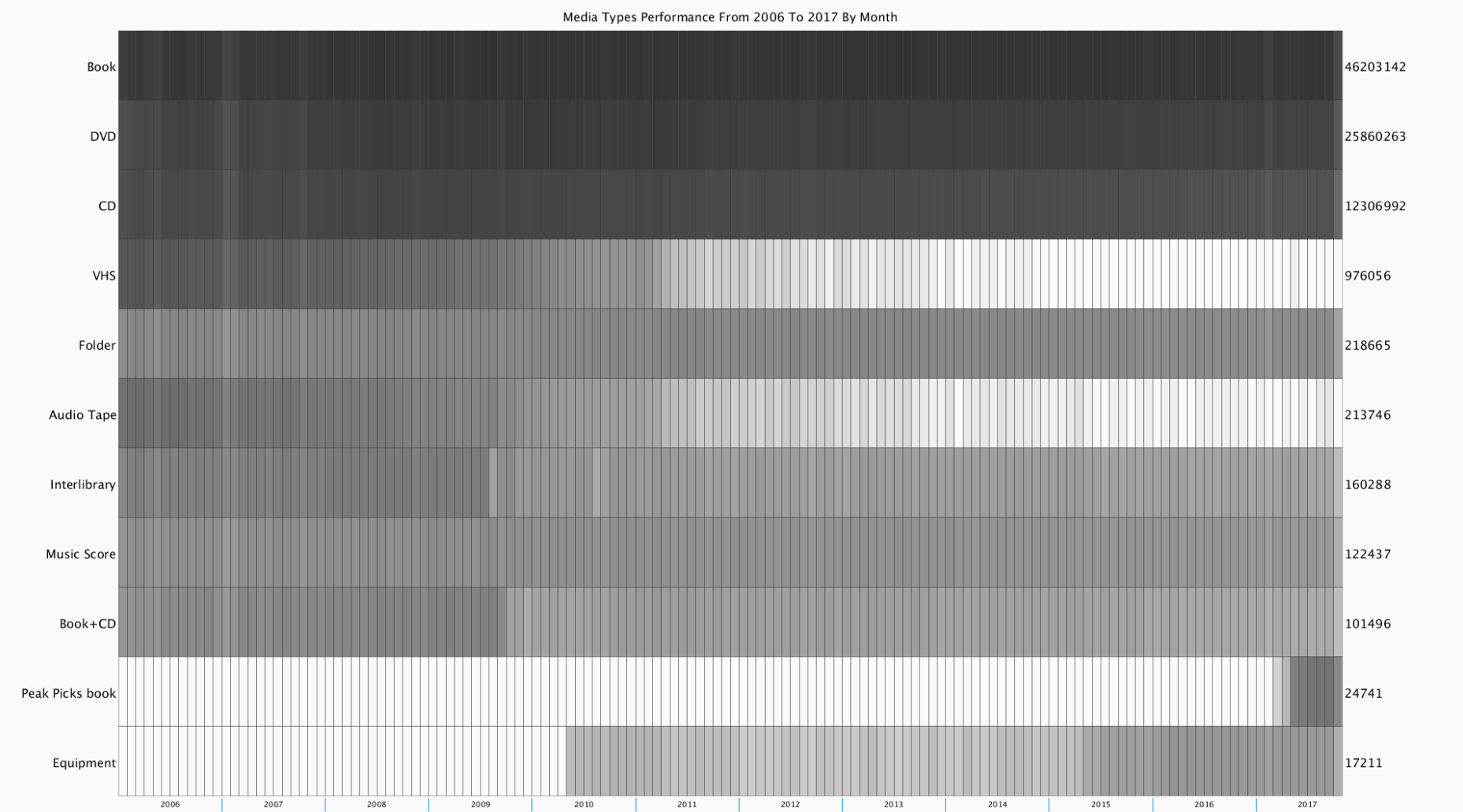


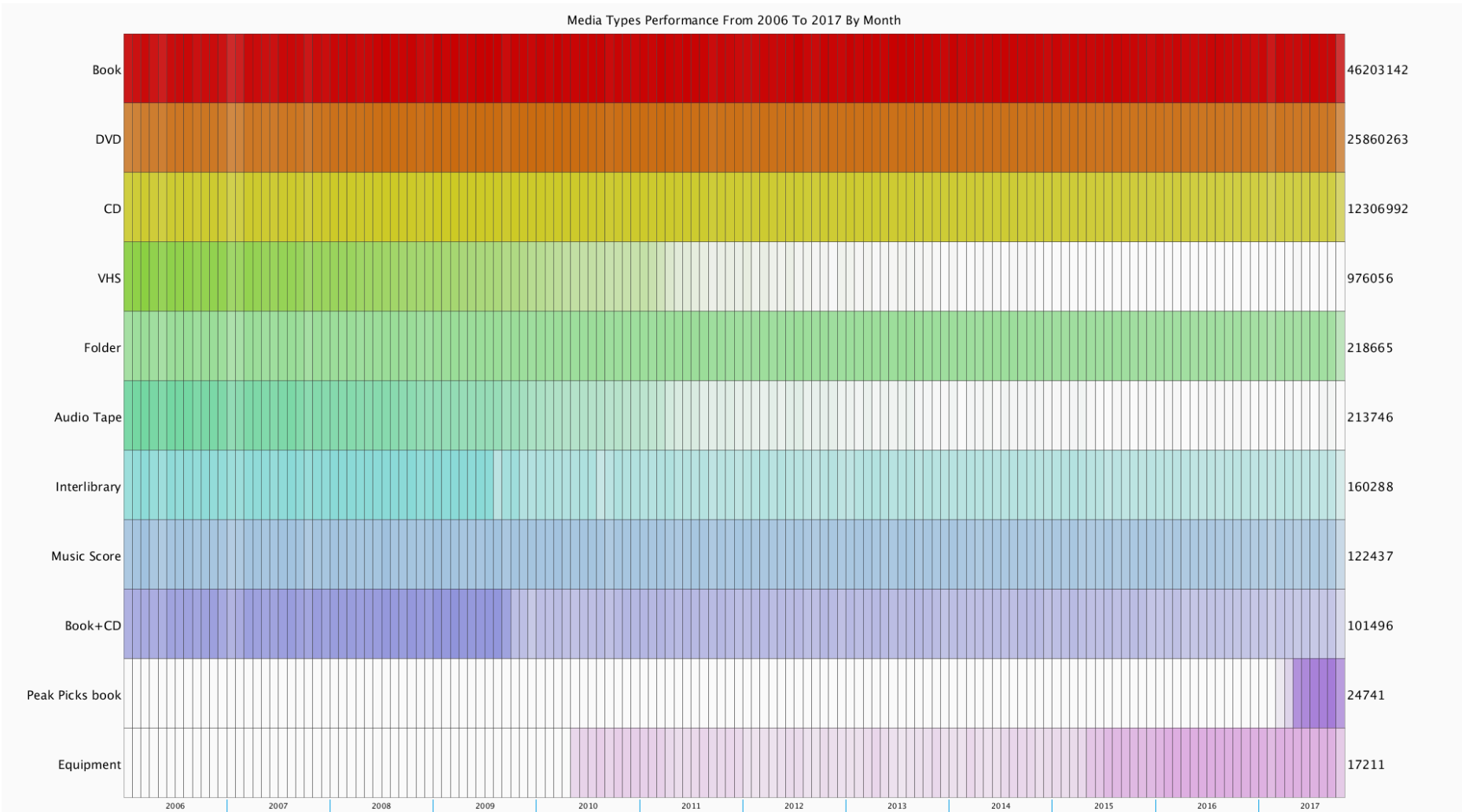
# Design / Visual Language Basics



# Media History 2006-2017

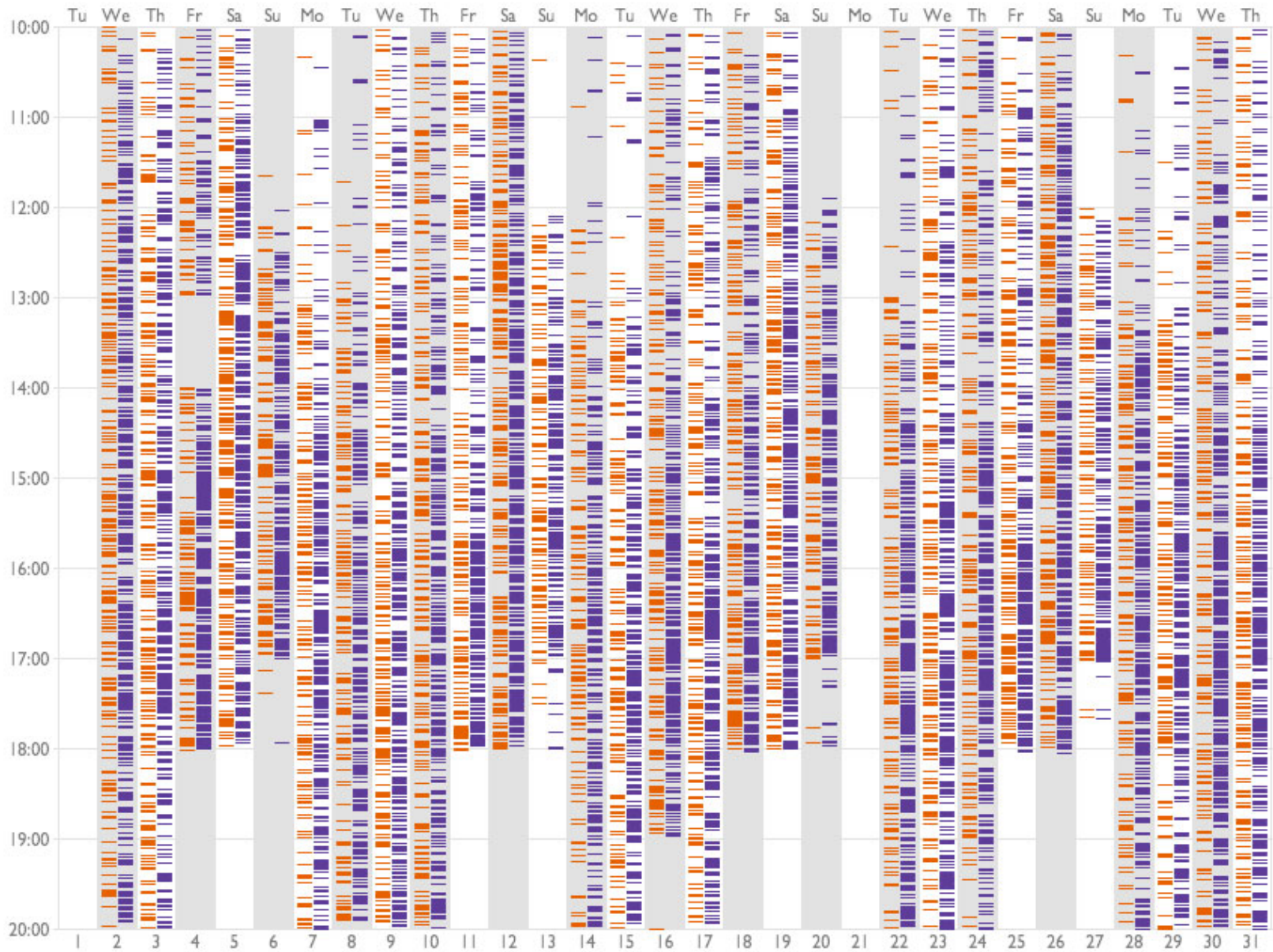


# Media History 2006-2017



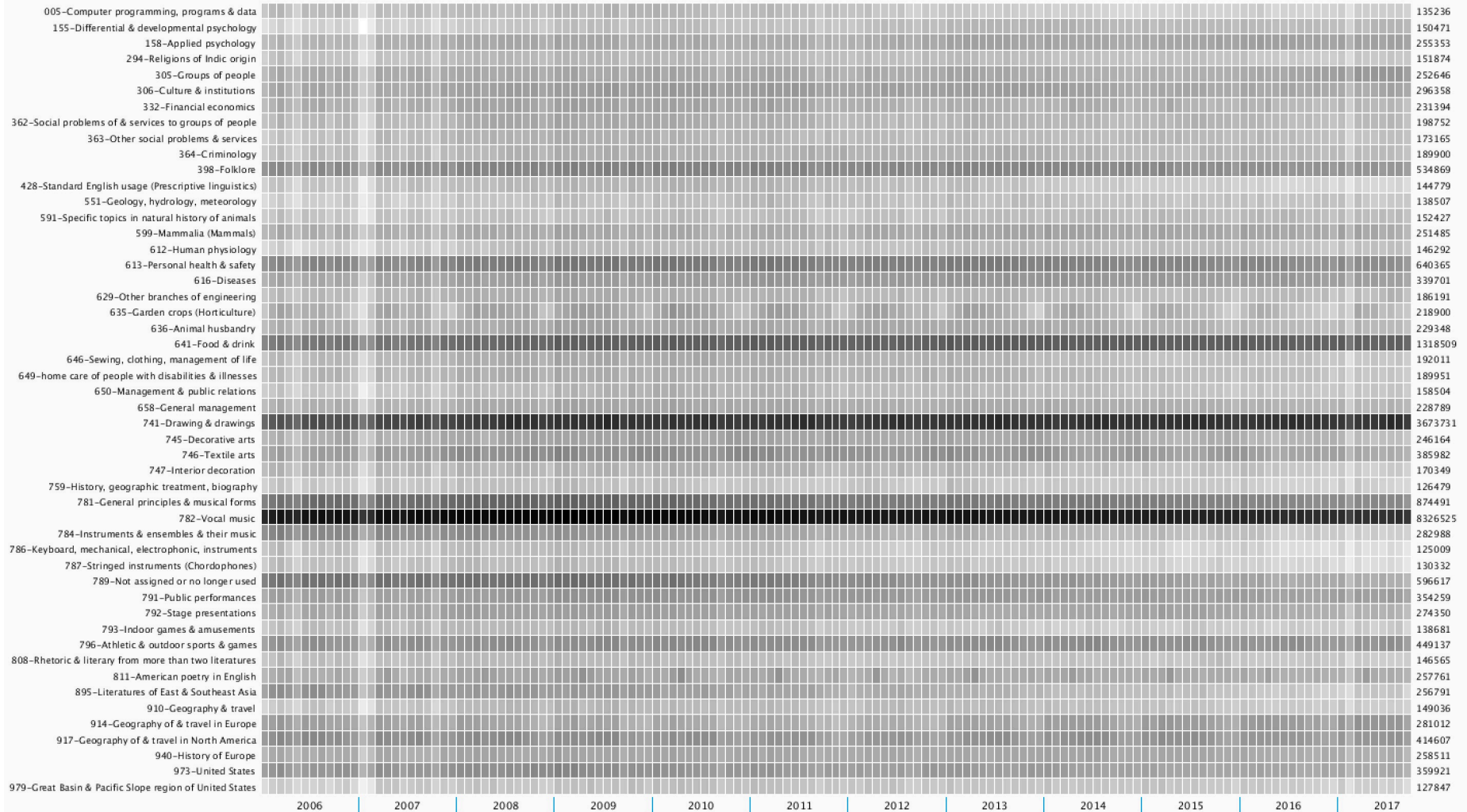
[641] [741]  
 food + drink v drawing + drawings

