



ACR101 - 2D Asset Creation: Colour Theory

Week 6

Danny McGillick

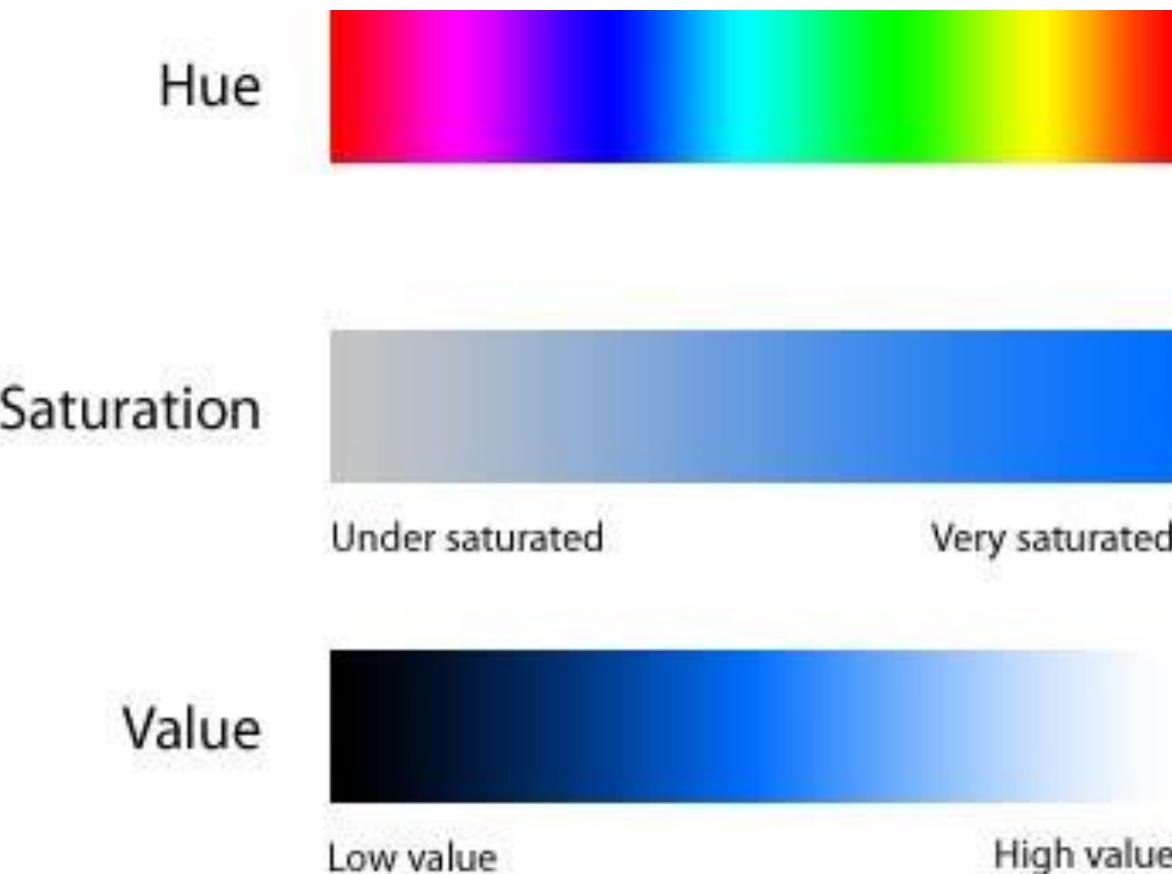
Colour Theory

- What is colour theory, exactly?
 - Creates a logical structure for colouring/choosing palettes
 - Allows you to organise and determine by colour
- Comprised of three main categories:
 - Colour Wheel
 - Colour Harmony
 - Context of Colour



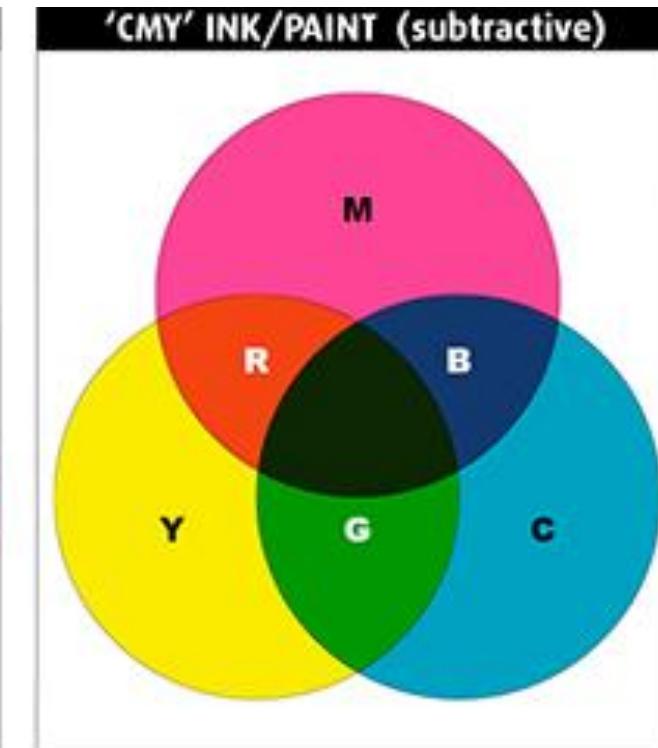
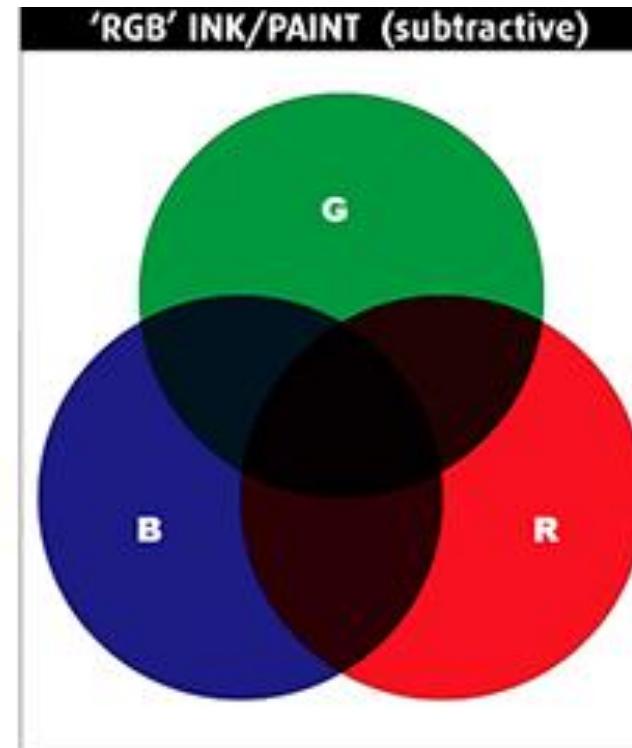
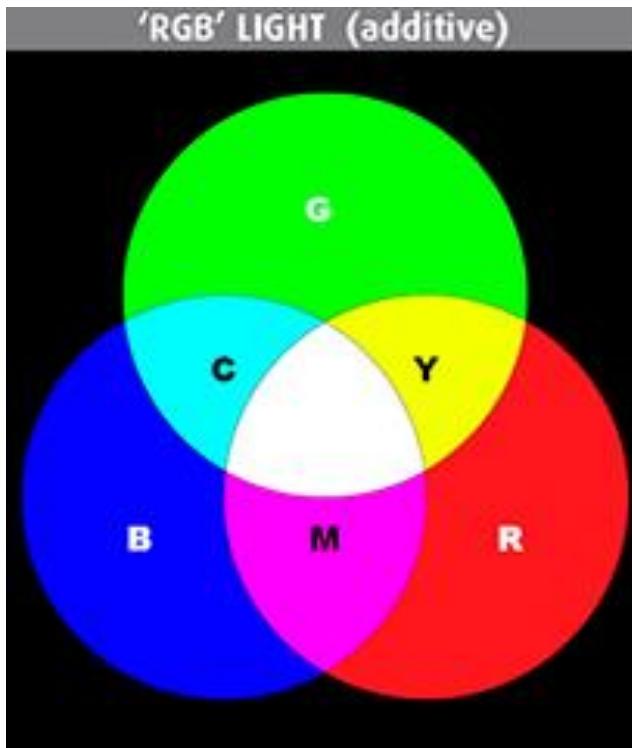
<https://s-media-cache-ak0.pinimg.com/236x/41/a9/5a/41a95a5ef58430ee4f97ca3f2a1a770a.jpg>

