Color Harmony Plates

Planning Color Schemes

Designing Color Relationships

From Scheme to Palette

- *Hue schemes* (e.g. complementary, analogous, etc.) suggest only a particular set of hues — a limited palette of hues.

- But what about value, chroma, dominances, subordinates and relationships among colors…
  …what about *particular colors*?

A Strategy for Color Harmony

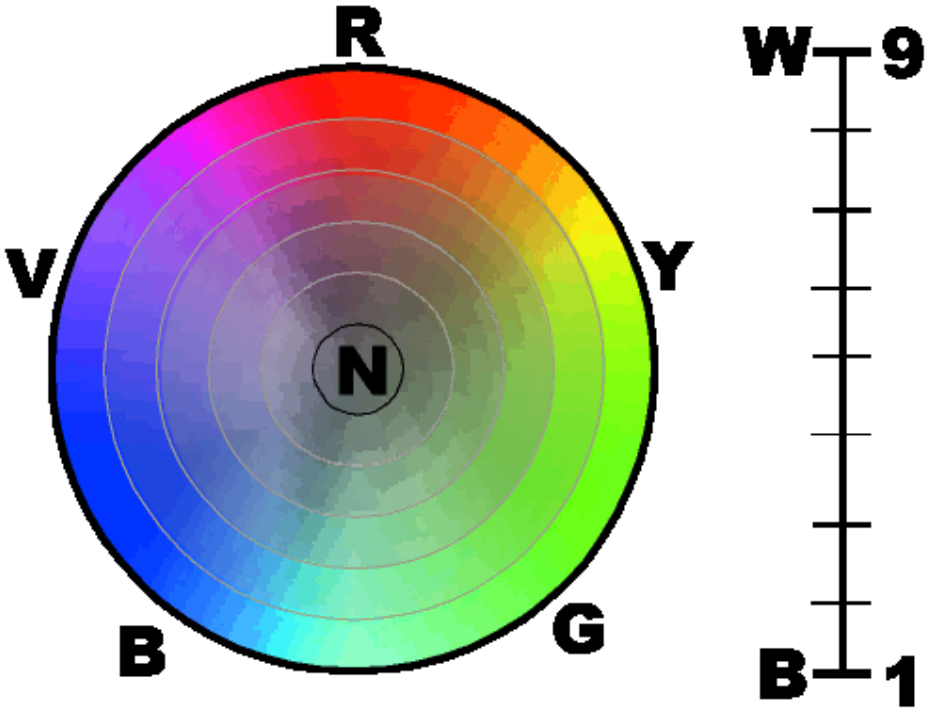
- We need a strategy to help identify particular colors that are likely to relate well to each other. We need to systematize color harmony.

- What follows is a strategy for just that. “A” strategy—NOT the way to create perfect harmonies. But a good system for laying a solid color foundation to design.

A Strategy for Color Harmony

- Select **Hues** (Typically, use a common hue-structure. Give attention to mood/connotations and other specs.)
- Select **Values**
- Select **Chromas**
- Select **dominances** in H, V & C

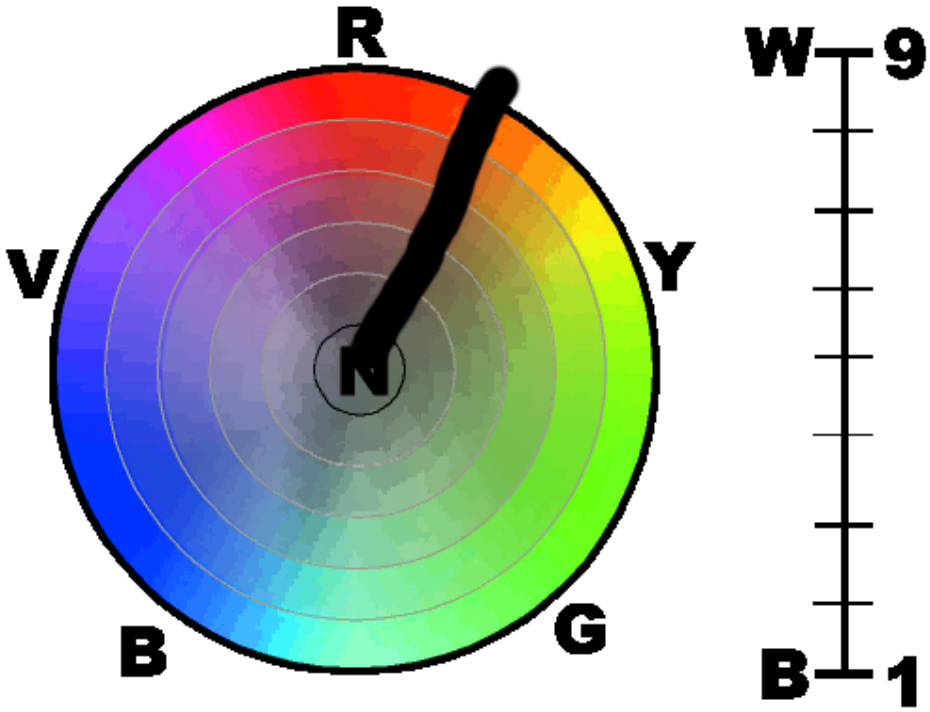
- This leads to a limited set of colors—a palette.



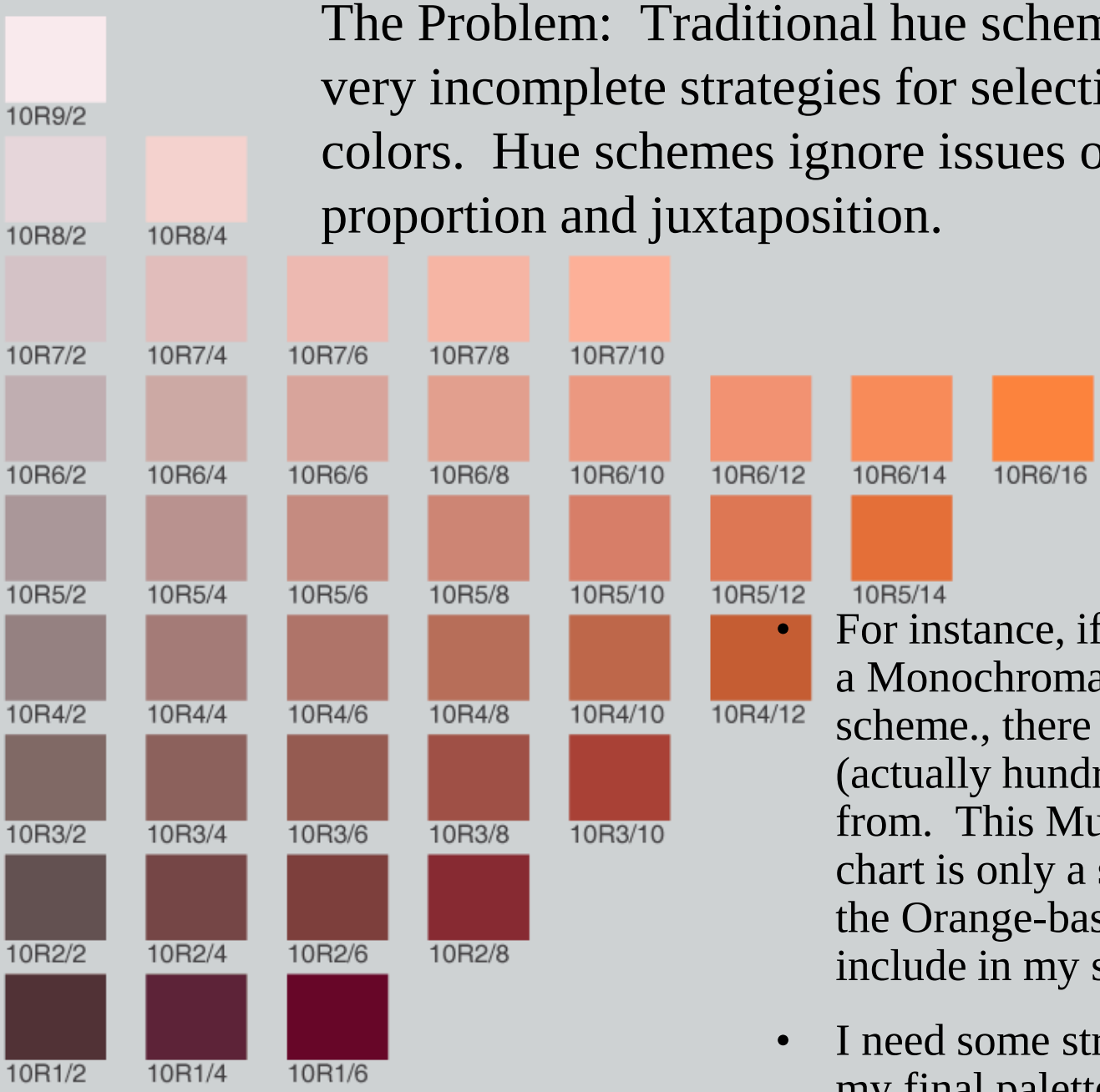
Consider selecting colors for a monochromatic color scheme based on an Red-Orange hue.

Monochromatic Scheme:

Hue: Red-Orange (RO)



The Problem: Traditional hue schemes are actually very incomplete strategies for selecting a palette of colors. Hue schemes ignore issues of chroma, value, proportion and juxtaposition.



- For instance, if I decide that I will use a Monochromatic Orange hue scheme., there are still dozens (actually hundreds) of colors to pick from. This Munsell constant hue chart is only a small sample of all of the Orange-based colors I might include in my scheme.
- I need some strategy for narrowing my final palette down to only a few, manageable well-related colors.

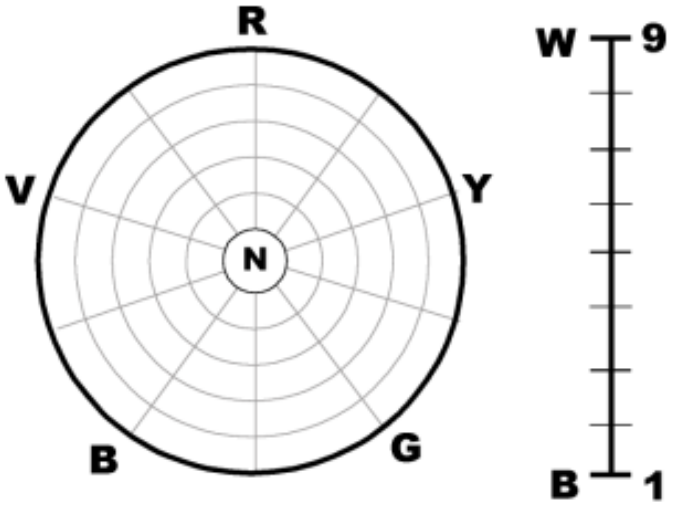
Color Planning Problem:

Plan and chart the 9 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic
Dominant Hue: Red-Orange
Dominant Value: 4
Dominant Chroma: Middle
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____?_____
Subordinate Value(s): 2, 8
Subordinate Chroma(s): Middle High, Low

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ Val: _____ Chroma: _____

Color 2: Hue: _____ Val: _____ Chroma: _____

Color 3: Hue: _____ Val: _____ Chroma: _____

Color 4: Hue: _____ Val: _____ Chroma: _____

Color 5: Hue: _____ Val: _____ Chroma: _____

Color 6: Hue: _____ Val: _____ Chroma: _____

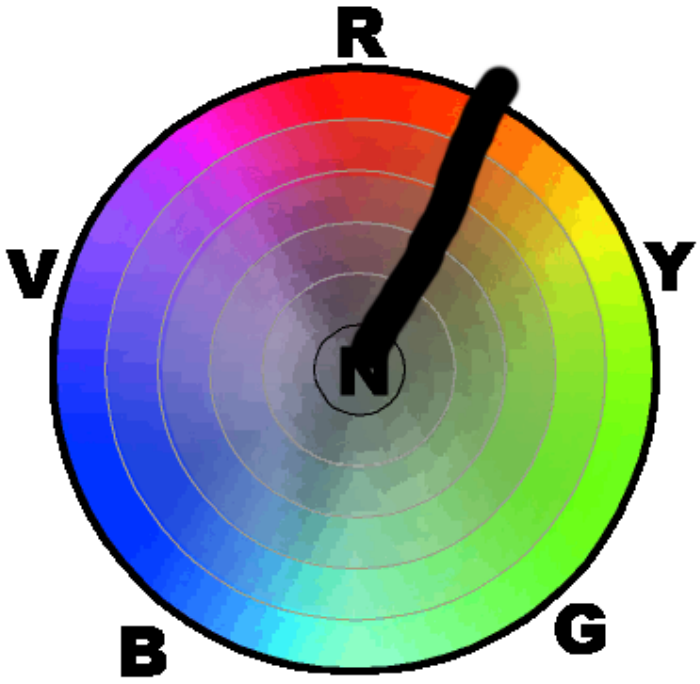
Color 7: Hue: _____ Val: _____ Chroma: _____

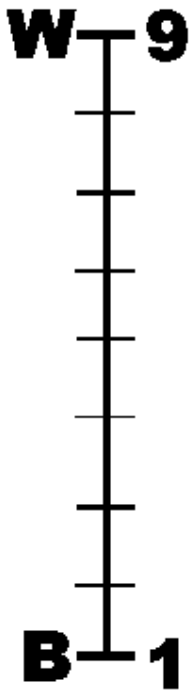
Color 8: Hue: _____ Val: _____ Chroma: _____

Color 9: Hue: _____ Val: _____ Chroma: _____

Monochromatic Scheme:

Hue: Red-Orange (RO)





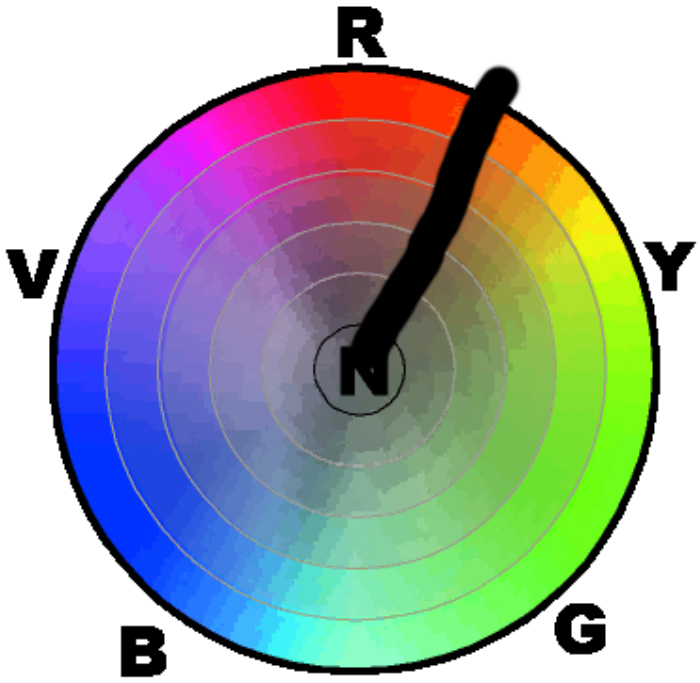
Develop dominances in each dimension of color.

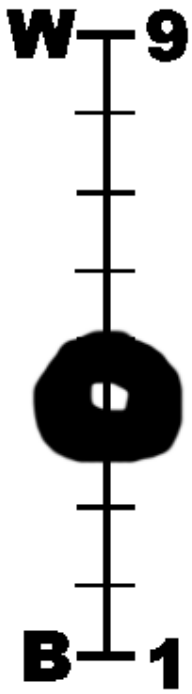
- ***First decide on the dominate color characteristics of your design, and then develop particular colors from those general traits.***
- ***While there is no absolute rule about this, select your dominant value first.***
- *Value is a critical color-design issue – a well-developed dominant value scheme can serve to anchor color schemes that have little order elsewhere.*

Monochromatic Scheme:

Hue: Red-Orange (RO)

Dominant Value: 4





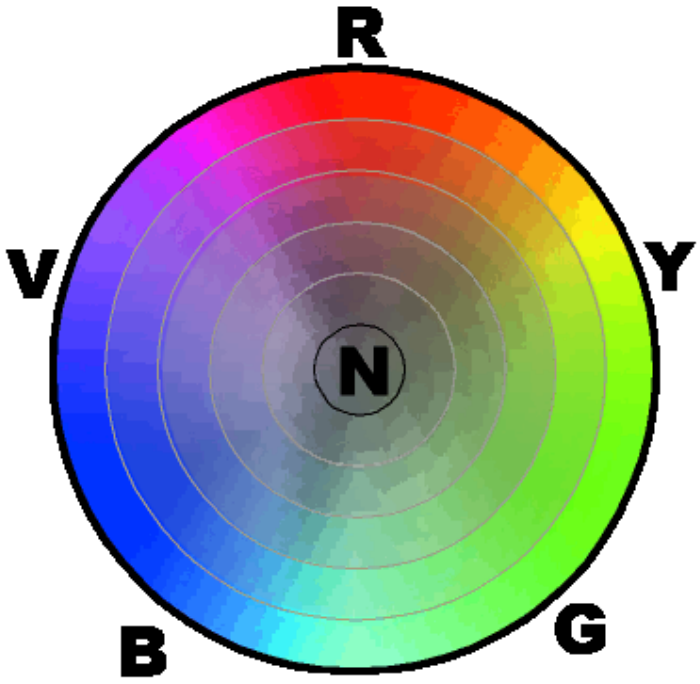
Selecting dominant Value

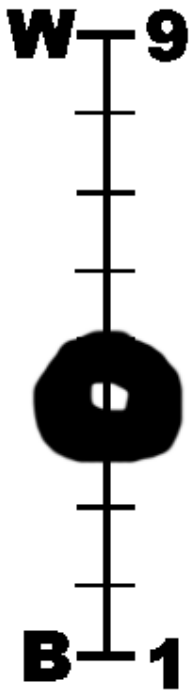
- ***This is the foundation. Make sure that you know what your dominating value will be and be sure to use it to unify and balance your design.***
- ***Select key: High key, mid key, low key.***

Monochromatic Scheme:

Hue: Red-Orange (RO)

Dominant Value: 4



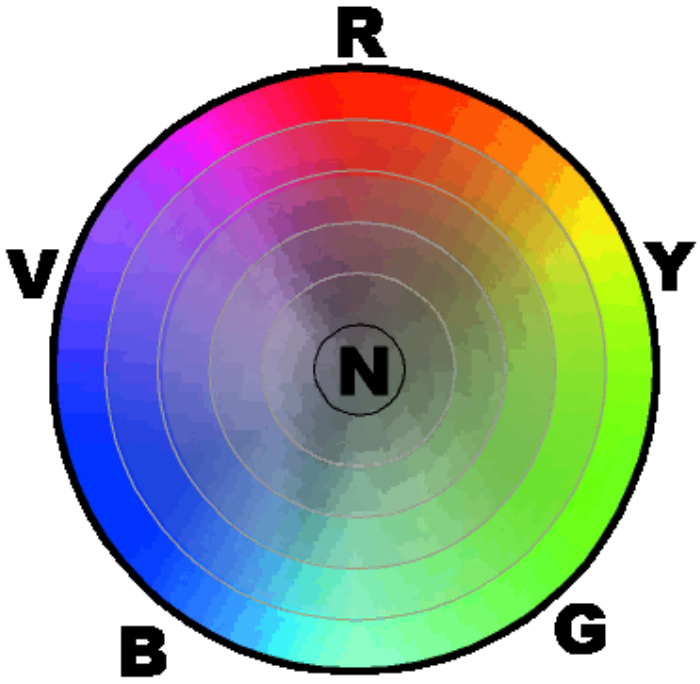


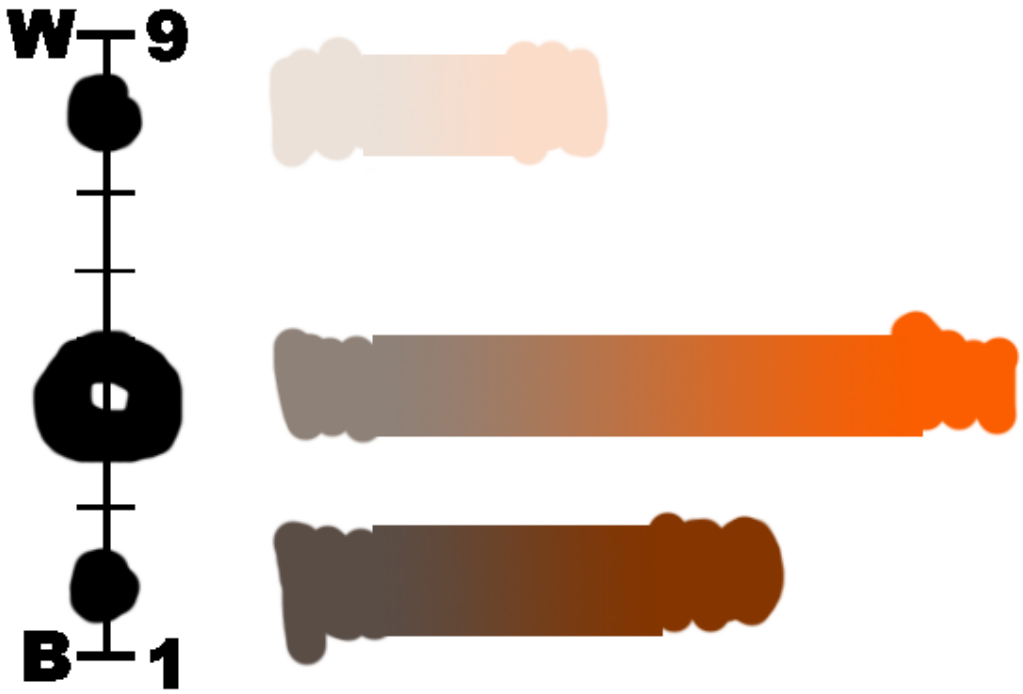
Selecting Subordinate Values

- ***Subordinate values will determine the nature and intensity of contrast in the design, but most contrasts will be made with reference to a well-established dominant – that is, contrasting values need something clear to contrast*** *with****.***
- ***If subordinate values are close to the dominant value, then the design has a soft or subdued quality.***
- ***If subordinate values are far from the dominant value, then the design takes on a more dynamic, bold or energetic quality.***