time items checked out / day  
 week of january 6

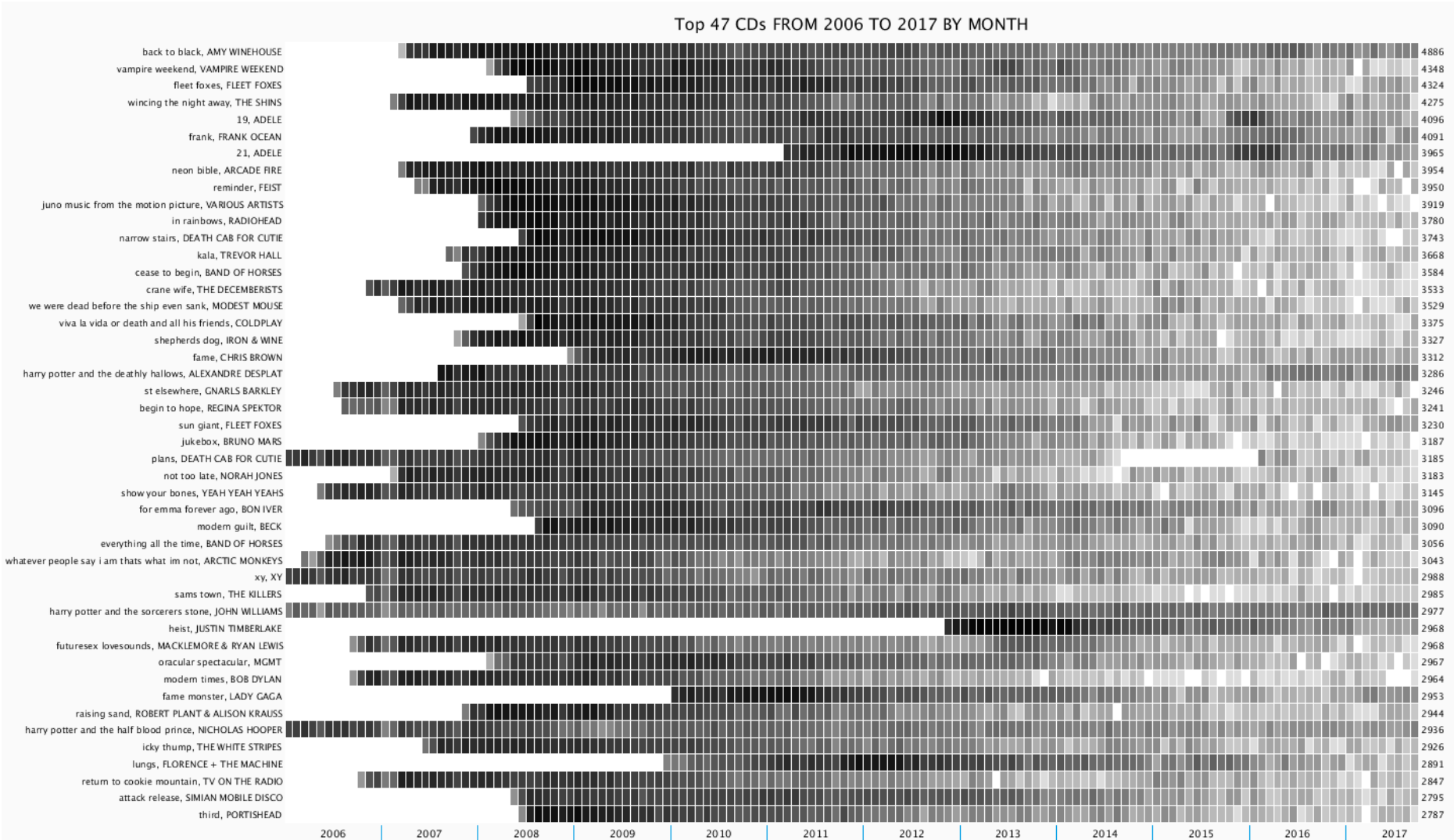


# Top Dewey Categories

Top 50 DEWEY CATEGORIES FROM 2006 TO 2017 BY MONTH

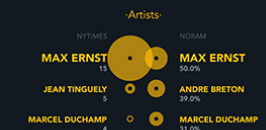
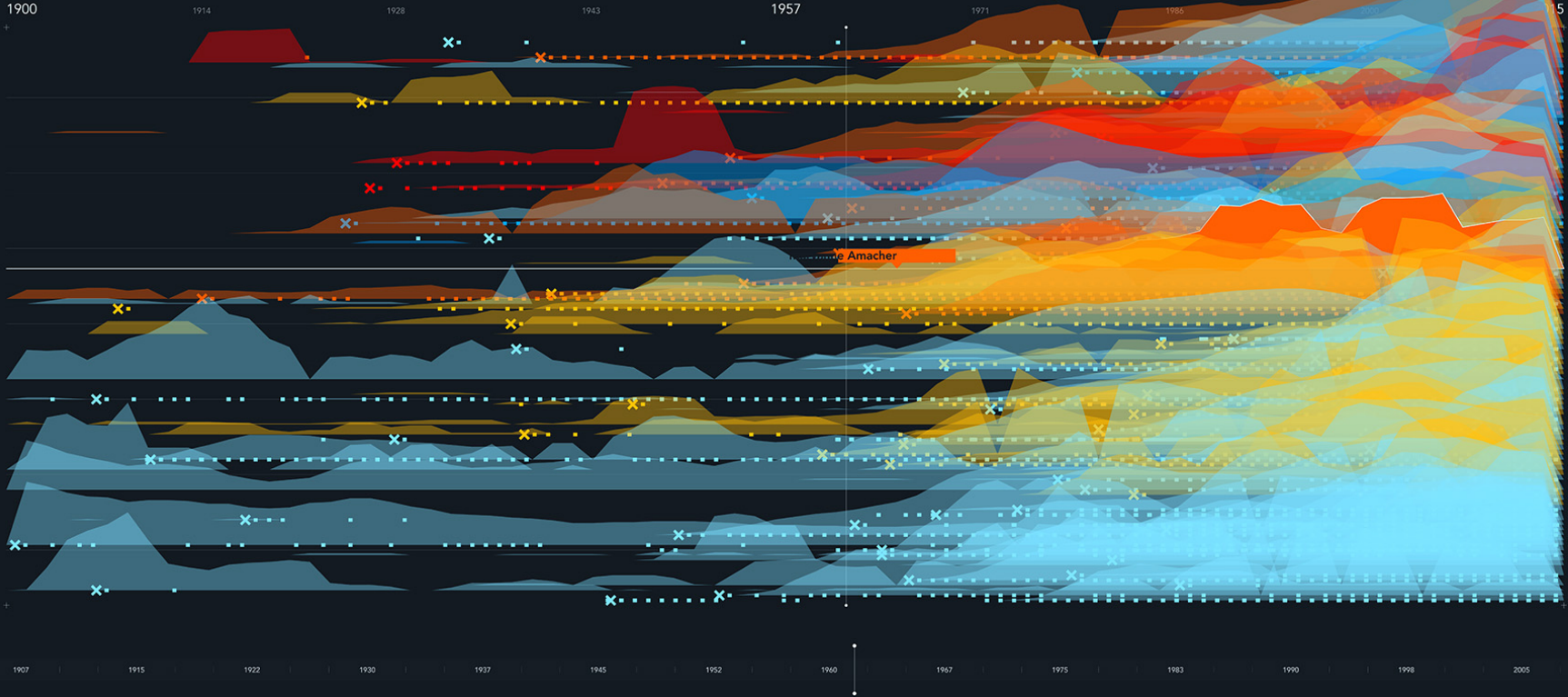


# Top cd Checkouts





// GOOGLE'S NGRAM COUNT

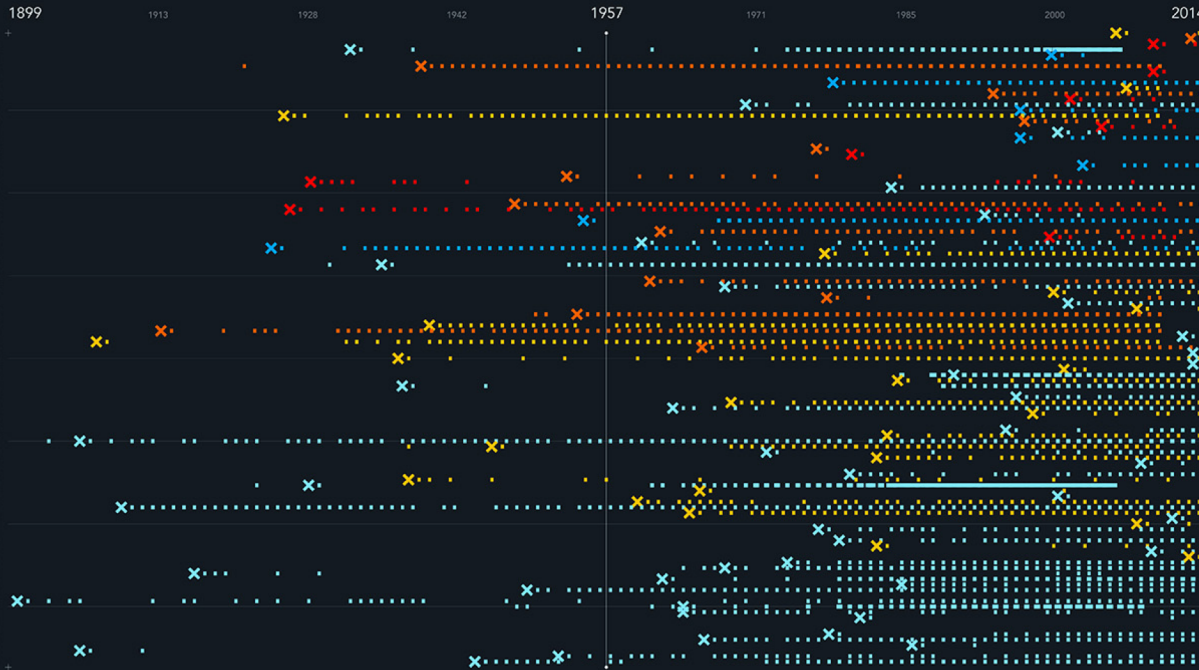


**1962**  
 . . . N . E . W | M . E . D . I . A . . .  
 R . I . S . E | A . N . D | F . A . L . L

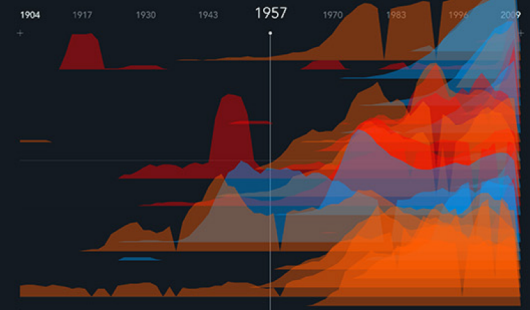




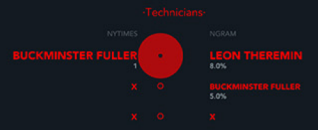
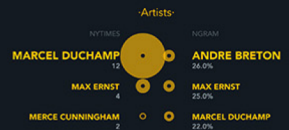
// N.Y. TIMES MENTIONS

