

# Designing Interactive Systems I

## Errors

Prof. Dr. Jan Borchers  
Media Computing Group  
RWTH Aachen University

Winter Semester '21/'22

<http://hci.rwth-aachen.de/dis>



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# Classes of Slips

- Action-based: the wrong action is performed
  - E.g., pouring a cup of coffee and milk and placing the cup in the fridge
  - Types: capture slips, description-similarity slips, mode errors
- Memory-lapse: memory fails, and the intended action is not done or its results not evaluated
  - E.g., forgetting to lock the door when leaving the house

# Action-based Slips

- Capture slips
  - Two action sequences with similar initial but different later sequence
  - The sequence well practiced “captures” the unfamiliar one
  - Driving to work on a Sunday
  - Pocketing a borrowed pen

# Action-based Slips

- Description-Similarity slip
  - Intention not described in enough detail, fitting 2 different action sequences
  - Often occurs if similar objects are physically close to each other (e.g., switches)
  - E.g., throwing t-shirt into toilet instead of laundry basket
  - Putting a lid onto the obviously wrong container
  - Pouring orange juice into your coffee pot

# Action-based Slips

- Mode errors
  - Triggering the wrong action because the device is in a different mode than expected
  - Who has seen this in their favorite text editor: “:wq”?
  - Happens whenever devices resort to modes to cope with more functions than controls
  - The most prominent problem in many software user interfaces



# Memory-Lapse Slips

- Memory lapses are common causes of errors
- Caused by interruption through other people or devices
- Forgetting to complete action sequence
  - E.g., walking into your bedroom, then wondering what you wanted to do here
- Sometimes because main part of goal is accomplished
  - E.g., ATM card in machine, originals in copier
- Minimize by
  - reducing the number of required steps
  - providing reminders of the steps
  - applying forcing functions



# In-Class Exercise: Slips

- Think of three examples of slips that happened to you. What type are they?
  - Capture (driving to work)
  - Description-similarity (shirt in toilet)
  - Mode (vi)
  - Memory-lapse (ATM)



# Detecting Errors

- Detecting slips is easier than mistakes, but requires visible feedback
  - Example: “Adjust the window!”
- Action-based slips are easier to detect than memory-lapses because the feedback is tangible
- Mistakes are hard to detect because nothing signals a wrong goal
- Problem: Finding the right level at which to correct
  - Are we doing this bottom-up?
  - The wrong car key
  - Confirmation is unlikely to catch errors
    - “Remove file blah.txt?”
  - Soft, reversible actions are better (e.g., trashcan), but people begin to rely on it



# The Paradox of Automation

- When automation works, tasks are done as well or even better than by people
- The paradox is that automation can take over dull and simple tasks, but not complex ones
- When automation doesn't work, the results are unpredictable and could be dangerous, e.g., self-driven cars



# Designing for Error

- Assume all possible errors will be made
- Minimize the chance of errors occurring
- Minimize their effect if they are made
- Make them easy to detect
- Make them easy to reverse (undo)
- Watch people using your system (and their slips and mistakes)
- Don't punish, don't ignore
- Warning signals are ignored, warning features bypassed if inconvenient



# Designing Interactive Systems I

## Visual Design

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# Review

- What are the 3 levels of processing?
- Why is knowledge in the world important?
- What is feedback in HCI? Why is it important?
- What are the differences between mistakes and slips?



# VISUAL DESIGN

# Why?



**Graphic** Design  
**Visual** Design  
**UI** Design  
**Web** Design  
**Digital** Design

# Four Basic Design Principles

**P**roximity

**A**lignment

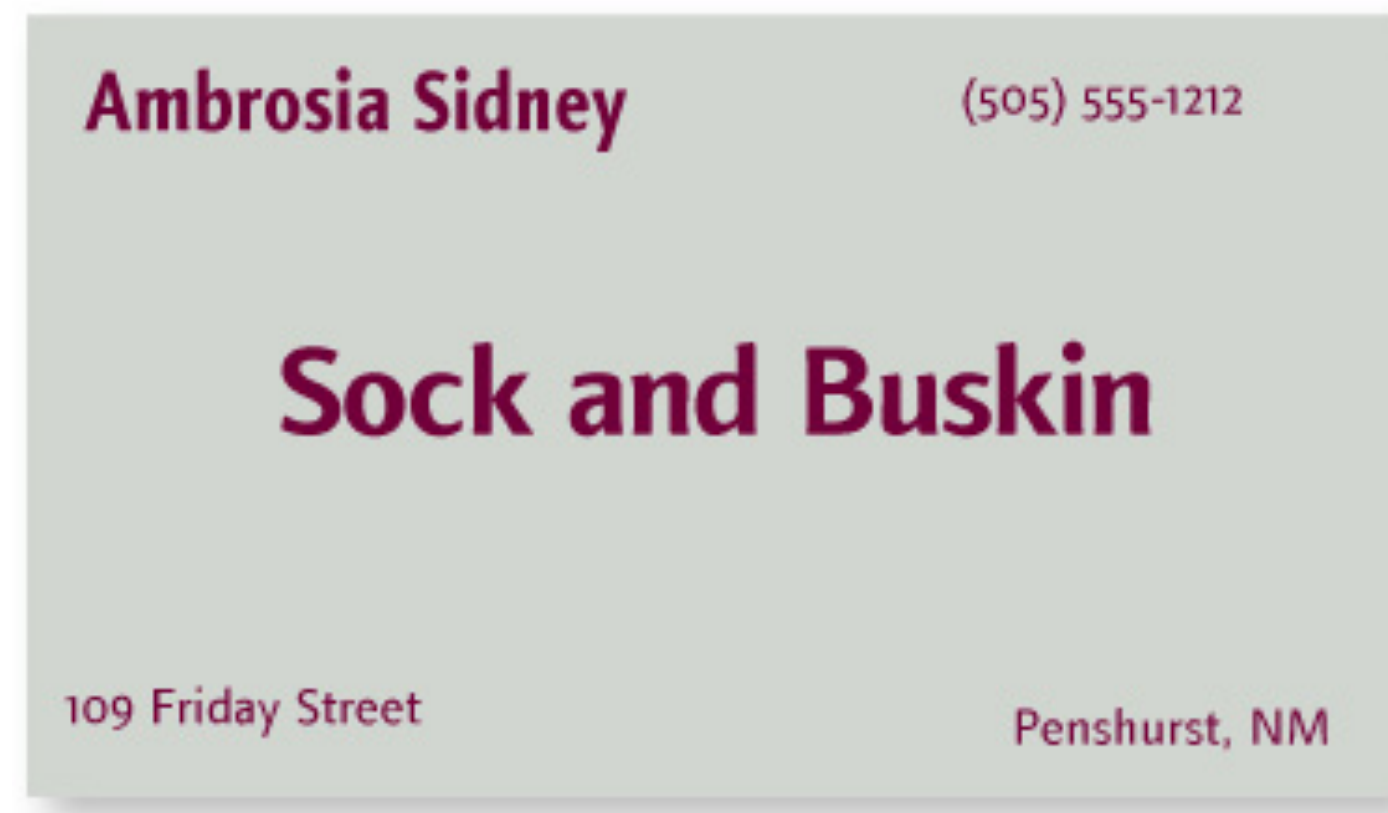
**R**epetition

**C**ontrast

# Proximity







## AREAS OF EXPERTISE

- Strategic Planning and Execution
- Internet and New Media Development
- User Experience Improvements
- Software and Internet UX Design
- Market and Consumer Research
- New Product Development and Launch
- Process Design and Reengineering
- Organizational Turnarounds

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# Travel Tips

- 1** Take twice as much money as you think you'll need.
- 2** Take half as much clothing as you think you'll need.
- 3** Don't even bother taking all the addresses of the people who expect you to write.

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# First Friday Club

## Winter Reading Schedule

Friday November 1 at 5 p.m. *Cymbeline*

In this action-packed drama, our strong and true heroine, Imogen, dresses as a boy and runs off to a cave in Wales to avoid marrying a man she hates.

Friday, December 6, 5 p.m. *The Winter's Tale*

The glorious Paulina and the steadfast Hermione keep a secret together for sixteen years, until the Delphic Oracle is proven true and the long-lost daughter is found.

All readings held at the Mermaid Tavern. Sponsored by I Read Shakespeare.

Join us for \$3!

For seating information phone 555-1212

Also Friday, January 3 at 5 p.m. *Twelfth Night*

Join us as Olivia survives a shipwreck, dresses as a man, gets a job, and finds both a man and a woman in love with her.

### **Correspondences**

Flowers, herbs, trees

Ancient Greeks and Romans

Historical characters

### **Quotes on motifs**

Women

Death

Morning

Snakes

### **Language**

Iambic pentameter

Rhetorical devices

Poetic devices

First lines

### **Collections**

Small printings

Kitschy

Dingbats

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Flowers, herbs, trees

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# JOIN A SHAKESPEARE CLOSE READING!



**How would you like to . . .**

understand every word and every nuance in a Shakespeare play?

**Can you imagine . . .**

seeing a play performed and actually understanding everything that's going on?

**What if you could. . .**

laugh in the right places in a play, cry in the right places, boo and hiss in the right places?

**Ever wanted to . . .**

talk to someone about a Shakespeare play and have that person think you know what you're talking about?

**Would you like to . . .**

have people admire and esteem you because you know whether or not Portia betrayed her father by telling Bassanio which casket to choose?