Monochromatic Scheme: **Dominant Value: 4**

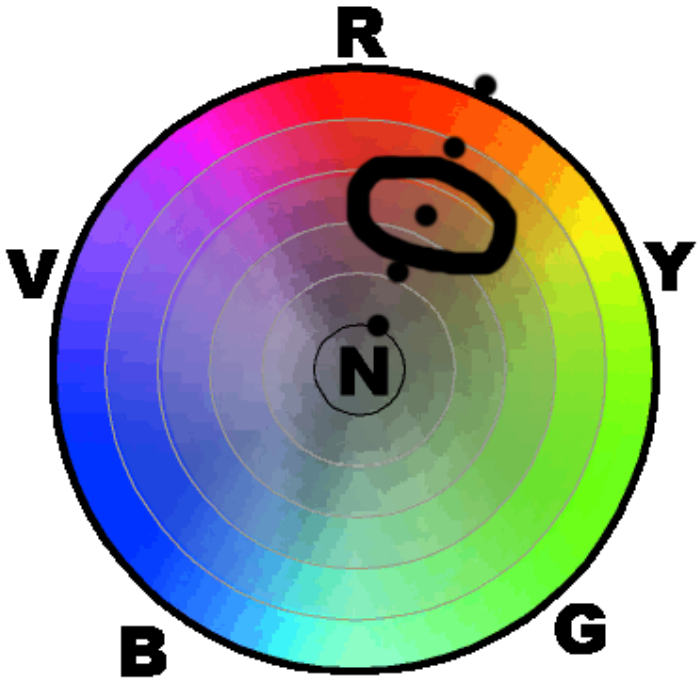
Hue: Red-Orange (RO) **Subordinate Values: 2, 8**

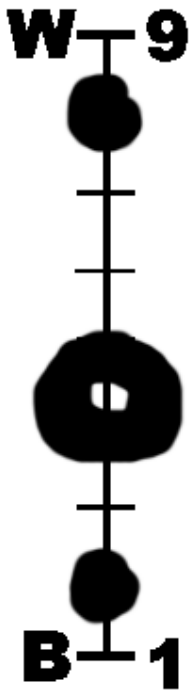




Monochromatic Scheme: **Dominant Value: 4** **Dominant Chroma: Mid**

Hue: Red-Orange (RO) **Subordinate Values: 2, 8**



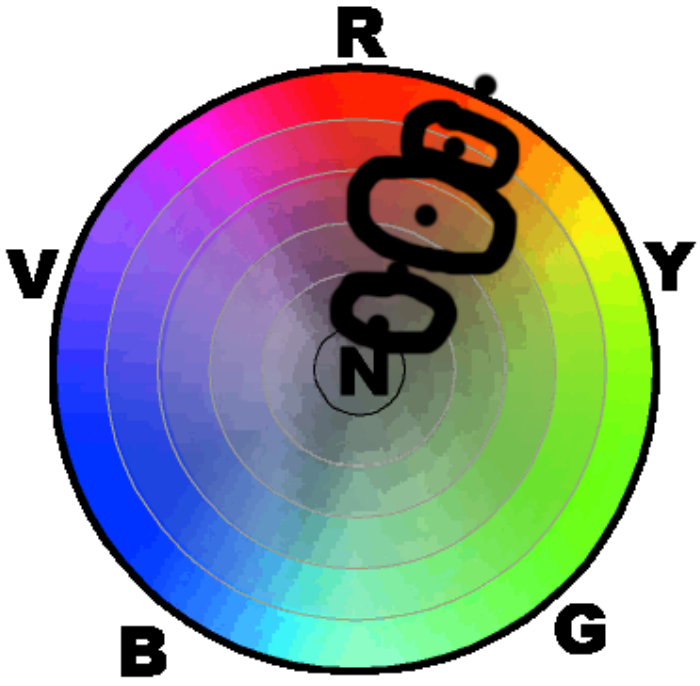


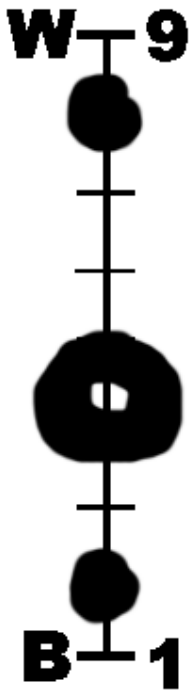
Develop subordinates in each dimension of color

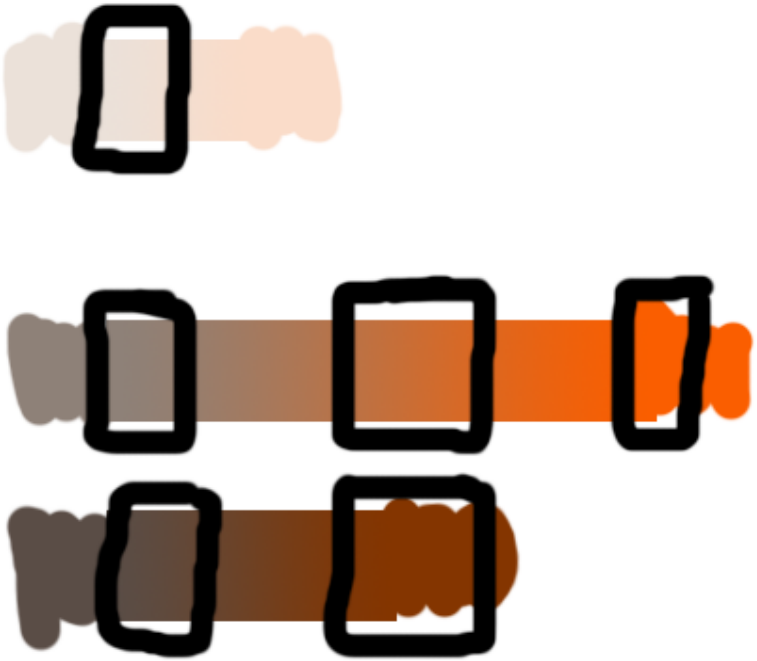
- *This is where the fun begins.*
- ***Here you decide what range of hues will be used and the nature of the contrasts.***
- ***You will decide about the range of value and the nature of value contrasts or continuity.***

Monochromatic Scheme: **Dominant Value: 4** **Dominant Chroma: Mid**

Hue: Red-Orange (RO) **Subordinate Values: 2, 8** **Subordinate Chromas: MHigh, Low**

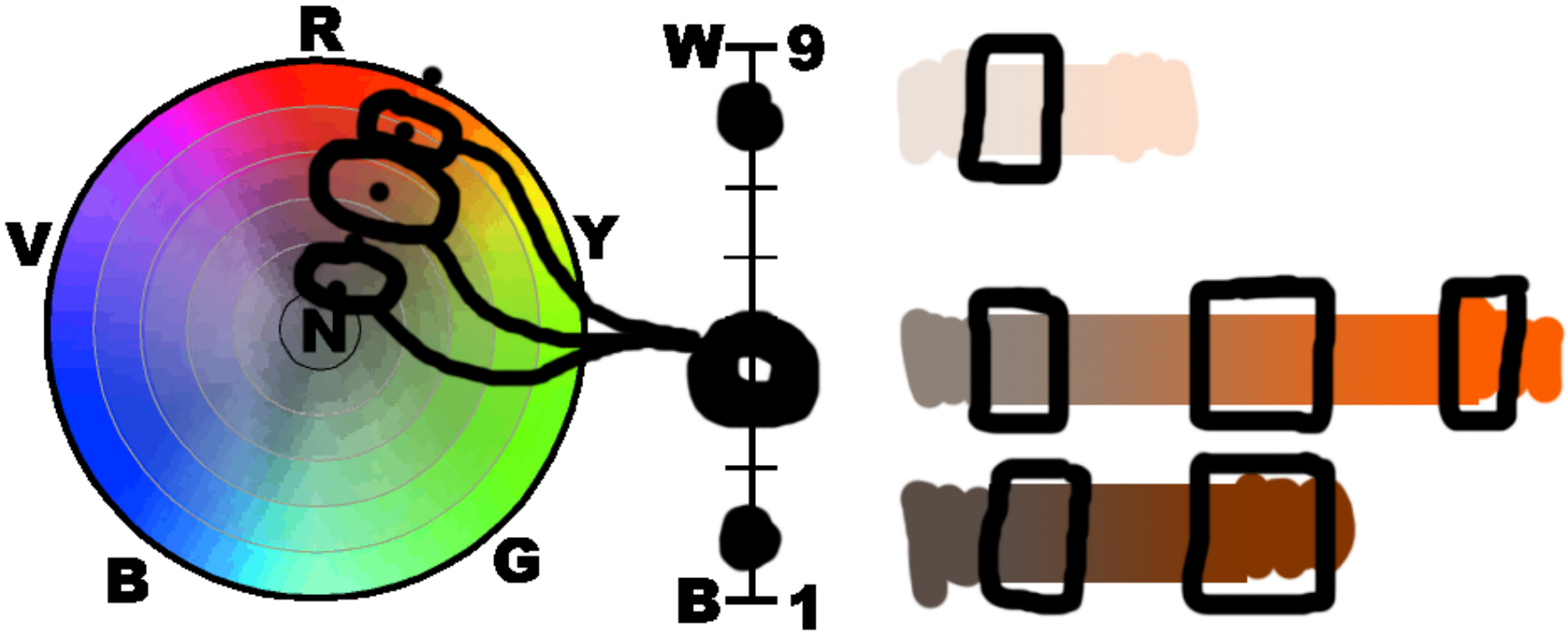






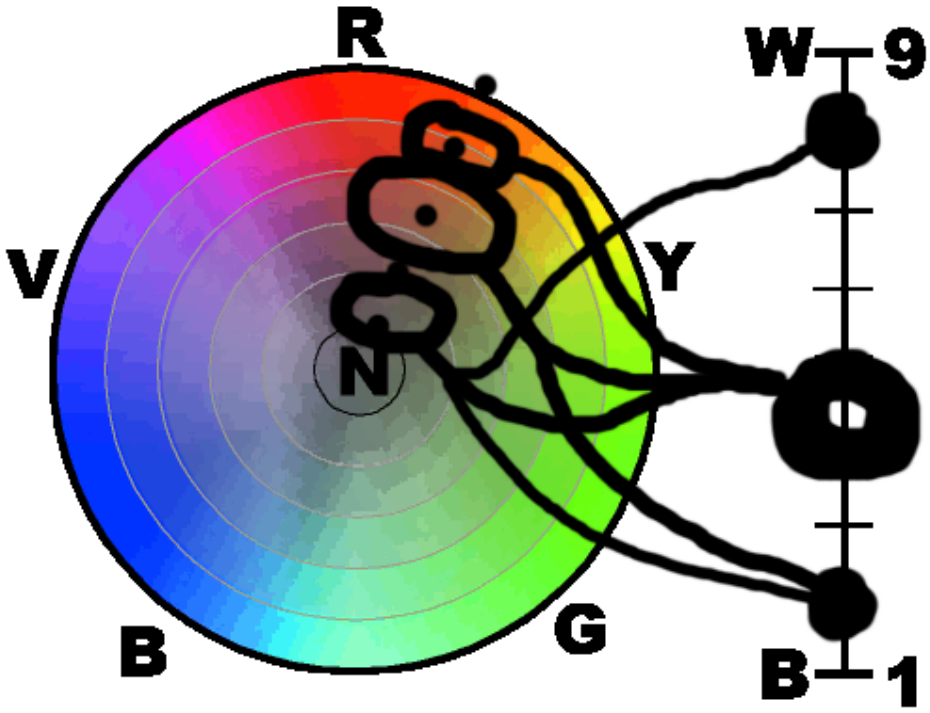
Monochromatic Scheme: **Dominant Value: 4** **Dominant Chroma: Mid**

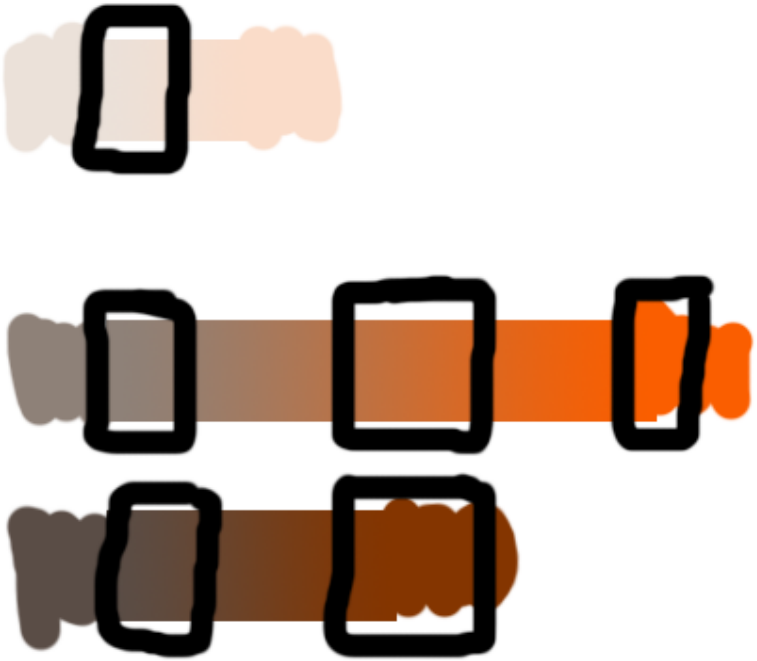
Hue: Red-Orange (RO) **Subordinate Values: 2, 8** **Subordinate Chromas: MHigh, Low**



Monochromatic Scheme: **Dominant Value: 4** **Dominant Chroma: Mid**

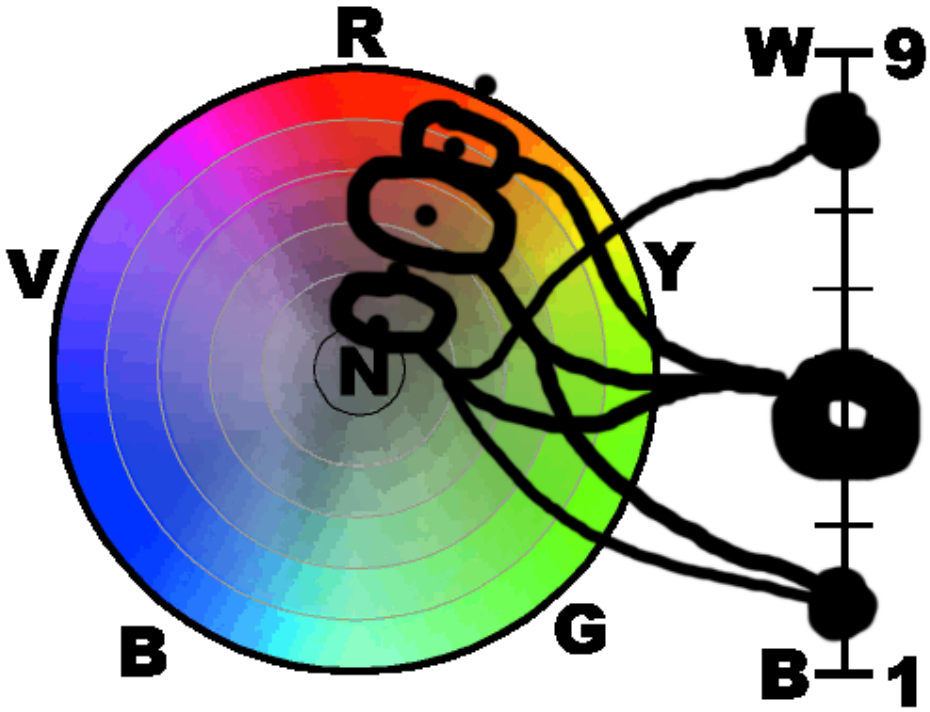
Hue: Red-Orange (RO) **Subordinate Values: 2, 8** **Subordinate Chromas: MHigh, Low**





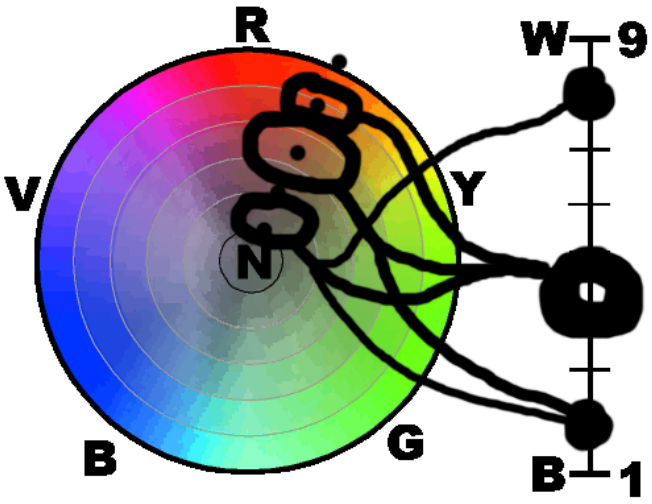
Monochromatic Scheme: **Dominant Value: 4** **Dominant Chroma: Mid**

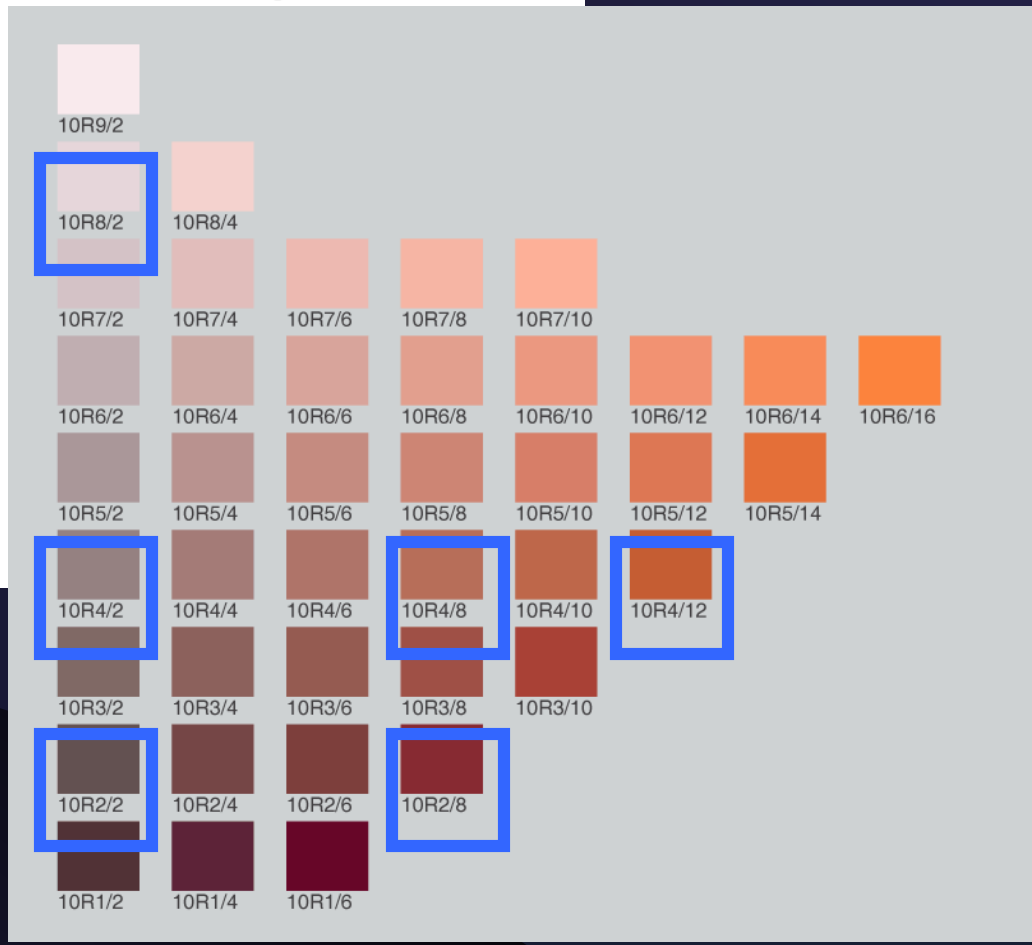
Hue: Red-Orange (RO) **Subordinate Values: 2, 8** **Subordinate Chromas: MHigh, Low**



Monochromatic Scheme: **Dominant Value: 4** **Dominant Chroma: Mid**

Hue: Red-Orange (RO) **Subordinate Values: 2, 8** **Subordinate Chromas: MHigh, Low**





- Using the scheme we've devised, we've narrowed our "monochromatic orange scheme", down to a specific palette of only a six colors.
- AND due to "Dominance" decisions, we also have a general sense of color proportion — which colors do we use a lot, and which in only scarce quantities.