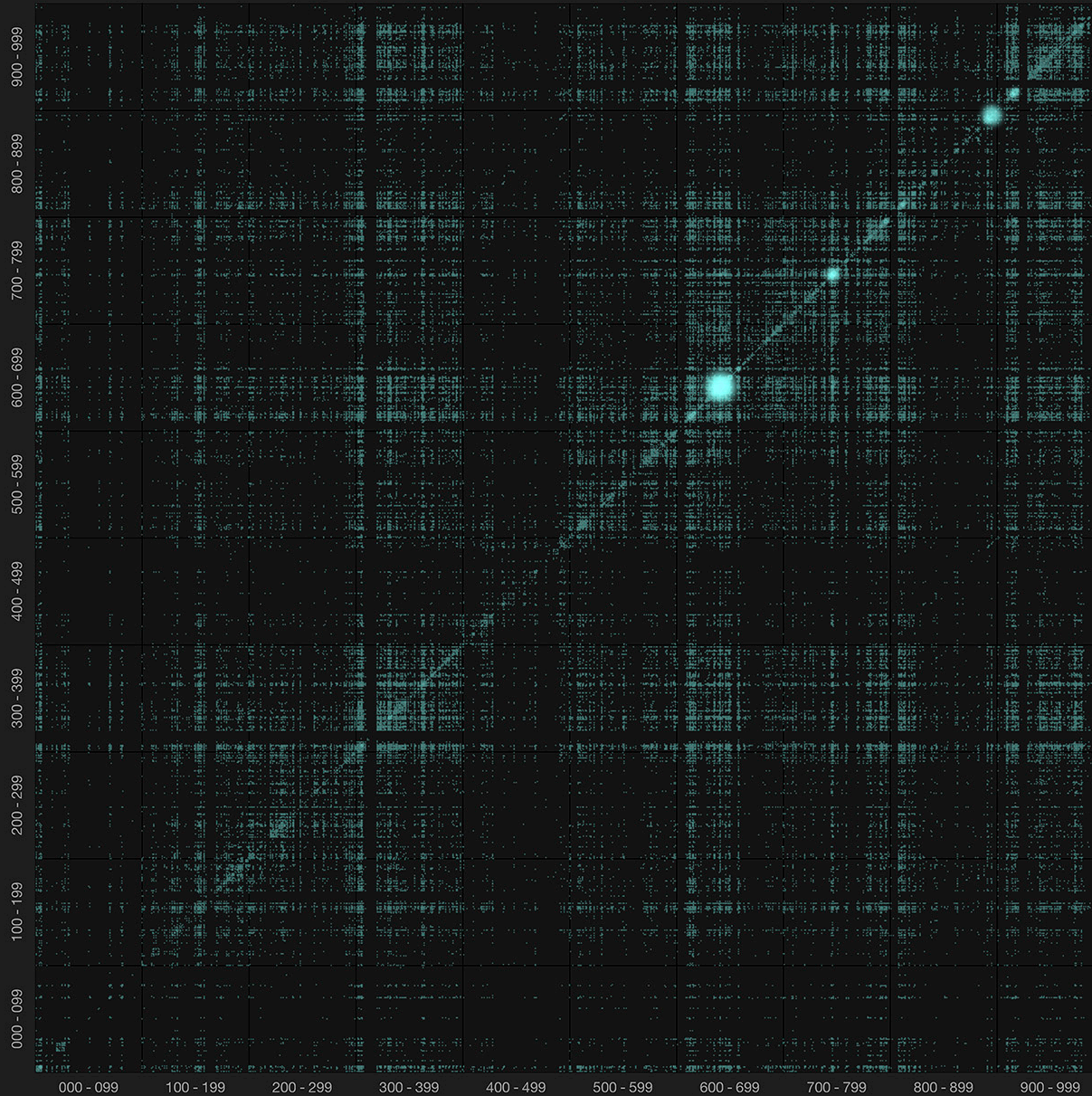


// GOOGLE'S NGRAM COUNT



// 5-YEAR NGRAM

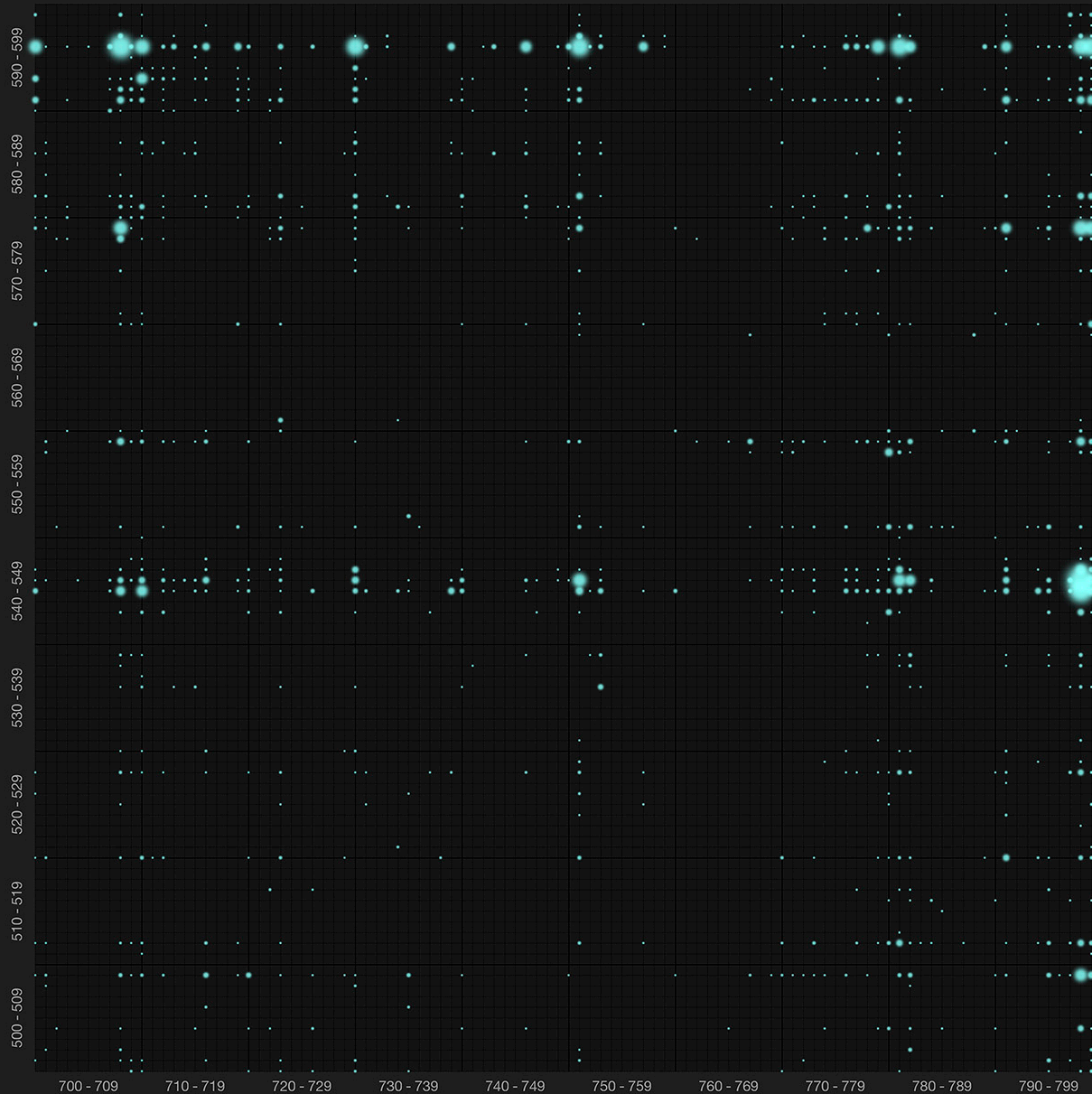




## Frequently Borrowed Together

use the radio buttons to zoom

- ● 000 - 099 Computer science, information & general works
- ● 100 - 199 Philosophy and psychology
- ● 200 - 299 Religion
- ● 300 - 399 Social sciences
- ● 400 - 499 Language
- ● 500 - 599 Science
- ● 600 - 699 Technology
- ● 700 - 799 Arts & recreation
- ● 800 - 899 Literature
- ● 900 - 999 History & geography