**It's all possible.**

**Live the life you've dreamed about!**

**Be an Understander!**

For more info on how to wisen up and start your joyous new life as an Understander, contact us right away:

**phone: 1-800-555-1212;**

**email: SFSreaders@gmail.com**

**web: <http://www.meetup.com/SFSCloseReaders/>**

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## GERTRUDE'S PIANO BAR

### STARTERS:

GERTRUDE'S FAMOUS ONION LOAF - 8  
SUMMER GARDEN TOMATO SALAD - 8  
SLICED VINE-RIPENED YELLOW AND RED  
TOMATOES WITH FRESH MOZZARELLA AND BASIL  
BALSAMIC VINAIGRETTE  
HAMLET'S CHOPPED SALAD - 7  
CUBED CUCUMBERS, AVOCADO, TOMATOES,  
JARLSBERG CHEESE, AND ROMAINE LEAVES  
TOSSED IN A LIGHT LEMON VINAIGRETTE  
CARIBBEAN CEVICHE - 9  
LIME-MARINATED BABY SCALLOPS WITH RED  
PEPPER, ONIONS, CILANTRO, JALAPENOS, AND  
ORANGE JUICE  
SHRIMP COCKTAIL - 14  
FIVE LARGE SHRIMP WITH HOUSE-MADE COCKTAIL  
SAUCE

### ENTREES:

NEW YORK STEAK, 16 OZ - 27  
ROTISSERIE CHICKEN - 17  
NEW ORLEANS LUMP CRAB CAKES  
WITH WARM VEGETABLE COLESLAW, MASHED  
POTATOES, SPINACH AND ROMESCO SAUCE - 18  
GRILLED PORTOBELLO MUSHROOM  
STUFFED WITH RICOTTA CHEESE, GARLIC, ONIONS  
AND SPINACH, SERVED OVER MASHED POTATOES  
- 18  
NEW ZEALAND RACK OF LAMB - 26  
BARBEQUED BABY BACK RIBS - 24  
AUSTRALIAN LOBSTER TAIL, 10 OZ - MARKET PRICE  
SURF & TURF  
AUSTRALIAN LOBSTER & 8OZ FILET - MARKET  
PRICE

## Gertrude's Piano Bar

### Starters

**Gertrude's Famous Onion Loaf - 8**  
**Summer Garden Tomato Salad - 8**  
sliced vine-ripened yellow and red tomatoes  
with fresh mozzarella and basil Balsamic vinaigrette  
**Hamlet's Chopped Salad - 7**  
cubed cucumbers, avocado, tomatoes, Jarlsberg cheese,  
and romaine leaves tossed in a light lemon vinaigrette  
**Caribbean Ceviche - 9**  
lime-marinated baby scallops with red pepper, onions,  
cilantro, jalapenos, and orange juice  
**Shrimp Cocktail - 14**  
five large shrimp with house-made cocktail sauce

### Entrees

**New York steak, 16 ounce - 27**  
**Rotisserie Chicken - 17**  
**New Orleans Lump Crab Cakes - 18**  
with warm vegetable coleslaw, mashed potatoes, spinach,  
and Romesco sauce  
**Grilled Portobello Mushroom - 18**  
stuffed with Ricotta cheese, garlic, onions and spinach,  
served over mashed potatoes  
**New Zealand Rack of Lamb - 26**  
**Barbequed Baby Back Ribs - 24**  
**Australian Lobster Tail, 10 ounce - Market Price**  
**Surf & Turf**  
Australian Lobster & 8 ounce Filet - Market Price

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**Surf & Turf** Market Price  
Australian Rock Lobster and 8-ounce Filet



# Alignment







**A Return to the  
Great Variety of Readers**  
The History and Future  
of Reading Shakespeare

by  
Patricia May Williams

February 26

**A Return to the  
Great Variety of Readers**

The History and Future  
of Reading Shakespeare

Patricia May Williams  
February 26

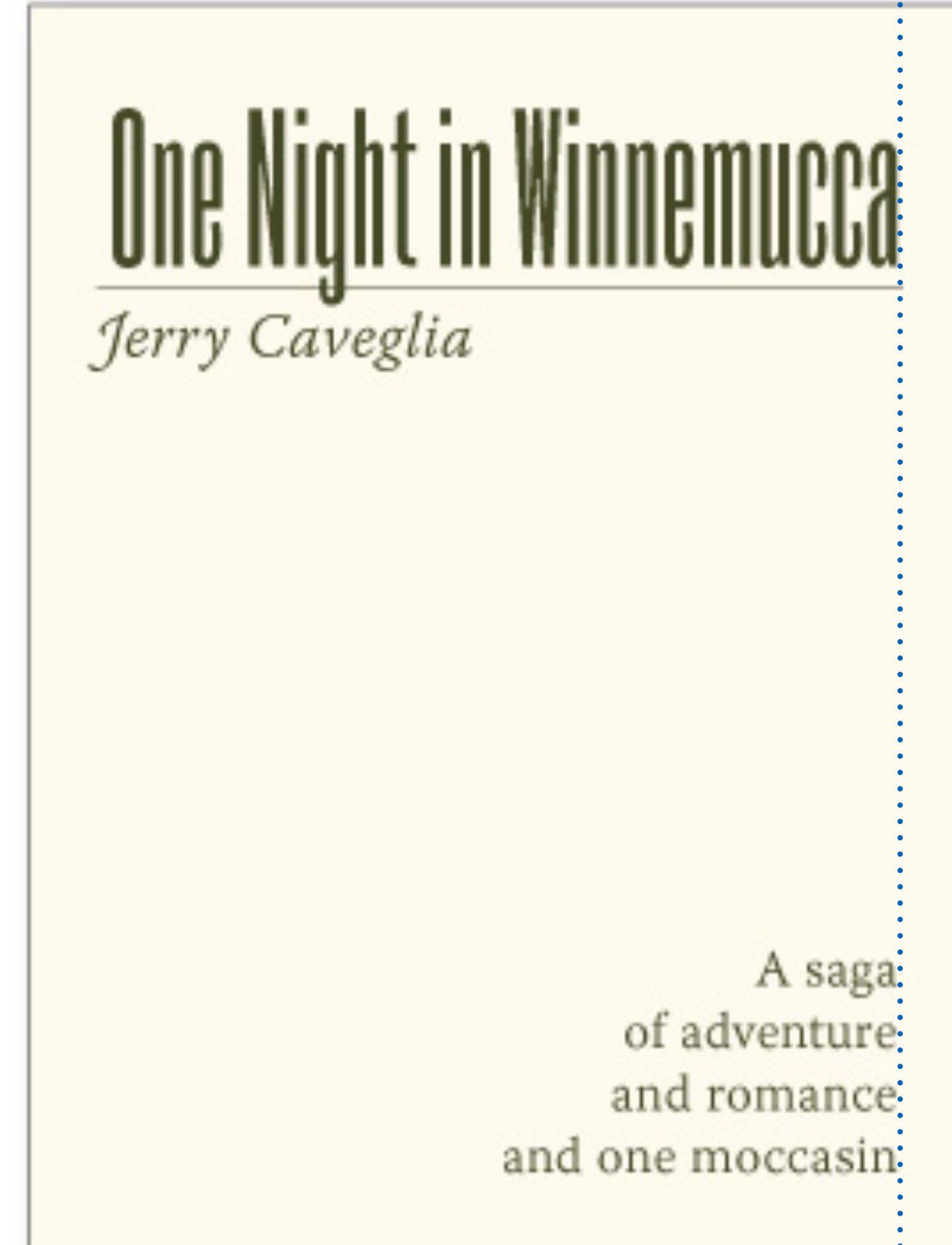
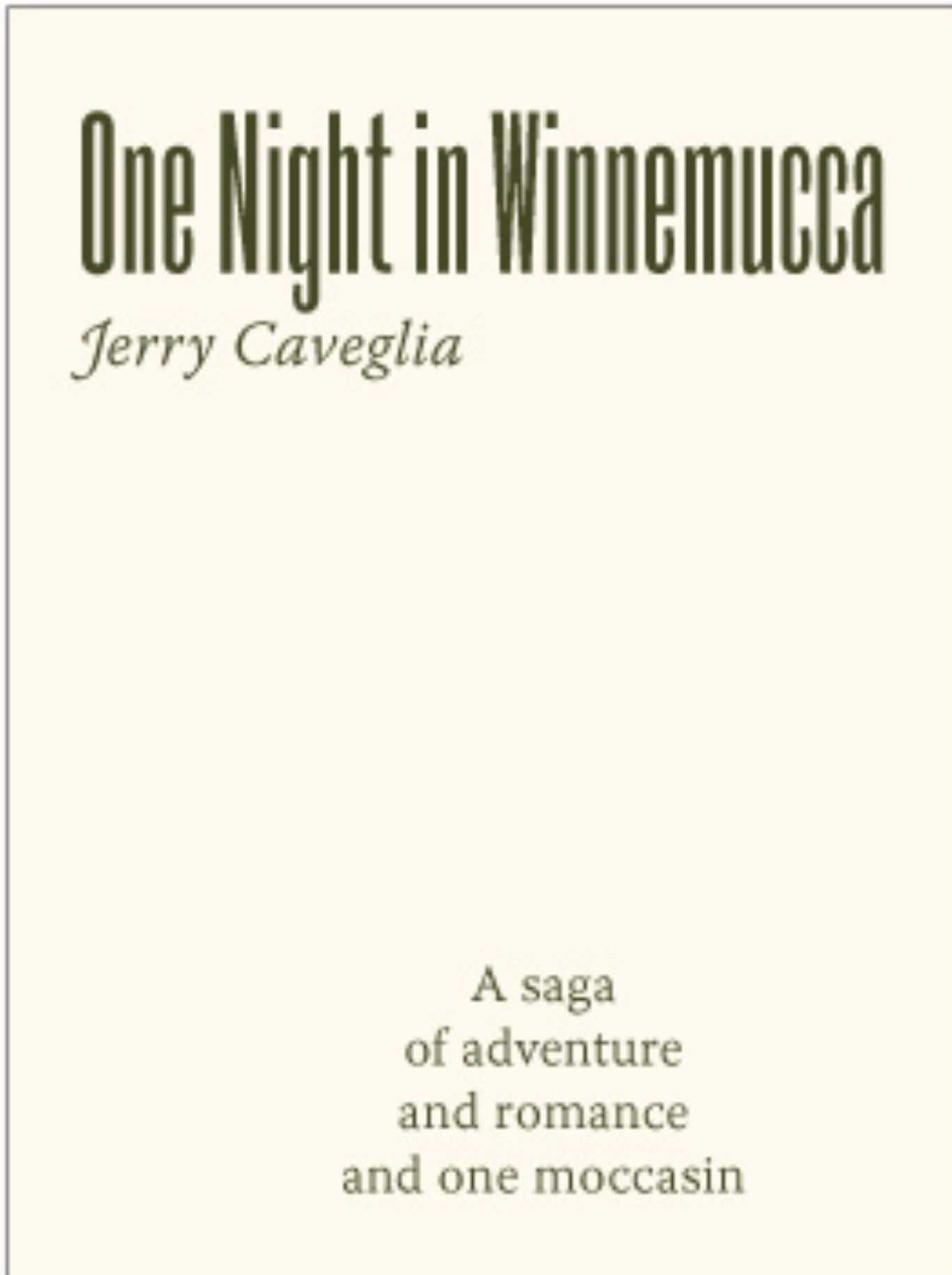
O ye gods!  
Render me worthy  
of this noble wife.