CPP 3

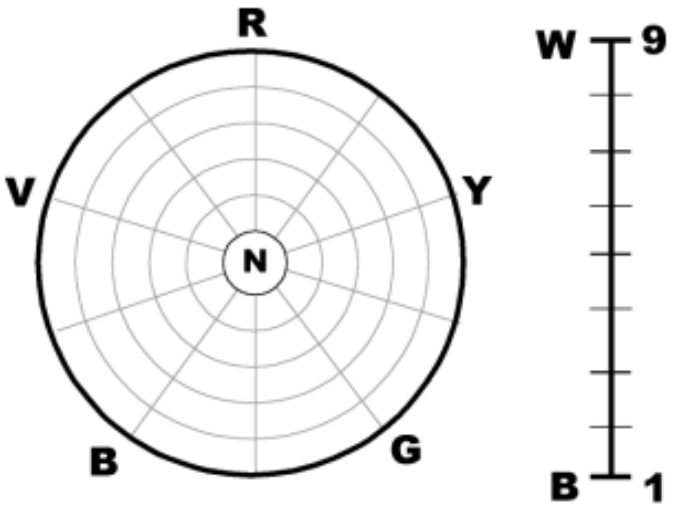
Color Planning Problem:

Plan and chart the 9 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic
Dominant Hue: Red-Orange
Dominant Value: 4
Dominant Chroma: Middle
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____?_____
Subordinate Value(s): 2, 8
Subordinate Chroma(s): Middle High, Low

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ Val: _____ Chroma: _____

Color 2: Hue: _____ Val: _____ Chroma: _____

Color 3: Hue: _____ Val: _____ Chroma: _____

Color 4: Hue: _____ Val: _____ Chroma: _____

Color 5: Hue: _____ Val: _____ Chroma: _____

Color 6: Hue: _____ Val: _____ Chroma: _____

Color 7: Hue: _____ Val: _____ Chroma: _____

Color 8: Hue: _____ Val: _____ Chroma: _____

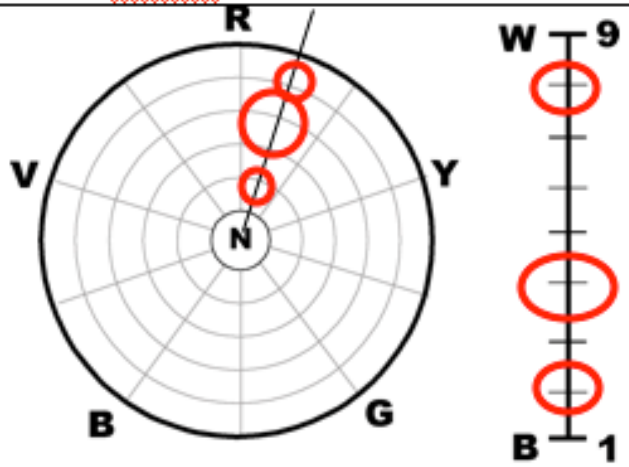
Color 9: Hue: _____ Val: _____ Chroma: _____

Color Planning Problem 3: (solution)

Plan and chart the 9 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic
Dominant Hue: Red-Orange
Dominant Value: 4
Dominant Chroma: Middle

Subordinate Hue(s): _____NONE_____
Subordinate Value(s): 2, 8
Subordinate Chroma(s): Middle High, Low



	Limited To	Dominant
Value	2, 4, 8	4
Hue	RO	RO
Chroma	L, M, MH	M

Scheme MonoChromatic

Color1	Hue:	RO	Val:	4	Chr:	M
Color2	Hue:	RO	Val:	2	Chr:	M
Color3	Hue:	RO	Val:	8	Chr:	M
Color4	Hue:	RO	Val:	4	Chr:	MH
Color5	Hue:	RO	Val:	2	Chr:	MH
Color6	Hue:	RO	Val:	8	Chr:	MH
Color7	Hue:	RO	Val:	4	Chr:	L
Color8	Hue:	RO	Val:	2	Chr:	L
Color9	Hue:	RO	Val:	8	Chr:	L

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

RO v-2 c-MH may be beyond the chroma range of RO
RO v-8 c-MH is likely beyond the chroma range of RO

Relate each color in the scheme to other colors by hue, value, and/or chroma.

- ***Introduce a range of colors that incorporate all (most) of the possible permutations of these dominances and subordinates…***
- ***…then narrow down to a useable, limited palette.***

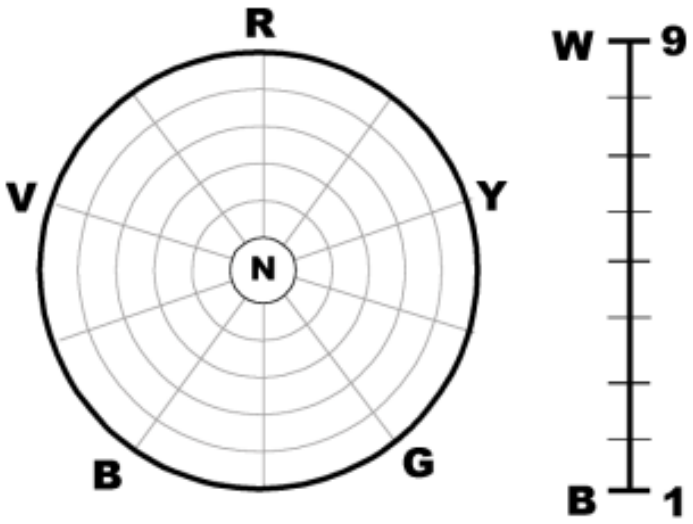
Color Planning Problem:

Plan and chart the 8 colors produced by a strict interpretation of this scheme:

Hue Scheme: Complementary
Dominant Hue: Red-Violet
Dominant Value: 4
Dominant Chroma: Middle Low
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____?_____
Subordinate Value(s): 8
Subordinate Chroma(s): High

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ Val: _____ Chroma: _____

Color 2: Hue: _____ Val: _____ Chroma: _____

Color 3: Hue: _____ Val: _____ Chroma: _____

Color 4: Hue: _____ Val: _____ Chroma: _____

Color 5: Hue: _____ Val: _____ Chroma: _____

Color 6: Hue: _____ Val: _____ Chroma: _____

Color 7: Hue: _____ Val: _____ Chroma: _____

Color 8: Hue: _____ Val: _____ Chroma: _____

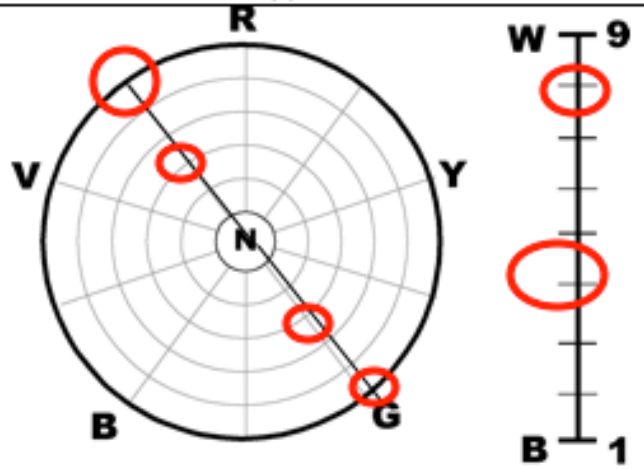
CPP 1

Color Planning Problem 1: (solution)

Plan and chart the 8 colors produced by a strict interpretation of this scheme:

Hue Scheme: Complementary
Dominant Hue: Red-Violet
Dominant Value: 4
Dominant Chroma: Middle Low
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____GREEN_____
Subordinate Value(s): 8
Subordinate Chroma(s): High



	Limited To	Dominant
Value	4, 8	4
Hue	RV, G	RV
Chroma	ML, H	ML

Scheme Complementary

Color 1: Hue: __RV__ Val: __4__ Chroma: ____ML__

Color 2: Hue: __RV__ Val: __8__ Chroma: ___ML__

Color 3: Hue: _RV___ Val: _4____ Chroma: ____H__

Color 4: Hue: __RV___ Val: _8____ Chroma: ___H___

Color 5: Hue: __GRN Val: __4__ Chroma: ___ML__

Color 6: Hue: __GRN Val: __8__ Chroma: __ML__

Color 7: Hue: _GRN__ Val: _4__ Chroma: _H__

Color 8: Hue: __GRN__ Val: _8__ Chroma: ___H___

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

G v8, c11 -- outside intrinsic value of green??
RV v8, c11 -- outside intrinsic value of red-violet

Note: the *order* of "Color1", "Color2", etc. does *NOT* matter. Just make sure that each color within the scheme is identified and specified.

Notice that the "RV" color specs are repeated in the "Grn" colors – that is, the Value-Chroma specs are repeated.

RV 7 H (high chroma not possible at a value 7)
G 7 H (H chroma likely not possible at value 7 -- though Munsell allows any chroma over 10 to be considered 'high'

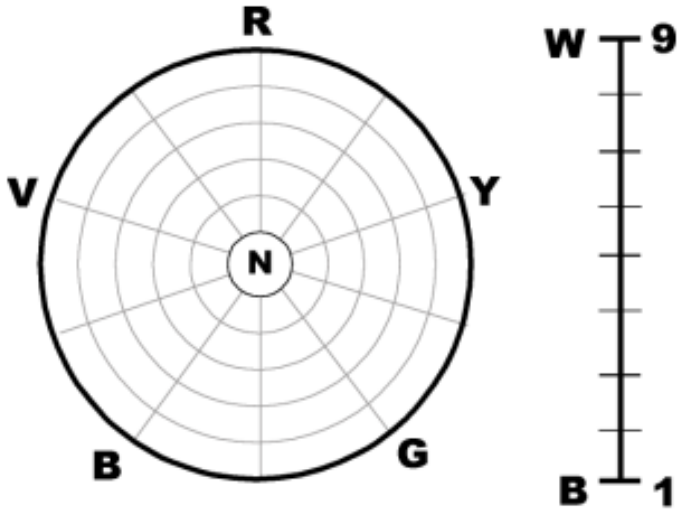
CPP 2

Color Planning Problem:

Plan and chart the 6 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic
Dominant Hue: Blue Green **Subordinate Hue(s): ? **
Dominant Value: 3 **Subordinate Value(s): 1, 7**
Dominant Chroma: Low **Subordinate Chroma(s): Middle High**
Out-of-Scheme Accent(s): none

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ Val: _____ Chroma: _____

Color 2: Hue: _____ Val: _____ Chroma: _____

Color 3: Hue: _____ Val: _____ Chroma: _____

Color 4: Hue: _____ Val: _____ Chroma: _____

Color 5: Hue: _____ Val: _____ Chroma: _____

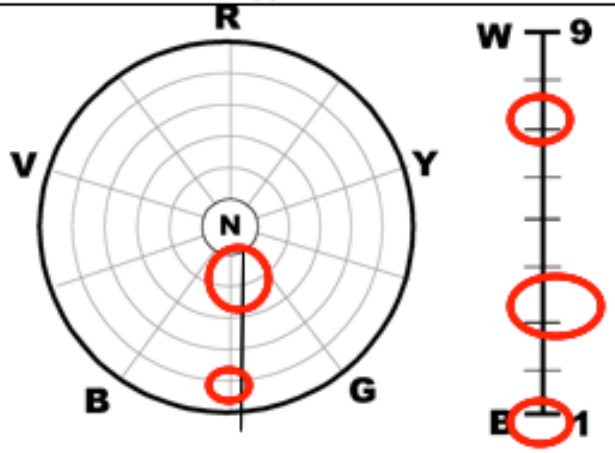
Color 6: Hue: _____ Val: _____ Chroma: _____

Color Planning Problem 2: (solution)

Plan and chart the 6 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic
Dominant Hue: Blue Green
Dominant Value: 3
Dominant Chroma: Low
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____(NONE)_____
Subordinate Value(s): 1, 7
Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value	1, 3, 7	3
Hue	BG	BG
Chroma	ML, L	L

Scheme: Monochromatic

Color 1: Hue: __BG__ Val: _1___ Chroma: __L___

Color 2: Hue: __BG__ Val: __3__ Chroma: __L___

Color 3: Hue: __BG__ Val: _7__ Chroma: ___L__

Color 4: Hue: __BG__ Val: __1___ Chroma: __MH___

Color 5: Hue: __BG__ Val: __3__ Chroma: __MH___

Color 6: Hue: __BG__ Val: __7__ Chroma: __MH__

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

BG v7 cMH might be beyond BG's chroma range
BG v1 cMH is likely beyond BG's chroma range

Note: the *order* of "Color1"., "Color2", etc. does *NOT* matter. Just make sure that each color within the scheme is identified and specified.

Unlikely Colors in the scheme:
BG 1/MH is somewhat unlikely – particularly since "value 1" we treat as black (in the Actual Munsell color model, value 1 is quite dark, but *not* black (black=0).) However, a pigment such as Thalo Green *does* have a lot of chroma range and great tinting strength, but at v1 it is so dark that we cannot see its color well – thus its chroma is low.
BG 7/MH is also unlikely.

CPP 4

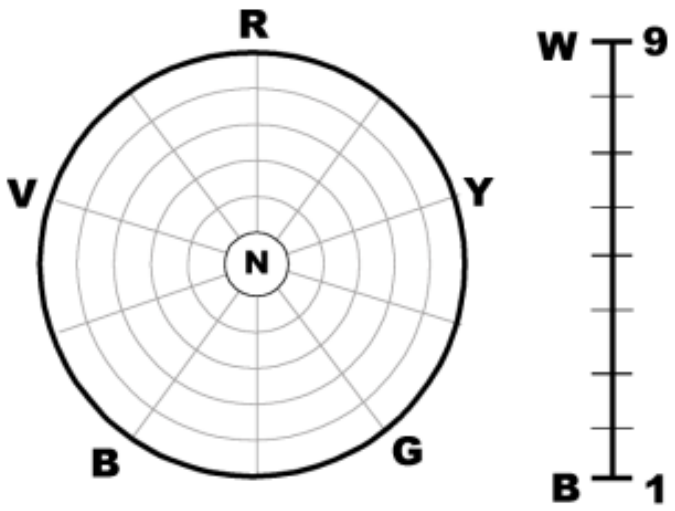
Color Planning Problem:

Plan and chart the 9 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic (with neutral)
Dominant Hue: Yellow-Orange
Dominant Value: 3
Dominant Chroma: Low
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____?_____
Subordinate Value(s): 1, 7
Subordinate Chroma(s): Middle High, Neutral

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ Val: _____ Chroma: _____

Color 2: Hue: _____ Val: _____ Chroma: _____

Color 3: Hue: _____ Val: _____ Chroma: _____

Color 4: Hue: _____ Val: _____ Chroma: _____

Color 5: Hue: _____ Val: _____ Chroma: _____

Color 6: Hue: _____ Val: _____ Chroma: _____

Color 7: Hue: _____ Val: _____ Chroma: _____

Color 8: Hue: _____ Val: _____ Chroma: _____

Color 9: Hue: _____ Val: _____ Chroma: _____

Color Planning Problem 4: (Solution)

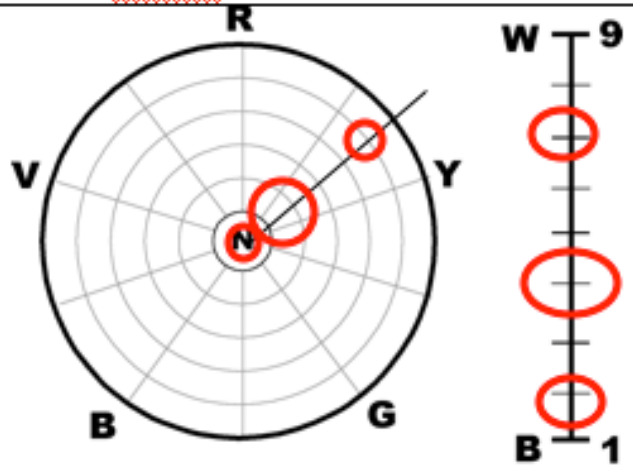
Plan and chart the 9 colors produced by a strict interpretation of this scheme: [basically the same as above, but Neutral has been added…noted in Chroma options.]

Hue Scheme: Monochromatic (with neutral) Out-of-Scheme Accent(s): none

Dominant Hue: Yellow-Orange **Subordinate Hue(s): _____NONE_____**

Dominant Value: 3 **Subordinate Value(s): 1, 7**

Dominant Chroma: Low **Subordinate Chroma(s): Middle High, Neutral**



	Limited To	Dominant
Value	3, 1, 7	3
Hue	YO, N	YO
Chroma	L, MH, H	L

Scheme MonoChromatic

Color1	Hue:	YO	Val:	3	Chr:	L
Color2	Hue:	YO	Val:	1	Chr:	L
Color3	Hue:	YO	Val:	7	Chr:	L
Color4	Hue:	YO	Val:	3	Chr:	MH
Color5	Hue:	YO	Val:	1	Chr:	MH
Color6	Hue:	YO	Val:	7	Chr:	MH
Color7	Hue:	YO (N)	Val:	3	Chr:	N
Color8	Hue:	YO (N)	Val:	1	Chr:	N
Color9	Hue:	YO (N)	Val:	7	Chr:	N

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

YO 1/MH is the least likely color in the scheme.

YO at value 1 (a very dark brown), has very little range of chroma.

Unlikely or impossible colors in the scheme:
YO 1/MH is the least likely color in the scheme. YO at value 1 (a very dark brown), has very little range of chroma.

CPP 4

r Planning Problem 4: (Solution)

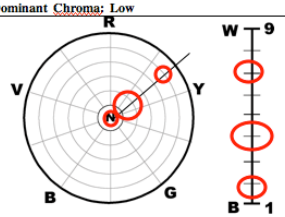
Plan and chart the 9 colors produced by a strict interpretation of this scheme: [basically the same as above, but Neutral has been added…noted in Chroma options.]

Hue Scheme: Monochromatic (with neutral) Out-of-Scheme Accent(s): none

Dominant Hue: Yellow-Orange **Subordinate Hue(s): _____NONE_____**

Dominant Value: 3 **Subordinate Value(s): 1, 7**

Dominant Chroma: Low **Subordinate Chroma(s): Middle High, Neutral**



	Limited To	Dominant
Value	3, 1, 7	3
Hue	YO, N	YO
Chroma	L, MH, H	L

Color1	Hue:	YO	Val:	3	Chr:	L
Color2	Hue:	YO	Val:	1	Chr:	L
Color3	Hue:	YO	Val:	7	Chr:	L
Color4	Hue:	YO	Val:	3	Chr:	MH
Color5	Hue:	YO	Val:	1	Chr:	MH
Color6	Hue:	YO	Val:	7	Chr:	MH
Color7	Hue:	YO (N)	Val:	3	Chr:	N
Color8	Hue:	YO (N)	Val:	1	Chr:	N
Color9	Hue:	YO (N)	Val:	7	Chr:	N

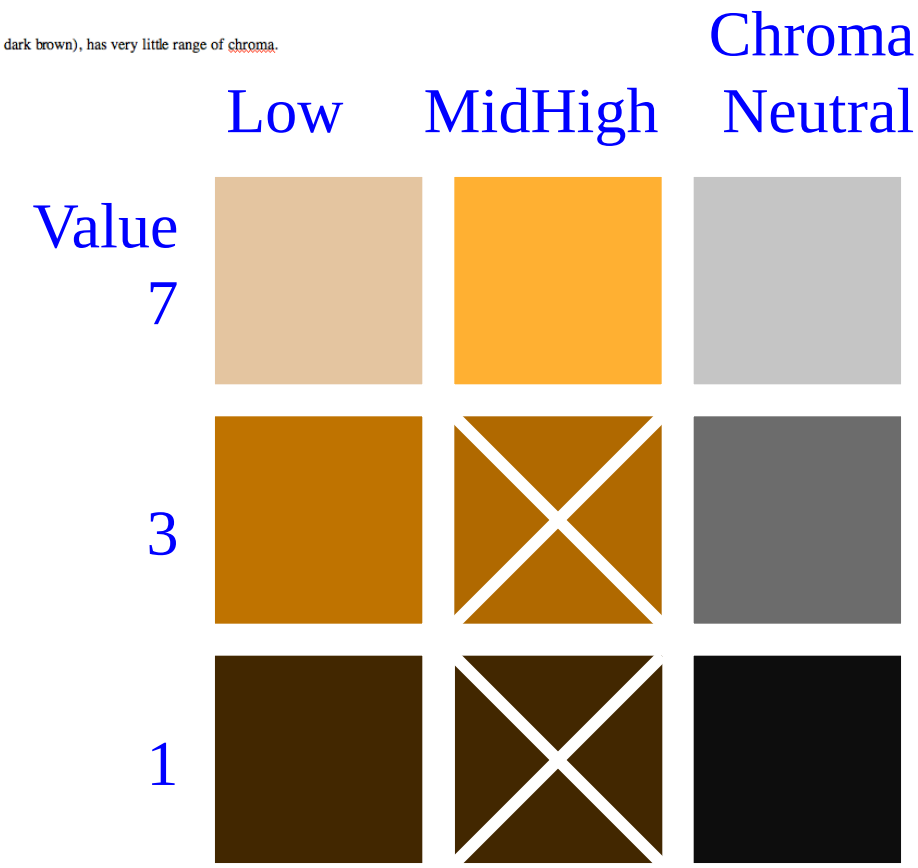
At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

YO 1/MH is the least likely color in the scheme.

YO at value 1 (a very dark brown), has very little range of chroma.

Scheme MonoChromatic

Unlikely or impossible colors in the scheme:
YO 1/MH is the least likely color in the scheme. YO at value 1 (a very dark brown), has very little range of chroma.



Out of bounds colors:
YO-3-MH
YO-1-MH
(YO-1-L)

CPP 4

r Planning Problem 4: (Solution)

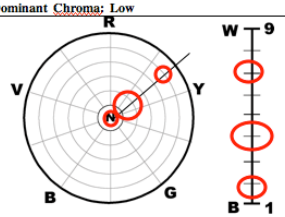
Plan and chart the 9 colors produced by a strict interpretation of this scheme: [basically the same as above, but Neutral has been added…noted in Chroma options.]