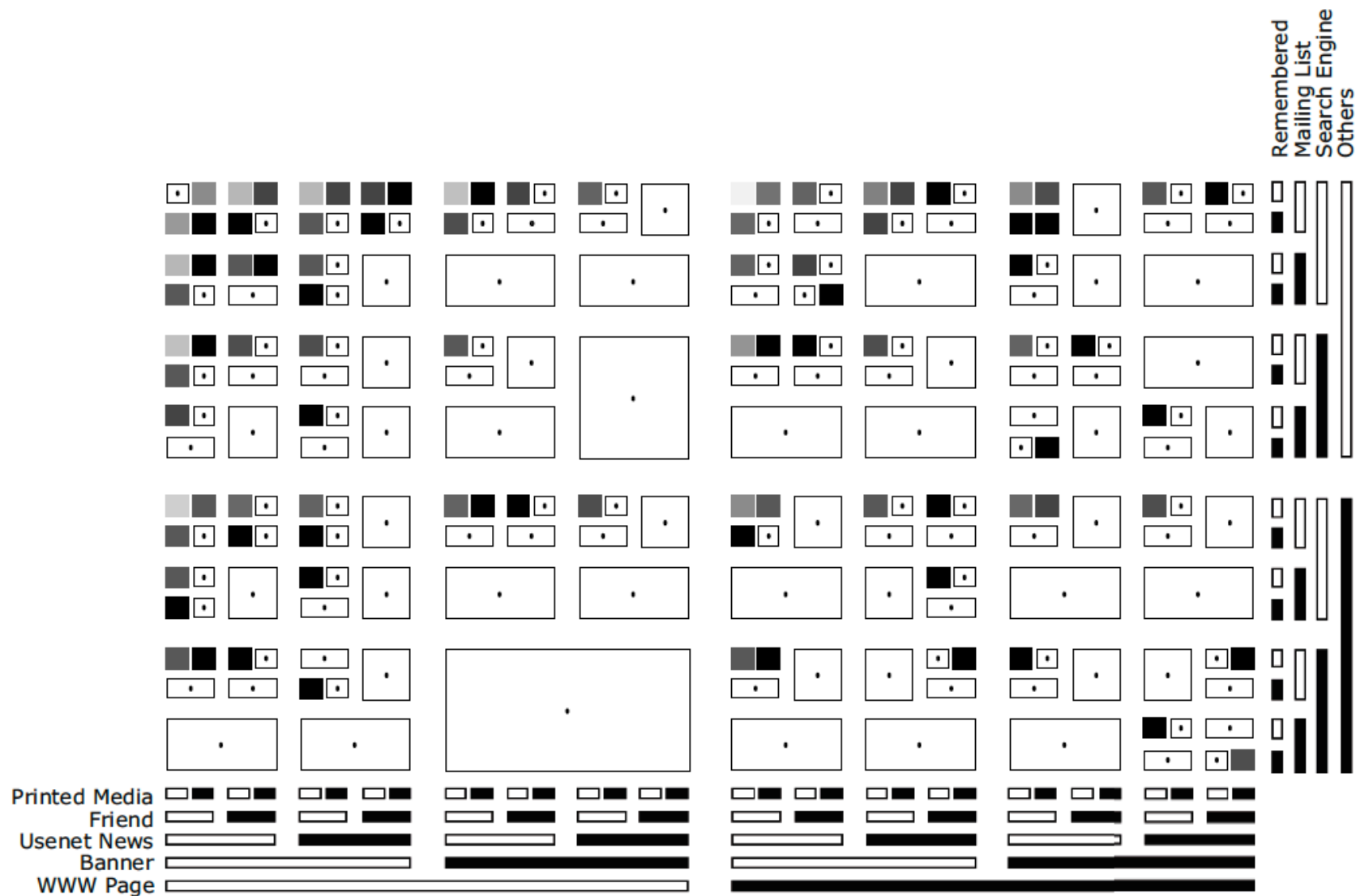


## Frequently Borrowed Together

use the radio buttons to zoom

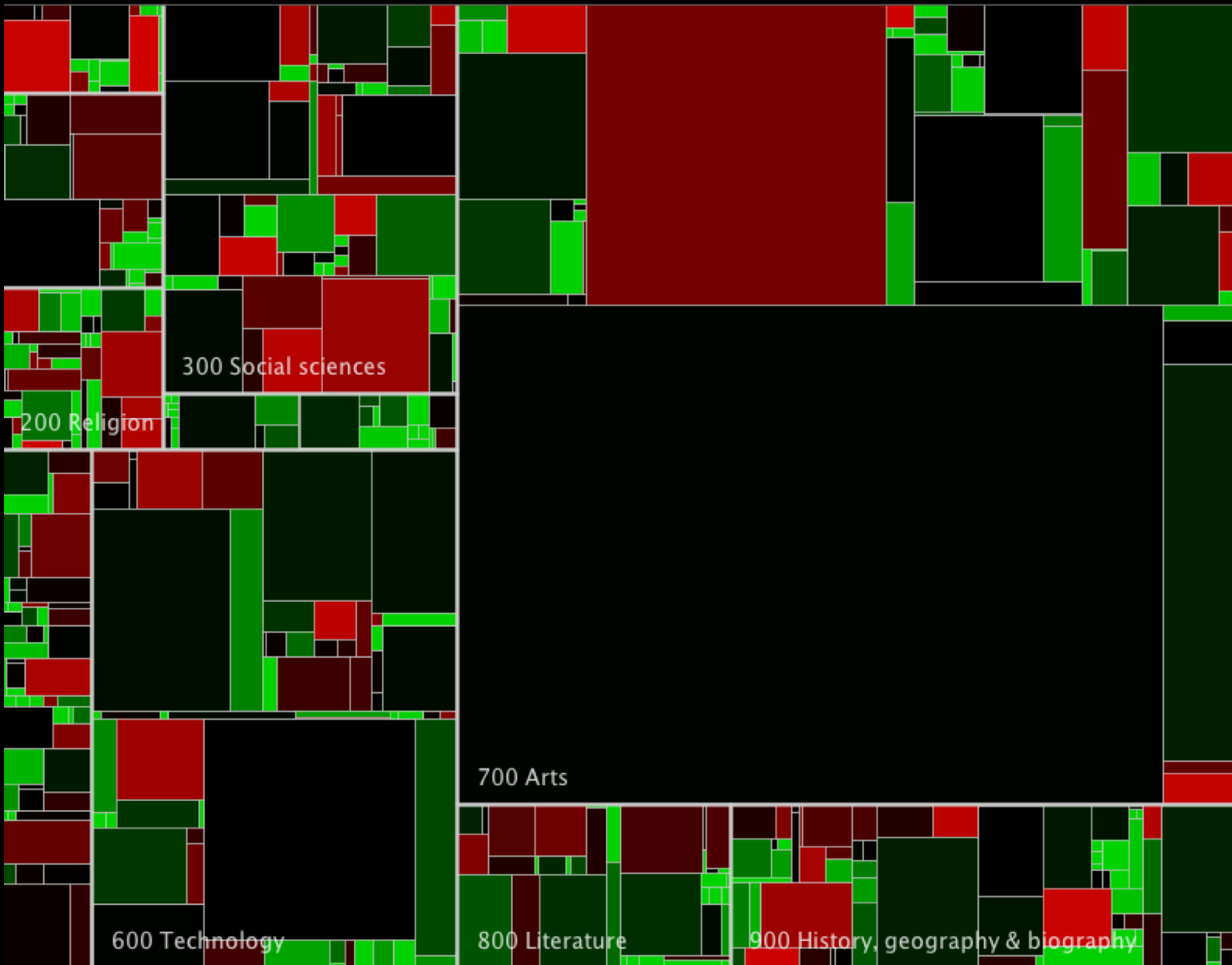
- ● 000 - 099 Computer science, information & general works
- ● 100 - 199 Philosophy and psychology
- ● 200 - 299 Religion
- ● 300 - 399 Social sciences
- ● 400 - 499 Language
- ● 500 - 599 Science
- ● 600 - 699 Technology
- ● 700 - 799 Arts & recreation
- ● 800 - 899 Literature
- ● 900 - 999 History & geography

- 500 - 509 Science
- 510 - 519 Mathematics
- 520 - 529 Astronomy
- 530 - 539 Physics
- 540 - 549 Chemistry
- 550 - 559 Earth sciences & geology
- 560 - 569 Fossils & prehistoric life
- 570 - 579 Biology
- 580 - 589 Plants
- 590 - 599 Animals (Zoology)
  
- 700 - 709 Arts
- 710 - 719 Area planning & landscape architecture
- 720 - 729 Architecture
- 730 - 739 Sculpture, ceramics, & metalwork
- 740 - 749 Graphic arts & decorative arts
- 750 - 759 Painting
- 760 - 769 Printmaking & prints
- 770 - 779 Photography, computer art, film, video
- 780 - 789 Music
- 790 - 799 Sports, games & entertainment



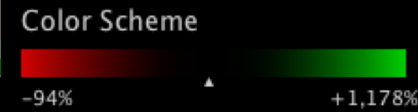
**Fig. 5.13.** *Mosaic Plots of all possibilities of “How you Heard about the Survey?” Gray-shading has been used to mark cell sizes. Empty cells are combined where possible and tagged by a circle. 112 of the possible 512 combinations are empty.*

GENERAL Checkout: 17029



Month 3 Day 1 Year 2010

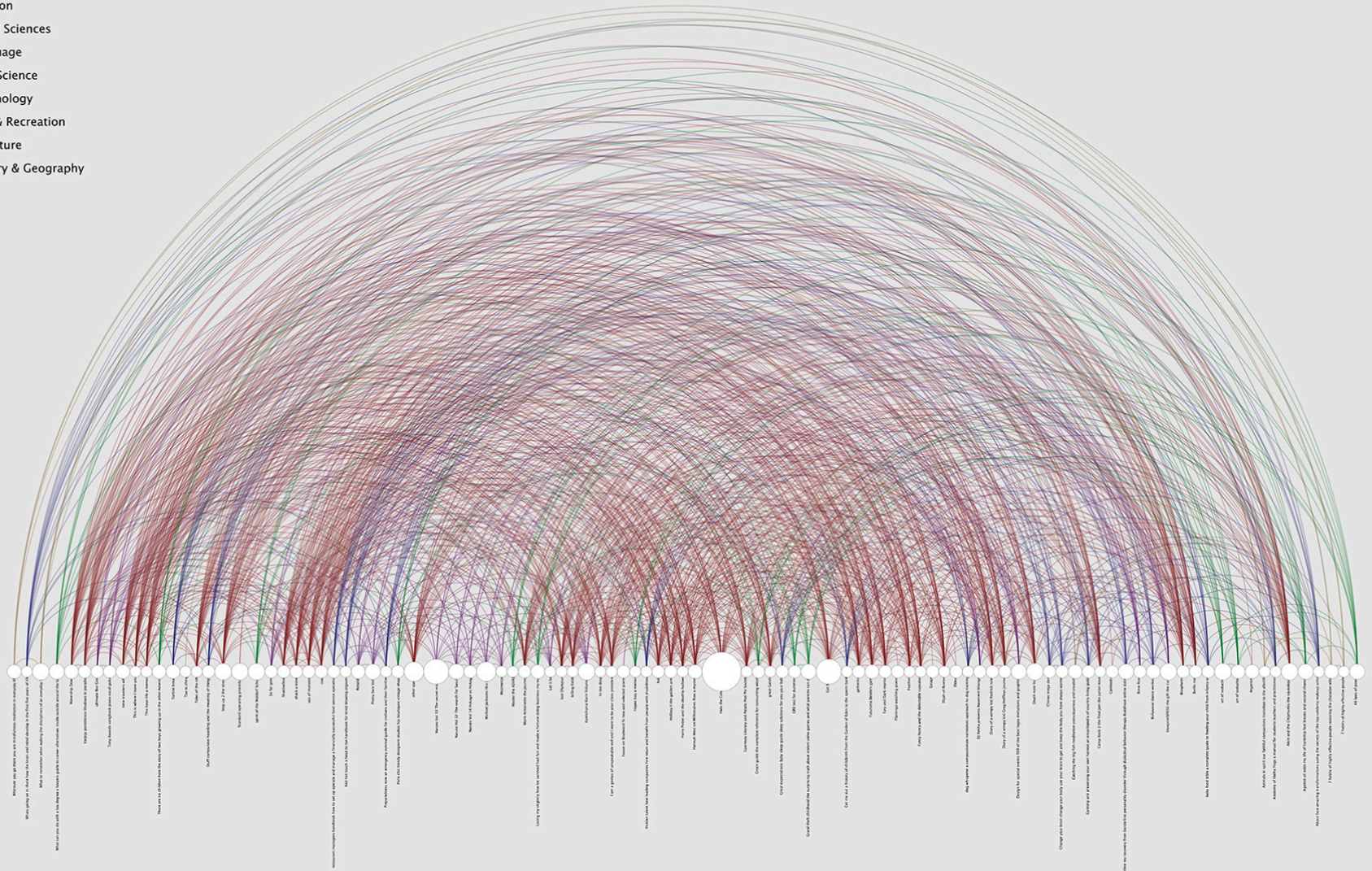
Show Change Since 1 DAY

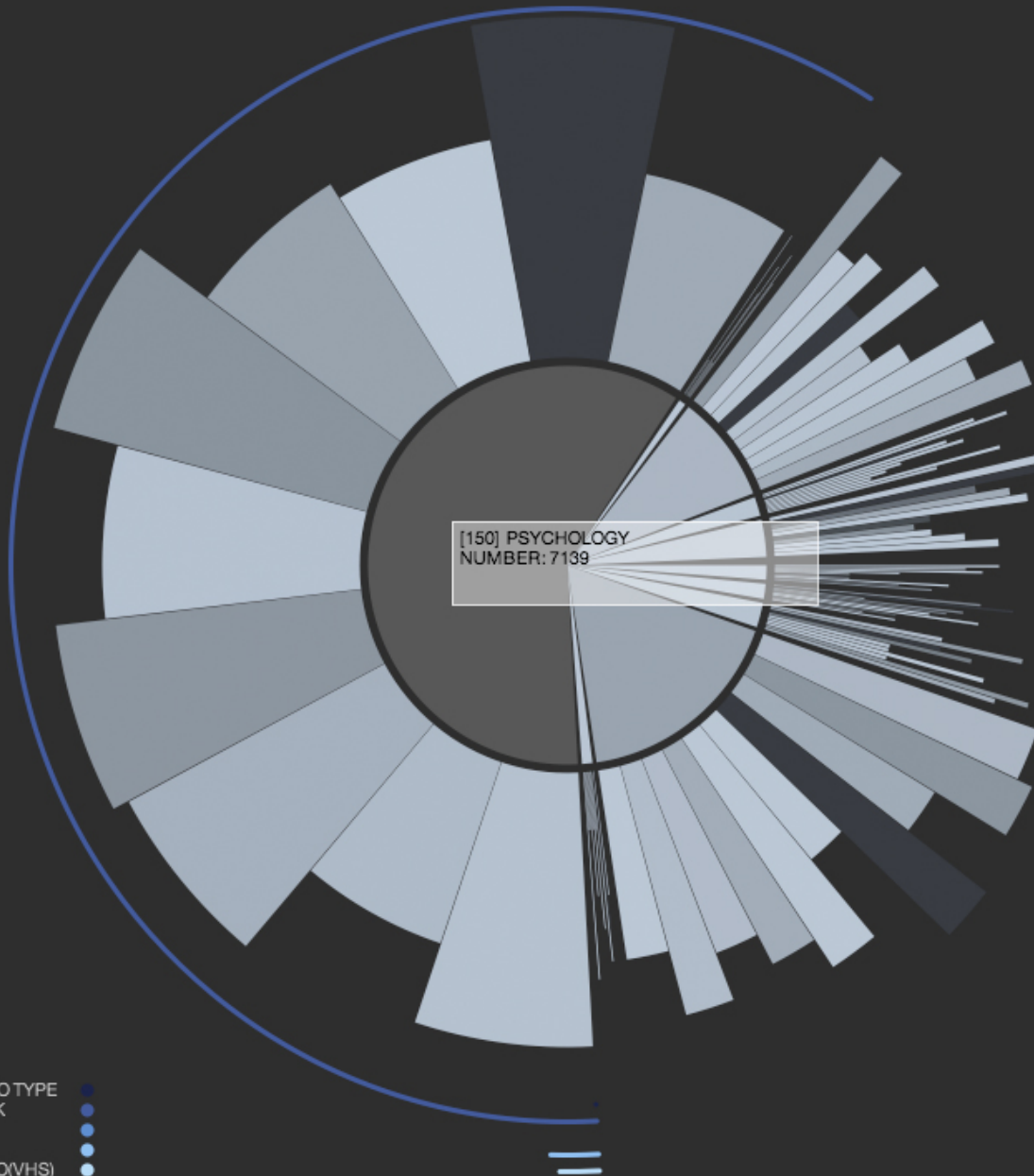


- MAIN CATEGORY VIEW
- Layout
  - PIVOTBYSPLITSIZE
  - SLICELAYOUT
  - SQUARIFIEDLAYOUT
  - PIVOTBYSIZE
  - ORDEREDTREETMAP
  - BINARYTREETMAP

- Top 10 that day HIGHLIGHT
- 782 Vocal music
  - 741 Drawing & drawings
  - 641 Food & drink
  - 781 General principles & musical forms
  - 613 Promotion of health
  - 789 Not assigned or no longer used
  - 746 Textile arts
  - 796 Athletic & outdoor sports & games
  - 616 Diseases
  - 635 Garden crops (Horticulture)

- General, CS & Info
- Philosophy and Psychology
- Religion
- Social Sciences
- Language
- Pure Science
- Technology
- Arts & Recreation
- Literature
- History & Geography