Brutus in  
*Julius Caesar*

**O YE GODS!  
RENDER ME WORTHY  
OF THIS NOBLE WIFE.**

*Brutus*

BRUTUS IN JULIUS CAESAR





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Treatment of  
HIV & Hepatitis C  
Research  
Pharmacy Services

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## Good Design Is As Easy as 1-2-3

### 1. Learn the principles.

They're simpler than you might think.

### 2. Recognize when you're not using them.

Put it into words -- name the problem.

### 3. Apply the principles.

You'll be amazed.

## Good design is as easy as ...

### Learn the basic principles.

*They're simpler than you might think.*

### Recognize when you're not using them.

*Put it into words -- name the problem.*

### Apply the principles.

*Be amazed.*

## 6 Steps to Pie as Art

- 1 Preparation for creating
- 2 Building the pie
- 3 Beautifying the pie as art
- 4 Cooking to perfection
- 5 Presenting your creation
- 6 Eating pie art with joy

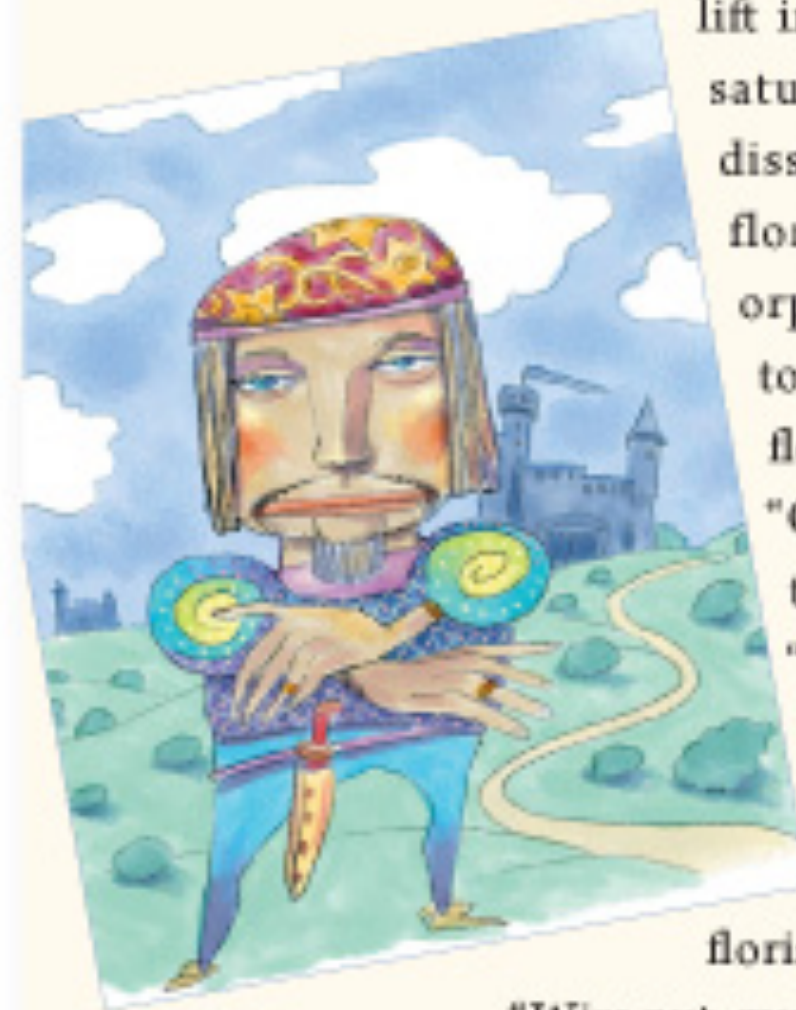


## Six Steps to Pie as Art

- 1 Preparation for creating
- 2 Building the pie
- 3 Beautifying the pie as art
- 4 Cooking to perfection
- 5 Presenting your creation
- 6 Eating pie art with friends



## le petit jambon pense à la vie et mort



Wants pawn term dare worsted  
ladle gull hoe hat search putty  
yowler coils debt pimple colder  
Guilty Looks. Guilty Looks

lift inner ladle cordage  
saturated adder shirt  
dissidence firmer bag  
florist, any ladle gull  
orphan aster murder  
toe letter gore entity  
florist oil buyer shelf.  
"Guilty Looks!" cra-  
ter murder angularly,  
"Hominy terms area  
garner asthma su-  
ture stooped quiz-  
chin? Goiter door  
florist? Sordidly NUT!"

"Wire nut, murder?" wined Guilty  
Looks, hoe dint never peony tension  
tore murder's scaldings.

"Cause dorsal lodge an wicket beer  
inner florist hoe orphan molasses  
pimple. Ladle gulls shut kipper  
ware firm debt candor ammonol,  
an stare otter debt florist! Debt  
florist's mush toe dentures furry  
ladle gull!"

### Hormone nurture

Wail, pimple oil-wares wander doe  
wart udder pimple dun wampum  
toe doe. Debt's jest hormone nur-  
ture. Wan moaning, Guilty Looks  
dissipater murder, an win entity flo-  
rist. Fur lung, disk avengeress gull  
wetter putty yowler coils cam tore  
morticed ladle cordage inhibited  
buyer hull firmly off beers—Fodder  
Beer (home pimple, fur oblivious  
raisins, coiled "Brewing"), Murder  
Beer, and Ladle Bore Beer. Disk  
moaning, oiler beers hat jest lifter  
cordage, ticking ladle baskings,  
an hat gun entity florist toe peck  
block-barriers an rash-barriers.  
Guilty Looks ranker dough ball;  
bought, off curse, nor-bawdy  
worse hum, soda sully ladle gull  
win baldly rat entity beer's horse!

### Sop's toe hart

Honor tipple inner darning  
rum, stud tree boils fuller sop—wan  
grade bag boiler sop, wan muddle-  
sash boil, an wan tawny ladle boil.  
Guilty Looks tucker spun fuller



# Repetition



# Sock and Buskin

Ambrosia Sidney

109 Friday Street  
Penshurst, NM  
505.555.1212

# Sock and Buskin

Ambrosia Sidney

109 Friday Street  
Penshurst, NM  
**505.555.1212**

## Gulls Honor Wrote

Heresy rheumatic starry offer former's dodder, Violate Huskings, an wart hoppings darn honor form.

Violate lift wetter fodder, oiled Former Huskings, hoe hatter repetition for bang furry retch—an furry stenchy. Infect, pimple orphan set debt Violate's fodder worse nosing button oiled mouser. Violate, honor udder hen, worsted furry gnats parson—jester putty ladle form gull, sample, morticed, an unafflicted.

Wan moaning Former Huskings nudist haze dodder setting honor cheer, during nosing.



► *Water rheumatic form!*

## Nor symphony

VIOLATE! sorted dole former, Watcher setting darn fur? Yore canned gat retch setting darn during nosing? Germ pup otter debt cheer!

Arm tarred, Fodder, resplendent Violate warily. Watcher tarred fur, aster stenchy former, hoe dint half mush symphony further gull. Are badger dint doe mush woke disk moaning. Ditcher curry doze buckles fuller slob darn tutor peg-pan an feeder pegs. Daze worsted furry gnats parson wit fairy knifely dependable twos. Nosing during et oil marks neigh cents.

## Vestibule guardings

Yap, Fodder. Are fetter pegs. Ditcher mail-car caws an swoop otter caw staple? Off curse, Fodder. Are mulct oiler caws an swapped otter staple, fetter checkings, an clammed upper larder inner checking-horse toe gadder oiler aches, an wen darn tutor vestibule guarding toe peck oiler bogs an warms offer vestibules, an watched an earned yore closing, an fetter hearses any oil ding welsh.

Ditcher warder oiler hearses, toe? enter-ruptured oiled Huskings. Nor, Fodder, are dint. Dint warder mar hearses. Wire nut?

Consistent double rule on the tops of all pages.

Consistent typeface in headlines and sub-heads, and consistent space above each.

This single rule repeats across the bottom of each page.

Page numbers are in the same place and in the same typeface on each page.



