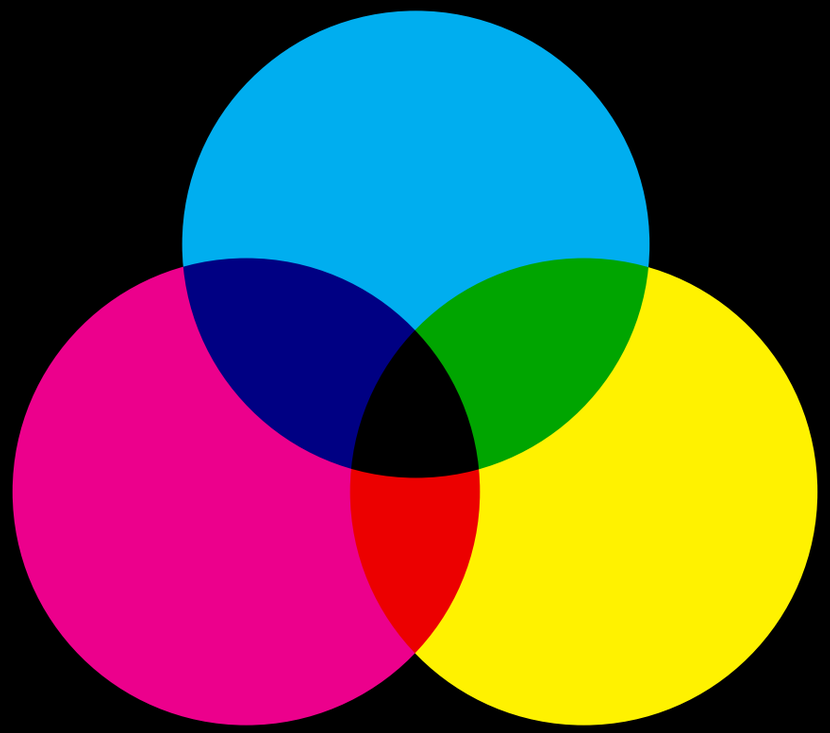
Interactive Design

Working with Color

Mixing Color with Paint

Mixing Color with Ink

Cyan Magenta Yellow Black

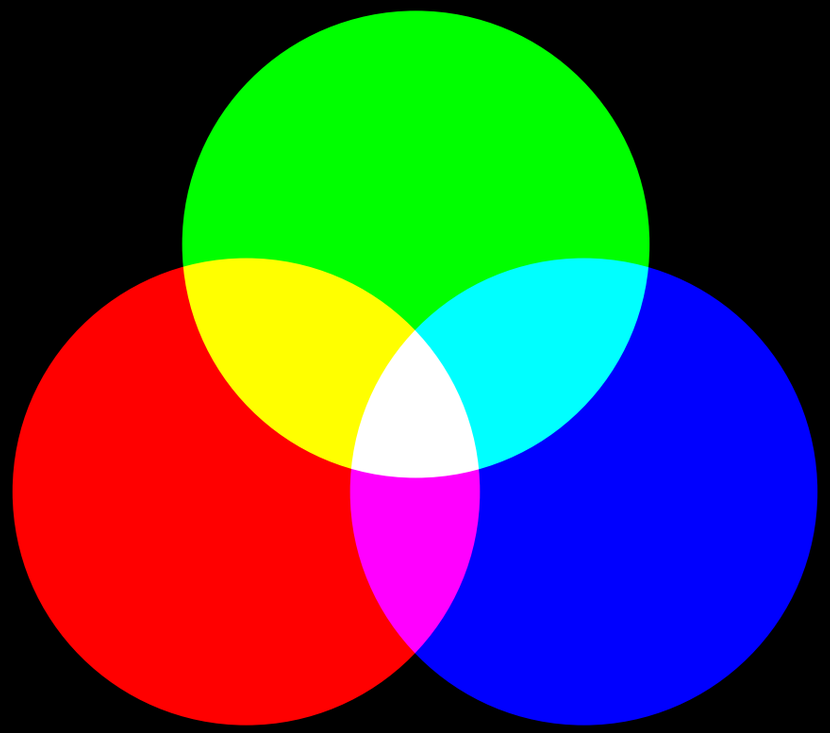


Used to represent all colors in print.