Hue Scheme: Monochromatic (with neutral) Out-of-Scheme Accent(s): none

Dominant Hue: Yellow-Orange **Subordinate Hue(s):** _____NONE_____

Dominant Value: 3 **Subordinate Value(s): 1, 7**

Dominant Chroma: Low **Subordinate Chroma(s): Middle High, Neutral**



	Limited To	Dominant
Value	3, 1, 7	3
Hue	YO, N	YO
Chroma	L, MH, H	L

Scheme MonoChromatic

Color1	Hue:	YO	Val:	3	Chr:	L
Color2	Hue:	YO	Val:	1	Chr:	L
Color3	Hue:	YO	Val:	7	Chr:	L
Color4	Hue:	YO	Val:	3	Chr:	MH
Color5	Hue:	YO	Val:	1	Chr:	MH
Color6	Hue:	YO	Val:	7	Chr:	MH
Color7	Hue:	YO (N)	Val:	3	Chr:	N
Color8	Hue:	YO (N)	Val:	1	Chr:	N
Color9	Hue:	YO (N)	Val:	7	Chr:	N

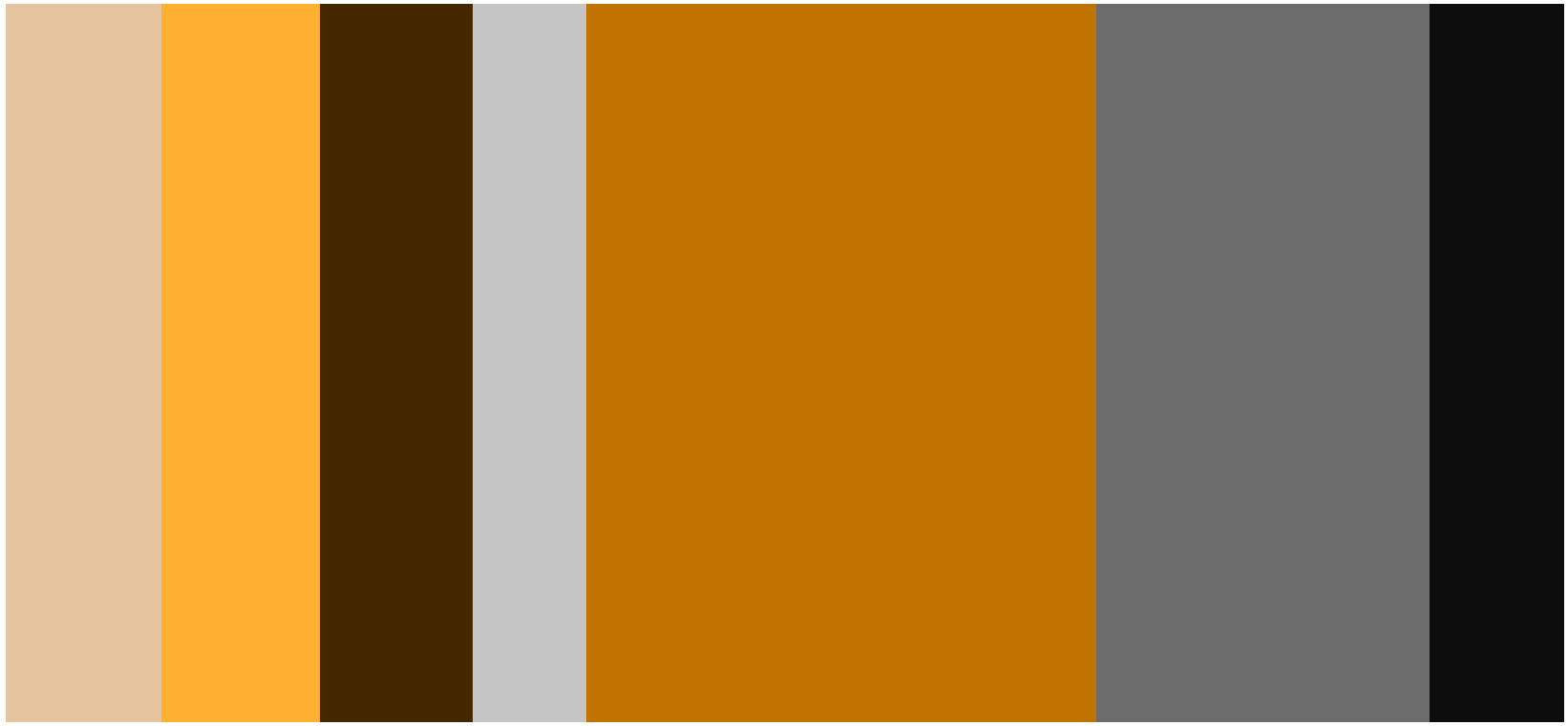
At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

YO 1/MH is the least likely color in the scheme.

YO at value 1 (a very dark brown), has very little range of chroma.

Unlikely or impossible colors in the scheme:
YO 1/MH is the least likely color in the scheme. YO at value 1 (a very dark brown), has very little range of chroma.

Proportion Study
(one of *many* proportion schemes based on the charted scheme)



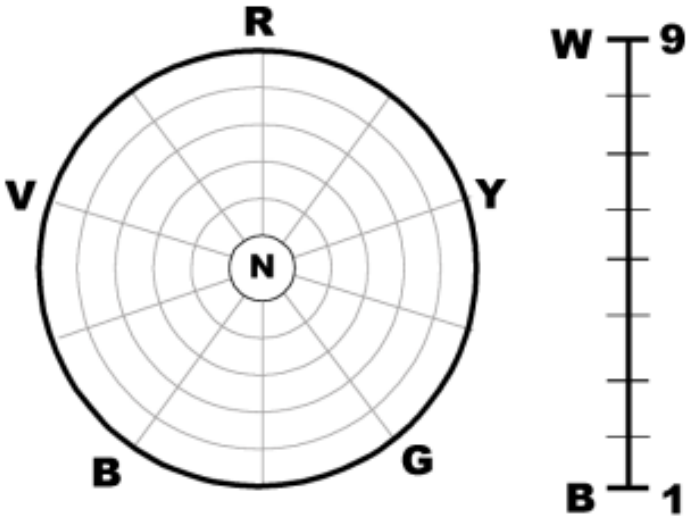
Color Planning Problem:

Plan and chart the 9 colors produced by a strict interpretation of this scheme:

Hue Scheme: Monochromatic (with neutral)
Dominant Hue: Yellow-Orange
Dominant Value: 3
Dominant Chroma: Low
Out-of-Scheme Accent(s): none

Subordinate Hue(s): _____?_____
Subordinate Value(s): 1, 7
Subordinate Chroma(s): Middle High, Neutral

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ Val: _____ Chroma: _____

Color 2: Hue: _____ Val: _____ Chroma: _____

Color 3: Hue: _____ Val: _____ Chroma: _____

Color 4: Hue: _____ Val: _____ Chroma: _____

Color 5: Hue: _____ Val: _____ Chroma: _____

Color 6: Hue: _____ Val: _____ Chroma: _____

Color 7: Hue: _____ Val: _____ Chroma: _____

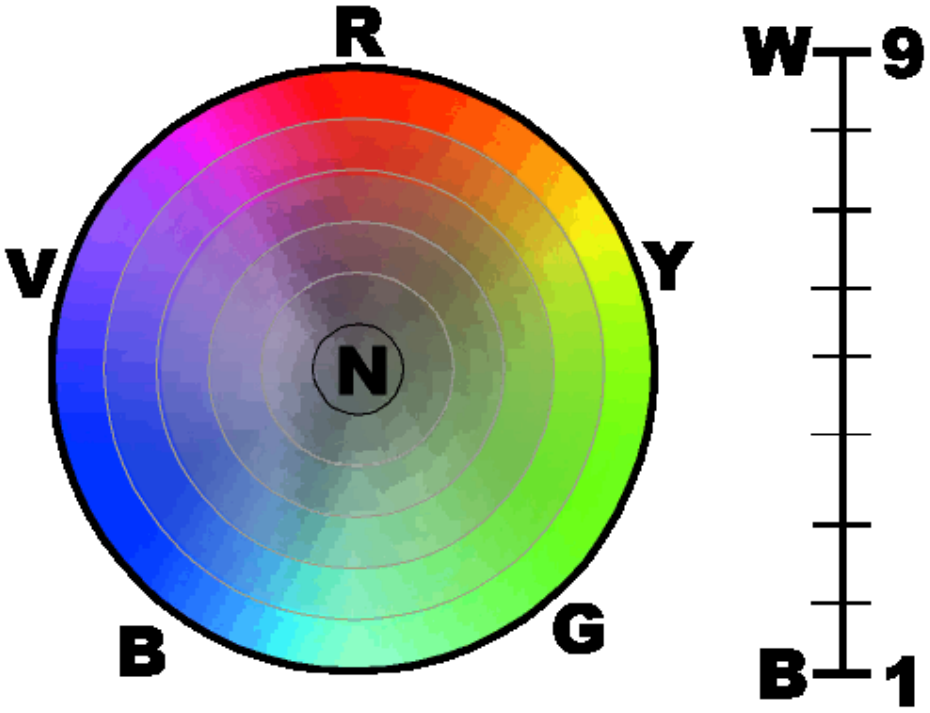
Color 8: Hue: _____ Val: _____ Chroma: _____

Color 9: Hue: _____ Val: _____ Chroma: _____

Scheme 4
MonoChr YO

Scheme 4

MonoChr YO



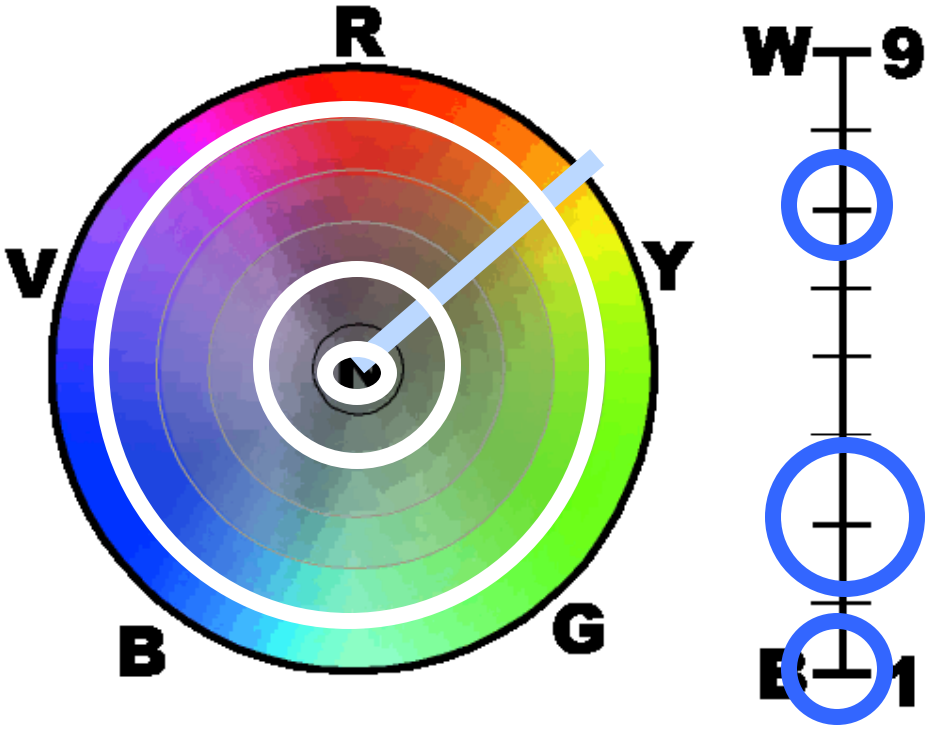
Hue Scheme: Monochromatic (with neutral)

Dominant Hue: Yellow-Orange
Dominant Value: 3
Dominant Chroma: Low

Subordinate Hue(s): _____?_____
Subordinate Value(s): 1, 7
Subordinate Chroma(s): Middle High, Neutral

Scheme 4

MonoChr YO



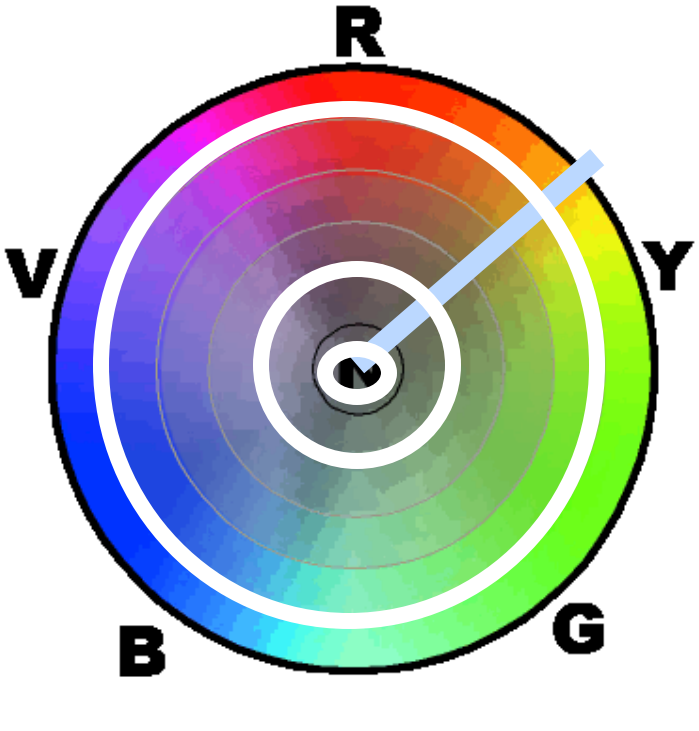
Hue Scheme: Monochromatic (with neutral)

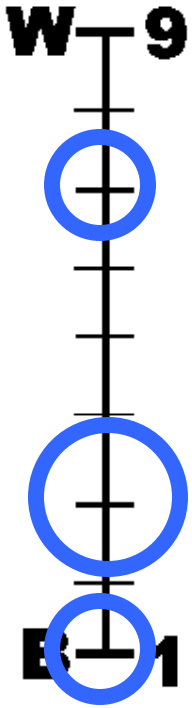
Dominant Hue: Yellow-Orange
Dominant Value: 3
Dominant Chroma: Low

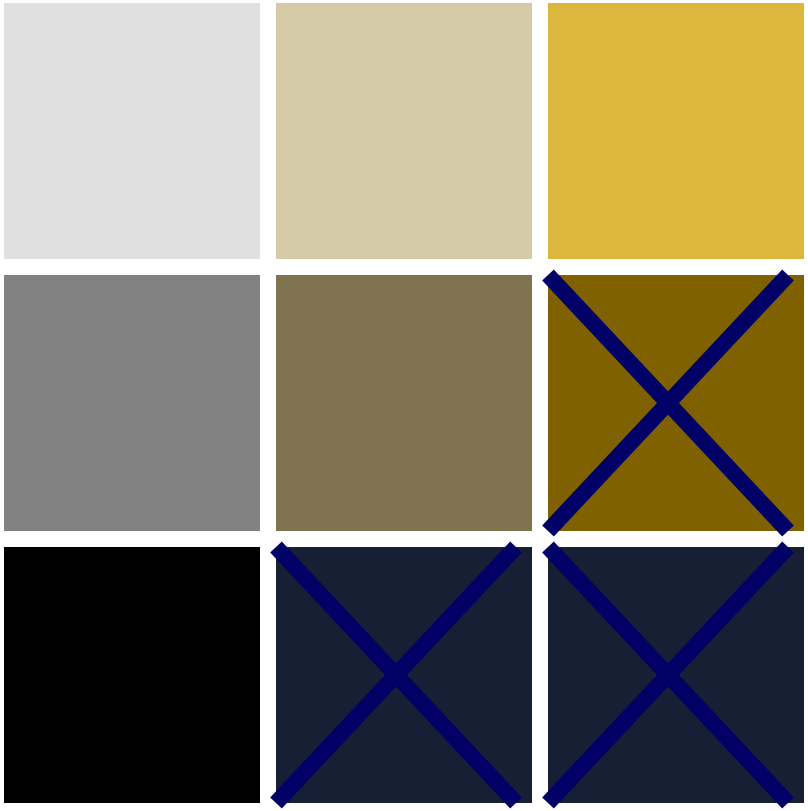
Subordinate Hue(s): _____?_____
Subordinate Value(s): 1, 7
Subordinate Chroma(s): Middle High, Neutral

Scheme 4

MonoChr YO







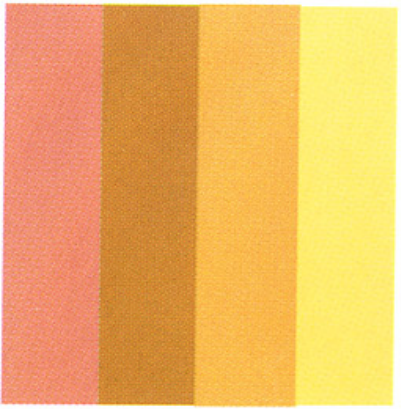
Hue Scheme: Monochromatic (with neutral)

Dominant Hue: Yellow-Orange
Dominant Value: 3
Dominant Chroma: Low

Subordinate Hue(s): _____?_____
Subordinate Value(s): 1, 7
Subordinate Chroma(s): Middle High, Neutral

Color Proportion Studies

- Add proportion to the scheme.
-
- Begin to explore the impact proportion — try changing dominances and subordinates