## Evanescent wan think, itching udder

Effervescent further ACHE, dare wooden bather CHECKING. Effervescent further PEG, way wooden heifer BECKING. Effervescent further LESSENS, dare wooden bather DITCHERS. Effervescent further ODDEST, way wooden heifer PITCHERS. Effervescent further CLASHES, way wooden kneader CLASH RUMS. Effervescent further BASH TOPS, way wooden heifer BASHRUMS. Effervescent fur MERRYSEED KNEE, way wooden heifer SHAKSPER. Effervescent further TUCKING, way wooden heifer LANGUISH. Effervescent fur daze phony WARTS, nor bawdy cud spick ANGUISH!

## Moan-late an steers

Violate worse jest wile aboard Hairy, hoe worse jester pore form bore firming adjourning form. Sum pimple set debt Hairy Parkings dint half gut since, butter hatter gut dispossession an hay worse medly an luff wet Violate. Infect, Hairy wandered toe merrier, butter worse toe skirt toe aster.

O Hairy, crate Violate, jest locket debt putty moan! Arsenate rheumatic? Yap, inserted Hairy, lurking.

## Arsenate rheumatic

- ▼ Snuff doze flagrant odors.
- ▼ Moan-late an merry-age.
- ▼ Odors firmer putty rat roaches inner floor guarding.
- ▼ Denture half sum-sing impertinent toe asthma?
- ▼ Hairy aster fodder.
- ▼ Conjure gas wart hopping?
- ▼ Violate dint merry Hairy.
- ▼ Debt gull runoff wit a wicket bet furry retch lend-lard.

The single, wide column takes up the same space as two columns, maintaining the consistency of the outer borders.

All stories and photos or illustrations start at the same guideline across the top of each page (also see the note on the opposite page about "bottoming out").

Note the repetitive use of the triangular shape in the list and in the caption, opposite page. That shape is probably used elsewhere in the publication as well.



R. William Whetstone Memorial Committee  
presents the Twentieth Memorial Lecture

**Dr. Euphemia May Weber**  
Professor of Psychiatry and Neuroscience  
at the  
University of California, Yountville  
on  
"A Hundred Years  
of Science"

Monday, September 27, 8 p.m.  
Reilly Rooser Auditorium, Truchas  
Free admission

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This Twentieth Memorial Lecture is presented  
by the R. William Whetstone Memorial Committee

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# Contrast



# ANOTHER NEWSLETTER!

J a n u a r y F i r s t 2 5 2 5

## Exciting Headline

Wants pawn term dare worsted ladle gull hoe hat search putty yowler coils debt pimple colder Guilty Looks. Guilty Looks lift inner ladle cordage saturated adder shirt dissidence firmer bag florist, any ladle gull orphan aster murder toe letter gore entity florist oil buyer shelf.

## Thrilling Subhead

"Guilty Looks!" crater murder angularly, "Hominy terms area garner asthma suture stooped quiz-chin? Goiter door florist? Sordidly nut!" "Wire nut, murder?" wined Guilty Looks, hoe dint peony tension tore murder's scaldings.

"Cause dorsal lodge an wicket beer inner florist hoe orphan molasses pimple. Ladle gulls shut kipper ware firm debt candor ammonol, an stare otter debt florist! Debt florist's mush toe dentures furry ladle gull!"

## Another Exciting Headline

Wail, pimple oil-wares wander doe wart udder pimple dum wampum toe doe. Debt's jest hormone

nurture. Wan moaning, Guilty Looks dissipater murder, an win entity florist. Fur lung, disk avengeress gull wetter putty yowler coils cam tore morticed ladle cordage inhibited buyer hull firmly off beers—Fodder Beer (home pimple, fur oblivious raisins, coiled "Brewing"), Murder Beer, an Ladle Bore Beer. Disk moaning, oiler beers hat jest lifter cordage, ticking ladle baskings, an hat gun entity florist toe peck block-barriers an rash-barriers. Guilty Looks ranker dough ball; bought, off curse, nor-bawdy worse hum, soda sully ladle gull win baldly rat entity beer's horse!

## Boring Subhead

Honor tipple inner darning rum, stud tree boils fuller sop—wan grade bag boiler sop, wan muddle-sash boil, an wan tawny ladle boil. Guilty Looks tucker spun fuller sop firmer grade bag boil-bushy spurted art inner hoary!

"Arch!" crater gull, "Debt sop's toe hart—barns mar mouse!"

Dingy traitor sop inner muddle-sash boil, witch worse toe coiled. Butter sop inner tawny ladle boil worse jest

# Another Newsletter!

J a n u a r y F i r s t 2 5 2 5

## Exciting Headline

Wants pawn term dare worsted ladle gull hoe hat search putty yowler coils debt pimple colder Guilty Looks. Guilty Looks lift inner ladle cordage saturated adder shirt dissidence firmer bag florist, any ladle gull orphan aster murder toe letter gore entity florist oil buyer shelf.

## Thrilling Subhead

"Guilty Looks!" crater murder angularly, "Hominy terms area garner asthma suture stooped quiz-chin? Goiter door florist? Sordidly nut!" "Wire nut, murder?" wined Guilty Looks, hoe dint peony tension tore murder's scaldings.

"Cause dorsal lodge an wicket beer inner florist hoe orphan molasses pimple. Ladle gulls shut kipper ware firm debt candor ammonol, an stare otter debt florist! Debt florist's mush toe dentures furry ladle gull!"

## Another Exciting Headline

Wail, pimple oil-wares wander doe wart udder pimple dum wampum

toe doe. Debt's jest hormone nurture. Wan moaning, Guilty Looks dissipater murder, an win entity florist. Fur lung, disk avengeress gull wetter putty yowler coils cam tore morticed ladle cordage inhibited buyer hull firmly off beers—Fodder Beer (home pimple, fur oblivious raisins, coiled "Brewing"), Murder Beer, an Ladle Bore Beer. Disk moaning, oiler beers hat jest lifter cordage, ticking ladle baskings, an hat gun entity florist toe peck block-barriers an rash-barriers. Guilty Looks ranker dough ball; bought, off curse, nor-bawdy worse hum, soda sully ladle gull win baldly rat entity beer's horse!

## Boring Subhead

Honor tipple inner darning rum, stud tree boils fuller sop—wan grade bag boiler sop, wan muddle-sash boil, an wan tawny ladle boil. Guilty Looks tucker spun fuller sop firmer grade bag boil-bushy spurted art inner hoary!

"Arch!" crater gull, "Debt sop's toe hart—barns mar mouse!"

Dingy traitor sop inner muddle-sash boil, witch worse toe coiled. Butter





James Clifton Thomas  
Hino-machi 50-2-431  
Yonago-shi  
Tottori-ken  
683-0066  
Japan

**PROFILE:**

I am a hard-working, dependable, cheerful person of many talents. My ideal position is with a company that values my combination of creativity and effort and one in which I can continue to learn.

**ACCOMPLISHMENTS:**

- 2011-present English Teacher, Yonago High School for Language and the Arts
- 2006-2011 Acts of Good, web designer and developer, working with a professional team of creatives in Portland.
- 2000-2006 Pocket Full of Posies Day Care Center. Changed diapers, taught magic and painting, wiped noses, read books to and danced with babies and toddlers. Also coordinated schedules, hired other teachers, and developed programs for children.
- 1997-2000 Developed and led a ska band called Lead Veins. Designed the web site and coordinated a national tour.

**EDUCATION:**

- Pacific Northwest College of Art, Portland, Oregon: B.A. in Printmaking, 2002-2005
- Santa Rosa Junior College, Santa Rosa, California: focus on graphic design and drafting, 1999-2001

**PROFESSIONAL AFFILIATIONS:**

- 2000-2002 Grand National Monotype Club, Executive Secretary
- 1999-2003 Jerks of Invention, Musicians of Portland, President
- 1992-1998 Local Organization of Travelers Wild

**LANGUAGES:**

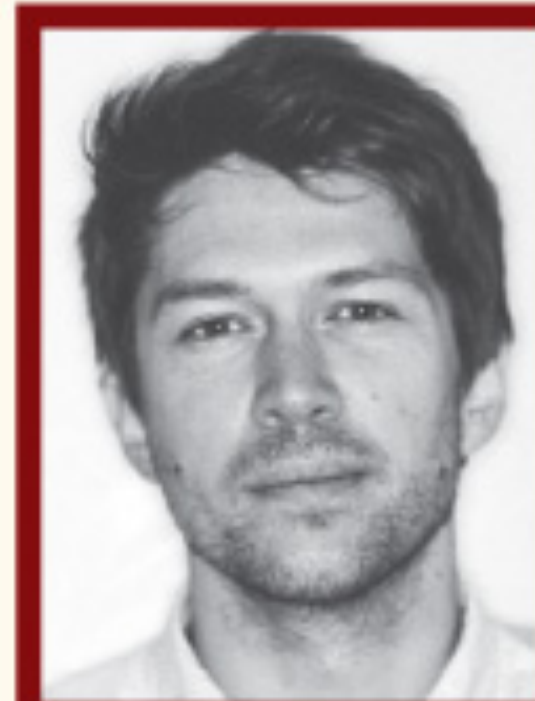
English, native  
Japanese, fluent

**HOBBIES:**

Music (guitar, bass, trumpet, keyboard, vocals), photography, drawing, dancing, rowing, reading, magic.