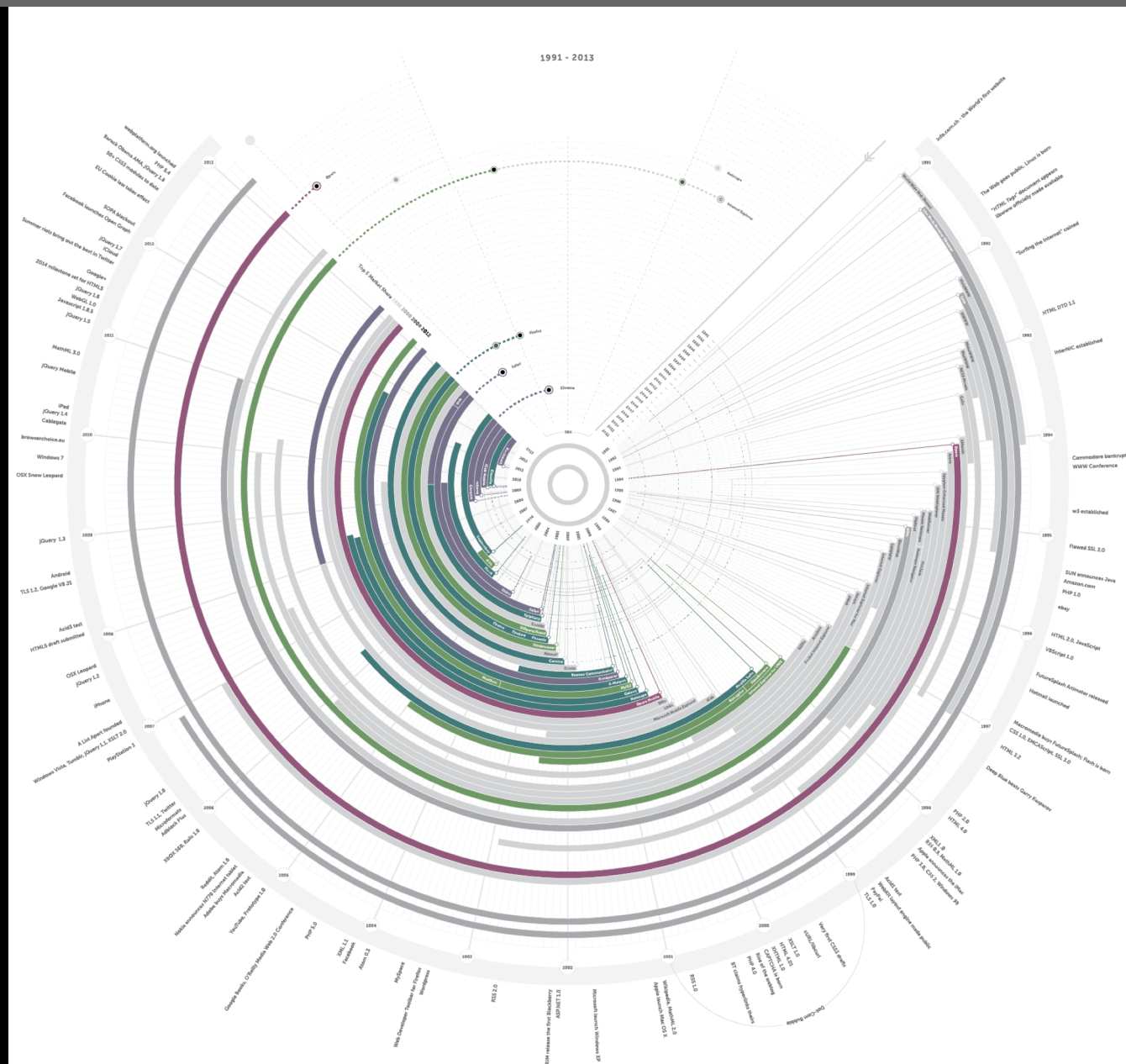


[150] PSYCHOLOGY  
NUMBER: 7139

AUDIO TYPE ●  
BOOK ●  
CD ●  
DVD ●  
VIDEO(VHS) ●

TOP 10 BOOK'S NUMBER, CATEGORY AND TITLE

96522	[158]	Maximum achievement the proven syst...
44466	[158]	fundamentals 8 plays for winning th...
24764	[158]	Get anyone to do anything and never ...
14086	[152]	Emotions revealed recognizing faces...
14041	[153]	Blink the power of thinking without...
12781	[170]	Caught in the act reflections on be...
11459	[155]	Learned optimism
10828	[153]	artists way a spiritual path to hig...
10409	[158]	Emotional alchemy how the mind can ...
9828	[155]	needs of the dying a guide for brin...





# MAT 259 Visualizing Information

PRESS '1' - '9' FOR DISPLAY MODES

- 0: RESET
- 1: OVERVIEW
- 2: EXPANDED VIEW
- 3: FP TREE 1
- 4: PYRAMID OVERLAY
- 5: FP TREE 2
- 6: PYRAMIDS
- 7: SIDE VIEW
- 8: RANDOM VIEW
- 9: TOGGLE ROTATION

CONTROL PARAMETERS

- G: HIDE/SHOW GRID
- L: HIDE/SHOW LINES
- P: HIDE/SHOW PYRAMIDS
- V: TOGGLE VARIANCE

PARAMETERS

- 0.00 MASTER ROTATION
- 560.0 NODE SPACING
- 500.0 ROOT DISTANCE
- 1.0 BRANCH SPREAD
- 1.0 ROTATION SPEED



# MAT 259 Visualizing Information

PRESS '1 - 9' FOR DISPLAY MODES

- 0: RESET
- 1: OVERVIEW
- 2: EXPANDED VIEW
- 3: FP TREE 1

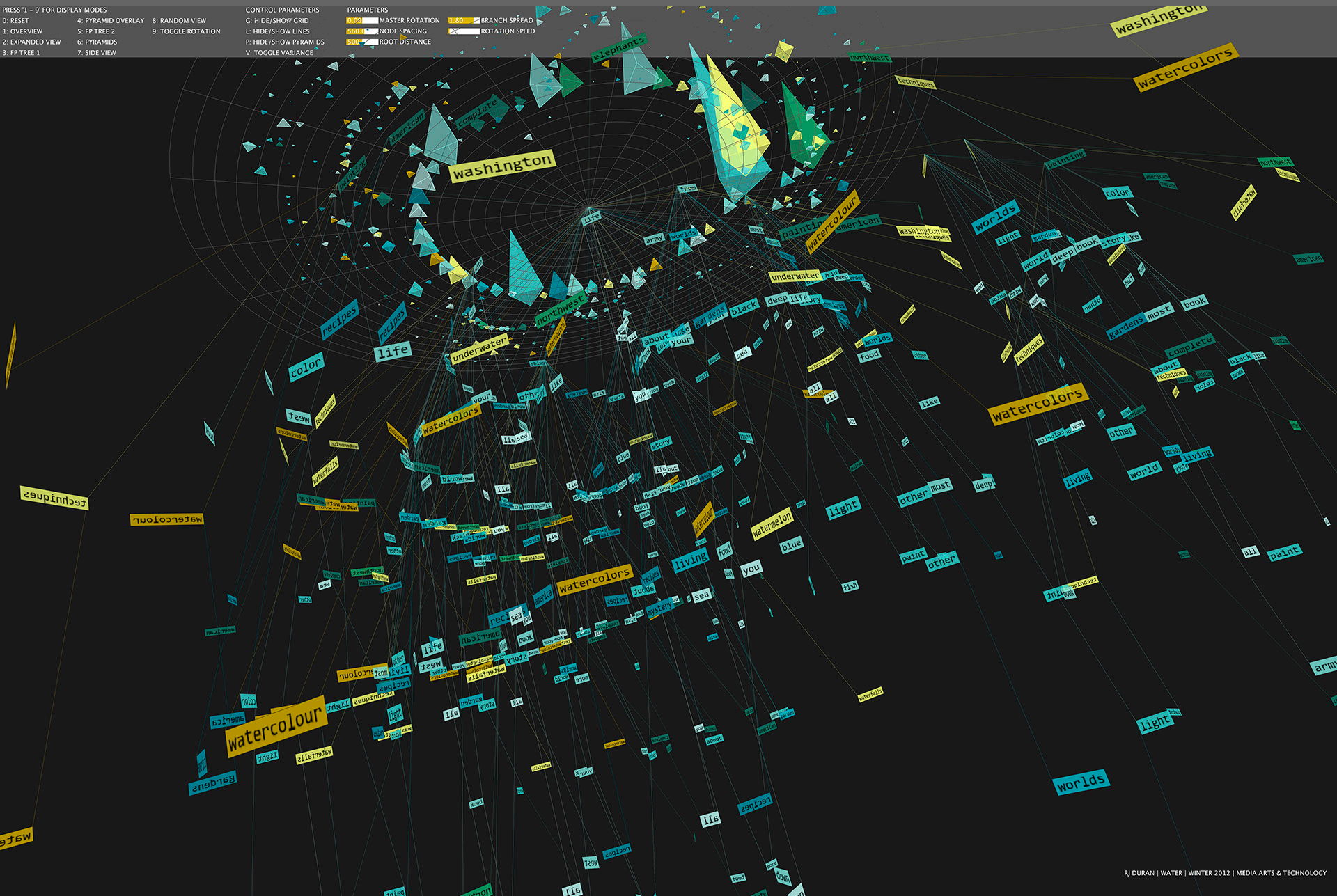
- 4: PYRAMID OVERLAY
- 5: FP TREE 2
- 6: PYRAMIDS
- 7: SIDE VIEW
- 8: RANDOM VIEW
- 9: TOGGLE ROTATION

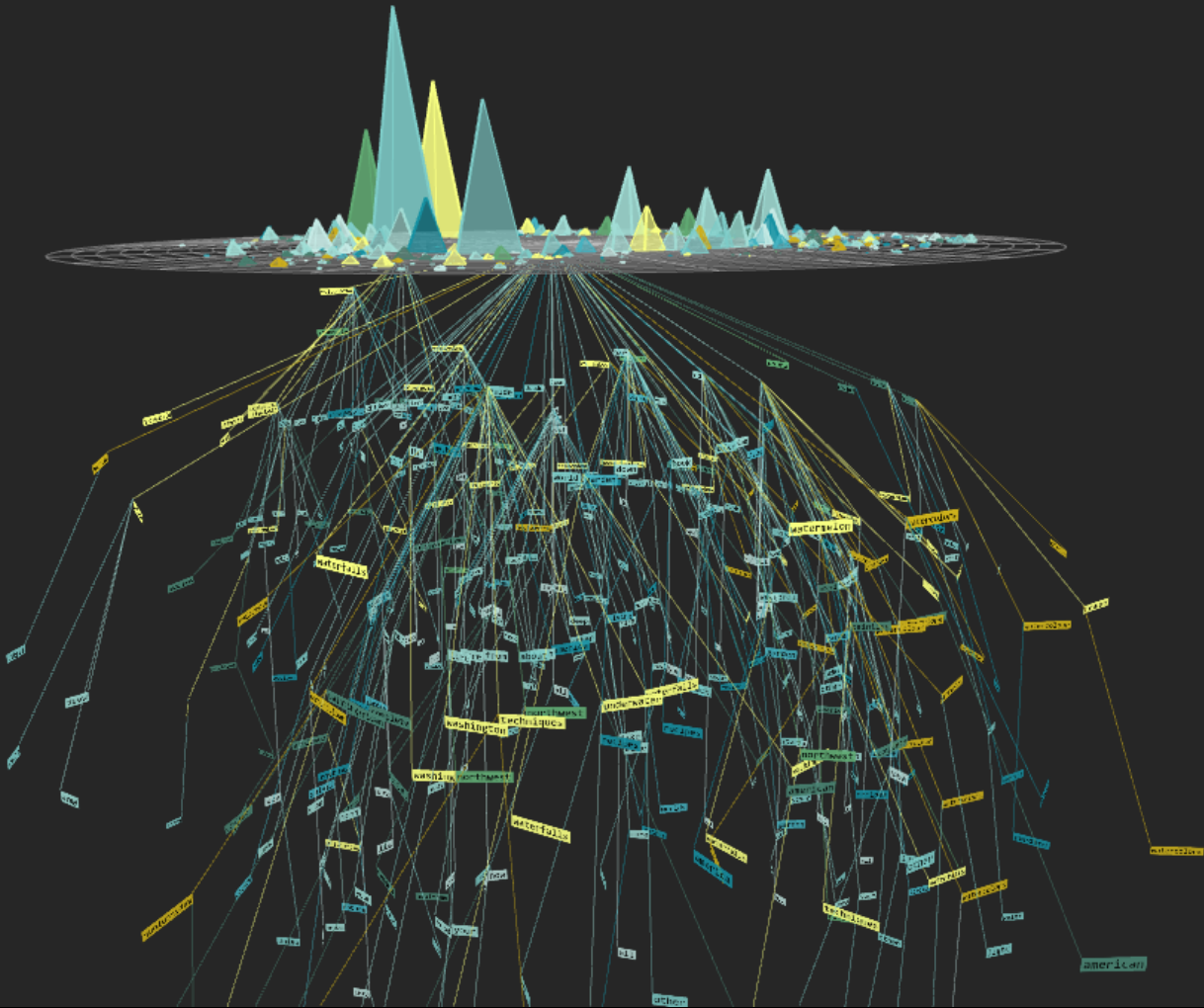
CONTROL PARAMETERS

- G: HIDE/SHOW GRID
- L: HIDE/SHOW LINES
- P: HIDE/SHOW PYRAMIDS
- V: TOGGLE VARIANCE

PARAMETERS

- 0.00 MASTER ROTATION
- 500.0 NODE SPACING
- 500 ROOT DISTANCE
- 1.00 BRANCH SPREAD
- 500 ROTATION SPEED

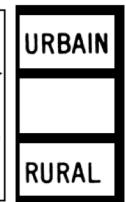
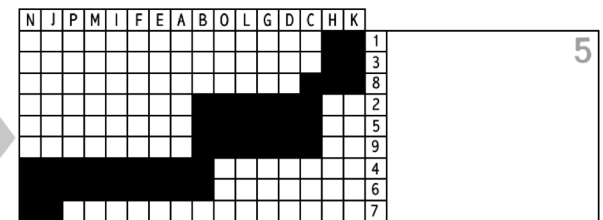
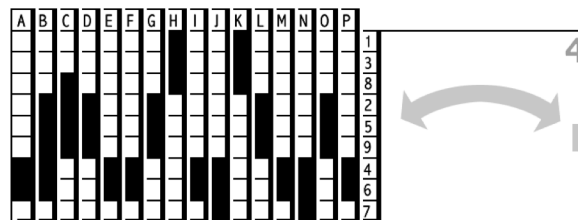
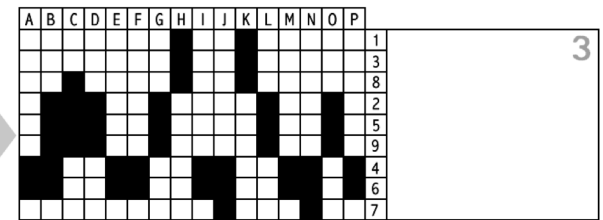
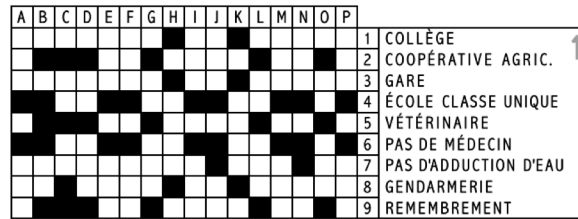