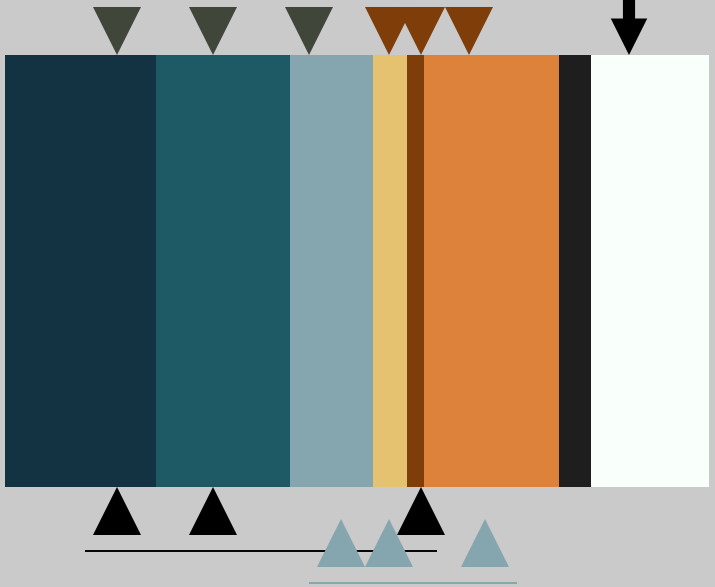


Basic Hue Scheme

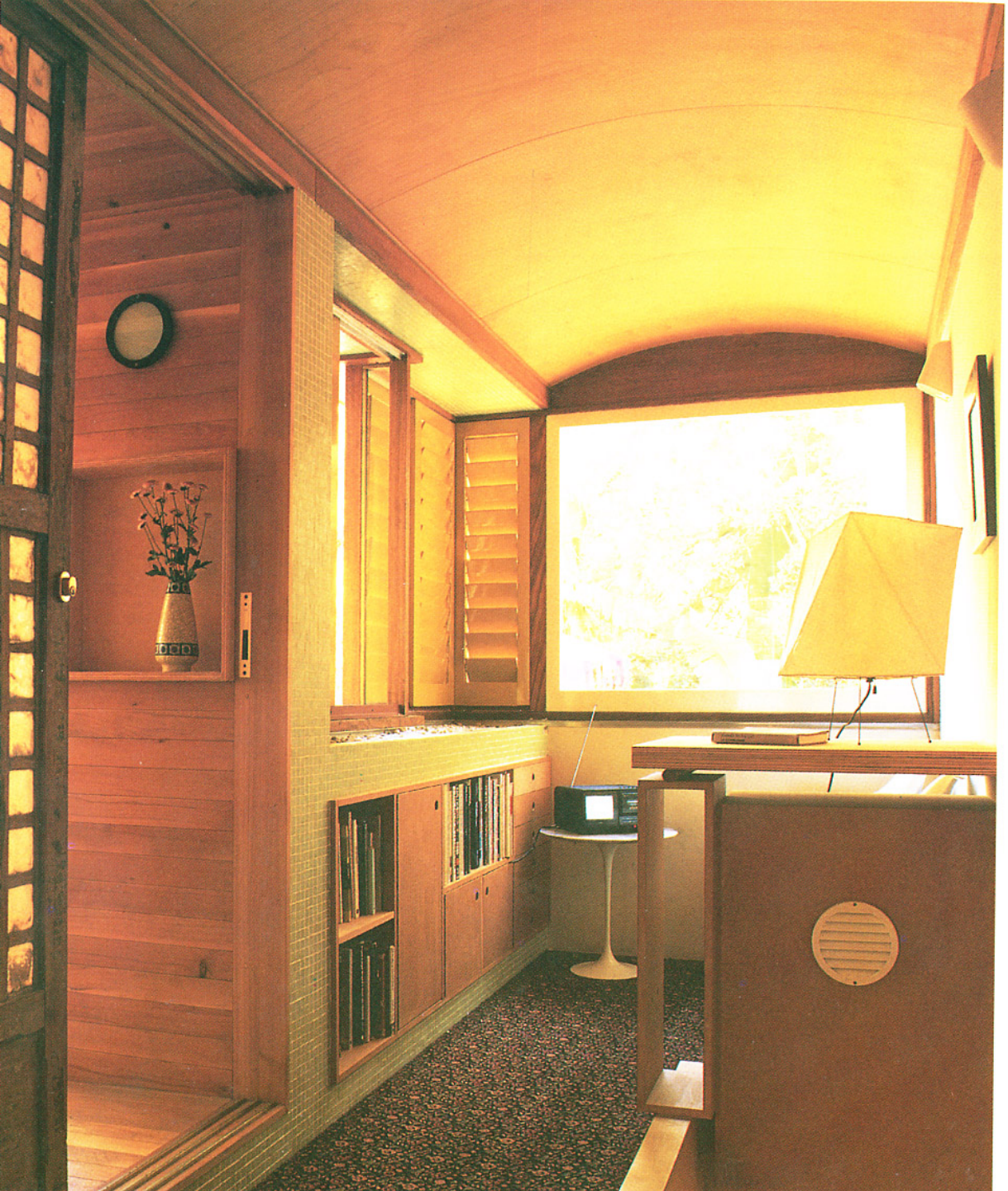
Color-Proportions

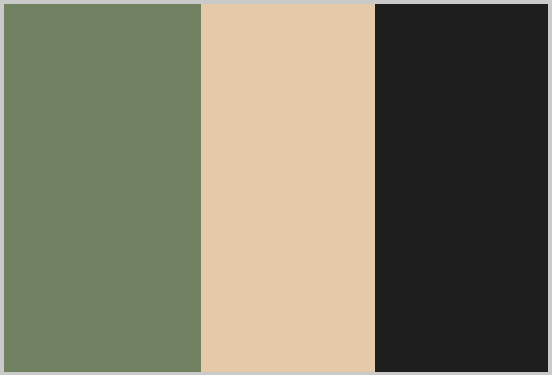
Colors related hue

BBG Orange



Colors related by value

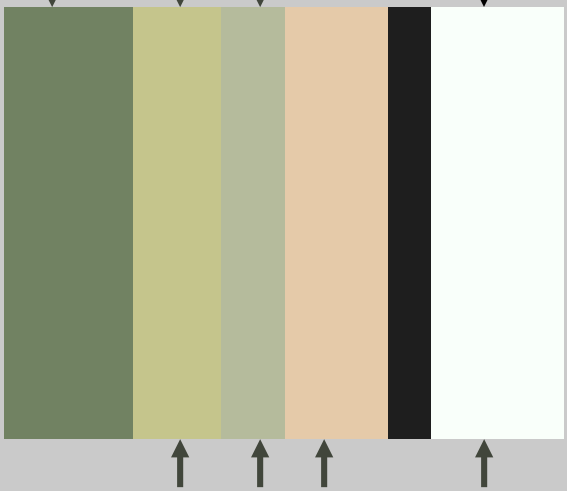




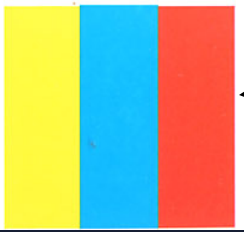
Basic Hue Scheme

Color-Proportions

Colors related by hue



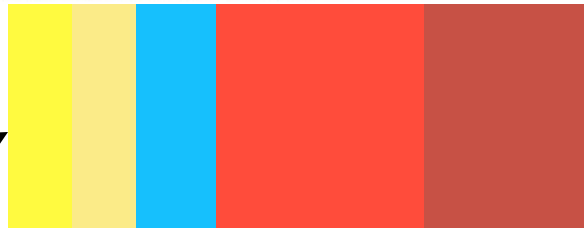
Colors related by value

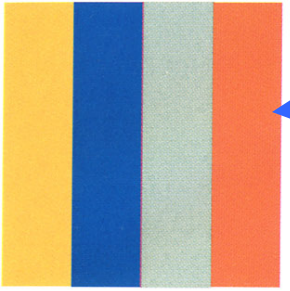


The full intensity of these primary colors brings to mind a tropical environment

Basic Hue Scheme

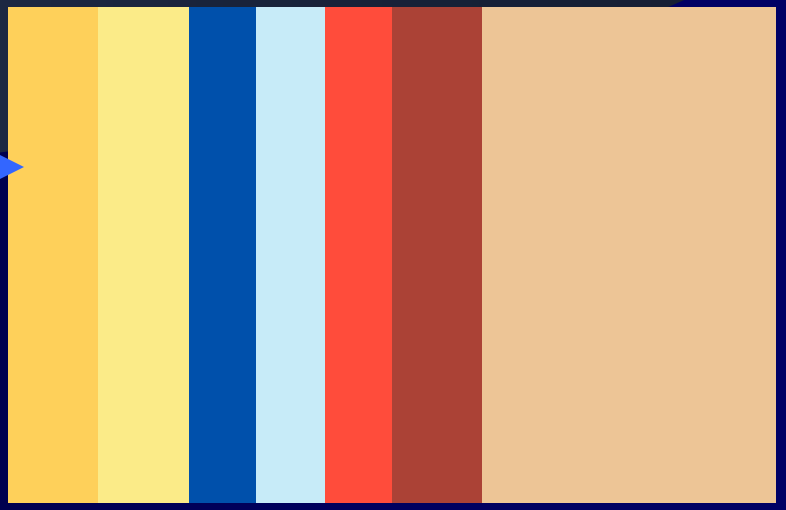
Color-Proportions





Basic Hue Scheme

Color-Proportions



- Complete 2 proportion studies for:
- Split-Complement YO, rrv, bbg
- Split-Complement RV, gyg, gbg

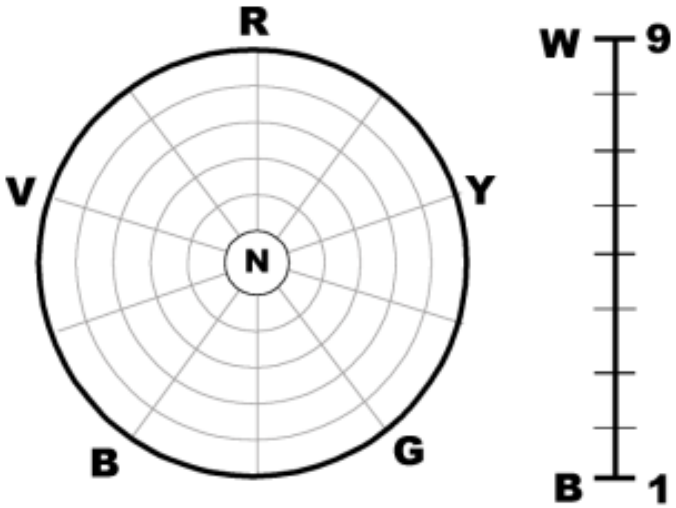
- At least 5” square.
- Suggest cutting separate fields of color, rather than painting stripes on a single sheet.

Color Planning Problem:
Plan and chart the 12 colors produced by a strict interpretation of this scheme:

Hue Scheme: Split Complement
Dominant Hue: Yellow-Orange
Dominant Value: 7
Dominant Chroma: Middle
Out-of-Scheme Accent(s): none

Subordinate Hue(s): RRV, BBG
Subordinate Value(s): 4
Subordinate Chroma(s): High

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ **Val:** _____ **Chroma:** _____
Color 2: Hue: _____ **Val:** _____ **Chroma:** _____
Color 3: Hue: _____ **Val:** _____ **Chroma:** _____
Color 4: Hue: _____ **Val:** _____ **Chroma:** _____
Color 5: Hue: _____ **Val:** _____ **Chroma:** _____
Color 6: Hue: _____ **Val:** _____ **Chroma:** _____
Color 7: Hue: _____ **Val:** _____ **Chroma:** _____
Color 8: Hue: _____ **Val:** _____ **Chroma:** _____
Color 9: Hue: _____ **Val:** _____ **Chroma:** _____
Color 10: Hue: _____ **Val:** _____ **Chroma:** _____
Color 11: Hue: _____ **Val:** _____ **Chroma:** _____
Color 12: Hue: _____ **Val:** _____ **Chroma:** _____

- Color Planning Problem

5

- Color Planning Problem

5

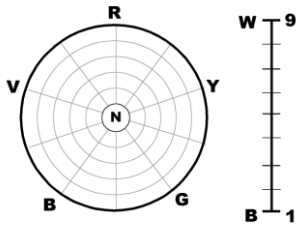
In this scheme, 4 colors are initially specified that can't be mixed:
YO/4/H, RV/7/H,
RV/4/H, BG/4/H

Color Planning Problem:
Plan and chart the 12 colors produced by a strict interpretation of this scheme:

Hue Scheme: Split Complement
Dominant Hue: Yellow-Orange
Dominant Value: 7
Dominant Chroma: Middle
Out-of-Scheme Accent(s): none

Subordinate Hue(s): RRV, BBG
Subordinate Value(s): 4
Subordinate Chroma(s): High

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

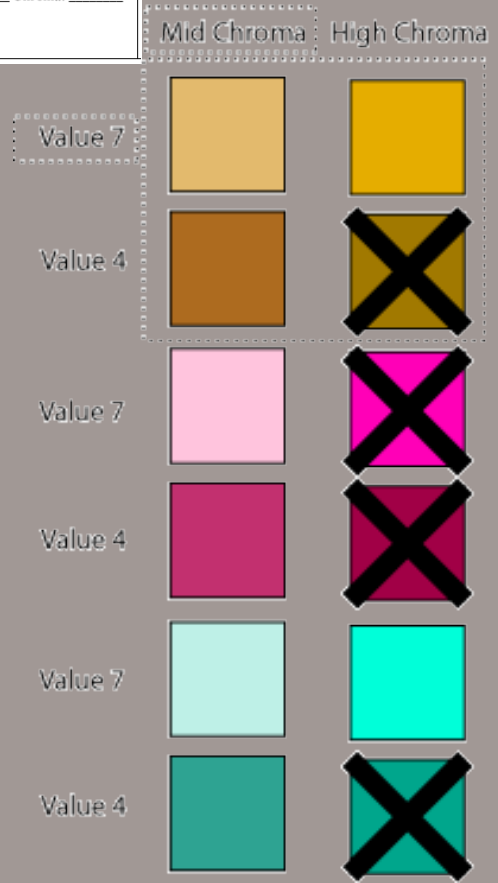
Color 1: Hue: _____ Val: _____ Chroma: _____
Color 2: Hue: _____ Val: _____ Chroma: _____
Color 3: Hue: _____ Val: _____ Chroma: _____
Color 4: Hue: _____ Val: _____ Chroma: _____
Color 5: Hue: _____ Val: _____ Chroma: _____
Color 6: Hue: _____ Val: _____ Chroma: _____
Color 7: Hue: _____ Val: _____ Chroma: _____
Color 8: Hue: _____ Val: _____ Chroma: _____
Color 9: Hue: _____ Val: _____ Chroma: _____
Color 10: Hue: _____ Val: _____ Chroma: _____
Color 11: Hue: _____ Val: _____ Chroma: _____
Color 12: Hue: _____ Val: _____ Chroma: _____

NOTE: you must "weed out" colors that are impossible due to too high a chroma.

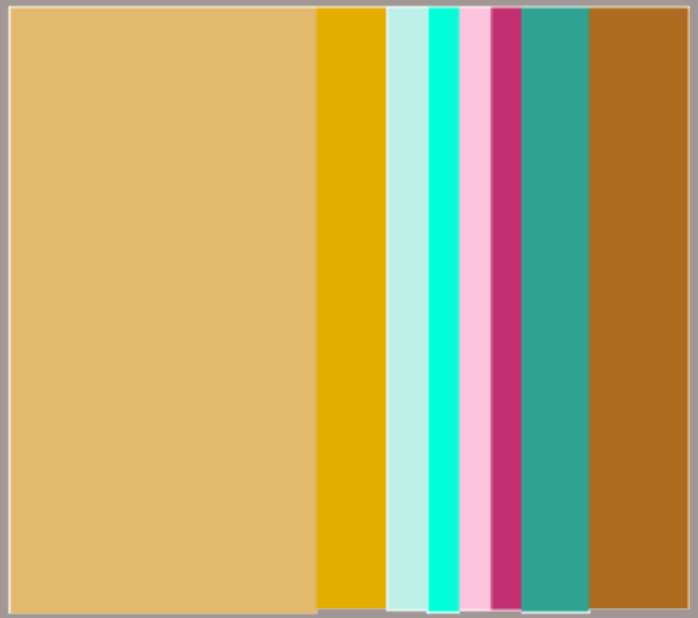
We can specify many colors that are not visually possible. Expect to eliminate them from your palette.

Color Planning Problem 12: Split Complement, YO, rrv, bbg

Palette



Proportion Study

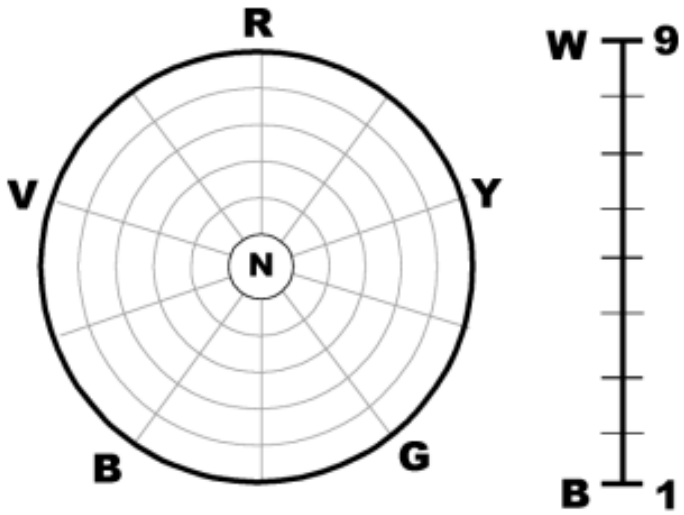


Color Planning Problem:

Plan and chart the 12 colors produced by a strict interpretation of this scheme:

Hue Scheme: Split Complement
Dominant Hue: Red-Violet **Subordinate Hue(s): GYG, GBG**
Dominant Value: 4 **Subordinate Value(s): 7**
Dominant Chroma: Middle **Subordinate Chroma(s): Low**
Out-of-Scheme Accent(s): none

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

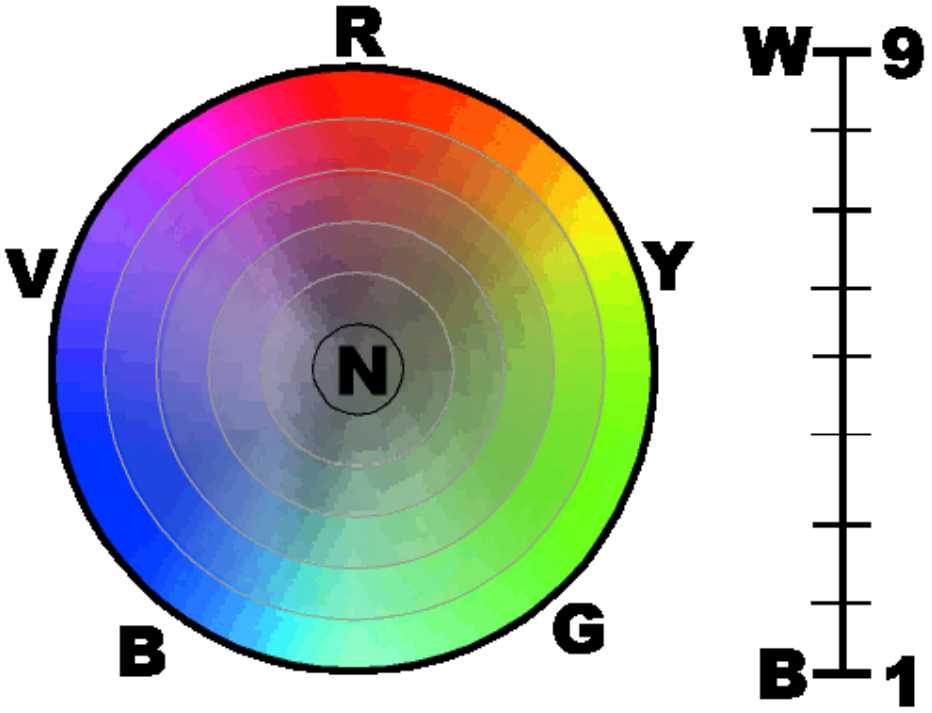
Scheme _____

Color 1: Hue: _____ **Val:** _____ **Chroma:** _____
Color 2: Hue: _____ **Val:** _____ **Chroma:** _____
Color 3: Hue: _____ **Val:** _____ **Chroma:** _____
Color 4: Hue: _____ **Val:** _____ **Chroma:** _____
Color 5: Hue: _____ **Val:** _____ **Chroma:** _____
Color 6: Hue: _____ **Val:** _____ **Chroma:** _____
Color 7: Hue: _____ **Val:** _____ **Chroma:** _____
Color 8: Hue: _____ **Val:** _____ **Chroma:** _____
Color 9: Hue: _____ **Val:** _____ **Chroma:** _____
Color 10: Hue: _____ **Val:** _____ **Chroma:** _____
Color 11: Hue: _____ **Val:** _____ **Chroma:** _____
Color 12: Hue: _____ **Val:** _____ **Chroma:** _____

Take Home — For Next Class

Color Planning Problem

6



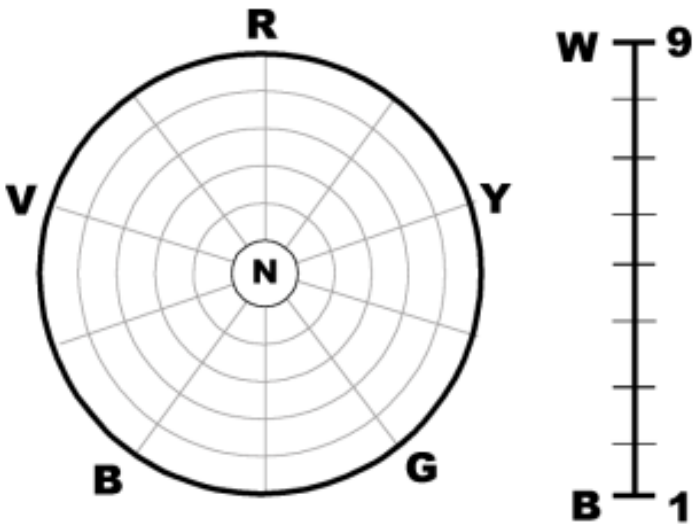
Consider selecting hues for a monochromatic color scheme based on an Red-Orange hue.

Color Planning Problem:

Plan and chart the 12 colors produced by a strict interpretation of this scheme:

Hue Scheme: Double-Split Complement
Dominant Hue: Violet **Subordinate Hue(s): RV, G, __?__**
Dominant Value: 3 **Subordinate Value(s): 7**
Dominant Chroma: Middle Low **Subordinate Chroma(s): Middle High**
Out-of-Scheme Accent(s): none

Specify each color in this scheme's palette.



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color 1: Hue: _____ **Val:** _____ **Chroma:** _____
Color 2: Hue: _____ **Val:** _____ **Chroma:** _____
Color 3: Hue: _____ **Val:** _____ **Chroma:** _____
Color 4: Hue: _____ **Val:** _____ **Chroma:** _____

Color 5: Hue: _____ **Val:** _____ **Chroma:** _____
Color 6: Hue: _____ **Val:** _____ **Chroma:** _____
Color 7: Hue: _____ **Val:** _____ **Chroma:** _____
Color 8: Hue: _____ **Val:** _____ **Chroma:** _____

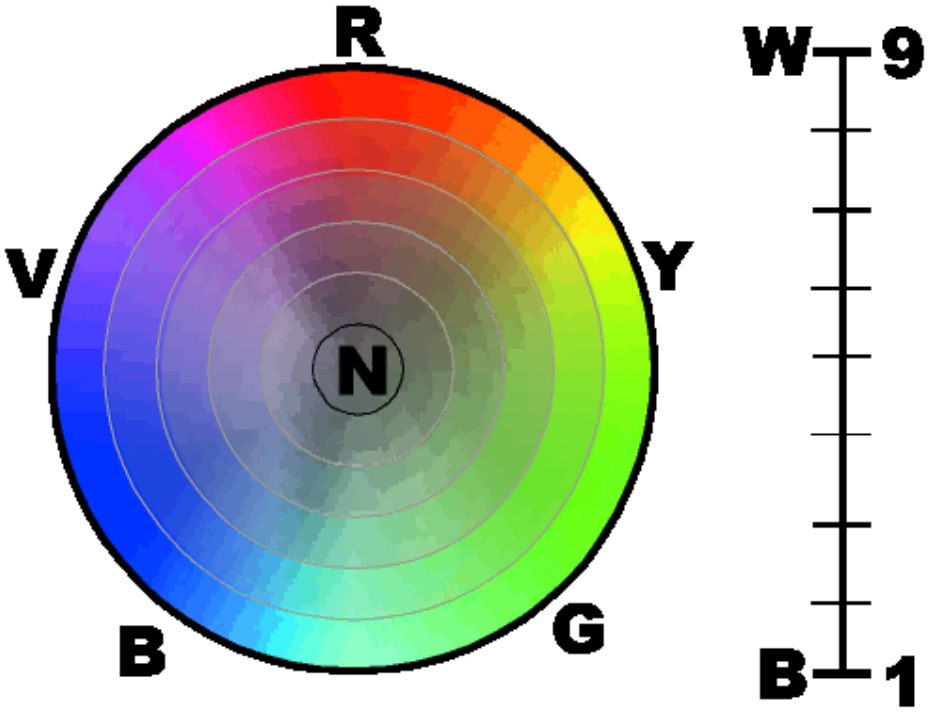
Color 9: Hue: _____ **Val:** _____ **Chroma:** _____
Color 10: Hue: _____ **Val:** _____ **Chroma:** _____
Color 11: Hue: _____ **Val:** _____ **Chroma:** _____
Color 12: Hue: _____ **Val:** _____ **Chroma:** _____

Color 13: Hue: _____ **Val:** _____ **Chroma:** _____
Color 14: Hue: _____ **Val:** _____ **Chroma:** _____
Color 15: Hue: _____ **Val:** _____ **Chroma:** _____
Color 16: Hue: _____ **Val:** _____ **Chroma:** _____

Scheme 10
Dbl Split Compl
V, RV, G, ?