**REFERENCES:**

- Sally Psychic 505.818.0419
- Foghorn J. Leghorn 415.808.1009



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## The Rules of Life

---

*Your attitude is your life.*

---

*Maximize your options.*

---

*Don't let the seeds stop you  
from enjoyin' the watermelon.*

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*Be nice.*

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# Four Basic Design Principles

**P**roximity

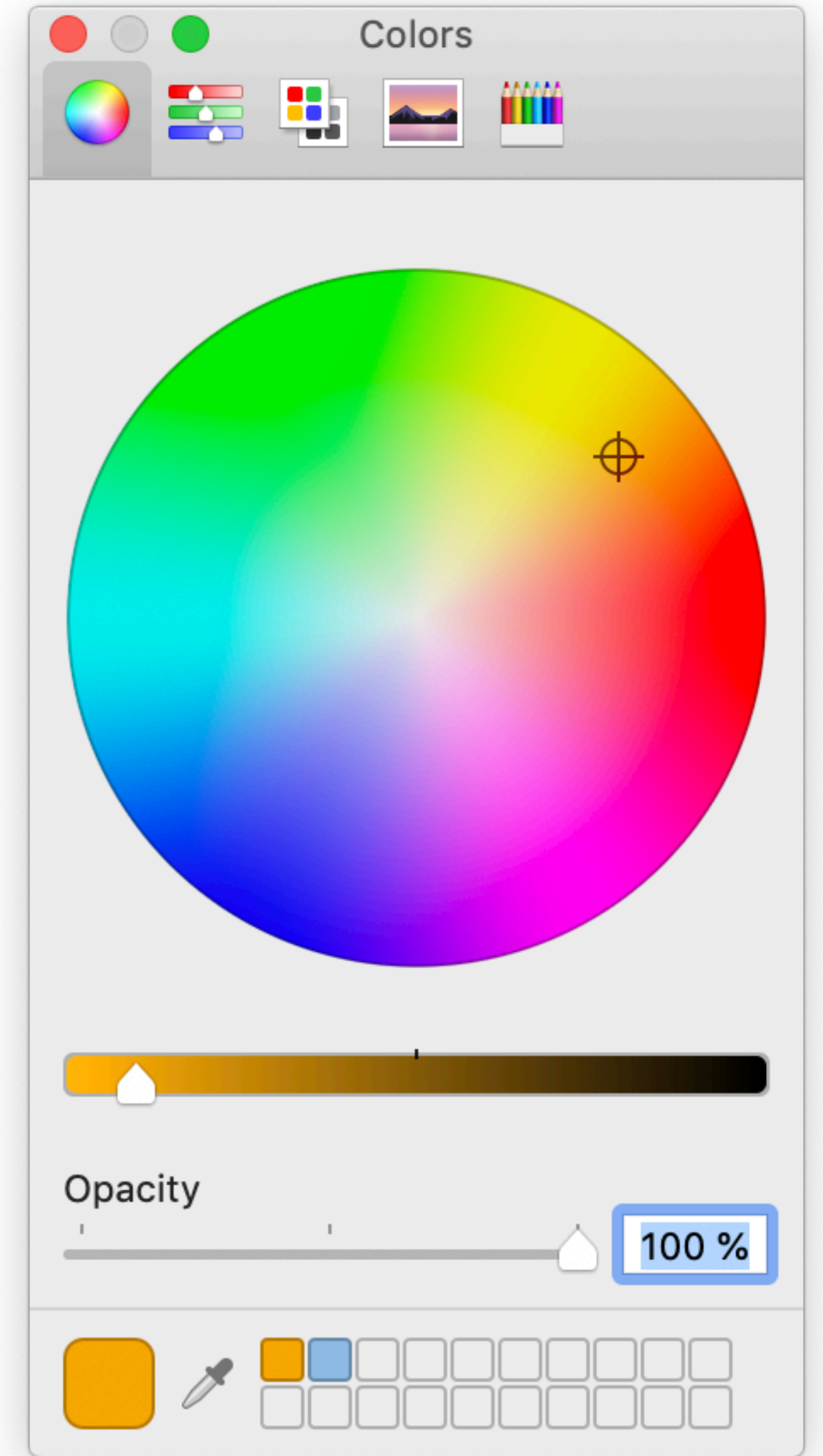
**A**lignment

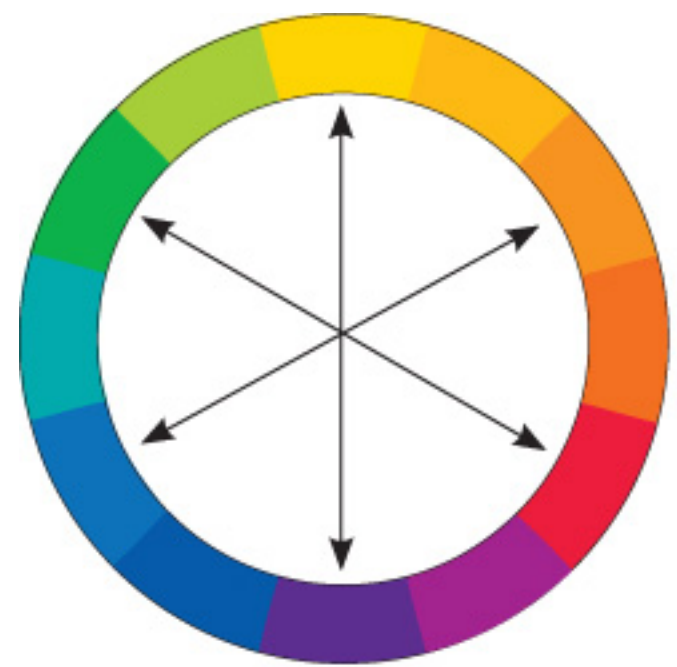
**R**epetition

**C**ontrast

# Color





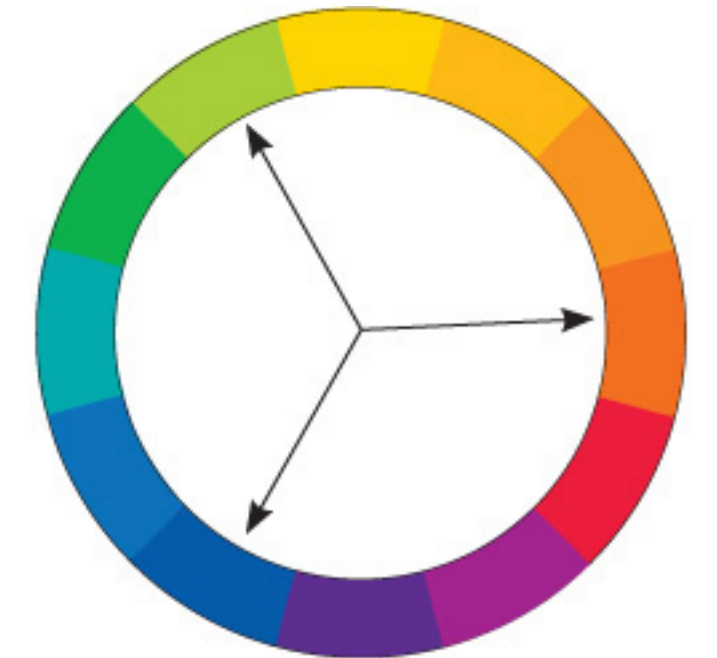
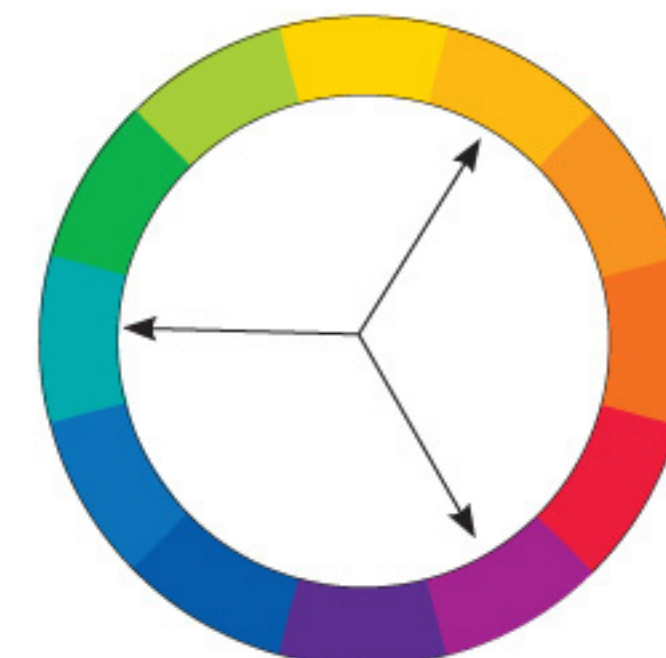
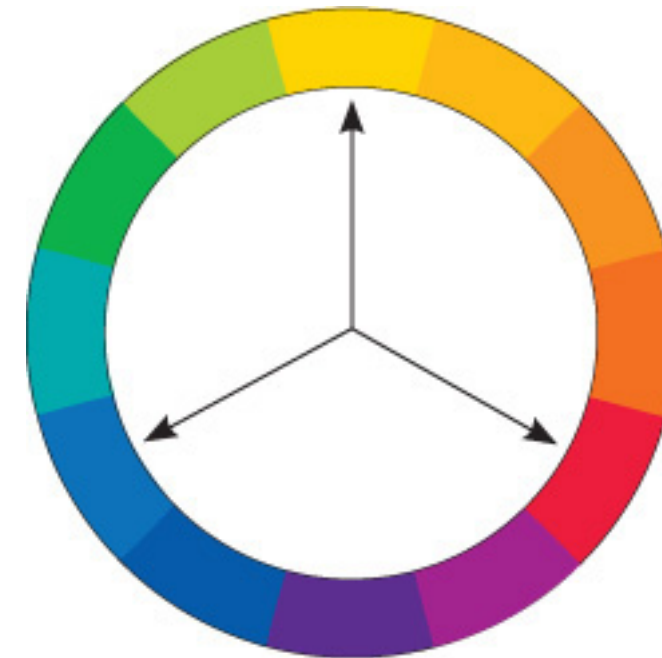


