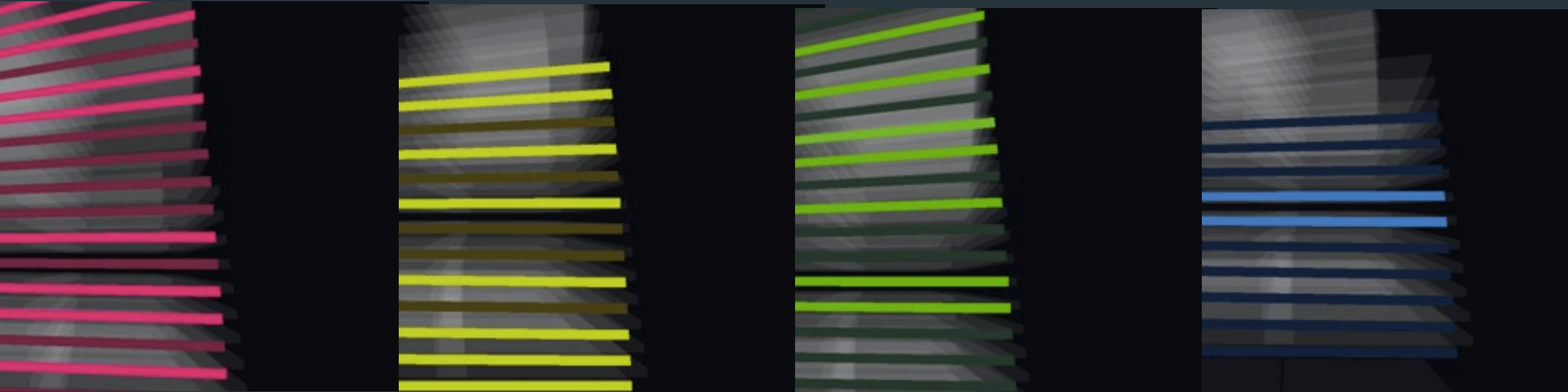
Final



I. Red,-purple, Red-Orange, Deep Yellow and Blue-Green (75% warm color, 25% cold color)

Information design has a primary goal that the result has not any problem to communicate. Though, a set of color has good point visually, if it interrupts a risibility of the information, color system needs to be chanced. According to the tests, strong tinting color on any background color is unsuitable for the risibility. Using saturated color need for accurate difference between design types also. However, saturated primary color and secondary color on a dark background color are swelled much. In addition, 4 colors that are sorted by the range, 50% for each warm and cold colors have a problem on the unity of colors.

For the reason, I make a decision to use saturated tertiary color mainly on more brightened background color than the color that is used in test I,2. Tertiary color is made by mixing primary and secondary color so it has a possibility to mix naturally with any other colors. And I reduce the vibration of colors through the increasing brightness and saturation of the background color. Moreover, main hue spectrum is focused on warm color, Red,-purple, Red-Orange and Deep Yellow except Blue-Green for unity of colors. And Blue-green is matched to the design type, E.T.C. because it has less identity than other 3 design types, interaction, motion and graphic.



3.All works are classified to four kinds of design type in general.

Initial design

Development

XML

Papervision 3D

AS 3.0

Let's read!!!!

Final Design

Conclusion

http://en.wikipedia.org/wiki/User:DanPMK/Secondary_and_tertiary_colors

<http://www.digitalskratch.com/color-psychology.php>

<http://www.colormatters.com/colortheory.html>

http://www.worqx.com/color/color_wheel.htm