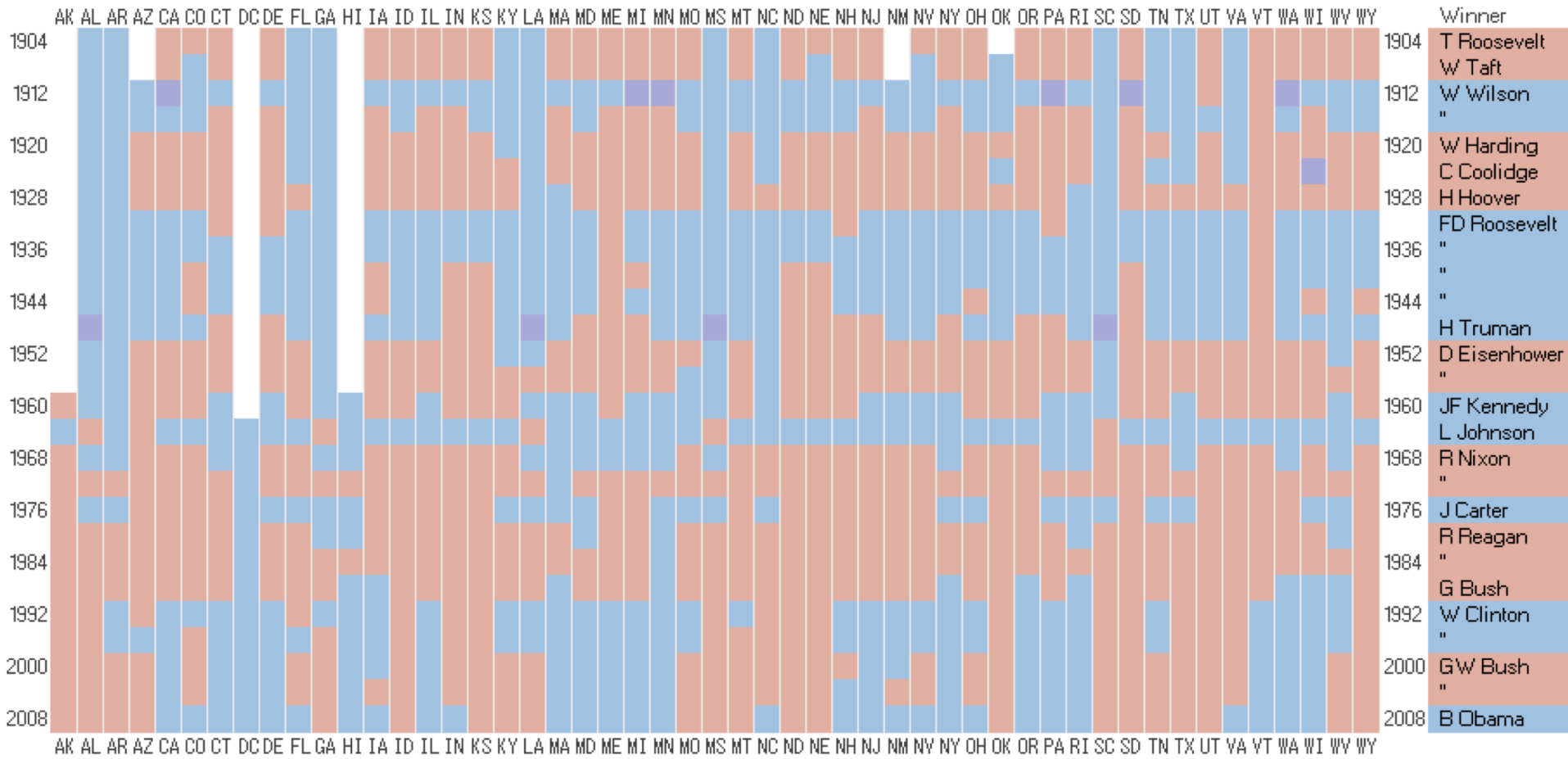
WATER

# Cartographer Jacques Bertin: Reorderable Matrix

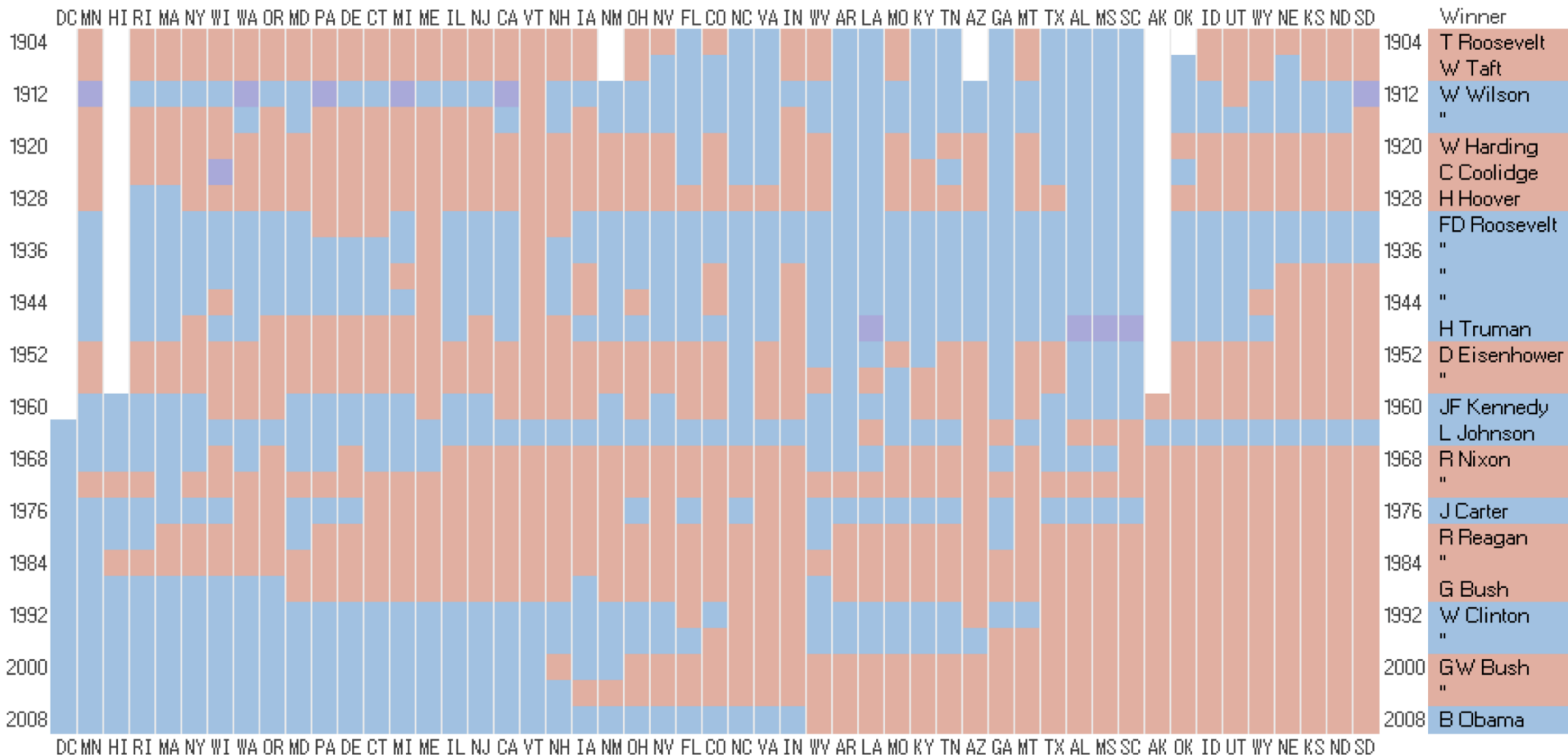
## LA MATRICE ORDONNABLE



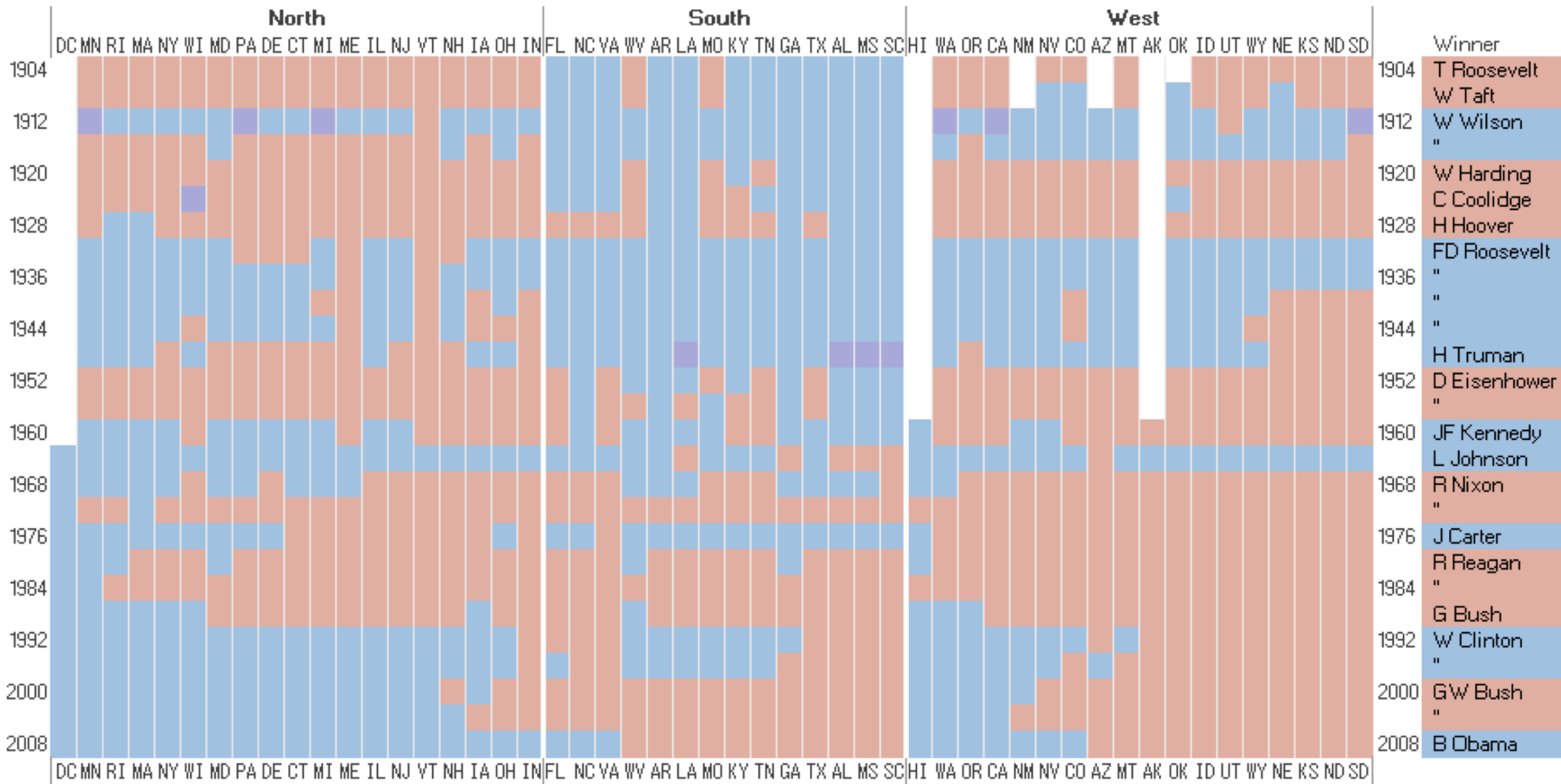
# US Political History: Alphabetical



# US Political History: Most recent results



# US Political History: 3 regions



## Function of Design

- Coherence, Clarity, Communication
- **Visual Identity**: Gives an overall identity, a **branding** through formal design choices (form, color, font, etc.)
- **Rule-based process to structure** information
- Good Design aims to be **invisible!** Does not take over content that it represents



## Visualization is Culture Specific

- **Scientific visualization** deals with data that has a natural geometric structure (e.g., MRI data, wind flows)
- **Information visualization** handles abstract data structures such as trees or graph
- **Graphic Design:** Emphasis on the aesthetics and language of visual form
- **Visual (Culture) Analytics:** Science of analytical reasoning through visual interfaces

# The Grid System (Brockmann)

## The Grid System

The ultimate resource in grid systems.