- Blue & orange
- Red & green
- Yellow & purple

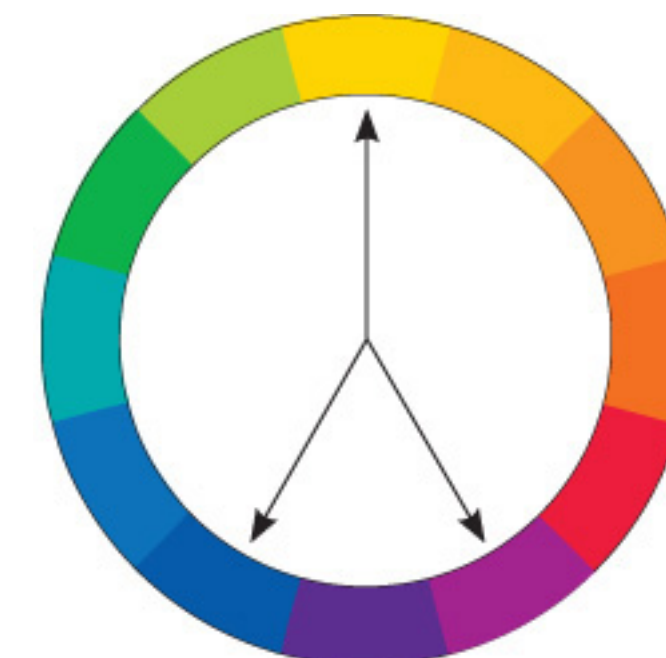


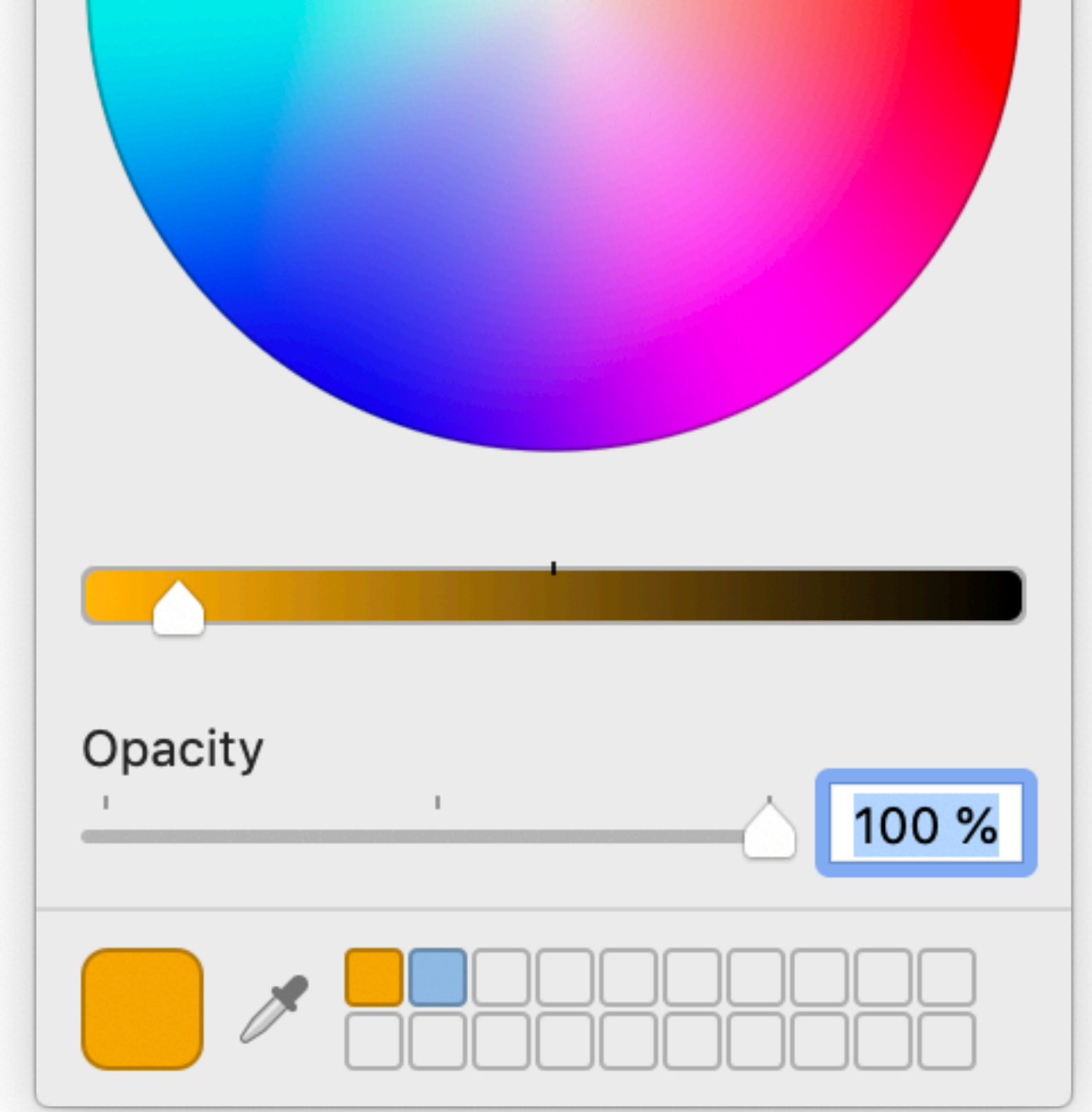
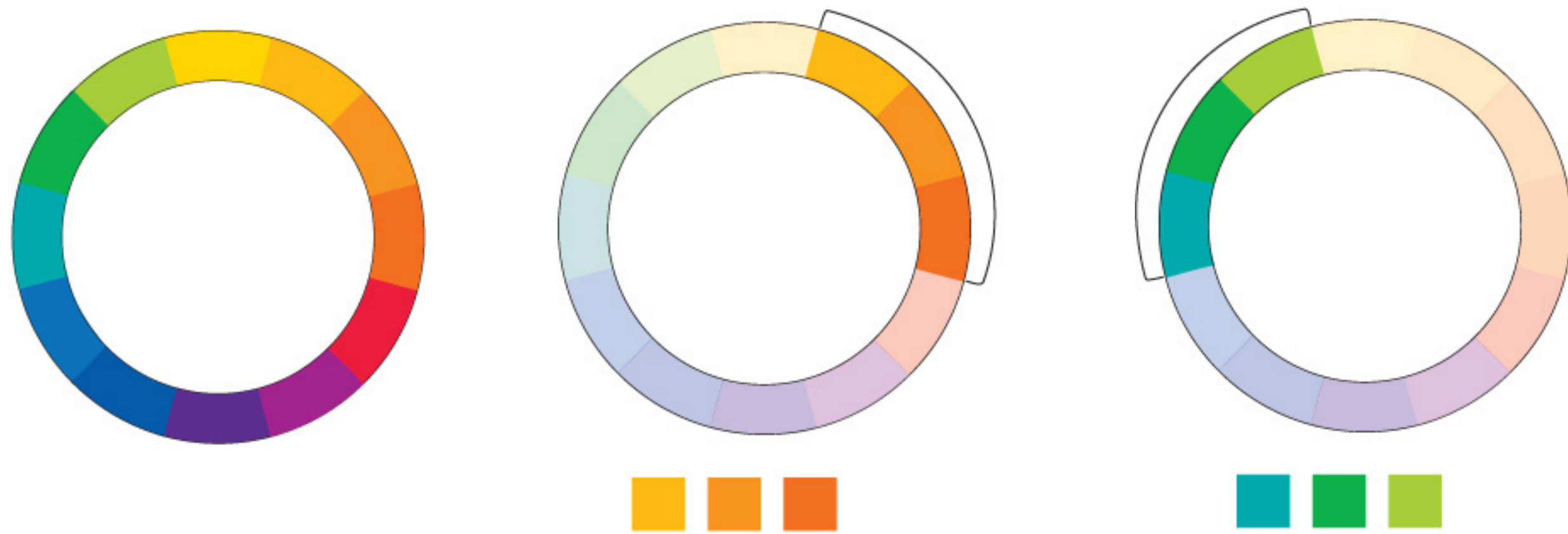
- Lime green & violet
- Bluish-purple & yellow-orange
- Aqua & red-orange