Screens are different.

Mixing Color with Light

Red Green Blue



Used to represent all colors on screen.

IN OAKLAND
USE YOUR SKILLS FOR GOOD
SOLVE YOUR CITY'S PROBLEMS
MAKE A DIFFERENCE
People, Not Data
IN SAN FRANCISCO
IN HONOLULU
IN OAKLAND
IN PHILADELPHIA
HONOLULU
Honolulu

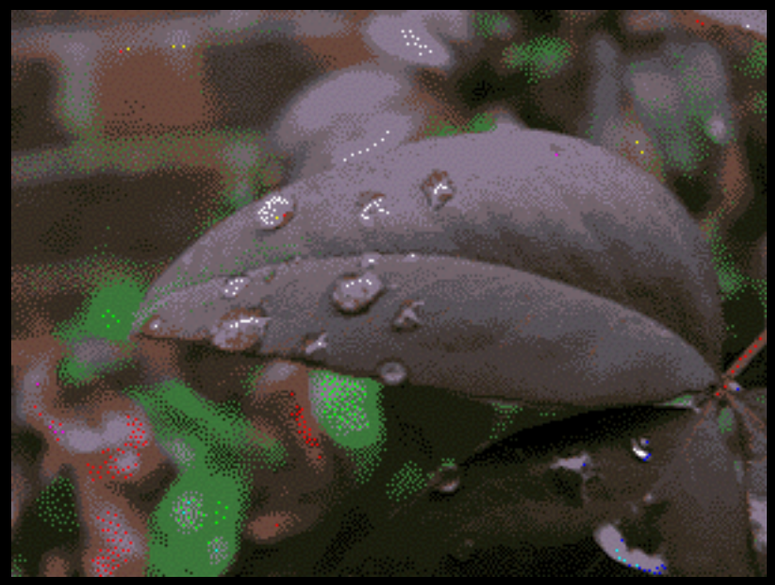
Monitor Display Modes

1 bit : 2 colors

Monitor Display Modes

2 bit : 4 colors

Monitor Display Modes



4 bit : 16 colors

Monitor Display Modes

8 bit : 256 colors

Monitor Display Modes

32 bit : 16,777,216 colors

Most monitors are “True Color” with an alpha channel.

So what?

This defines what we can expect from a screen
and how we describe it to the computer.

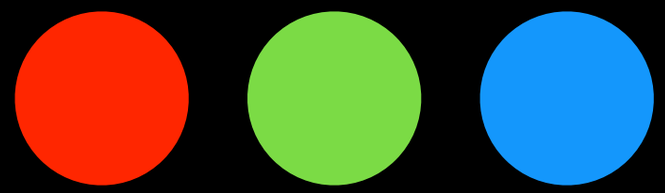
Color in the browser

- RGB or RGBa `rgba(0, 0, 0, 1)`
- HEX Values `#000000`
- HSL or HSLa `hsl(0, 0, 0, 1)`

```
rgba(x, x, x, y)
```