*"The grid system is an aid, not a guarantee. It permits a number of possible uses and each designer can look for a solution appropriate to his personal style. But one must learn how to use the grid; it is an art that requires practice."*  
 Josef Müller-Brockmann

Show Grid

Join The Forum

Search

### Articles

#### The Golden Proportion

The golden section – a precise way of dividing a line, music or anything else-is showed up early in mathematics.

06.Jan.2010

#### The Golden Ratio in Web Design

You would be surprised to find out that most aesthetically pleasing designs, works of art, objects and even people have math in common. Specifically the Golden Ratio...

06.Jan.2010

### Tools

#### Fluid 960 Grid System

A jQuery based fluid grid system template based on Nathan Smith's 960 Grid System. Allows multiple layouts including 12 or 16 fluid columns and 12 or 16 fixed columns.

06.Jan.2010

#### Masonry

Masonry is a layout plugin for jQuery that arranges elements vertically then horizontally according to a grid.

06.Jan.2010

### Books

#### Universal Principles of Design

Universal Principles of Design is the first comprehensive, cross-disciplinary encyclopedia of design.

04.Nov.2009

#### Designing for the Web

A Practical Guide to Designing for the Web has written explanations of the core principles of graphic design in relation to the web.

08.Oct.2009

### Templates

#### Photoshop 4 Column Grid

A free 4 Column Photoshop grid template for a 1024x768 screen resolution by Ray Gulick.

08.Jun.2009

#### InDesign 568x792 Grid System (12)

By Dario Galvagno. Adobe InDesign file with a grid system for a 568pts x 792pts page that is divided into 12 columns and rows using the Golden Ratio. Includes a 12pt baseline grid.

16.Apr.2009

### Blog

#### Buy Slammer = Help Haiti

The grid-generating app Slammer is part of the Indie+Relief initiative. Buy it and all proceeds from today (01/20) will be donated to Haiti.

20.Jan.2010

#### Eternal Network

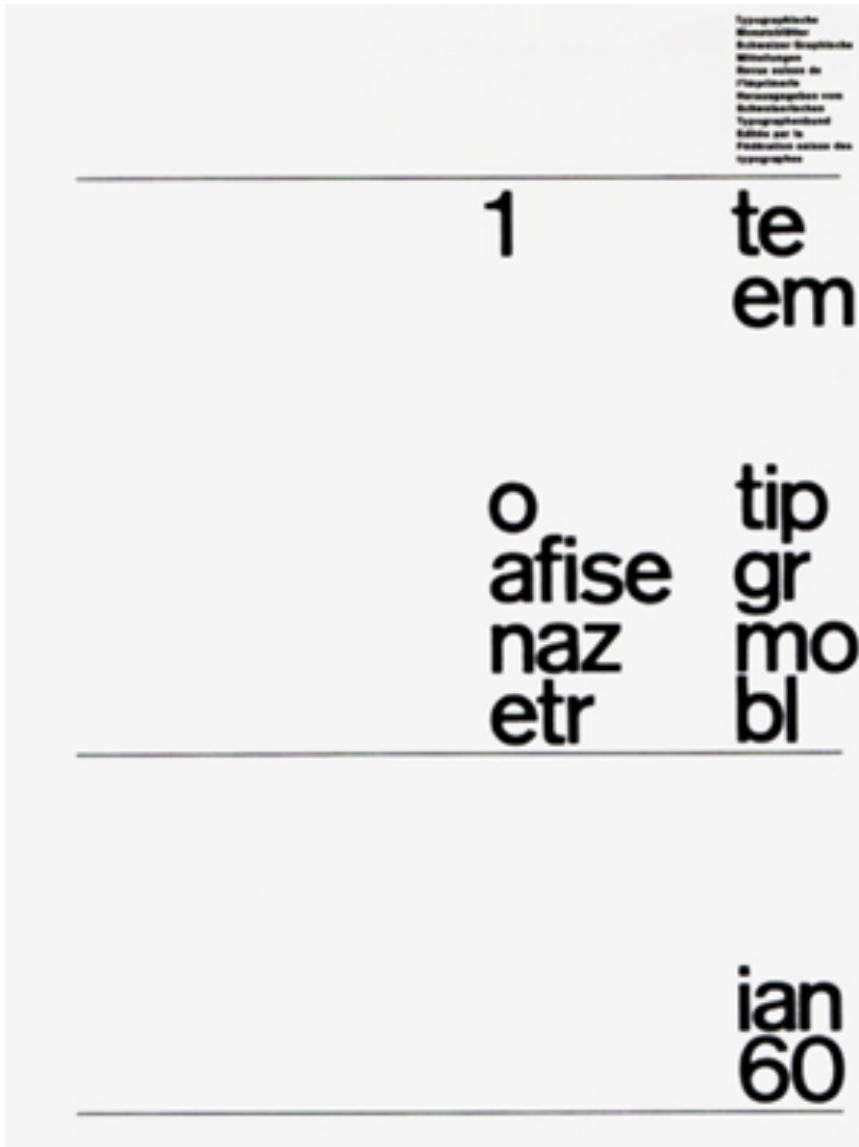
Lovely minimal grid based site design that's reminiscent of old computer paper.

06.Jan.2010

### Inspiration

- Ace Jet 170
- AisleOne
- Athletics
- BBDK
- Blanka
- Build
- Corporate Risk Watch
- Counter Print
- David Airey
- Design Assembly
- Dirty Mouse
- Experimental Jetset
- Form Fifty Five
- Grafik Magazine
- Grain Edit
- Graphic Hug
- I Love Typography
- Lamosca
- Mark Boulton
- Minimal Sites
- Monocle
- Neubau
- NewWork
- OK-RM
- Original Linkage
- Robin Uleman

# Swiss Graphic Design





Niggli Verlag für

Architektur Design Typografie Kunst

| deutsch

| english

# Niggli

n'li

Niggli Verlag für

Architektur Design Typografie Kunst

deutsch

english

# Niggli

## Recommended Swiss Graphic Fonts

Arial typeface

Helvetica typeface

Helvetica Neue typeface

Univers typeface

Univers Condensed typeface

Times New Roman typeface

## Recommended Swiss Graphic Fonts

ABCDEFGHIJKLM  
NOPQRSTUVWXYZ  
abcdefghijklm  
nopqrstuvwxyz  
1234567890

ABCDEFGHIJKLMN  
OPQRSTUVWXYZÀ  
ÅÉÎÏÏØabcdefghijklm  
nopqrstuvwxyzàåéîõ  
&1234567890(\$£.,!?)

45

ABCDEFGHIJKLMN  
OPQRSTUVWXYZÀ  
ÅÉÎÏabcdefghijklmn  
opqrstuvwxyzàåéî&1  
234567890(\$£€..,!?)

46

ABCDEFGHIJKLMNO  
PQRSTUVWXYZÀÅÉ  
abcdefghijklmnopq  
rstuvwxyzàåéîõøü&  
1234567890(\$£.,!?)

43

## Visual Basic Literacy: Basic Units (Dondis)

- **Dot:** Minimal unit, pointer, marker of space
- **Line:** Joins dots, articulator of space
- **Shape:** Line describes and encloses space
- **Direction:** Thrust of movement
- **Tone:** The intensity of lightness or darkness
- **Color:** Associative and symbolic meanings
- **Texture:** Quality of touching, looks/feels like
- **Scale:** Relative proportion & measurement
- **Space:** Organization of
- **Motion:** Visual elements guiding the viewer



**A PRIMER OF VISUAL LITERACY**  
Donis A. Dondis



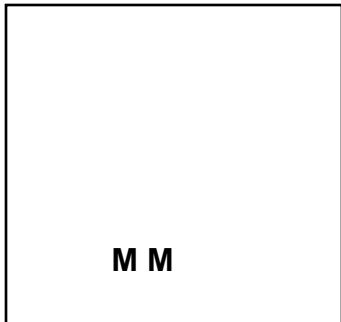
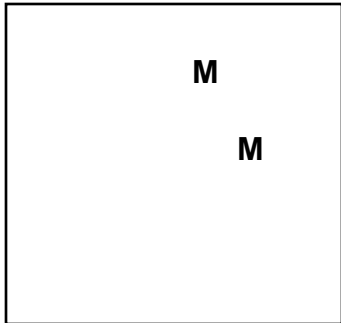
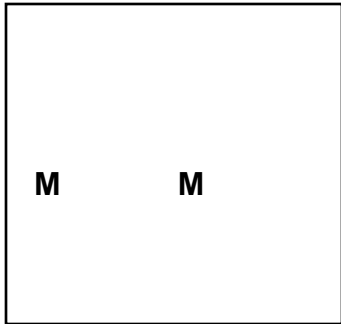
“A Primer of Visual Literacy”

Donis A. Dondis

MIT PRESS, 1974

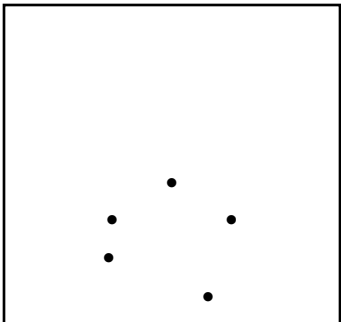
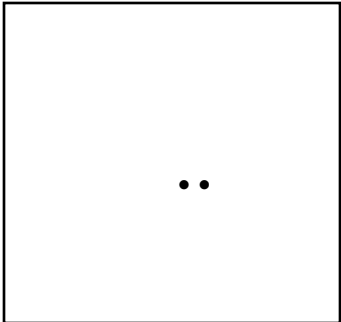
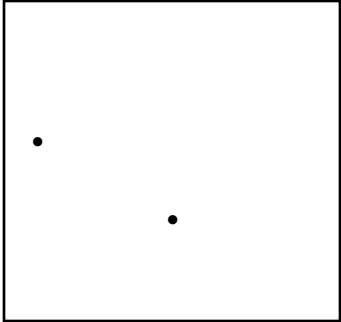
Clarifies the basic elements of design to show how they are used in simple syntactical combinations

## Visual Organization / Space (Macro-micro, willi kunz)



- **Size** and **proportion** of space are determined at the beginning
- Space is visually **subdivided** by the **tension** that develops between an **element** and the **boundaries** of the space
- **Space**: Depending on their visual placement within a given space, the **same** elements will assume **different** visual aspects of **weight** and **movement**

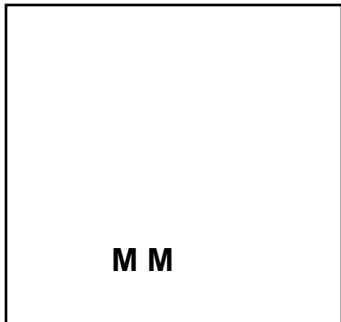
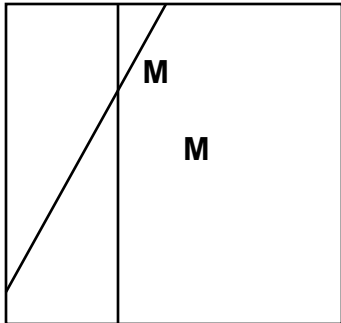
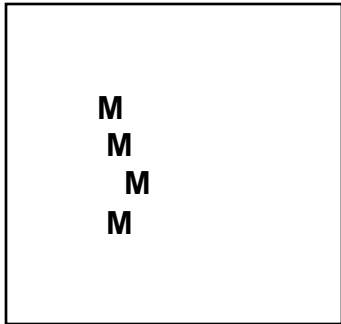
## Visual Groupings in Space



- **Attraction & Grouping:** 2 dots fight for attention in their interaction
- **Distanced:** Create individual statements as they repel each other
- **Close together:** There is an attraction force
- **Perception:** dictates to make whole out of units
  - Connect the dots!! (we do it with the stars)

**Opposites repel, similars attract**

## Weight, Im/Balance, Dis/Order, Un/Stable



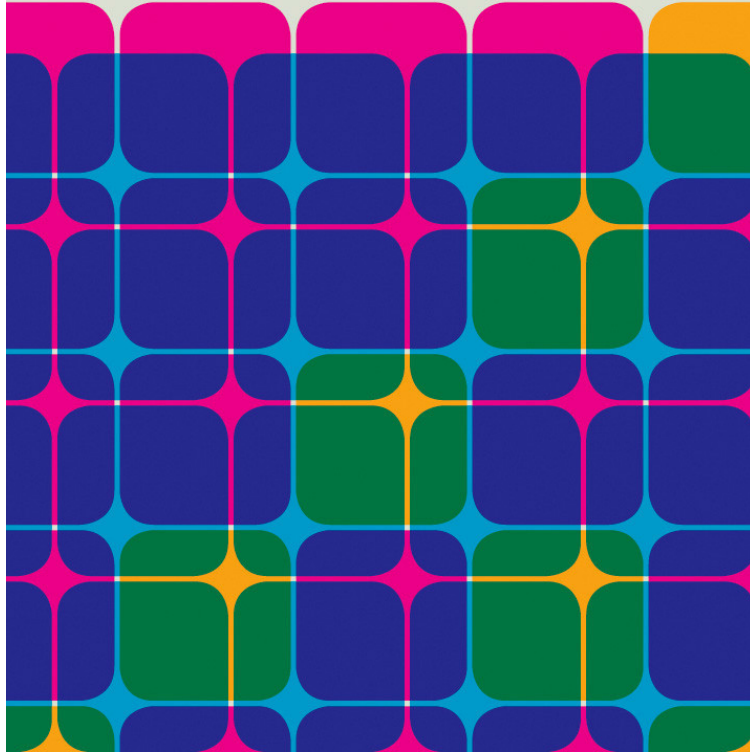
- **Balance:** Physiological, psychological
  - **H-V construct:** man to his environment
- **Stress:** Unstable causes stress
  - Stabilization: relative stress/balance
- **Lower-left:** most stable
- **Harmony:** (centered), no visual surprise
  - Search for balance with off-center mark
- **Ambiguity:** may obscure intent & meaning
  - Slightly off-center mark confounds
- Visual elements in stress location: more weight

# Color Relationships

friday  
september 23 1994 / 8 pm

at the tavern  
american university / washington, dc

**velocity girl** with special guest  
sunny day real estate



999  
from england

first nyc appearance in two years	saturday october 19 1985 no age limit	cbgb and omfug 315 bowery new york city
---	---	---



## Color Relationships

- Black & White or color?
- If black and white – what about grey tones?
- If color, how many? (Limit to 3 to 6?)