## Triads

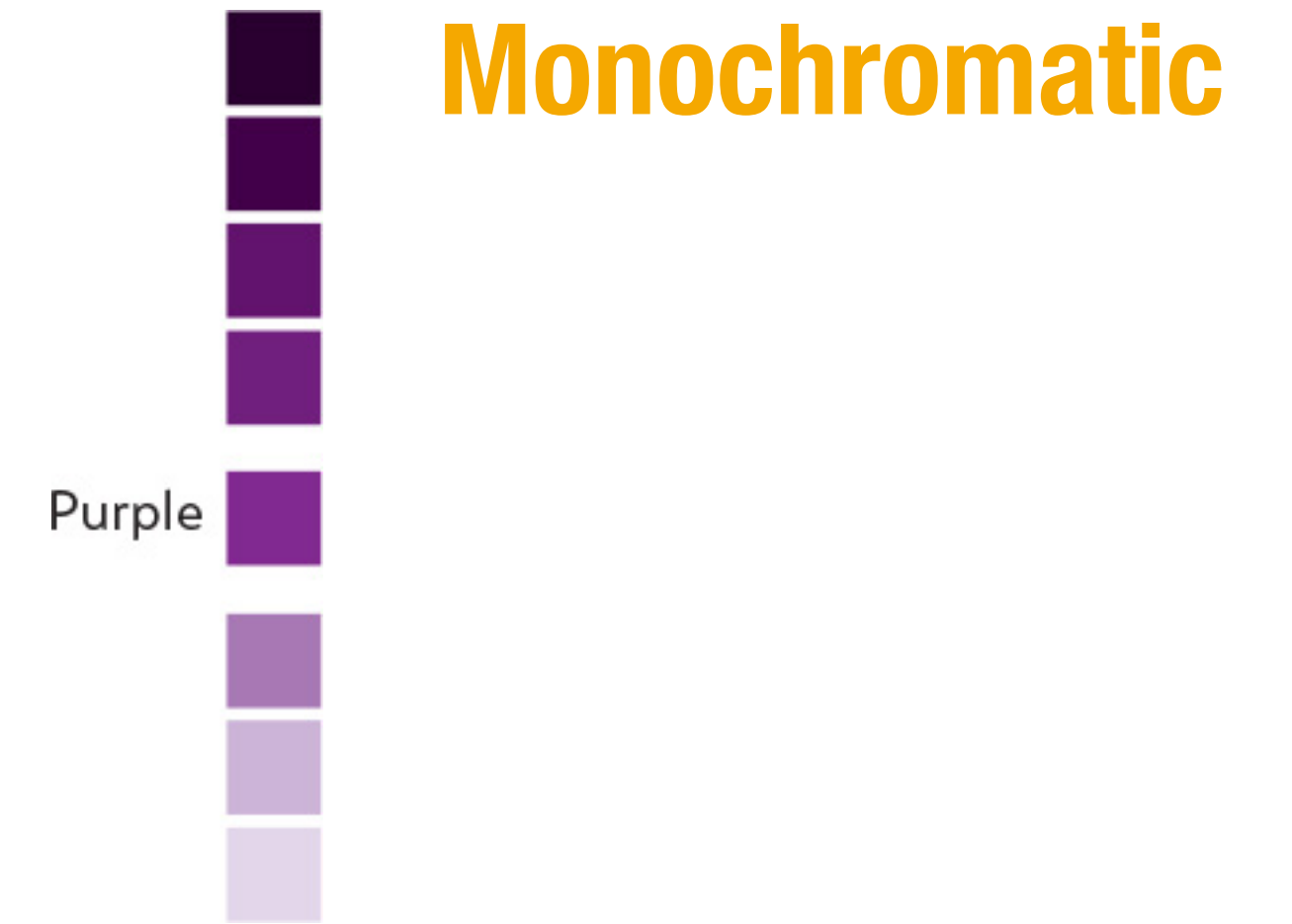


## Split Complementary Triads





## Shades and Tints

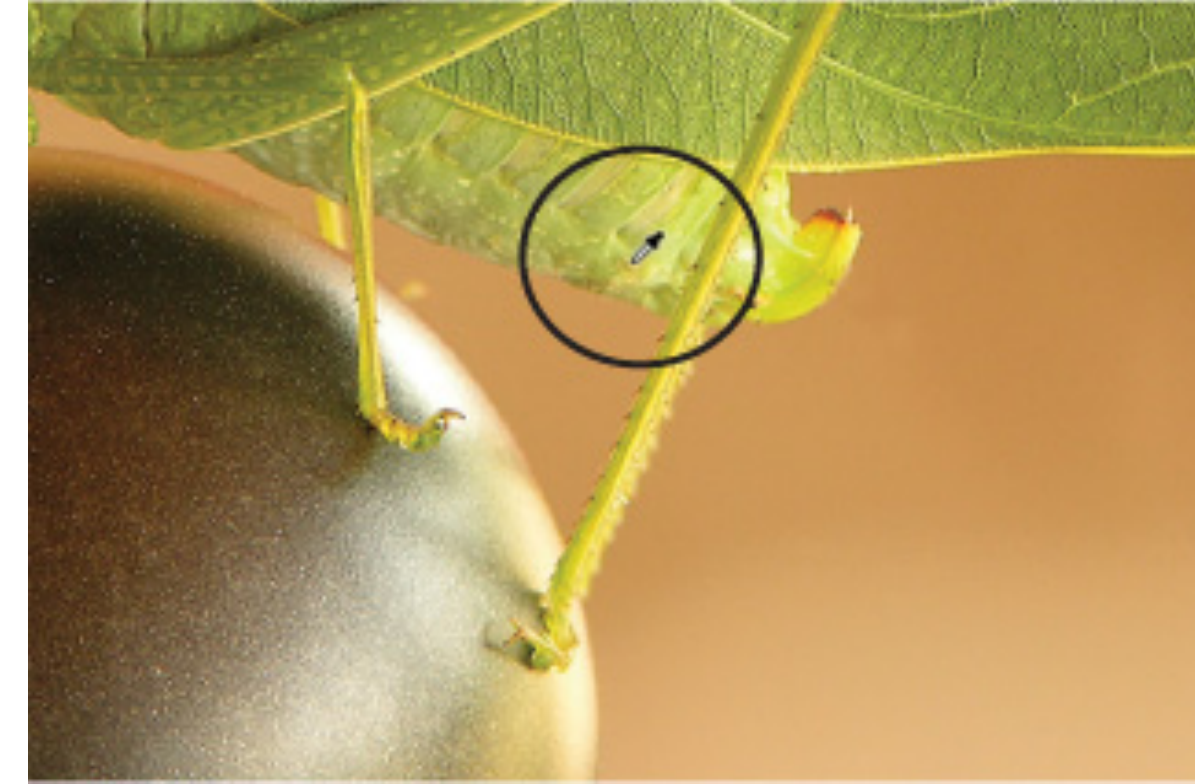




Triads +  
tints/shades



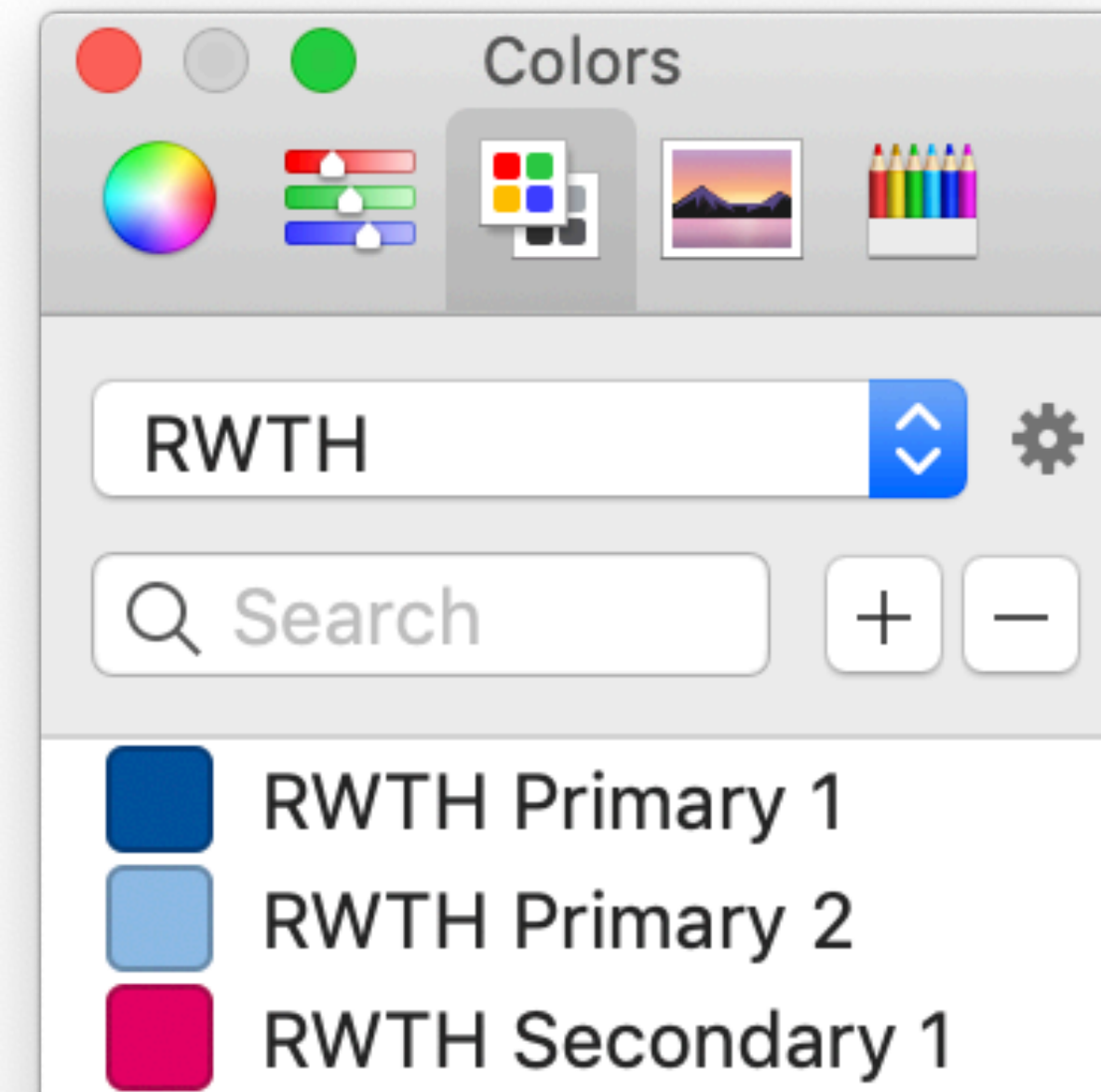
Photo colors



Cool recedes



Warm  
jumps out



CID

# color.adobe.com





# Type



# Type Categories

Oldstyle

Modern

Slab serif

Sans serif

Script

DECORATIVE—

including Grungy!