x is a number from 0 to 255

y is a number from 0.0 to 1.0



#00ff00

Hexadecimal notation

The values use ranges from 0-9 and A-F

0 being the lowest value and F being the highest

Lightness

Saturation

Hue

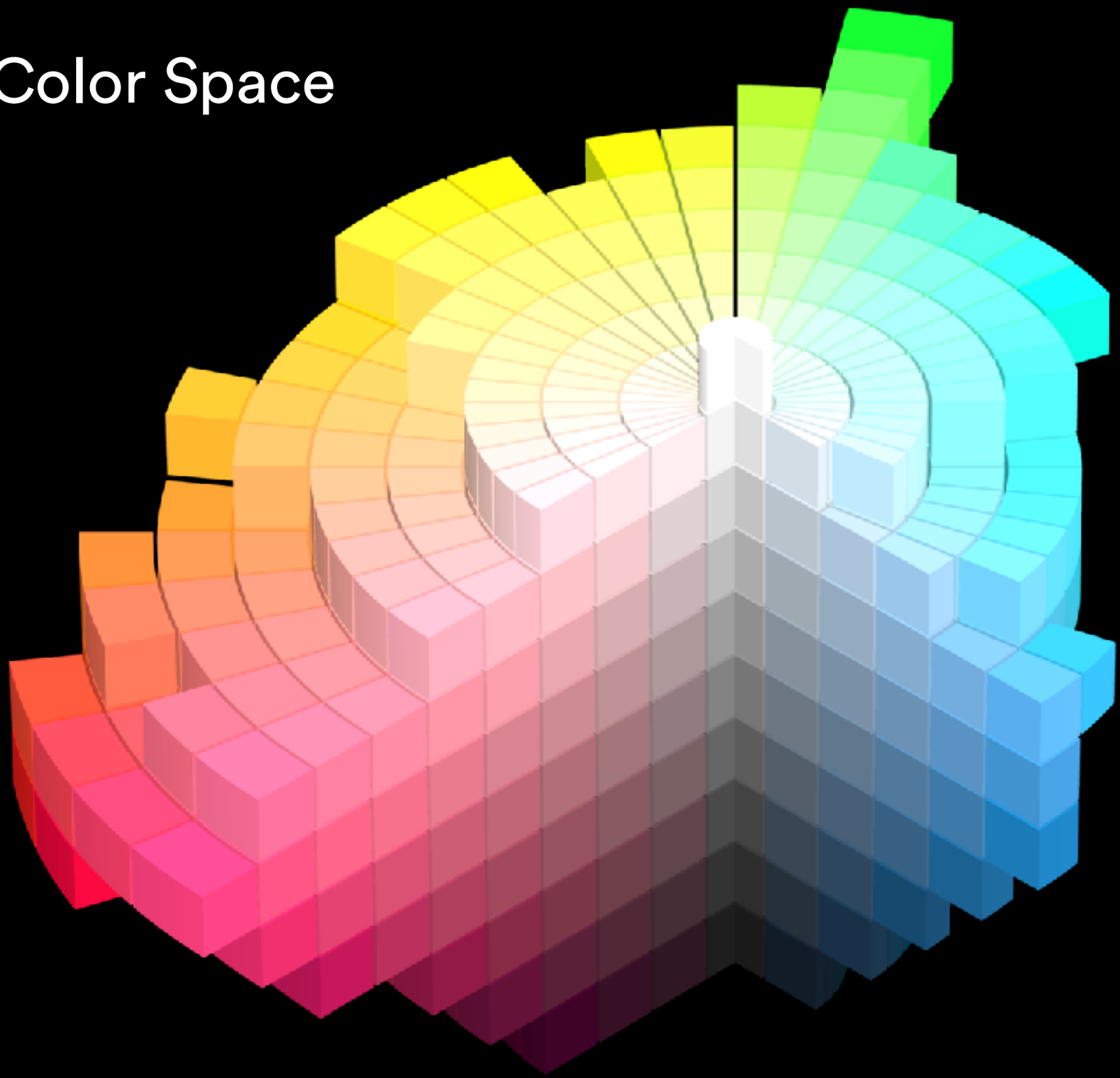
```
hsla(x, y, y, z)
```

x is a value from 0 to 360

y is percentage from 0 to 100

z is a number from 0.0 to 1.0

HSL Color Space



Named Colors

tomato

Difficult to work with due to their imprecision.

i.e. “dark grey” is lighter than “grey” and

“lime” and “limegreen” are different colors.

Where can we use color?

- Color
- Background Color
- Border
- SVG Fill
- Box Shadow
- Text Shadow

What’s Possible?

Gradients

```
linear-gradient(to left, #000000, #FFFFFF)

radial-gradient(circle, #000000, #FFFFFF)
```

Filters

blur(px)

brightness(%)

contrast(%)

drop-shadow(h-shadow v-shadow blur color)

grayscale(%)

hue-rotate(deg)

invert(%)

opacity(%)

saturate(%)

sepia(%)

Media Queries

```
@media (color) { ... }

@media (min-color: 4) { ... }

@media (color-index: 256) { ... }

@media (monochrome) { ... }
```

Next Time

- Read Chapters 1-3 of JavaScript & jQuery
- Keep working
- Have a nice spring break