Scheme 10

Double Split Complement
V, RV, G, ?



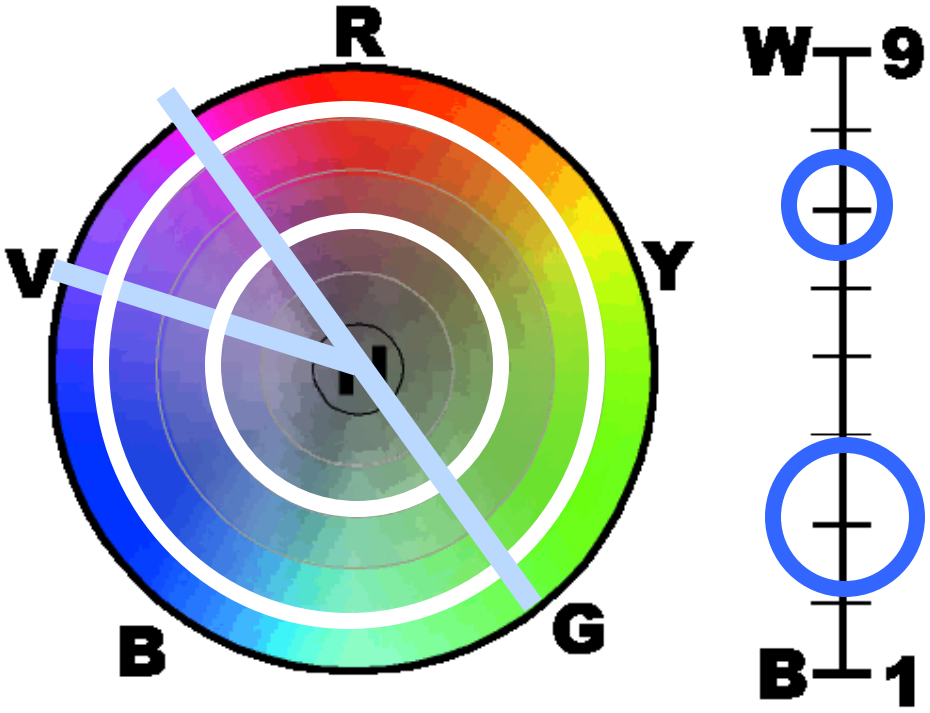
Hue Scheme: Double-Split Complement

Dominant Hue: Violet
Dominant Value: 3
Dominant Chroma: Middle Low

Subordinate Hue(s): RV, G, __?__
Subordinate Value(s): 7
Subordinate Chroma(s): Middle High

Scheme 10

Double Split Complement
V, RV, G, ?



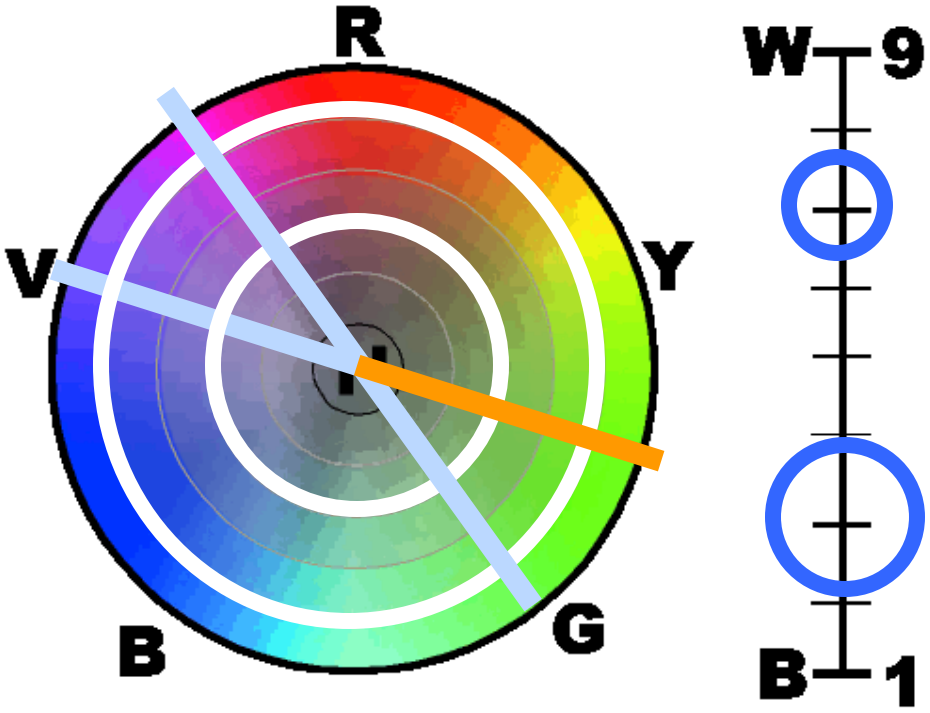
Hue Scheme: Double-Split Complement

Dominant Hue: Violet
Dominant Value: 3
Dominant Chroma: Middle Low

Subordinate Hue(s): RV, G, __?__
Subordinate Value(s): 7
Subordinate Chroma(s): Middle High

Scheme 10

Double Split Complement
V, RV, G, ?



Complete the symmetrical hue structure of a double split complement scheme by adding YG.

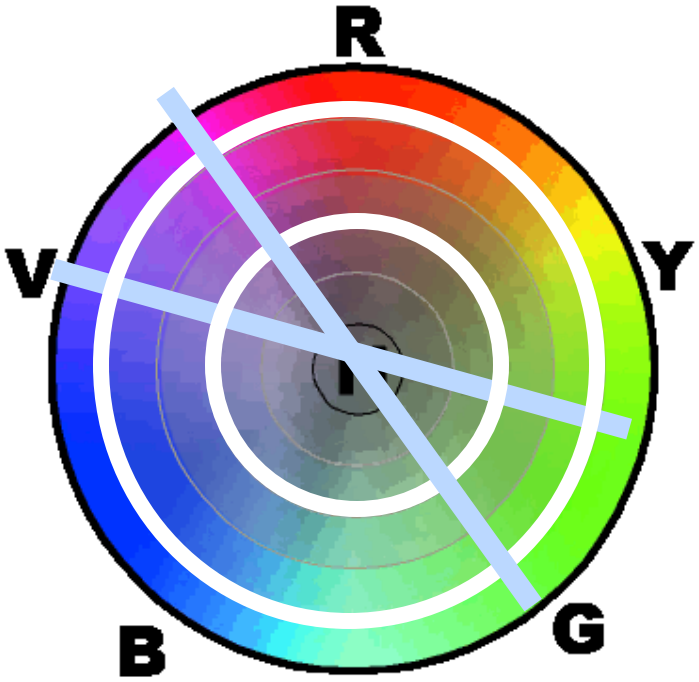
Hue Scheme: Double-Split Complement

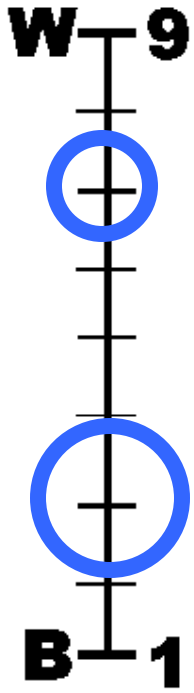
Dominant Hue: Violet
Dominant Value: 3
Dominant Chroma: Middle Low

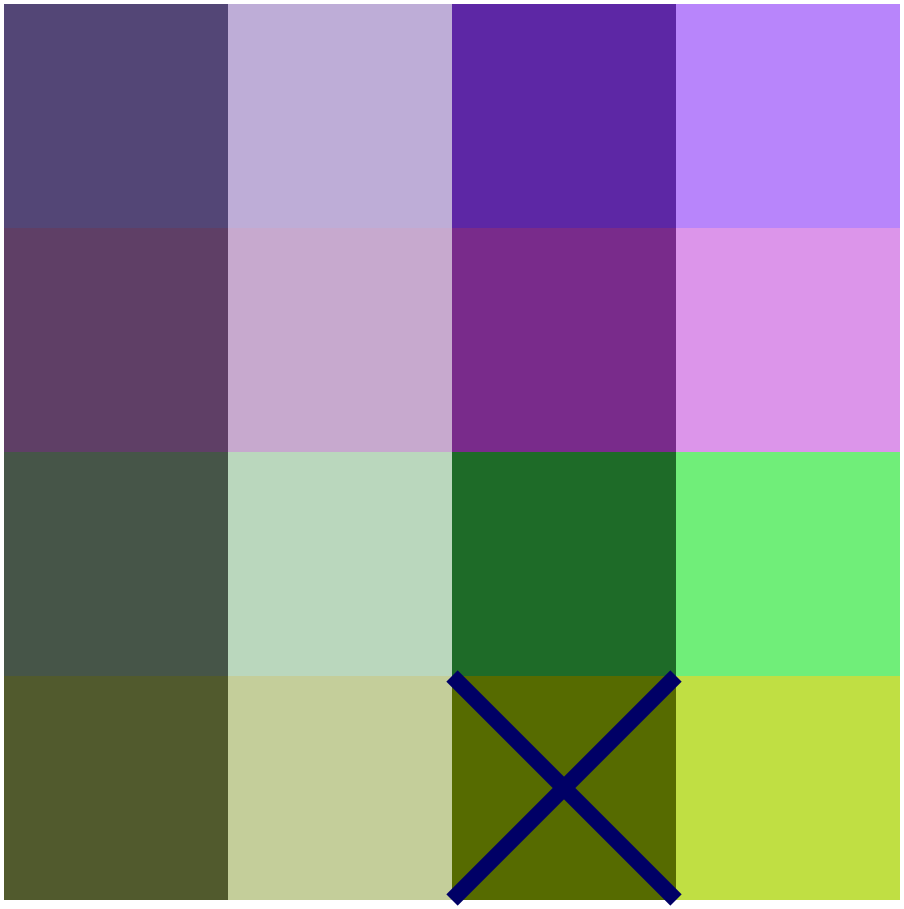
Subordinate Hue(s): RV, G, __?__
Subordinate Value(s): 7
Subordinate Chroma(s): Middle High

Scheme 10

Double Split Complement
V, RV, G, ?







Hue Scheme: Double-Split Complement

Dominant Hue: Violet
Dominant Value: 3
Dominant Chroma: Middle Low

Subordinate Hue(s): RV, G, __?__
Subordinate Value(s): 7
Subordinate Chroma(s): Middle High

Color Planning Problem 5:

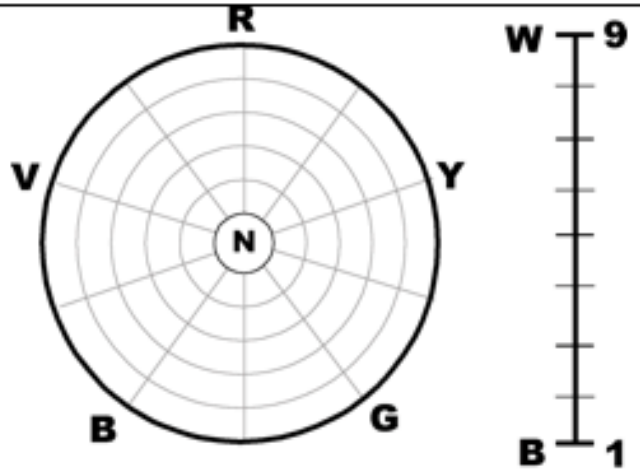
Plan and chart the 12 colors produced by a strict interpretation of this scheme: [Note use of Tertiary hues in subordinates]

Hue Scheme: Split Complement

Dominant Hue: RRO **Subordinate Hue(s): YYO, _____?_____**

Dominant Value: 7 **Subordinate Value(s): 4**

Dominant Chroma: Middle **Subordinate Chroma(s): High**



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

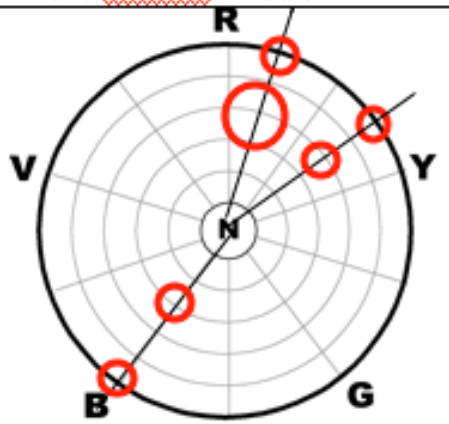
Color1	Hue:		Val:		Chr:	
Color2	Hue:		Val:		Chr:	
Color3	Hue:		Val:		Chr:	
Color4	Hue:		Val:		Chr:	
Color5	Hue:		Val:		Chr:	
Color6	Hue:		Val:		Chr:	
Color7	Hue:		Val:		Chr:	
Color8	Hue:		Val:		Chr:	
Color9	Hue:		Val:		Chr:	
Clr 10	Hue:		Val:		Chr:	
Clr 11	Hue:		Val:		Chr:	
Clr 12	Hue:		Val:		Chr:	

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Color Planning Problem 5: (solution)

Plan and chart the 12 colors produced by a strict interpretation of this scheme: [Note use of Tertiary hues in subordinates]

Hue Scheme: Split Complement
Dominant Hue: RRO **Subordinate Hue(s): YYO, ___ BLUE _____**
Dominant Value: 7 **Subordinate Value(s): 4**
Dominant Chroma: Middle **Subordinate Chroma(s): High**



	Limited To	Dominant
Value	7, 4	7
Hue	RRO, YYO, B	RRO
Chroma	M, H	M

Scheme Split Complement

Color1	Hue:	RRO	Val:	7	Chr:	M
Color2	Hue:	RRO	Val:	7	Chr:	H
Color3	Hue:	RRO	Val:	4	Chr:	M
Color4	Hue:	RRO	Val:	4	Chr:	H
Color5	Hue:	YYO	Val:	7	Chr:	M
Color6	Hue:	YYO	Val:	7	Chr:	H
Color7	Hue:	YYO	Val:	4	Chr:	M
Color8	Hue:	YYO	Val:	4	Chr:	H
Color9	Hue:	B	Val:	7	Chr:	M
Clr 10	Hue:	B	Val:	7	Chr:	H
Clr 11	Hue:	B	Val:	4	Chr:	M
Clr 12	Hue:	B	Val:	4	Chr:	H

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

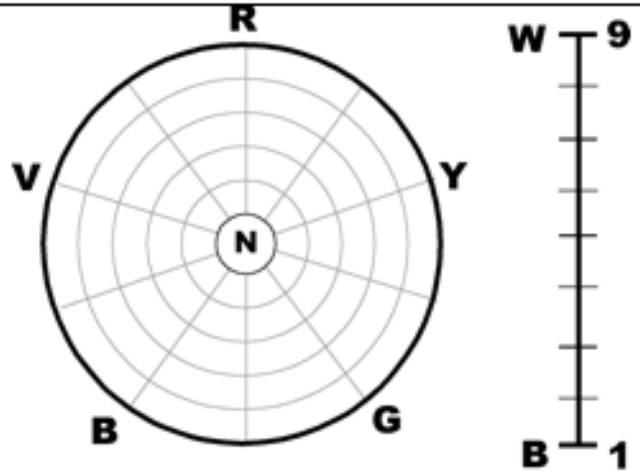
Impossible or unlikely colors in the scheme:
The high-chroma colors will often be impossible. The following are most likely impossible:
RRO 7/H
YYO 4/H
B 7/H
Each of these chroma-value combinations are a long way from each hue's intrinsic value.

Color Planning Problem 6:

Plan and chart the 12 colors produced by a strict interpretation of this scheme: [Note use of Tertiary hues in subordinates]

Hue Scheme: Split Complement
Dominant Hue: _____?_____
Dominant Value: 4
Dominant Chroma: Middle

Subordinate Hue(s): GYG, GBG
Subordinate Value(s): 7
Subordinate Chroma(s): Low



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:	
Color2	Hue:		Val:		Chr:	
Color3	Hue:		Val:		Chr:	
Color4	Hue:		Val:		Chr:	
Color5	Hue:		Val:		Chr:	
Color6	Hue:		Val:		Chr:	
Color7	Hue:		Val:		Chr:	
Color8	Hue:		Val:		Chr:	
Color9	Hue:		Val:		Chr:	
Clr 10	Hue:		Val:		Chr:	
Clr 11	Hue:		Val:		Chr:	
Clr 12	Hue:		Val:		Chr:	

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Color Planning Problem 6: (solution)

Plan and chart the 12 colors produced by a strict interpretation of this scheme: [Note use of Tertiary hues in subordinates]

Hue Scheme: Split Complement

Dominant Hue: _____ RV _____

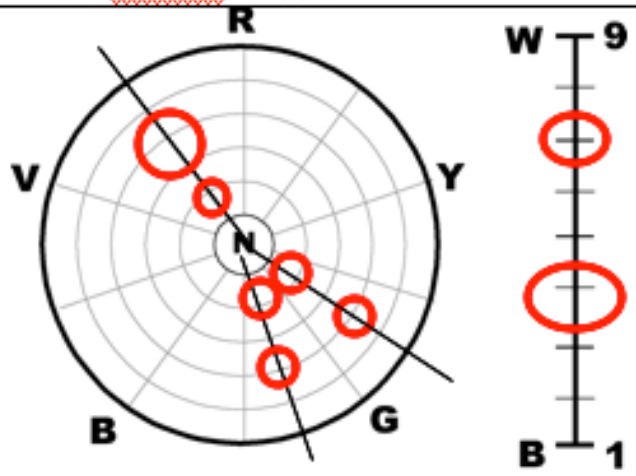
Dominant Value: 4

Dominant Chroma: Middle

Subordinate Hue(s): GYG, GBG

Subordinate Value(s): 7

Subordinate Chroma(s): Low



	Limited To	Dominant
Value	4, 7	4
Hue	RV, GYG, GBG	RV
Chroma	L, M	M

Scheme Split Complement

Color1	Hue:	RV	Val:	4	Chr:	M
Color2	Hue:	RV	Val:	4	Chr:	L
Color3	Hue:	RV	Val:	7	Chr:	M
Color4	Hue:	RV	Val:	7	Chr:	L
Color5	Hue:	GYG	Val:	4	Chr:	M
Color6	Hue:	GYG	Val:	4	Chr:	L
Color7	Hue:	GYG	Val:	7	Chr:	M
Color8	Hue:	GYG	Val:	7	Chr:	L
Color9	Hue:	GBG	Val:	4	Chr:	M
Clr 10	Hue:	GBG	Val:	4	Chr:	L
Clr 11	Hue:	GBG	Val:	7	Chr:	M
Clr 12	Hue:	GBG	Val:	7	Chr:	L

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

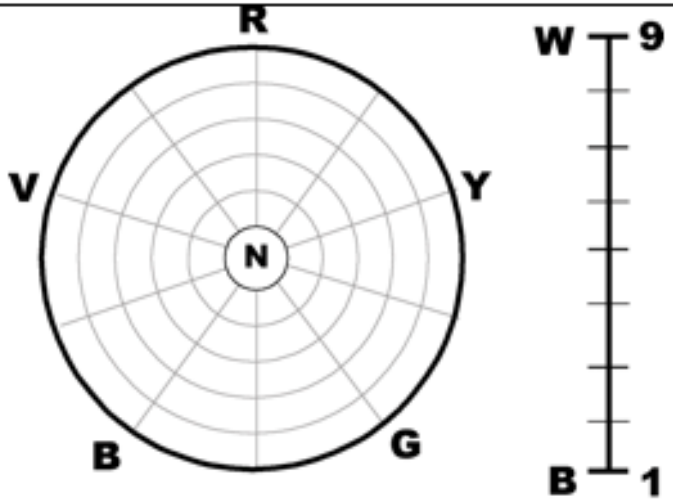
These color are likely all possible – since the highest chroma in the scheme is Middle, most hues can at mid-values (4 and 7, here)

Color Planning Problem 7:

Plan and chart the 12 colors produced by a strict interpretation of this scheme. Then select instances/colors of subordinate hues so that dominant chroma and dominant value are used to relate all hues. (that is, you *will eliminate some colors* that are possible in this scheme in order to create a smaller, more limited and more manageable palette.)

Hue Scheme: Split Complement
Dominant Hue: Yellow-Orange
Dominant Value: 7
Dominant Chroma: Middle Low

Subordinate Hue(s): RRV, BBG
Subordinate Value(s): 4
Subordinate Chroma(s): High



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:	
Color2	Hue:		Val:		Chr:	
Color3	Hue:		Val:		Chr:	
Color4	Hue:		Val:		Chr:	
Color5	Hue:		Val:		Chr:	
Color6	Hue:		Val:		Chr:	
Color7	Hue:		Val:		Chr:	
Color8	Hue:		Val:		Chr:	
Color9	Hue:		Val:		Chr:	
Clr 10	Hue:		Val:		Chr:	
Clr 11	Hue:		Val:		Chr:	
Clr 12	Hue:		Val:		Chr:	

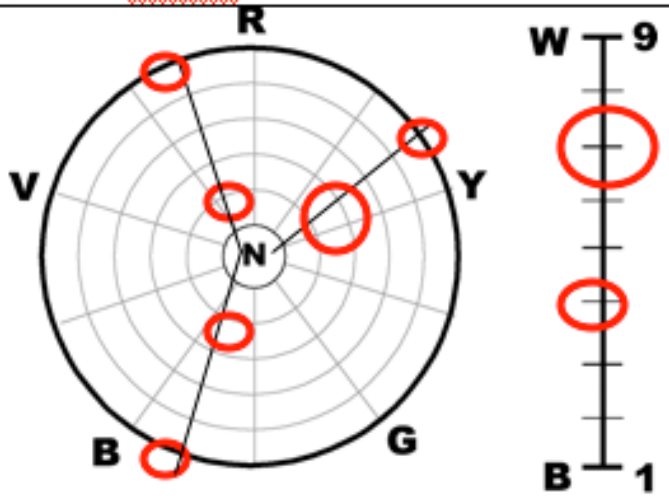
At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Color Planning Problem 7: (solution)

Plan and chart the 12 colors produced by a strict interpretation of this scheme. Then select instances/colors of subordinate hues so that dominant chroma and dominant value are used to relate all hues. (that is, you *will eliminate some colors* that are possible in this scheme in order to create a smaller, more limited and more manageable palette.)