Colour Modes



<http://netdna.webdesignerdepot.com/uploads/color/hsv-samples.jpg>

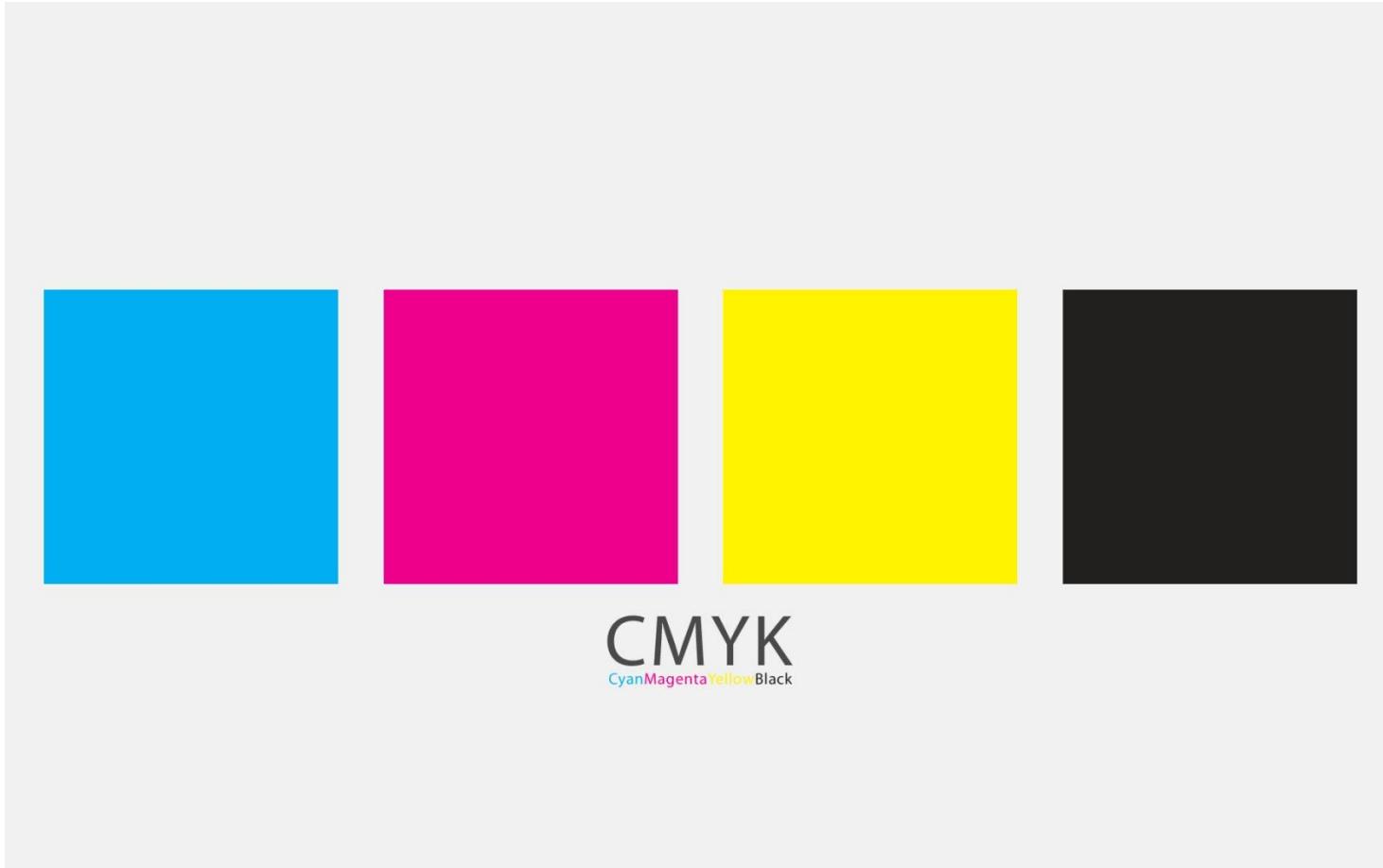
Colour Types – Subtractive & Additive



© Graeme Cookson / Shutha.org

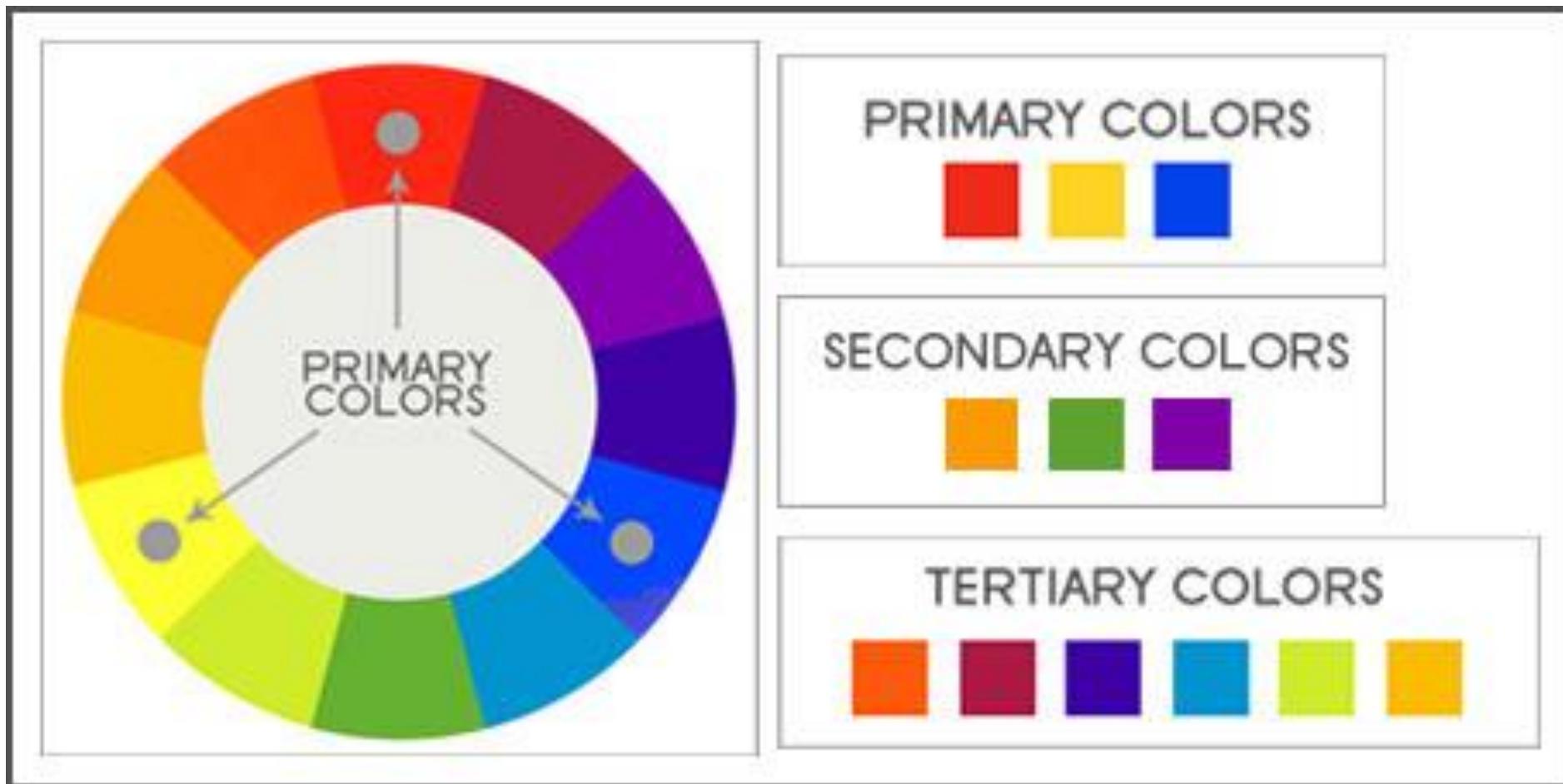
http://shutha.org/sites/default/files//uploads/3_Courses/3_Digital_Imaging/CMYK1.png