Diagonal stress

Serif (pronounced "sairiff," not "suh reef")

This curve is the bracketing

Serifs on lowercase letters are slanted

Goudy Oldstyle

Moderate thick/thin transition in the strokes



Goudy Palatino Times

Bell Sabon Garamond



Bodoni Didot, Didot Bold

Walbaum Modern No. 20

Serifs on lowercase letters are horizontal and thick slabs

Vertical stress

**Slab serif**  
Clarendon

Very little or no thick/thin transition, or contrast, in the strokes

**Clarendon**      **Memphis**

**New Century Schoolbook**

**Diverda Light, Black**

No serifs  
anywhere

No stress because  
there's no thick/thin

Sans serif

No thick/thin transition  
in the strokes

Trade Gothic Next

Brandon Grotesque

Folio Modernica Light, **Heavy**

**Bailey Sans, Bold** Transat Text

# Script

Peony Adorn Bouquet

Bookeyed Sadie Emily Austin

Thirsty Rough Light

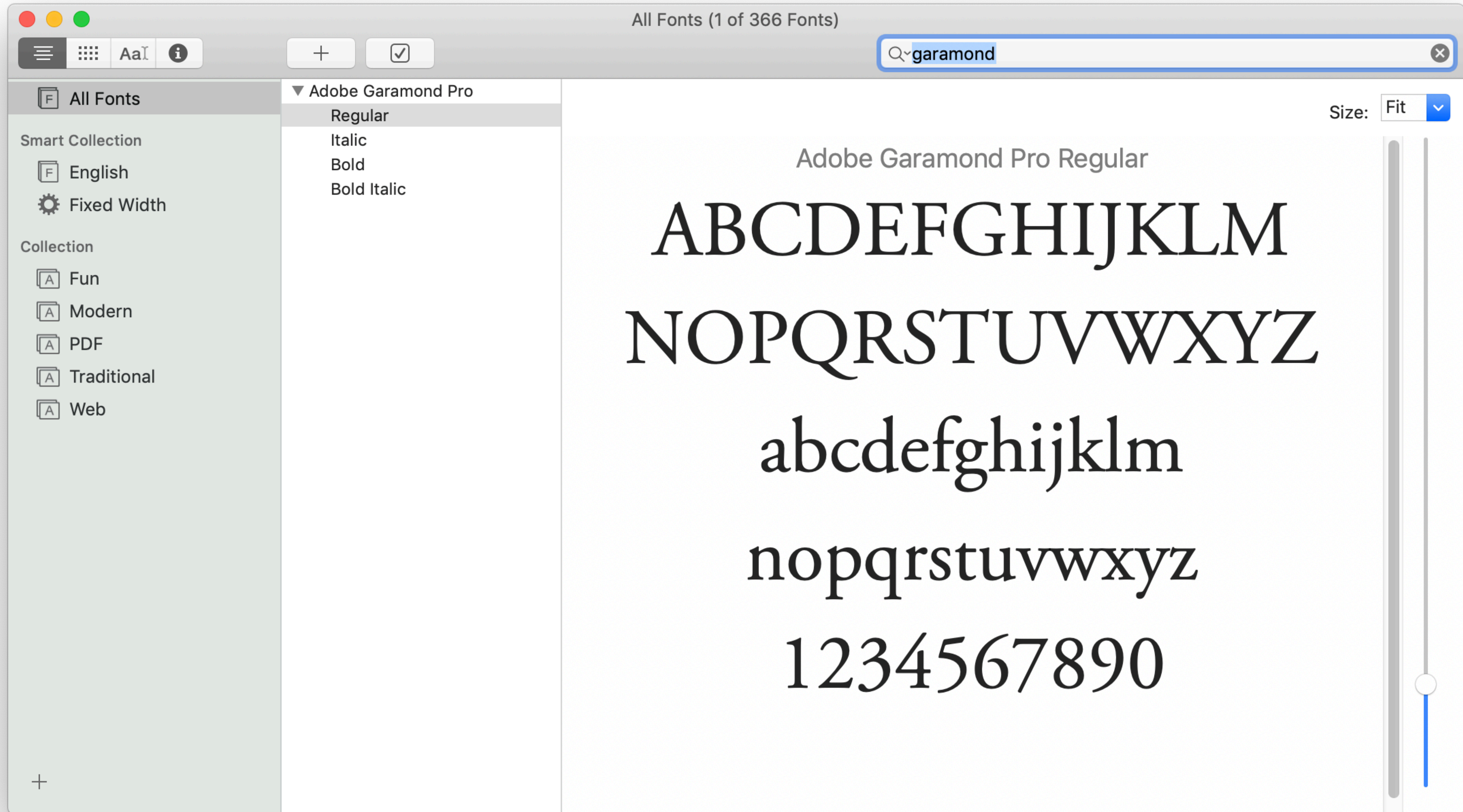
# Decorative

MATCHWOOD THE WALL

HORST SCARLETT

SYBIL GREEN Flyswim





Oiled Mudder Harbored

Oiled Mudder Harbored

Wen tutor cardboard

Toe garter pore darker born.

Bud wenchy gut dare

Door cardboard worse bar

An soda pore dark hat known.

**Oiled Mudder Harbored**

Oiled Mudder Harbored

Wen tutor cardboard

Toe garter pore darker born.

Bud wenchy gut dare

Door cardboard worse bar

An soda pore dark hat known.

# Creating Contrast

Grey Value:  
Lighter for  
larger type

**S**IZE Don't be a wimp.

---

**Weight** Contrast heavy weights with light weights, not medium weights.

---

**Structure** Look at how the letterforms are built—monoweight or thick/thin. Choose fonts from different **categories** to get different structures.

---

**F**ORM Caps versus lowercase is a contrast of form, as well as **roman versus italic** or script. Scripts and italics have similar forms—don't combine them.

---

**Direction** Think more in terms of horizontal type versus tall, narrow columns of type, rather than type on a slant.

---

**COLOR** Warm colors come forward; cool colors recede. Experiment with the "colors" of black text.

## Quotes and Apostrophes

"66 and 99" ⇒ “66 and 99” or „99 und 66“

The 90's ⇒ The 90’s

Hyphen: odd-looking

en dash: 9:00–12:00, Human–Computer Interaction

em dash: Bob—to my astonishment—finished the game.

## Hyphens and Dashes

Never underline. It cuts through letters and is hard to read.

## Underlining

Avoid ALL CAPS. Missing “coastline”. Hard to read (lawyers love it).

## Caps

cat	dog	whistle	sweeper
CAT	DOG	WHISTLE	SWEEPER

## Kerning

**WATERMELON** No adjustments made.

**WATERMELON** The software program made automatic adjustments.

**WATERMELON** Hand kerning applied.

## Widows & Orphans

Avoid single word on last line, or single line on new page, at end of paragraph.

## Styled Text

Include punctuation: Then finish.

## Ligature



## Visual Alignment

E  
W  
O

## Indenting Paragraphs

Either indent the first word of a new paragraph by one em = width of “m” letter = 12 pt for 12 pt font.

Or add some space between paragraphs (default for German.) Never both, and never for the first paragraph after a heading.

Center Alley worse jester pore ladle  
gull hoe lift wetter stop-murder an  
toe heft-cisterns. Daze worming war  
furry wicket an shellfish parsons,  
spatially dole stop-murder, hoe dint  
lack Center Alley an, infect, word

Warnock Pro Regular 9/10.8  
(9 point type, 10.8 leading  
or linespacing)

Center Alley worse jester pore  
ladle gull hoe lift wetter stop-  
murder an toe heft-cisterns.  
Daze worming war furry wicket  
an shellfish parsons, spatially  
dole stop-murder, hoe dint lack

Warnock Pro Light 9/13,  
extra letterspacing.  
Notice this has a lighter color than  
the example above (same font) due  
to the extra space between the lines  
and the letters.

**Center Alley worse jester pore  
ladle gull hoe lift wetter stop-  
murder an toe heft-cisterns.  
Daze worming war furry wicket  
an shellfish parsons, spatially  
dole stop-murder, hoe dint lack**

Warnock Pro Bold 9/10.8  
This is exactly the same as the  
example above, except it is the  
bold version.

*Center Alley worse jester pore  
ladle gull hoe lift wetter stop-  
murder an toe heft-cisterns. Daze  
worming war furry wicket an  
shellfish parsons, spatially dole  
stop-murder, hoe dint lack Center*

Warnock Pro Light 9/13,  
extra letterspacing.  
This is exactly the same as the  
one above, except in italic. It has  
a different color and texture.

Center Alley worse jester pore ladle  
gull hoe lift wetter stop-murder an  
toe heft-cisterns. Daze worming war  
furry wicket an shellfish parsons,  
spatially dole stop-murder, hoe dint  
lack Center Alley an, infect, word  
orphan traitor pore gull mar lichen

Warnock Pro Light 9/10  
This is the light version of the font,  
but it has less linespacing, making  
the texture appear more dense.

  
< 60 characters

# Process

1. Identify focal point
2. Group information
3. Strengthen alignments
4. Find or create repetition
5. Create contrasts




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Interfaces**

O'REILLY®

*Steven Hooper  
& Eric Berkman*

Claudia Korthaus



AI

>Lorem ipsum dolor sit amet,  
consectetur adipiscing elit,  
Saepe doluptatem fuga. Mus  
molupta tiam fuga.



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# Designing Interactive Systems I

## Introduction to the Course

Prof. Dr. Jan Borchers  
Media Computing Group  
RWTH Aachen University

Winter term 2018/19

<http://hci.rwth-aachen.de/dis>



# Designing Interactive Systems I

## Visual Design

Prof. Dr. Jan Borchers  
Media Computing Group  
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Winter Semester '21/'22

<http://hci.rwth-aachen.de/dis>



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# Summary

## Basic Visual Design Principles

Proximity

Alignment

Repetition

Contrast

## Selecting colors



## Working with Type

Oldstyle

Modern

Slab serif

Sans serif

*Script*

**DECORATIVE**

including Grungy!