Hue Scheme: Split Complement
Dominant Hue: Yellow-Orange
Dominant Value: 7
Dominant Chroma: Middle Low

Subordinate Hue(s): RRV, BBG
Subordinate Value(s): 4
Subordinate Chroma(s): High



	Limited To	Dominant
Value	4, 7	7
Hue	YO, RRV, BBG	YO
Chroma	ML, H	ML

Scheme Split Complement

Color1	Hue:	YO	Val:	7	Chr:	ML
Color2	Hue:	YO	Val:	7	Chr:	H
Color3	Hue:	YO	Val:	4	Chr:	ML
Color4	Hue:	YO	Val:	4	Chr:	H
Color5	Hue:	RRV	Val:	7	Chr:	ML
Color6	Hue:	RRV	Val:	7	Chr:	H
Color7	Hue:	RRV	Val:	4	Chr:	ML
Color8	Hue:	RRV	Val:	4	Chr:	H
Color9	Hue:	BBG	Val:	7	Chr:	ML
Clr 10	Hue:	BBG	Val:	7	Chr:	H
Clr 11	Hue:	BBG	Val:	4	Chr:	ML
Clr 12	Hue:	BBG	Val:	4	Chr:	H

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Note that this is a rather "wide" Split-Complement" scheme – it is approaching a triadic scheme.

Color Planning Problem 8:

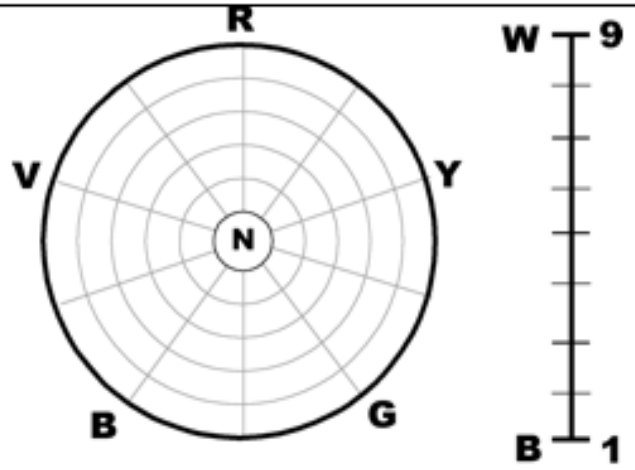
Plan and chart the 15 distinct colors produced by a strict interpretation of this scheme: [revised 091011]

Hue Scheme: Complementary (with neutral)

Dominant Hue: Yellow-Orange **Subordinate Hue(s): ?**

Dominant Value: 3 **Subordinate Value(s): 1, 7**

Dominant Chroma: Low **Subordinate Chroma(s): Middle High, Neutral**



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:	
Color2	Hue:		Val:		Chr:	
Color3	Hue:		Val:		Chr:	
Color4	Hue:		Val:		Chr:	
Color5	Hue:		Val:		Chr:	
Color6	Hue:		Val:		Chr:	
Color7	Hue:		Val:		Chr:	
Color8	Hue:		Val:		Chr:	
Color9	Hue:		Val:		Chr:	
Clr 10	Hue:		Val:		Chr:	
Clr 11	Hue:		Val:		Chr:	
Clr 12	Hue:		Val:		Chr:	
Clr 13	Hue:		Val:		Chr:	
Clr 14	Hue:		Val:		Chr:	
Clr 15	Hue:		Val:		Chr:	

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Color Planning Problem 8: (solution)

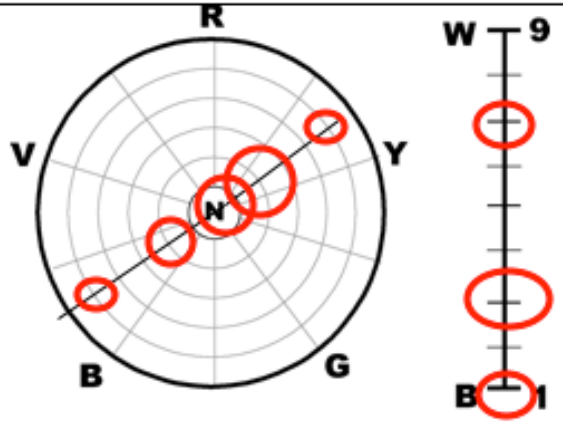
Plan and chart the 15 distinct colors produced by a strict interpretation of this scheme: [revised 091011]

Hue Scheme: Complementary (with neutral)

Dominant Hue: Yellow-Orange **Subordinate Hue(s): ____BBV____**

Dominant Value: 3 **Subordinate Value(s): 1, 7**

Dominant Chroma: Low **Subordinate Chroma(s): Middle High, Neutral**



	Limited To	Dominant
Value	3, 1, 7	3
Hue	YO, BBV	YO
Chroma	L, MH, N	L

Scheme Complement (w. Neutral)

Color1	Hue:	YO	Val:	3	Chr:	L
Color2	Hue:	YO	Val:	3	Chr:	MH
Color3	Hue:	YO(N)	Val:	3	Chr:	N
Color4	Hue:	YO	Val:	1	Chr:	L
Color5	Hue:	YO	Val:	1	Chr:	MH
Color6	Hue:	YO(N)	Val:	1	Chr:	N
Color7	Hue:	YO	Val:	7	Chr:	L
Color8	Hue:	YO	Val:	7	Chr:	MH
Color9	Hue:	YO(N)	Val:	7	Chr:	N
Clr 10	Hue:	BBV	Val:	3	Chr:	L
Clr 11	Hue:	BBV	Val:	3	Chr:	MH
Clr 12	Hue:	BBV	Val:	1	Chr:	L
Clr 13	Hue:	BBV	Val:	1	Chr:	MH
Clr 14	Hue:	BBV	Val:	7	Chr:	L
Clr 15	Hue:	BBV	Val:	7	Chr:	MH

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Note: the *order* of "Color1", "Color2", etc. does *NOT* matter. Just make sure that each color within the scheme is identified and specified.

Note that some colors have been skipped since they are effectively repeats of the same color.
In particular,

— *YO 1/N* is the same color as *BBV 1/N*,
— *YO 3/N* is the same color as *BBV 3/N*,
— *YO 7/N* is the same color as *BBV 7/N*,

because they are each "neutral" (chroma) at the same value .

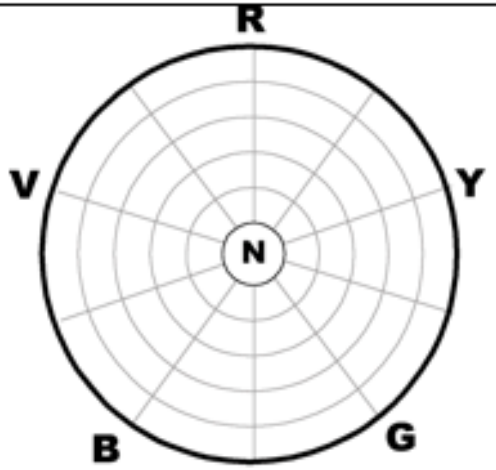
Color Planning Problem 9:

Plan and chart the 9 colors produced by a strict interpretation of this scheme: [rev 091011]

Hue Scheme: 5-Hue Analogous (assume hues are equally spaced)

Dominant Hue: Violet
Dominant Value: 3
Dominant Chroma: Low

Subordinate Hue(s): ___VRV, RV, Red, ?_____
Subordinate Value(s): 7
Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:	
Color2	Hue:		Val:		Chr:	
Color3	Hue:		Val:		Chr:	
Color4	Hue:		Val:		Chr:	
Color5	Hue:		Val:		Chr:	
Color6	Hue:		Val:		Chr:	
Color7	Hue:		Val:		Chr:	
Color8	Hue:		Val:		Chr:	
Color9	Hue:		Val:		Chr:	
Clr 10	Hue:		Val:		Chr:	
Clr 11	Hue:		Val:		Chr:	
Clr 12	Hue:		Val:		Chr:	
Clr 13	Hue:		Val:		Chr:	
Clr 14	Hue:		Val:		Chr:	
Clr 15	Hue:		Val:		Chr:	
Clr 16	Hue:		Val:		Chr:	
Clr 17	Hue:		Val:		Chr:	
Clr 18	Hue:		Val:		Chr:	
Clr 19	Hue:		Val:		Chr:	
Clr 20	Hue:		Val:		Chr:	

— Cross out any colors that are impractical or impossible.

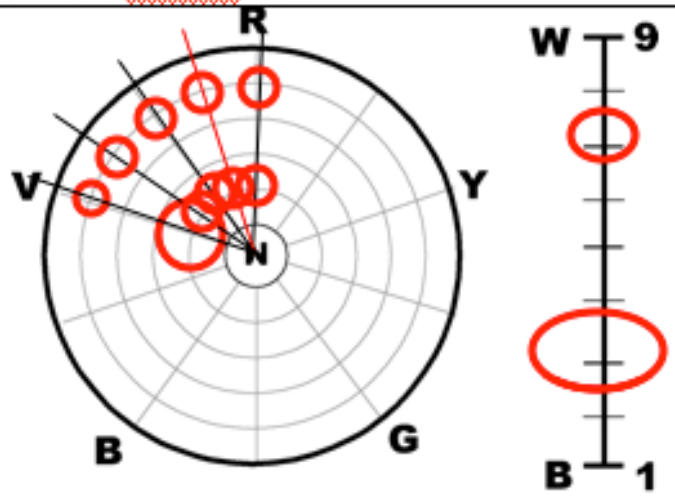
Color Planning Problem 9: (Solution)

Plan and chart the 9 colors produced by a strict interpretation of this scheme: [rev 091011]

Hue Scheme: 5-Hue Analogous (assume hues are equally spaced)

Dominant Hue: Violet
Dominant Value: 3
Dominant Chroma: Low

Subordinate Hue(s): VRV, RV, Red, RRV
Subordinate Value(s): 7
Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value	3, 7	3
Hue	V, VRV, RV, R,	V
Chroma	L, MH	L

Scheme 5-hue Analogous

Color1	Hue:	V	Val:	3	Chr:	L
Color2	Hue:	V	Val:	3	Chr:	MH
Color3	Hue:	V	Val:	7	Chr:	L
Color4	Hue:	V	Val:	7	Chr:	MH
Color5	Hue:	VRV	Val:	3	Chr:	L
Color6	Hue:	VRV	Val:	3	Chr:	MH
Color7	Hue:	VRV	Val:	7	Chr:	L
Color8	Hue:	VRV	Val:	7	Chr:	MH
Color9	Hue:	RV	Val:	3	Chr:	L
Clr 10	Hue:	RV	Val:	3	Chr:	MH
Clr 11	Hue:	RV	Val:	7	Chr:	L
Clr 12	Hue:	RV	Val:	7	Chr:	MH
Clr 13	Hue:	R	Val:	3	Chr:	L
Clr 14	Hue:	R	Val:	3	Chr:	MH
Clr 15	Hue:	R	Val:	7	Chr:	L
Clr 16	Hue:	R	Val:	7	Chr:	MH
Clr 17	Hue:	RRV	Val:	3	Chr:	L
Clr 18	Hue:	R	Val:	3	Chr:	MH
Clr 19	Hue:	R	Val:	7	Chr:	L
Clr 20	Hue:	R	Val:	7	Chr:	MH

— Cross out any colors that are impractical or impossible.

This scheme uses Mid-High chroma, so some colors might not be possible. This is particularly so due to the low intrinsic value of the hues.

V 7/MH VRV 7/MH RV 7/MH RRV 7/MH

?? R 7/MH ??

Unlikely or impossible colors:

--- V 7/MH

Color Planning Problem 10:

Plan and chart the 16 colors produced by a strict interpretation of this scheme:

Hue Scheme: Double-Split Complement

Dominant Hue: Violet

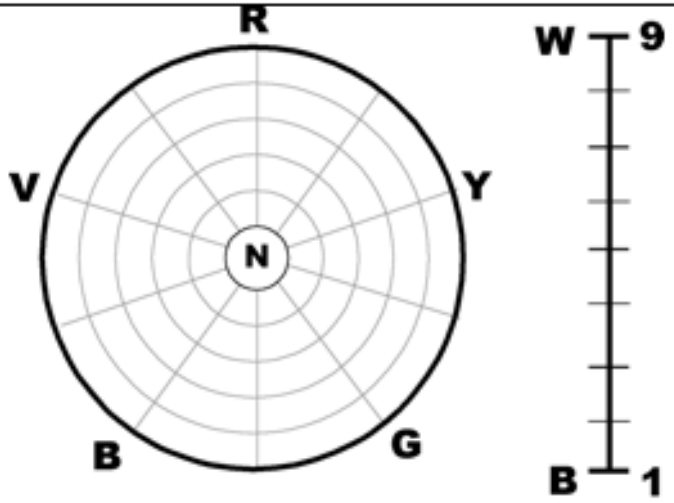
Dominant Value: 2

Dominant Chroma: Middle Low

Subordinate Hue(s): RV, G, __?__

Subordinate Value(s): 6

Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:
Color2	Hue:		Val:		Chr:
Color3	Hue:		Val:		Chr:
Color4	Hue:		Val:		Chr:
Color5	Hue:		Val:		Chr:
Color6	Hue:		Val:		Chr:
Color7	Hue:		Val:		Chr:
Color8	Hue:		Val:		Chr:
Color9	Hue:		Val:		Chr:
Clr 10	Hue:		Val:		Chr:
Clr 11	Hue:		Val:		Chr:
Clr 12	Hue:		Val:		Chr:
Clr 13	Hue:		Val:		Chr:
Clr 14	Hue:		Val:		Chr:
Clr 15	Hue:		Val:		Chr:
Clr 16	Hue:		Val:		Chr:

— Cross out any colors that are impractical or impossible.

Color Planning Problem 10: (solution)

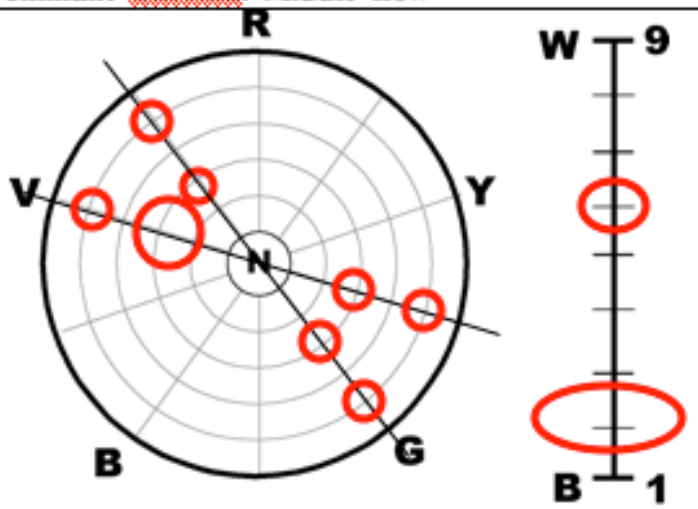
Plan and chart the 16 colors produced by a strict interpretation of this scheme:

Hue Scheme: Double-Split Complement

Dominant Hue: Violet — **Subordinate Hue(s): RV, G, YG**

Dominant Value: 2 — **Subordinate Value(s): 6**

Dominant Chroma: Middle Low — **Subordinate Chroma(s): Middle High**



	Limited To	Dominant
Value	2, 6	2
Hue	V, RV, G, YG	V
Chroma	ML, MH	ML

Scheme Double-Split Complement

Color1	Hue:	V	Val:	2	Chr:	ML
Color2	Hue:	V	Val:	2	Chr:	MH
Color3	Hue:	V	Val:	6	Chr:	ML
Color4	Hue:	V	Val:	6	Chr:	MH
Color5	Hue:	RV	Val:	2	Chr:	ML
Color6	Hue:	RV	Val:	2	Chr:	MH
Color7	Hue:	RV	Val:	6	Chr:	ML
Color8	Hue:	RV	Val:	6	Chr:	MH
Color9	Hue:	G	Val:	2	Chr:	ML
Clr 10	Hue:	G	Val:	2	Chr:	MH
Clr 11	Hue:	G	Val:	6	Chr:	ML
Clr 12	Hue:	G	Val:	6	Chr:	MH
Clr 13	Hue:	YG	Val:	2	Chr:	ML
Clr 14	Hue:	YG	Val:	2	Chr:	MH
Clr 15	Hue:	YG	Val:	6	Chr:	ML
Clr 16	Hue:	YG	Val:	6	Chr:	MH

— Cross out any colors that are impractical or impossible.

A few of the MH chroma colors may be impossible.
YG 2/MH -- too dark for a high-intrinsic value color
V 6/MH -- may be too light for a low-intrinsic value color
(RV 6/MH is borderline)

G 3/MH might be OK

Palette Planning Problem 11:

Plan and chart the colors produced by a strict interpretation of this scheme: [18 colors]

Hue Scheme: 4-Hue Analogous

Dominant Hue: Yellow

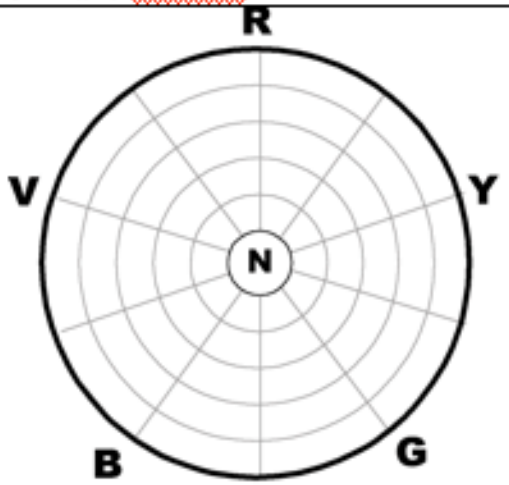
Dominant Value: 7

Dominant Chroma: MH

Subordinate Hue(s): YG, GYG, __?__

Subordinate Value(s): 3

Subordinate Chroma(s): Low



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:	
Color2	Hue:		Val:		Chr:	
Color3	Hue:		Val:		Chr:	
Color4	Hue:		Val:		Chr:	
Color5	Hue:		Val:		Chr:	
Color6	Hue:		Val:		Chr:	
Color7	Hue:		Val:		Chr:	
Color8	Hue:		Val:		Chr:	
Color9	Hue:		Val:		Chr:	
Clr 10	Hue:		Val:		Chr:	
Clr 11	Hue:		Val:		Chr:	
Clr 12	Hue:		Val:		Chr:	
Clr 13	Hue:		Val:		Chr:	
Clr 14	Hue:		Val:		Chr:	
Clr 15	Hue:		Val:		Chr:	
Clr 16	Hue:		Val:		Chr:	

— Cross out any colos that are impractical or impossible.

Palette Planning Problem 11: (solution)

Plan and chart the colors produced by a strict interpretation of this scheme: [18 colors]

Hue Scheme: 4-Hue Analogous

Dominant Hue: Yellow

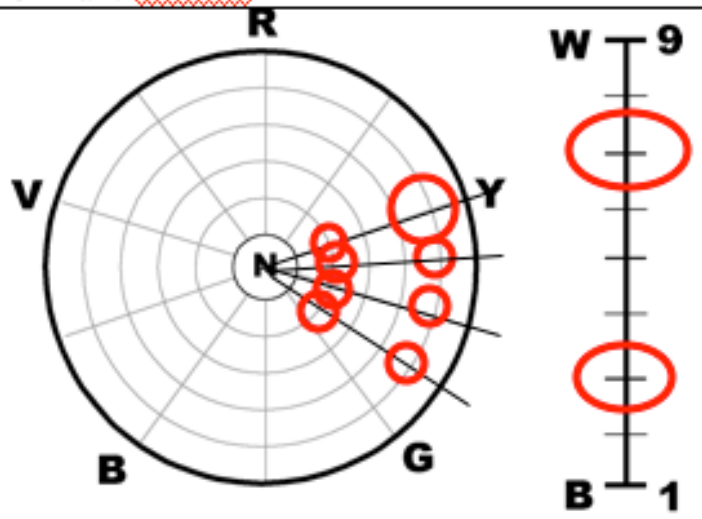
Dominant Value: 7

Dominant Chroma: MH

Subordinate Hue(s): YG, GYG, __YYG__

Subordinate Value(s): 3

Subordinate Chroma(s): Low



	Limited To	Dominant
Value	7, 3	7
Hue	Y, YG, GYG, YYG	Y
Chroma	L, MH	MH

Scheme 4-hue Analogous

Color1	Hue:	Y	Val:	7	Chr:	MH
Color2	Hue:	Y	Val:	7	Chr:	L
Color3	Hue:	Y	Val:	3	Chr:	MH
Color4	Hue:	Y	Val:	3	Chr:	L
Color5	Hue:	YYG	Val:	7	Chr:	MH
Color6	Hue:	YYG	Val:	7	Chr:	L
Color7	Hue:	YYG	Val:	3	Chr:	MH
Color8	Hue:	YYG	Val:	3	Chr:	L
Color9	Hue:	YG	Val:	7	Chr:	MH
Clr 10	Hue:	YG	Val:	7	Chr:	L
Clr 11	Hue:	YG	Val:	3	Chr:	MH
Clr 12	Hue:	YG	Val:	3	Chr:	L
Clr 13	Hue:	GYG	Val:	7	Chr:	MH
Clr 14	Hue:	GYG	Val:	7	Chr:	L
Clr 15	Hue:	GYG	Val:	3	Chr:	MH
Clr 16	Hue:	GYG	Val:	3	Chr:	L

— Cross out any colos that are impractical or impossible.