Colour Types – CMYK



http://jettpprint.com.au/wp-content/uploads/2014/02/CMYK__A_Minimal_Wallpaper_by_keylocker.jpg

Colour Types – Colour Creation



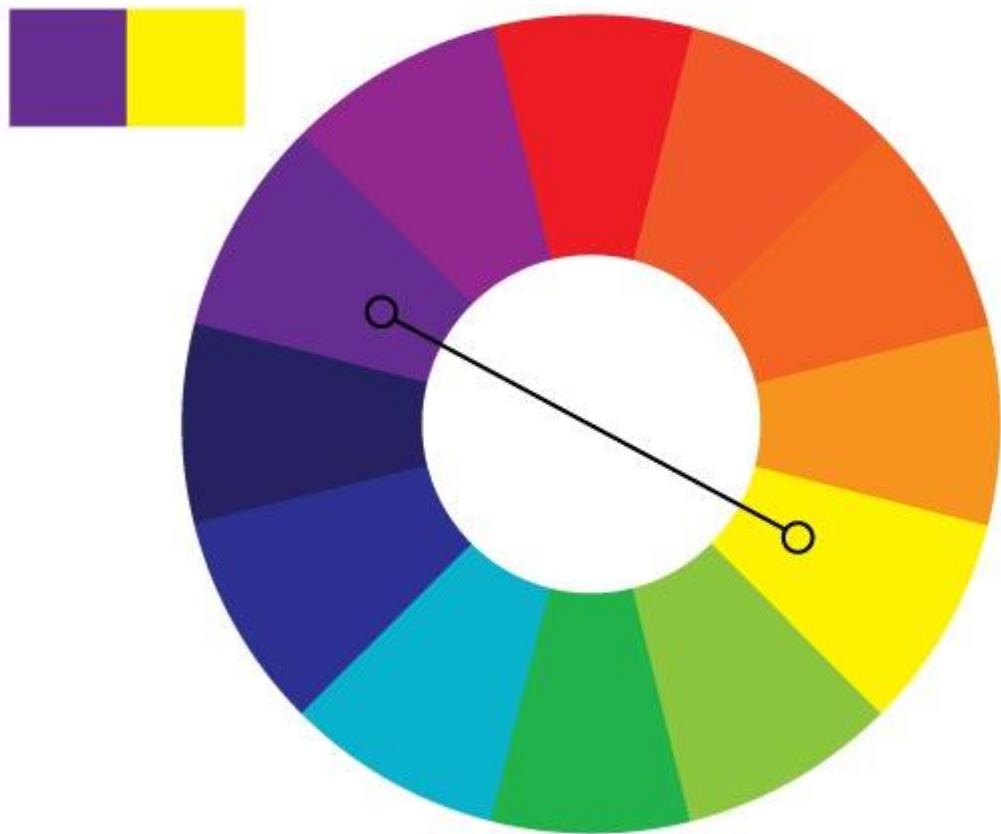
http://peppermintcreative.com/blog/wp-content/uploads/2007/08/ct_6.jpg

Colour Types – Shades and Tints



http://ptgmedia.pearsoncmg.com/images/chap1_9780133090390/elementLinks/63.jpg

Colour Harmonies – Complementary Colours



<http://dab1nmslvntp.cloudfront.net/wp-content/uploads/2012/10/complimentary2.jpg>

http://en.wikipedia.org/wiki/Complementary_colors#/media/File:VanGogh-starry_night_ballance1.jpg

Colour Harmonies – Analogous Colours

ANALOGOUS COLORS



http://30daysweater.com/wp-content/uploads/2014/06/30_Day_Sweater_Analogous_Colors_Wheell.png

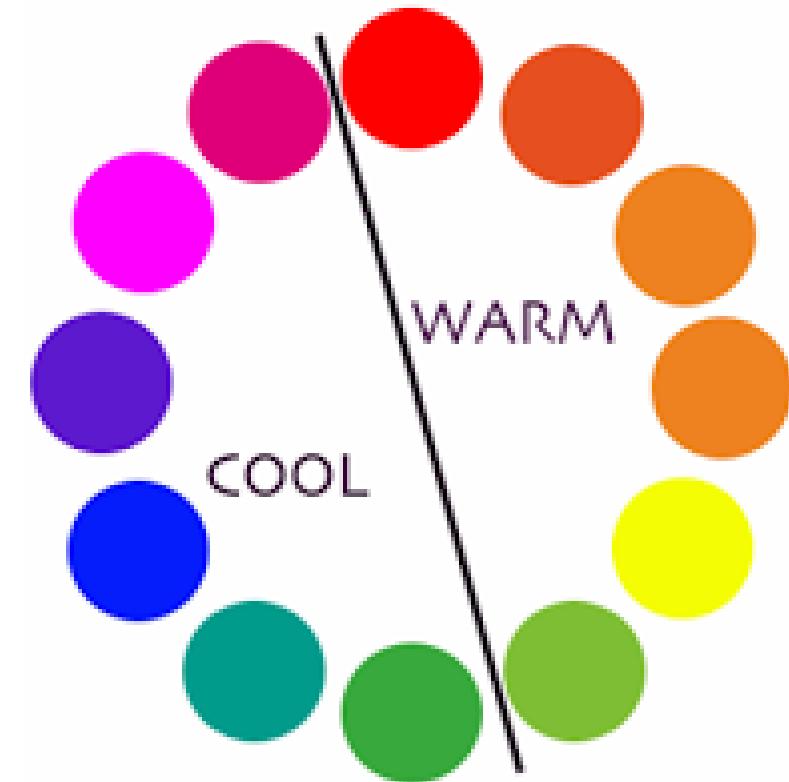
Colour Harmonies – Triadic Colours



<http://twotales.org/wp-content/uploads/2013/04/Triadic-color-scheme.png>

How to choose your own palettes

- Limit yourself to a few colours – four or five is a good number.
- Think about **warm + cool, light + dark**. Often picking opposites (dark warm + light cool, dark cool + light warm) makes for a better palette.
- Pick a **dominant category**. Mostly dark, or mostly warm?
- Pick a series of colours from that category – 3-4.
- Pick 2-3 colours from the secondary, non-dominant category.
- Be careful of **contrast and proportions** - good palettes only work in tandem with good composition!