## Color Tools & References

<http://tristen.ca/hcl-picker/#/hlc/6/1/21313E/EFEE69>

[Problems of equidistant HSV](#)

[Swissted Graphic Posters](#)

## Ryoji Ikeda

Japanese sound and visual artist

- Uses scale, light, shade, volume, shadow, electronic sounds, rhythm
- [Datamatics \(2013\)](#)
- [http://www.armoryonpark.org/photo\\_gallery/slideshow/ryoji\\_ikeda](http://www.armoryonpark.org/photo_gallery/slideshow/ryoji_ikeda)

CHROMOSOME:01 CONTIG:NT\_004510.18 ORIENT:+ GENE-NAME:FAM76A GENEID:199870 CHR-START:27925076 CHR-STOP:27960702 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:02 CONTIG:NT\_022184.14 ORIENT:- GENE-NAME:NAT8 GENEID:9027 CHR-START:73721464 CHR-STOP:73729032 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:03 CONTIG:NT\_022517.17 ORIENT:- GENE-NAME:SFMBT1 GENEID:51460 CHR-START:52913668 CHR-STOP:53055112 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:04 CONTIG:NT\_016354.18 ORIENT:- GENE-NAME:CXCL10 GENEID:3627 CHR-START:77161296 CHR-STOP:77163672 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:05 CONTIG:NT\_006713.14 ORIENT:+ GENE-NAME:LOC645153 GENEID:645153 CHR-START:84134888 CHR-STOP:8415512 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:06 CONTIG:NT\_007592.14 ORIENT:+ GENE-NAME:C4B GENEID:721 CHR-START:32057812 CHR-STOP:32078436 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:07 CONTIG:NT\_007758.11 ORIENT:- GENE-NAME:LOC402273 GENEID:402273 CHR-START:63247432 CHR-STOP:63278632 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:08 CONTIG:NT\_008183.18 ORIENT:+ GENE-NAME:CHO7 GENEID:55636 CHR-START:61753892 CHR-STOP:61942020 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:09 CONTIG:NT\_023935.17 ORIENT:- GENE-NAME:APBA1 GENEID:320 CHR-START:71235024 CHR-STOP:71477040 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:10 CONTIG:NT\_008593.16 ORIENT:+ GENE-NAME:UNCSB GENEID:219699 CHR-START:72642352 CHR-STOP:72729720 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:11 CONTIG:NT\_009237.17 ORIENT:+ GENE-NAME:CD44 GENEID:960 CHR-START:35116992 CHR-STOP:35210524 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:12 CONTIG:NT\_029419.11 ORIENT:- GENE-NAME:RACGAP1 GENEID:29127 CHR-START:48669212 CHR-STOP:48705488 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

CHROMOSOME:13 CONTIG:NT\_009952.14 ORIENT:- GENE-NAME:LOC644627 GENEID:644627 CHR-START:110213016 CHR-STOP:110214072 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

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CHROMOSOME:15 CONTIG:NT\_010194.16 ORIENT:- GENE-NAME:VPS13C GENEID:54832 CHR-START:59931880 CHR-STOP:60139940 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

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CHROMOSOME:20 CONTIG:NT\_011362.90 ORIENT:- GENE-NAME:SLC13A3 GENEID:64849 CHR-START:44619872 CHR-STOP:44746512 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

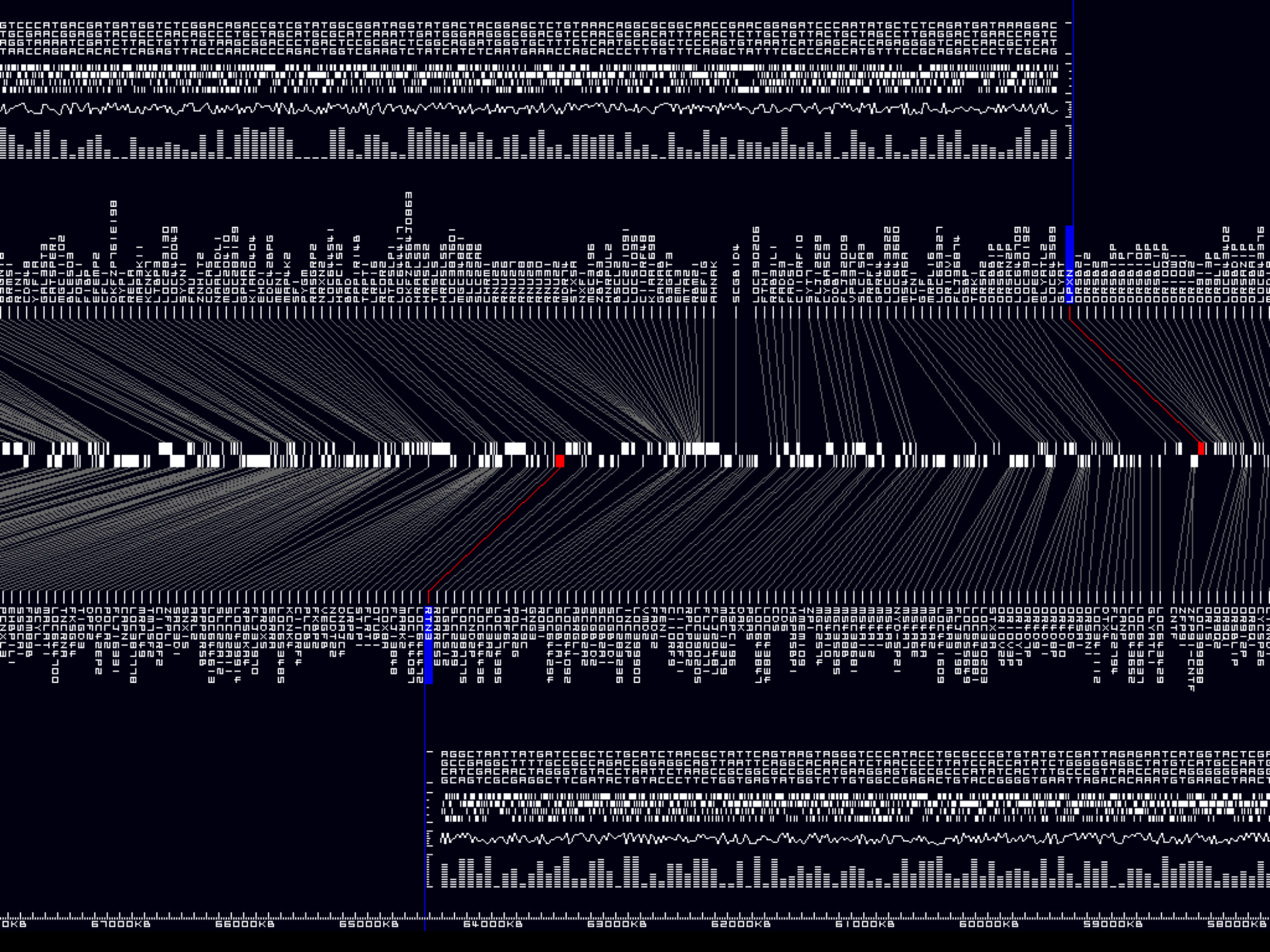
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CHROMOSOME:22 CONTIG:NT\_011520.11 ORIENT:+ GENE-NAME:GGRI GENEID:26089 CHR-START:36334448 CHR-STOP:36359516 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01

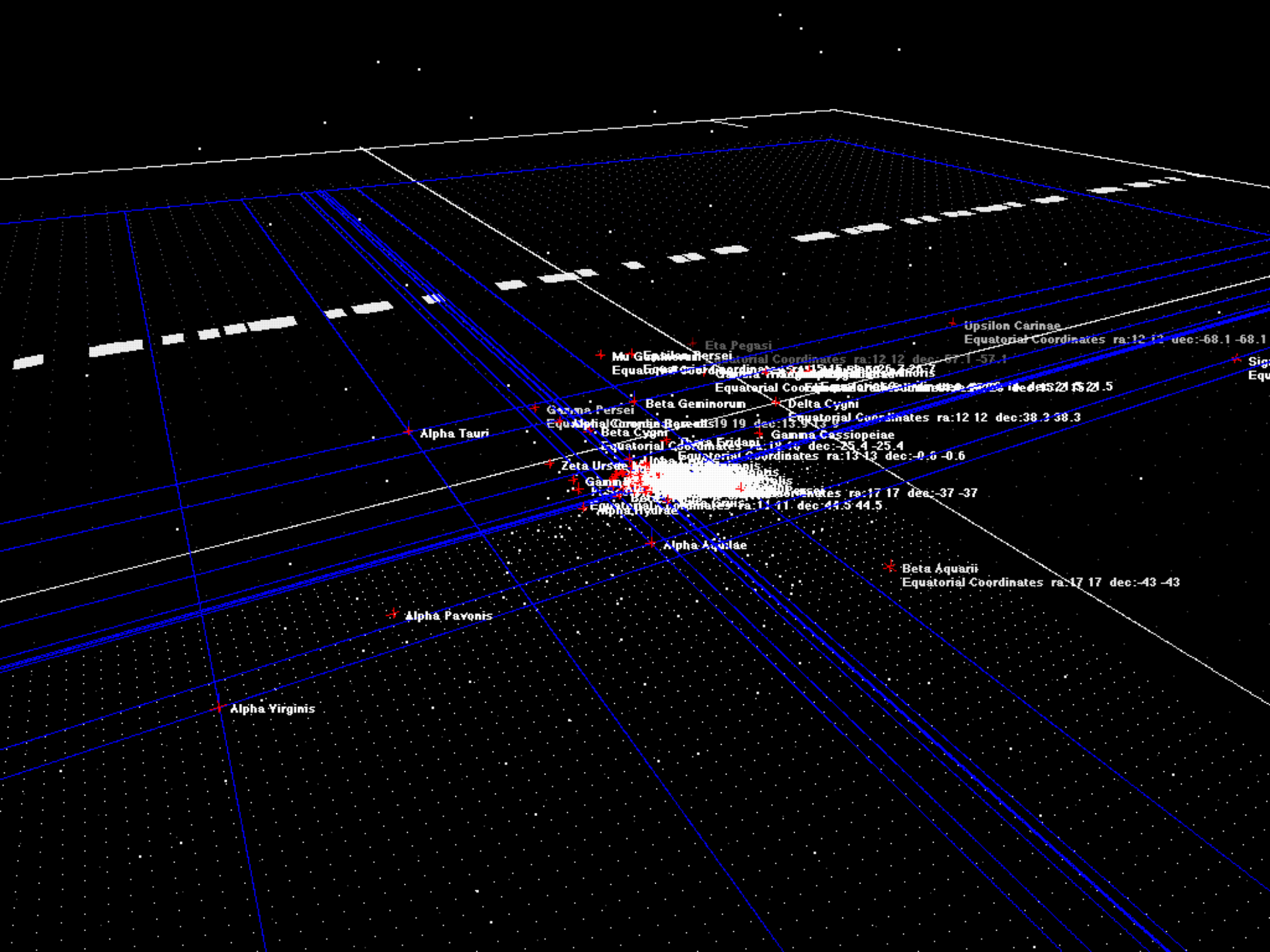
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CHROMOSOME:Y CONTIG:NT\_011875.11 ORIENT:+ GENE-NAME:CYORF15B GENEID:84663 CHR-START:20213724 CHR-STOP:20225768 FEATURE-TYPE:GENE GROUP-LABEL:REFERENCE TRANSCRIPT:- EVIDENCE-CODE:01





OKB 67000KB 66000KB 65000KB 64000KB 63000KB 62000KB 61000KB 60000KB 59000KB 58000KB



## Image Complexity – Balance & Sub Division

- Too ordered is boring
- Too chaotic is confusing

Find a space between those two extremes

**Strategy**: Create an ordered system and then slightly disturb it

## Conceptual Design

First phase of a project where quick sketches are used for idea definition:

- Provides a description of the proposed system
- What are the elements, how do they interface
- What it will look like
- Defines both the functionality and aesthetics of the project

## Design Fundamentals

- Use all screen space and organize it
- Create subdivisions within a space
- Use hidden grid system
- Use easy to read fonts
- What color relationships to use