— **These colors are all "safe" – the most vulnerable color is YG 7/MH, but it should be fine.**

Palette Planning Problem 12:

1) Plan and chart the colors produced by a strict interpretation of this scheme:

Hue Scheme: 4-Hue Analogous

Dominant Hue: Violet

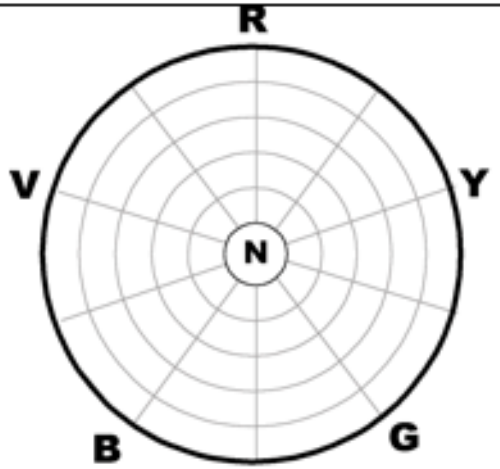
Dominant Value: 4

Dominant Chroma: Low

Subordinate Hue(s): Red-Violet, Orange, ___?___

Subordinate Value(s): 7

Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color #	Hue	Value	Chroma
Clr 1:	H: _____	V: _____	C: _____
Clr 2:	H: _____	V: _____	C: _____
Clr 3:	H: _____	V: _____	C: _____
Clr 4:	H: _____	V: _____	C: _____
Clr 5:	H: _____	V: _____	C: _____
Clr 6:	H: _____	V: _____	C: _____
Clr 7:	H: _____	V: _____	C: _____
Clr 8:	H: _____	V: _____	C: _____
Clr 9:	H: _____	V: _____	C: _____
Clr 10:	H: _____	V: _____	C: _____
Clr 11:	H: _____	V: _____	C: _____
Clr 12:	H: _____	V: _____	C: _____
Clr 13:	H: _____	V: _____	C: _____
Clr 14:	H: _____	V: _____	C: _____
Clr 15:	H: _____	V: _____	C: _____
Clr 16:	H: _____	V: _____	C: _____

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Palette Planning Problem 12:

1) Plan and chart the colors produced by a strict interpretation of this scheme:

Hue Scheme: 4-Hue Analogous

Dominant Hue: Violet

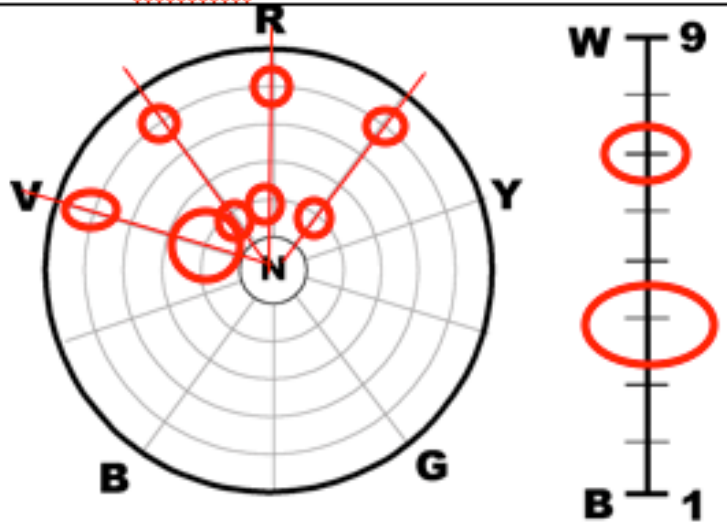
Dominant Value: 4

Dominant Chroma: Low

Subordinate Hue(s): Red-Violet, Orange, ____ RED ____

Subordinate Value(s): 7

Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color #	Hue	Value	Chroma
Clr 1:	H: ___V___	V: ___4___	C: ___L___
Clr 2:	H: ___V___	V: ___4___	C: __MH__
Clr 3:	H: ___V___	V: ___7___	C: ___L___
Clr 4:	H: ___V___	V: ___7___	C: __MH__
Clr 1:	H: ___RV__	V: ___4___	C: ___L___
Clr 2:	H: ___RV__	V: ___4___	C: __MH__
Clr 3:	H: ___RV__	V: ___7___	C: ___L___
Clr 4:	H: ___RV__	V: ___7___	C: __MH__
Clr 1:	H: ___R___	V: ___4___	C: ___L___
Clr 2:	H: ___R___	V: ___4___	C: __MH__
Clr 3:	H: ___R___	V: ___7___	C: ___L___
Clr 4:	H: ___R___	V: ___7___	C: __MH__
Clr 1:	H: ___YR__	V: ___4___	C: ___L___
Clr 2:	H: ___YR__	V: ___4___	C: __MH__
Clr 3:	H: ___YR__	V: ___7___	C: ___L___
Clr 4:	H: ___YR__	V: ___7___	C: __MH__

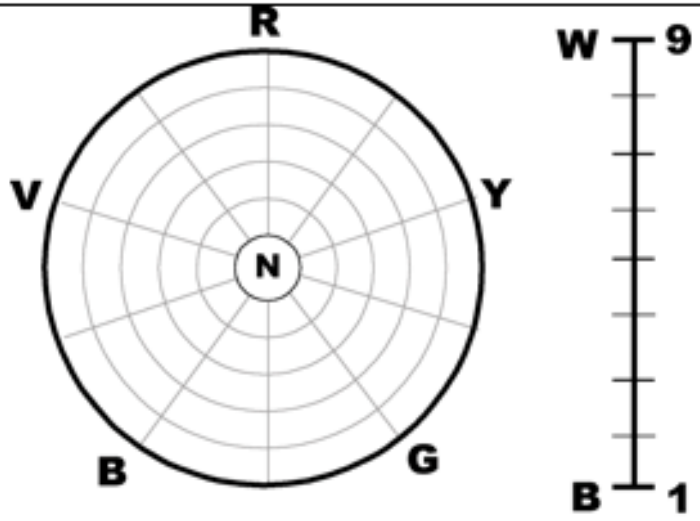
At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

Palette Planning Problem 13:

Plan and chart the colors produced by a strict interpretation of this scheme:

Hue Scheme: Triadic
Dominant Hue: Violet
Dominant Value: 6
Dominant Chroma: Low

Subordinate Hue(s): Green, __?__
Subordinate Value(s): 8, 3
Subordinate Chroma(s): High



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:		Val:		Chr:						
Color2	Hue:		Val:		Chr:						
Color3	Hue:		Val:		Chr:						
Color4	Hue:		Val:		Chr:						
Color5	Hue:		Val:		Chr:						
Color6	Hue:		Val:		Chr:						
Color7	Hue:		Val:		Chr:						
Color8	Hue:		Val:		Chr:						
Color9	Hue:		Val:		Chr:						
Clr 10	Hue:		Val:		Chr:						
Clr 11	Hue:		Val:		Chr:						
Clr 12	Hue:		Val:		Chr:						
Clr 13	Hue:		Val:		Chr:						
Clr 14	Hue:		Val:		Chr:						
Clr 15	Hue:		Val:		Chr:						
Clr 16	Hue:		Val:		Chr:						
Clr 17	Hue:		Val:		Chr:						
Clr 18	Hue:		Val:		Chr:						

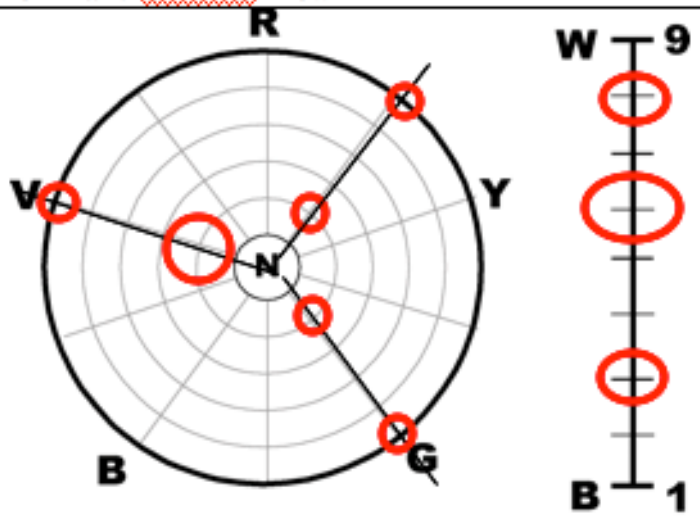
— Cross out any colors that are impractical or impossible.

Palette Planning Problem 13: (solution)

Plan and chart the colors produced by a strict interpretation of this scheme: [18 colors]

Hue Scheme: Triadic
Dominant Hue: Violet
Dominant Value: 6
Dominant Chroma: Low

Subordinate Hue(s): Green, __Orange (or YR) __
Subordinate Value(s): 8, 3
Subordinate Chroma(s): High



	Limited To	Dominant
Value	3, 6, 8	6
Hue	V, O, G	V
Chroma	L, H	H

Scheme Triadic

Color1	Hue:	V	Val:	6	Chr:	L
Color2	Hue:	V	Val:	6	Chr:	H
Color3	Hue:	V	Val:	8	Chr:	L
Color4	Hue:	V	Val:	8	Chr:	H
Color5	Hue:	V	Val:	3	Chr:	L
Color6	Hue:	V	Val:	3	Chr:	H
Color7	Hue:	G	Val:	6	Chr:	L
Color8	Hue:	G	Val:	6	Chr:	H
Color9	Hue:	G	Val:	8	Chr:	L
Clr 10	Hue:	G	Val:	8	Chr:	H
Clr 11	Hue:	G	Val:	3	Chr:	L
Clr 12	Hue:	G	Val:	3	Chr:	H
Clr 13	Hue:	O (YR)	Val:	6	Chr:	L
Clr 14	Hue:	O (YR)	Val:	6	Chr:	H
Clr 15	Hue:	O (YR)	Val:	8	Chr:	L
Clr 16	Hue:	O (YR)	Val:	8	Chr:	H
Clr 17	Hue:	O (YR)	Val:	3	Chr:	L
Clr 18	Hue:	O (YR)	Val:	3	Chr:	H

— Cross out any colors that are impractical or impossible.

Several of these colors may be impossible with pigments — they are outside the gamut of either subtractive colors, or, more generally, of human vision. Since **High chroma is used in the scheme,** check the intrinsic value of each hue as well as the Munsell color model to see which values of each hue cannot be created.

Palette Planning Problem 14:

Plan and chart the colors produced by a strict interpretation of this scheme:

Hue Scheme: Double-Split Complement

Dominant Hue: Blue-Green

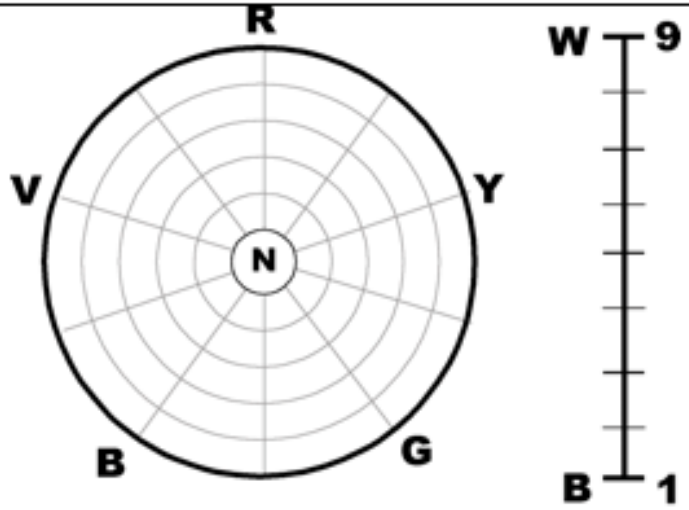
Dominant Value: 5

Dominant Chroma: Low

Subordinate Hue(s): Red, Green , ____?____

Subordinate Value(s): 8

Subordinate Chroma(s): Middle High



	Limited To	Dominant
Value		
Hue		
Chroma		

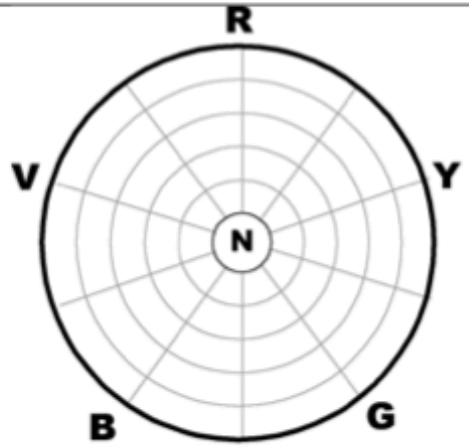
Scheme _____

Color1	Hue:		Val:		Chr:
Color2	Hue:		Val:		Chr:
Color3	Hue:		Val:		Chr:
Color4	Hue:		Val:		Chr:
Color5	Hue:		Val:		Chr:
Color6	Hue:		Val:		Chr:
Color7	Hue:		Val:		Chr:
Color8	Hue:		Val:		Chr:
Color9	Hue:		Val:		Chr:
Clr 10	Hue:		Val:		Chr:
Clr 11	Hue:		Val:		Chr:
Clr 12	Hue:		Val:		Chr:
Clr 13	Hue:		Val:		Chr:
Clr 14	Hue:		Val:		Chr:
Clr 15	Hue:		Val:		Chr:
Clr 16	Hue:		Val:		Chr:
Clr 17	Hue:		Val:		Chr:
Clr 18	Hue:		Val:		Chr:

— Cross out any colos that are impractical or impossible.

Color Planning Problem 18: Plan and chart the distinct colors produced by a strict interpretation of this scheme:

Hue Scheme: Triadic
Dominant Hue: Orange **Subordinate Hue(s): _____?_____ ,**
Dominant Value: 7 **Subordinate Value(s): 3**
Dominant Chroma: Low **Subordinate Chroma(s): Middle High, Neutral**



	Limited To	Dominant
Value		
Hue		
Chroma		

Scheme _____

Color1	Hue:	Val:	Chr:
Color2	Hue:	Val:	Chr:
Color3	Hue:	Val:	Chr:
Color4	Hue:	Val:	Chr:
Color5	Hue:	Val:	Chr:
Color6	Hue:	Val:	Chr:
Color7	Hue:	Val:	Chr:
Color8	Hue:	Val:	Chr:
Color9	Hue:	Val:	Chr:
Clr 10	Hue:	Val:	Chr:
Clr 11	Hue:	Val:	Chr:
Clr 12	Hue:	Val:	Chr:
Clr 13	Hue:	Val:	Chr:
Clr 14	Hue:	Val:	Chr:
Clr 15	Hue:	Val:	Chr:
Clr 16	Hue:	Val:	Chr:
Clr 17	Hue:	Val:	Chr:
Clr 18	Hue:	Val:	Chr:

At least one of these colors is impractical or impossible.
Which one(s)? And why can it/they not be used?

- Notice that the “other” hues won’t lie perfectly on a Munsell primary, secondary or or tertiary position… so, “close” is good enough here.
- (Why so? A Munsell color wheel doesn’t divide nicely into thirds.)
- Which colors are, strictly speaking, identical?
- In practice, a designer may treat those duplicate colors as distinct chromatic neutrals.

Plan adjacencies and contrasts

- ***Focal points and emphases of many kinds are developed by arranging colors of significant contrast next to each other.***

- ***The graphic impact of a scheme is enhanced by creating strong contrasts – by arranging colors to exploit distinct differences in hue, or in value, or in chroma.***

Plan transitions

- ***Transitions and gradients involve colors that are quite similar next to each other – often in a progressive or ongoing sequence -- these tend to lead the eye from one region to another.***

Plan juxtapositions and contrasts

- ***Subtlety can be enhanced by creating gradual transitions – by arranging colors so that the most similar colors are next to each other.***
- ***"Rule" to remember: its not just the colors you use, but* how you arrange them – *what colors are* next to *what colors? (juxtaposition)***

Plan distribution, correspondence and rhythm

- ***These are all roughly the same idea***
- ***distribute instances of each color around the composition so that the entire composition or design is unified by that color.***

Plan distribution, correspondence and rhythm

- *To some extent,* ***each major color should be balanced with itself.***
- ***That is, if you are creating a complementary scheme with orange and blue, you should give attention to balancing the blue on its own*** *– ask "are there instances of blue spread around the design – is the blue balanced, or is it one-sided, lop-sided, all in one place?"*
- ***Then give attention to balancing the orange –*** *"are there instances of orange distributed around the design?"*

Correspondence - draw the eye

- ***The viewer´s eye will tend to jump from one sample of a color to another.***
- *That is, if you have red accents in one location – on a vase -- and a similar red accent on the drapes and in a flower arrangement, the viewer´s eye will tend to move from one red to the next.*
- *Such correspondences guide the eye from one point of interest to another.*
- *If the arrangements of such colors are distributed carefully, rhythms can be created which are interesting and unifying in themselves.*

Select hues according to impact

- *In many of our color studies, you will be free to fairly arbitrarily select the hues you will use.*
- *In practice, you will design color by thinking about the impact, mood, connotations, and meaning of the colors used – particularly the dominant colors.*

Using Color Harmony Strategies

- ***Remember, these are strategies, not rules.***

- *Begin by sticking close to them – try them out as described,* then *explore the effect of variations – shifting hues warmer or cooler, or adding minor accent colors outside the scheme.*

Neutral Dominant Schemes

- *Scheme is predominantly neutrals (or, near-neutrals).*
- *Mid-to-high chroma colors can provide brilliant, rich accents – even in very small quantities.*
- *Low chroma colors can provide subtle, rich variations, particularly when warm-cool juxtapositions are included.*
- *Simultaneous contrast can be used to create still more subtle coloration – adjacencies can be planned to produce warm and cool colors from neutrals.*

Basic Planning:

- Scheme? (strategy, hue relationships)
- Dominant value (key)
- Dominant hue
- Dominant chroma
- Develop contrast through juxtapositions
- Introduce accents

Establish a dominant value

- Establish the tonal key of the composition.
- Mood is altered dramatically by tonal key.
- Potential for value contrast depends on separation from the dominant value.
- Consider beginning with dominant value, then adding light and dark forms.

Establish a dominant hue

- Hue has a powerful impact on the mood and interpretation of design.

Establish a dominant chroma

- Less obvious, but just as useful.
- Start with lower chromas—high chroma schemes are tough to control.
- A color harmony can succeed with chroma-dominance alone. (I.e. any combination of hues, but chroma quite controlled.)

Use dominant characteristics as much as possible.

- Develop a solid foundation.
- Traditional design and harmony relies on strong dominance.

Establish subdominant value, hue, and chroma.

- Aim for only two or three values.
- Use only two or three chromas.
- Use only hues “in scheme”

- Later, add accents and “shifted” color as composition develops.

- Focal Points: vibrant chroma, Contrasting hues, contrasting value
- Develop a focal point which is interesting by having samples of the highest chroma colors and/or contrasts between the most extreme values.

These are rules of thumb, not rules.

- These are strategies that help unify and diversify a color harmony.
- After you understand the structure of color design better, you will selectively let go of such rules, applying them as strategies for harmony when they suit your intent.

Is the design too simple to offer enough color variation to study this kind of harmony?

- Simple design can be boring—elaborate the design to allow more color “action.”
- Distribute each color several places in the composition.
- Balance each color with itself.

Applications of dominance: elements

- The designer is responsible for deciding which formal elements will have the leading role in the compositions.

- For instance, will hue or value dominate?
- Line or shape?
- Modeling, volume and space or flat 2D traits?
- Texture or (flat, undisturbed)shape?
- Pattern or mass?

Color Harmony Designs & Exercises

- ***The goals are:***
- ***To become familiar with the characteristics, strengths, weaknesses of a particular color harmony.***
- ***To deliberately work with a particular color structure – a strategy for relating the colors used.***
- ***To observe the impact of such color relationships in terms of dynamic, calm or other emotional characteristics.***
- ***To adjust and refine the arrangements of colors for best effect.***

Get familiar with your scheme

- ***Explore similar color schemes based on professional designs***
- ***If a particular design strategy is involved, plan and outline it.***
- ***Plan and chart the colors you will use***
- ***Plan the contrasts, adjacencies and distribution of colors***
- ***Paint the presentation of the color scheme***
- ***Paint samples of the main palette***
- ***Review and adjust colors and arrangements***

What to turn in:

- ***Color design (small plate mounted on full page plate)***
- ***3 hole punch at left***
- ***Name, plate number, project title on back (neat, legible)***
- ***Color chart with goals and planned color scheme. (this is to be hinge-mounted (taped) at left, so it will fold open and both the color plate and the charts can be seen as a spread)***

What to turn in—after critique:

- ***Notes from crit – comments about YOUR design or SIMILAR designs.***
- ***Revise color design***
- ***Note/chart corrections made after crit.***
- ***Sample of similar professional color scheme*** ***(similar structure, not necessarily the same hues, value range, etc.) This may be mounted on the back of the page/plate. List source (journal/book/web). If you have to use a b/w photocopy, make notes on colors used.***