<http://3.bp.blogspot.com-a3tgc6RK4a0/TwZjcvWrPkI/AAAAAAAAC4/NWUUEQjlzgk/s200/skin-tone-colors.png>

Exercise – DIY Palettes

- You don't have to become a colour savant right away.
- Go to <https://color.adobe.com/create/color-wheel>
- Make 5 palettes either in the basic or advanced palette editors.
- You can sign in and save 'em!

The screenshot shows the Adobe Color website at <https://color.adobe.com/create/color-wheel>. The interface includes a top navigation bar with links for CREATE, EXPLORE, TRENDS, and MY THEMES. Below the navigation is a color wheel with various color harmony rules listed on its left: Analogous, Monochromatic, Triad, Complementary (which is selected), Split Complementary, Double Split Complementary, Square, Compound, Shades, and Custom. To the right of the wheel is a color palette consisting of five squares: brown (#B38B4D), orange (#FFDBA1), yellow (#FFD187), blue (#3B7AB3), and light blue (#87C6FF). Below the palette are two rows of color swatches with their corresponding hex codes and RGB values. At the bottom of the page are links for Language (English), Terms of Use, Privacy, User Forums, Community Guidelines, and Copyright information.

| Color | Hex | RGB |
|---------|---------------|---------------|
| #B38B4D | 179, 139, 77 | 70, 100, 100 |
| #FFDBA1 | 255, 219, 161 | 100, 100, 100 |
| #FFD187 | 255, 209, 135 | 100, 100, 100 |
| #3B7AB3 | 59, 122, 179 | 70, 70, 70 |
| #87C6FF | 135, 198, 255 | 100, 100, 100 |

Language: English Terms of Use Privacy User Forums Community Guidelines Copyright © 2019 Adobe. All rights reserved.

Colour Psychology

- Study of colour as a determinant to human behaviour
- Colour influences perceptions that aren't obvious
- Widely used in marketing and branding to evoke certain feelings in a consumer
- Colours can carry several different meanings – which may differ from culture to culture
- Meanings can be learned meanings or biologically innate meanings



http://wellington.govt.nz/~media/your-council/news/images/2015/08/greenlight-102114_MG_1226-content2.jpg?mh=320&mw=320

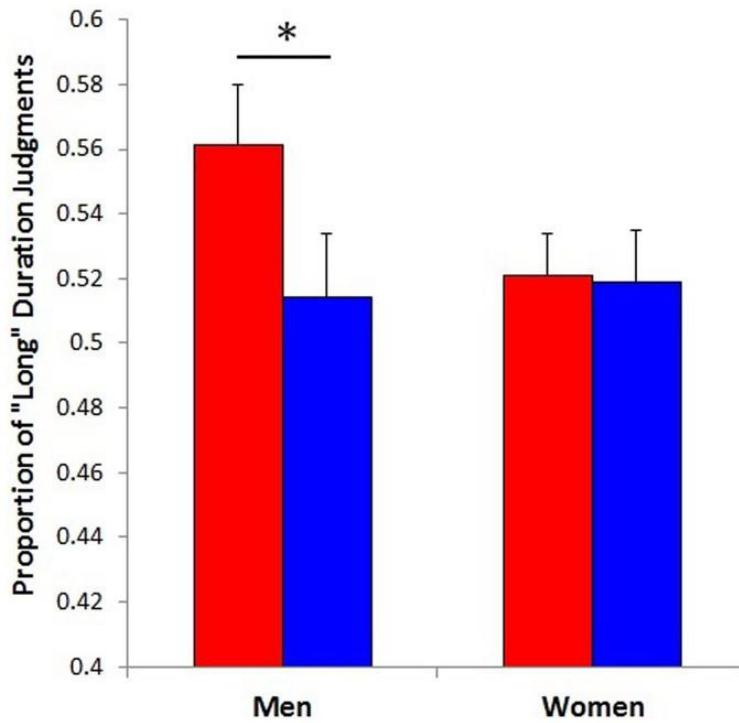
Colour Psychology



<http://mmagymchd.com/wp-content/uploads/2015/04/taekwondo.jpg>

- some evidence suggest that in combat sports the referees give greater scores to the red side
- This could be due to "subconscious bias" or increased aggression in people wearing red.
- <http://www.livescience.com/2772-referees-prefer-athletes-red.html>

Colour Psychology



- Perception in duration of time in exposure to certain colours effects both sexes but men more so.
- <http://www.nature.com/articles/srep05899>

Colour Moods - Red

Color Meanings & Symbolism: Red

battle political power rage hate lust
circulation charity voltage Communism
romanticism strength love intensity fire
ambition suffering eccentricity extroversion
desire domination sexuality speed life
revolution fashion sensuality prostitution
courage determination sin martyrdom
urgency friendship patriotism tension
rescue success charm pain passion
thrill fervor motion emotion
sacrifice murder vitality rebellion
murder brilliance alertness victory
rebellion aggression danger prohibition
victory social movement heat
prohibition violence triumph
danger compassion
heat
movement
beauty
devotion

Worldly Color Meanings of Red

China & India: good luck, used in dresses, chair, parasol, cup lace, firecrackers in a wedding

Russia & China: revolution, communism

England: buses, phone booths

Spain: bull fighting, flamenco dresses

Colour Moods - Orange

Color Meanings & Symbolism: Orange

A word cloud on an orange background containing various positive and neutral words associated with the color orange. The words are in white and light blue text, with larger words indicating more frequent meanings. The words include: coziness, success, change, explosions, temptation, generosity, flexibility, visibility, heat, change, communication, friendliness, visibility, independence, action, appetite, disorder, flavor, charisma, endurance, exuberance, humanism, communication, exaggeration, security, extravagance, dominance, fun, fitness, earth, extroversion, fascination, happiness, sunset, practicality, competence, enthusiasm, determination, humor, joy, smile, health, energy, ambition, tropic, warmth, laughter, warning, service, motivation, creativity, excitement, invitation, wisdom, celebration,辐射 (radiation), encouragement.

Worldly Color Meanings of Orange

Buddhism: humility, renunciation, desirelessness

China & Japan: love, happiness, plenitude

Other: treason, Halloween

Colour Moods - Yellow



Colour Moods - Green

Color Meanings & Symbolism: Green

A green square containing a white word cloud of color meanings for green. The words are arranged in a cluster and include: grass, health, mucous, adventure, hope, youth, calmness, frankness, sincerity, good, comfort, quietness, neutrality, relaxation, safety, vegetation, sympathy, prosperity, equilibrium, reproduction, spring, aspiration, renewal, friendship, generosity, cleanliness, life, fertility, open, efficiency, freshness, nature, environment, outdoors, security, growth, harmony, freedom, luck, progress, wisdom, moist, vigor, and faith.

*Worldly Color Meanings of Green
Islam: Allah in nature
Northern Europe: The Green Man*

Colour Moods - Blue

Color Meanings & Symbolism: Blue

trust water balance goodness introspection self-stiffness culture. stability truth. maturity cooperation self-tenderness harmony authority reliability flexibility intelligence contemplation quietness responsibility obedience infinity dignity logic despair freshness coolness sincerity transparency peace law compassion cleanliness acceptance loyalty frankness protection piety sadness control freedom calmness serenity solitude virtue tradition reflection value tranquility depression quality ice caution

Worldly Color Meanings of Blue

Worldly Color Meanings of Blue

Catholicism: Virgin Mary, God Father

Islam: Mosque decorations

UN Flag: peace, cooperation

India: mercy

Jewish: Holiness

Colour Moods - Purple

Color Meanings & Symbolism: Purple

sorrow value truth sensuality
dream devotion inspiration sadness secrecy drama
fashion vanity coolness
anxiety sobriety magic
fantasy extravagance art beauty
nostalgia knowledge royalty
quietness intelligence spirituality
individualism superstition contrition
solemnity sophistication responsibility introspection
justice independence mystery leadership penitence sublimation
richness enchantment passiveness femininity wealth wisdom
reflection creativity luxury intuition grief style
solitude dignity conflict meditation wit
balance mood

Worldly Color Meanings of Purple

Ancient Cultures: wealth

Catholicism: contrition, penitence, color of Lent

COLORS OF ALEXA'S TOP SITES

AS OF JANUARY 2011



GOOGLE



FACEBOOK



YOUTUBE



YAHOO!



MSN



BAIDU



BLOGGER



WIKIPEDIA



QQ



TWITTER



MSN



TAOBAO



AMAZON



WORDPRESS



LINKEDIN



BING



eBAY



MICROSOFT



YANDEX



PAYPAL



MAIL.RU



FC2



IMDB



V KONTAKTE



Flickr

BLUE

- + tranquility, love, loyalty, security, trust, intelligence
- coldness, fear, masculinity

GREEN

- + money, growth, fertility, freshness, healing
- envy, jealousy, guilt

PURPLE

- + royalty, nobility, spirituality, luxury, ambition
- mystery, moodiness

TURQUOISE

- + spiritual, healing, protection, sophisticated
- envy, femininity

SILVER

- + glamorous, high tech, graceful, sleek

RED

- + love, energy, power, strength, passion, heat
- anger, danger, warning

PINK

- + healthy, happy, feminine, compassion, sweet, playful
- weak, femininity, immaturity

YELLOW

- + bright, energy, sun, creativity, intellect, happy
- irresponsible, unstable

ORANGE

- + courage, confidence, friendliness, success
- ignorance, sluggishness

GOLD

- + wealth, prosperity, valuable, traditional

BROWN

- + friendly, earth, outdoors, longevity, conservative
- dogmatic, conservative

TAN/BEIGE

- + dependable, flexible, crisp, conservative
- dull, boring, conservative

GRAY

- + security, reliability, intelligence, solid
- gloomy, sad, conservative

BLACK

- + protection, dramatic, classy, formality
- death, evil, mystery

WHITE

- + goodness, innocence, purity, fresh, easy, clean

COLOR EMOTION GUIDE

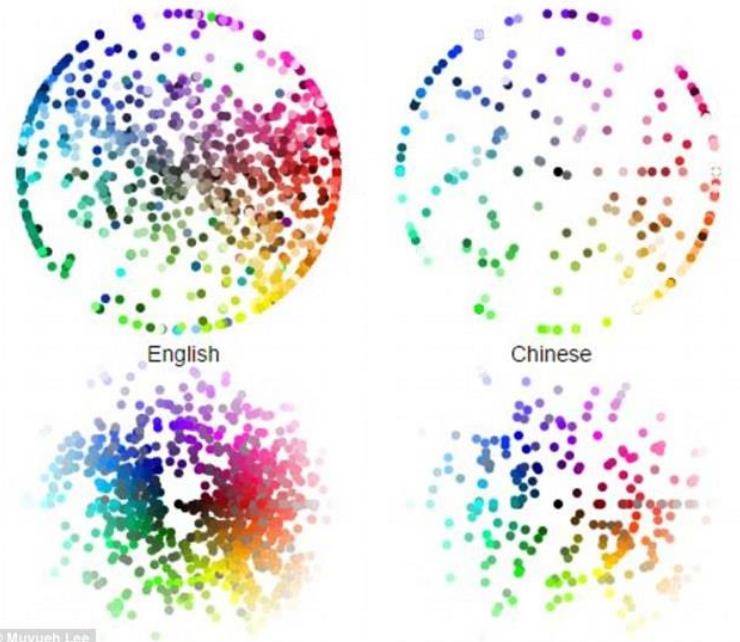


https://thelogocompany.net/wp-content/uploads/2013/01/Color_Emotion_Guide22.png



http://rocketcreativedesign.net/wp-content/uploads/2015/01/Jul-blog-pic-LogoColours.jpg.pagespeed.ic_.BBpjbo8qGz.jpg

Colour Cultures and Languages



- Research suggests having more words to define colour increases the eyes/brains capacity to discern colours
- <http://www.boreme.com/posting.php?id=30670.VD1P6mddXh5#.VtGOCvl95pg>

http://i.dailymail.co.uk/i/pix/2014/11/25/237EB50800000578-2849065-image-13_1416934639421.jpg

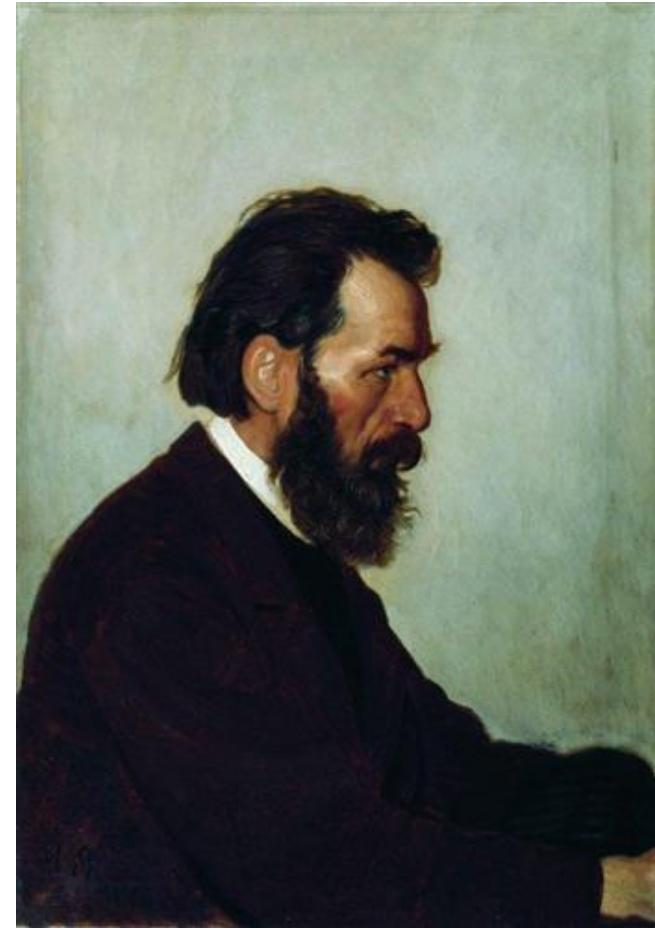
Value Contrast



[William Merritt Chase](#)
Lydia Field Emmet
1900
61 x 50.8 cm
Oil on canvas
Signed upper right: Wm. M. Chase
Santa Barbara Museum of Art
Bequest of Margaret Mallory
<https://www.pubhist.com/w26173>

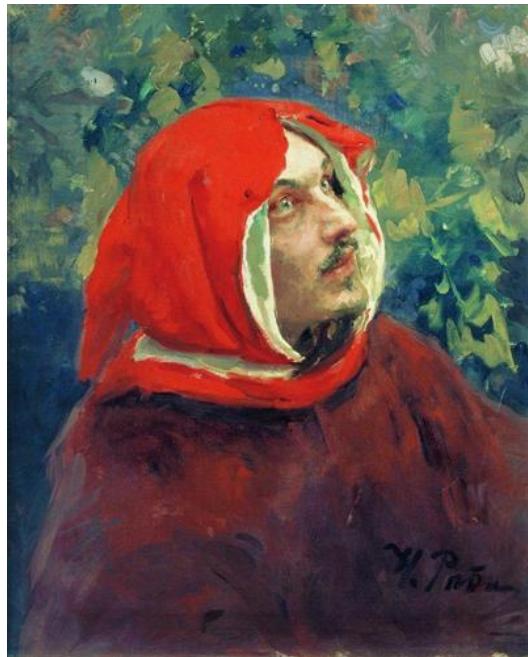


Frank Frazetta
death dealer
<http://fantasy.mrugala.net/Frank%20Frazetta%20-%201996/Frank%20Frazetta%20-%20Calendrier%201996%20-%20006.jpg>



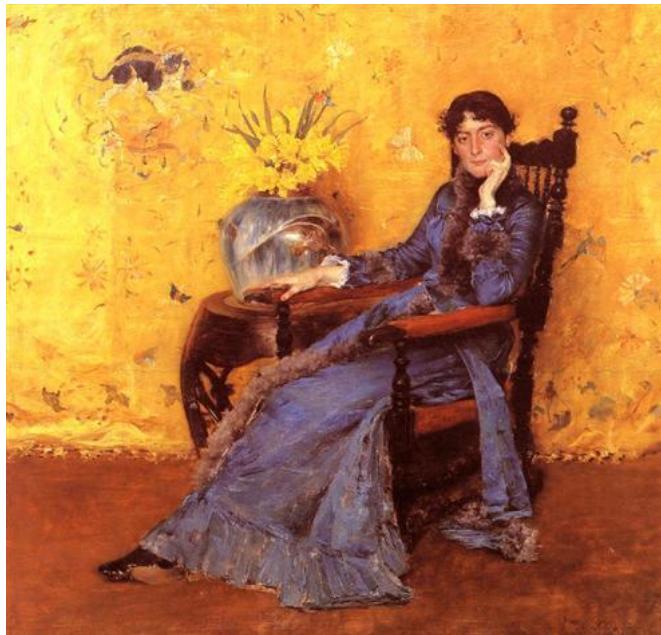
Portrait of A.I. Shevtsov
[Ilya Repin](#) 1869
http://www.wikiart.org/en/ilya-repin/portrait-of-a-i-shevtssov-1869?utm_source=returned&utm_medium=referral&utm_campaign=referral

Saturation Contrast



Portrait of Dante
[Ilya Repin](#)

http://www.wikiart.org/en/ilya-repin/portrait-of-dante?utm_source=returned&utm_medium=referral&utm_campaign=referral



Artist: [William Merritt Chase](#)
Completion Date: 1883

http://www.wikiart.org/en/william-merritt-chase/portrait-of-miss-dora-wheeler-1?utm_source=returned&utm_medium=referral&utm_campaign=referral



Dinner Table at Night
John Singer Sargent

<http://www.canvasreplicas.com/images/Dinner%20Table%20at%20Night%20John%20Singer%20Sargent.jpg>

Hue Contrast



La Ghirlandata
Dante Gabriel Rossetti (1828-1882)

<https://i.ytimg.com/vi/JrHOPQsHGvE/maxresdefault.jpg>



Frank Frazetta
Jaguar God II

<http://static1.squarespace.com/static/55f4aa90e4b044a1a3403b43/t/56757f8ba2bab87a7441fd9e/1450540941453/>



Artist: [William Merritt Chase](#)
Completion Date: 1886

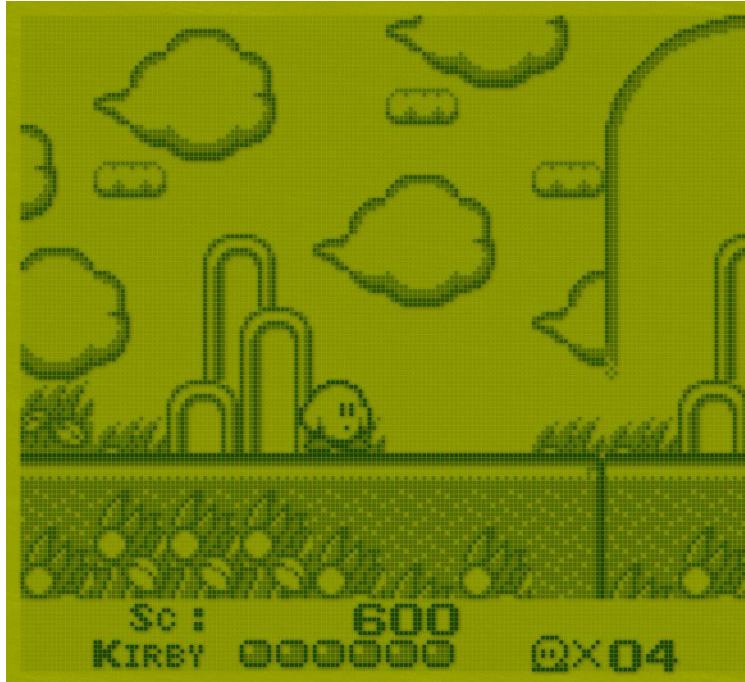
<http://www.wikiart.org/en/william-merritt-chase/terrace-prospect-park>

Limited Palette



The Massacre at Chios
Eugene Delacroix

<https://www.artsy.net/artwork/eugene-victor-ferdinand-delacroix-eugene-delacroix-scenes-from-the-massacre-at-chios/download/eugene-victor-ferdinand-delacroix-eugene-delacroix-scenes-from-the-massacre-at-chios-1822-1824.jpg>



<http://vignette2.wikia.nocookie.net/emulation-general/images/c/ce/Gb.png/revision/latest?cb=20130717183918>



Shadow of Colossus

https://vice-images.vice.com/images/content-images/2015/02/02/shadow-of-the-colossus-a-decade-on-isnt-quite-the-classic-you-recall-933-body-image-1422906490.jpg?resize=1000:*&output-quality=75

Colour and Mood



<https://i.ytimg.com/vi/FI5I5CUTqh4/hqdefault.jpg>



<http://justrpg.com/wp-content/gallery/diablo-2-lod-overview/diablo-2-assassin.jpg>



http://www.digiseller.ru/preview/264150/p1_1983258_a6a6cbd7.jpg

Colour and Mood



<http://images.bit-tech.net/blog/2009/09/i-m-so-sick-of-world-war-ii/1.jpg>



<http://cdn.pcgamesn.com/sites/default/files/best%20world%20war%20%20game%20pc%20company%20of%20heroes%20lasknd.png>



<http://pspmcia.ign.com/psp/image/article/818/818139/medal-of-honor-heroes-2-20070905071929948-000.jpg>



<http://www.warhistoryonline.com/wp-content/uploads/2014/11/The-Top-10-World-War-II-Games-on-PC-6.png>



http://www.heartsofiron4.com/assets/screenshots/hearts_of_iron_4_20140808_04-98ff8f2d44be9910e6dd9220bf14600c.jpg



<http://media.moddb.com/images/games/1/13/12716/screen2.jpg>

Colour and Mood



<https://www.kleientertainment.com/sites/default/files/games/dont-starve/gallery/ds16.png>



<http://www.ztgd.com/wp-content/gallery/raymanoriginsgc11/RaymanOrigins03.jpg>

Colour and Mood



http://cdn.akamai.steamstatic.com/steam/apps/61730/ss_5aec03fce8153e414e73138079e6c7c1e7601893.600x338.jpg?t=1447356419



<http://www.ztgd.com/wp-content/gallery/raymanoriginsgc1/RaymanOrigins03.jpg>



<http://www.oriblindforest.com/wp-content/uploads/galleryimages/8X3BM5C1L4S4iYjL.jpg>



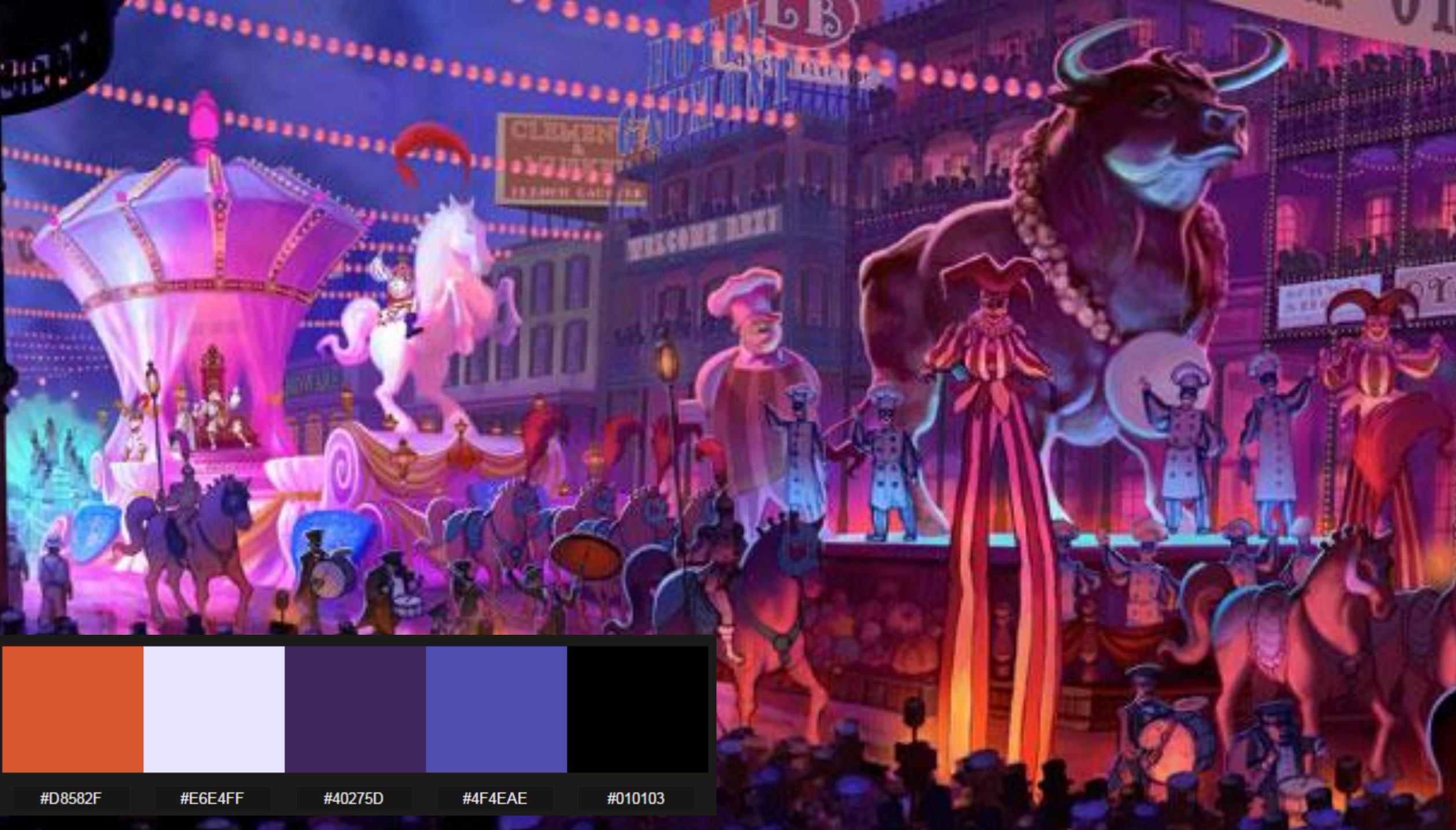
#819A8C

#F9F1AD

#D7B663

#0B0000

#916632



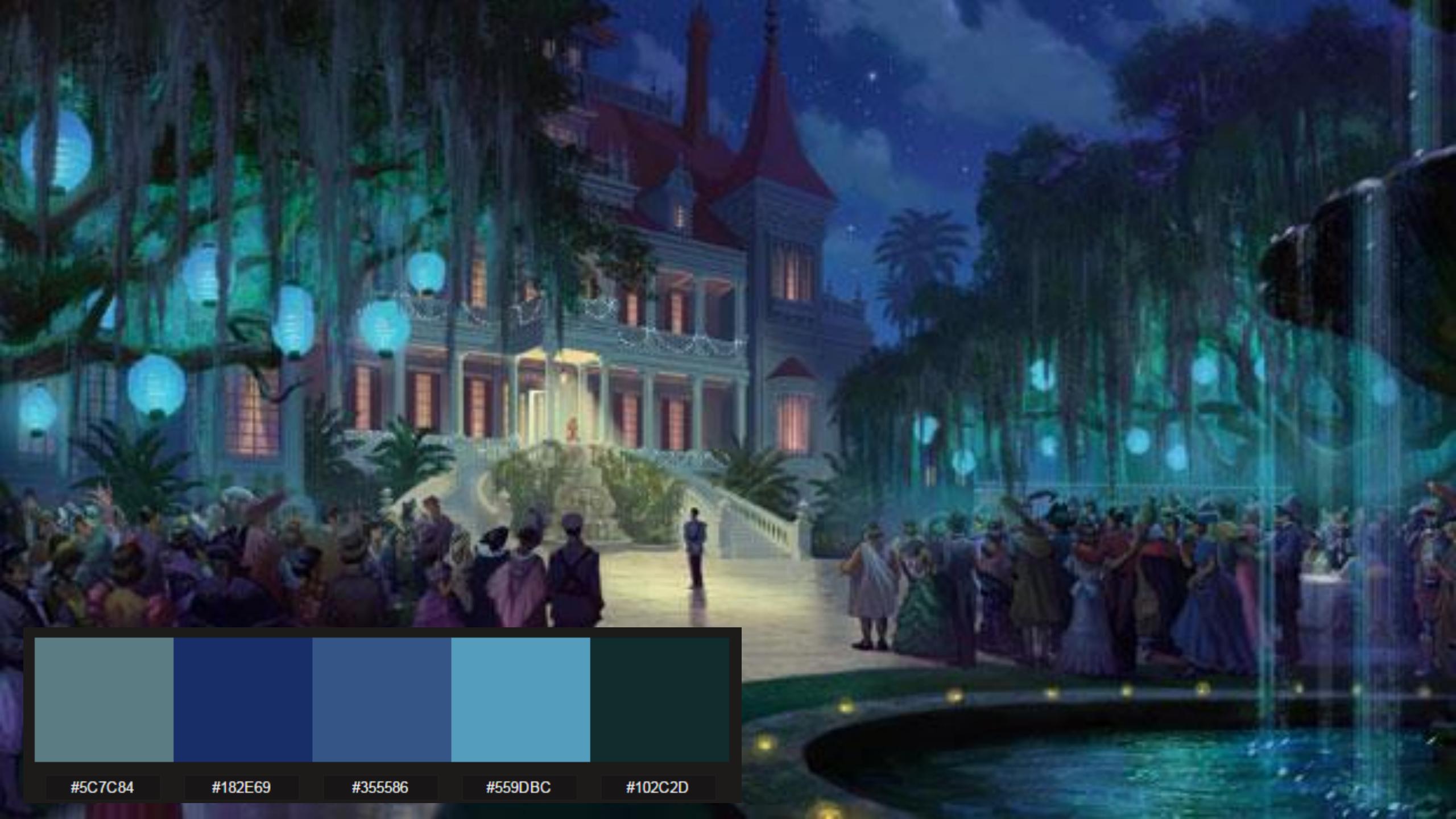
#D8582F

#E6E4FF

#40275D

#4F4EAE

#010103



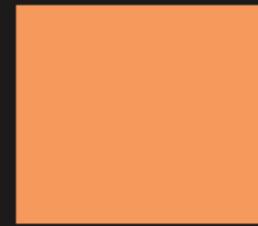
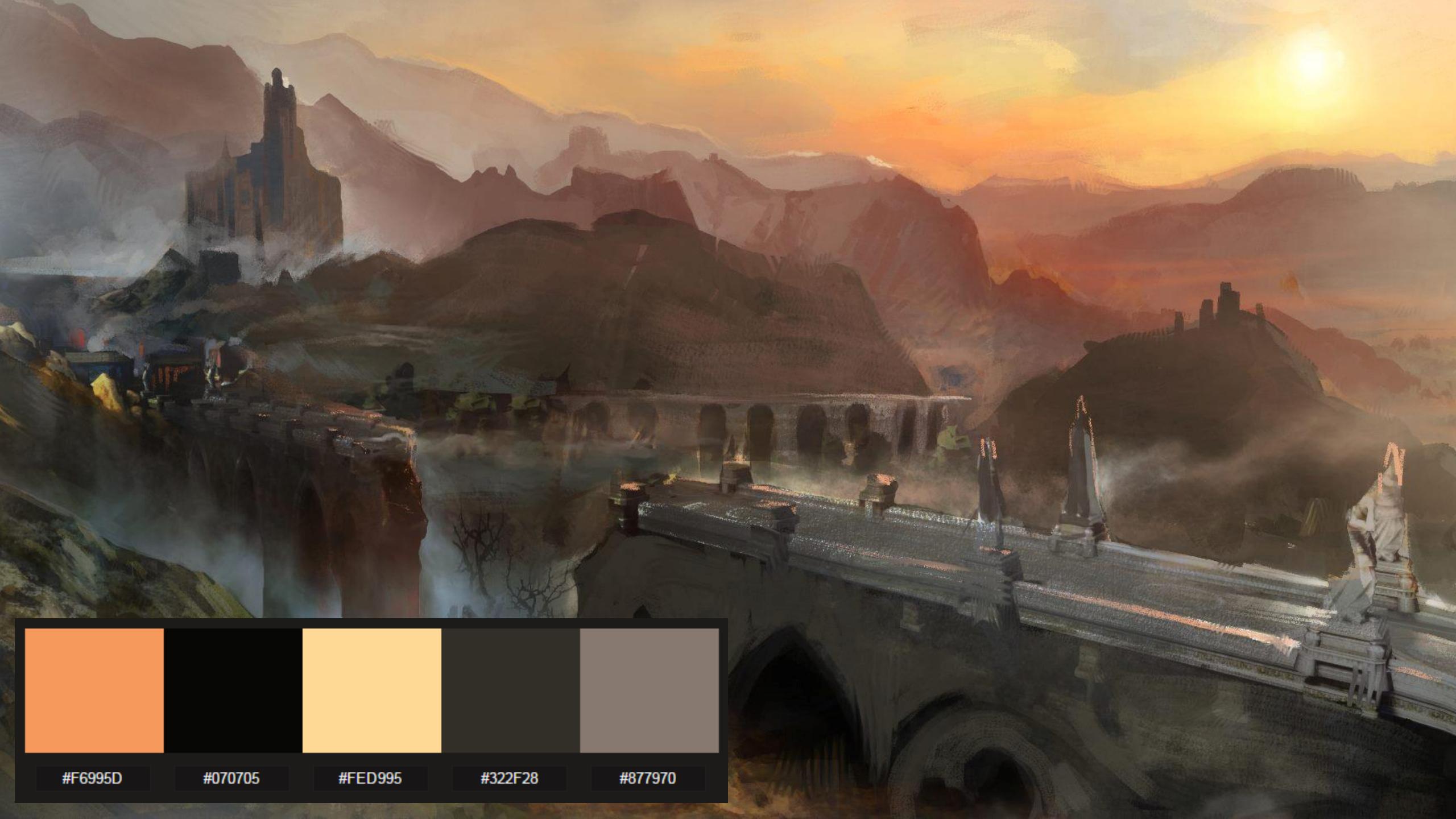
#5C7C84

#182E69

#355586

#559DBC

#102C2D



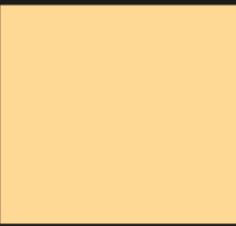
#F6995D

#070705

#FED995

#322F28

#877970



Demo: Aliased Painting

- Turning off anti aliasing for fast colour editing.
- Demo file?
- New PICTURE

The screenshot shows the Adobe Color website interface. At the top, there's a navigation bar with links for CREATE, EXPLORE, TRENDS, and MY THEMES. Below that is a sub-navigation bar with links for Color Wheel, Extract Theme, Extract Gradient, and a New button. The main area features a large color wheel with various color harmony rules listed on its left side. The selected rule is 'Complementary'. Below the color wheel is a horizontal color palette with five squares: brown (#B38B4D), orange (#FFDBA1), yellow (#FFD187), blue (#3B7AB3), and light blue (#87C6FF). Each square has its corresponding hex code and RGB values below it. The RGB values for the brown square are: Red (179), Green (139), Blue (77). The RGB values for the orange square are: Red (255), Green (219), Blue (161). The RGB values for the yellow square are: Red (255), Green (209), Blue (135). The RGB values for the blue square are: Red (59), Green (122), Blue (179). The RGB values for the light blue square are: Red (135), Green (198), Blue (255). At the bottom, there are links for Language: English, Terms of Use, Privacy, User Forums, Community Guidelines, and Copyright © 2019 Adobe. All rights reserved.

Exercise – Character Palette

- Return to <https://color.adobe.com/create/color-wheel>
- Make 3 potential palettes for your character
- Consider what colours imply about your character
- Take a drawing of your character (turnaround?) and colour it with a palette.

The screenshot shows the Adobe Color website at <https://color.adobe.com/create/color-wheel>. The interface includes a top navigation bar with links for CREATE, EXPLORE, TRENDS, and MY THEMES. Below this is a sub-navigation bar with links for Color Wheel, Extract Theme, Extract Gradient, and a New button. A sidebar on the left lists color harmony rules: Analogous, Monochromatic, Triad, Complementary (which is selected), Split Complementary, Double Split Complementary, Square, Compound, Shades, and Custom. To the right is a large color wheel with several colored dots indicating specific color swatches. Below the wheel is a horizontal color palette with five squares: brown (#B38B4D), orange (#FFDBA1), yellow (#FFD187), blue (#3B7AB3), and light blue (#87C6FF). Each square has its hex code below it. At the bottom of the palette are two rows of color sliders for RGB values. The bottom navigation bar includes links for Language: English, Terms of Use, Privacy, User Forums, Community Guidelines, and Copyright © 2019 Adobe. All rights reserved.