

cross-cultural data visualisation

project 3: city & transport & people

with James Boekbinder & Marieke de Beurs

project 3

Week 3

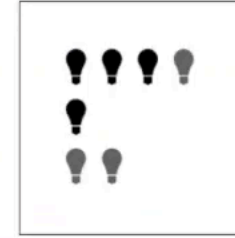
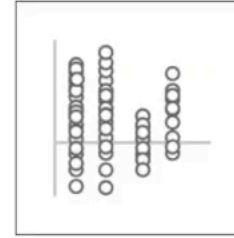
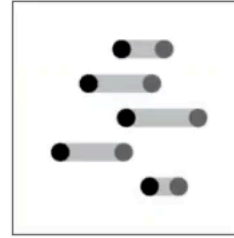
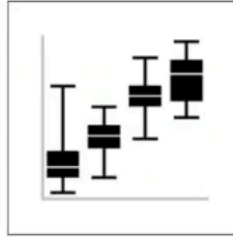
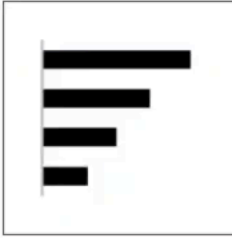
Same data differently visualized

This week, you will visualize at least three of the categories of data represented in your spatial graphic in different types of graphics: hierarchical, relational, temporal, categorical.

Data representation: How to show what you want to say?

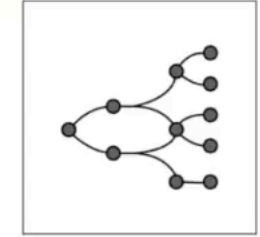
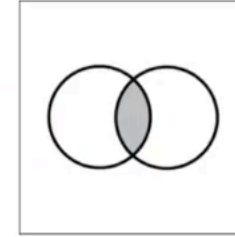
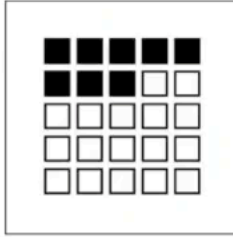
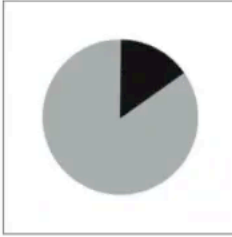
CATEGORICAL

Comparing categories and distributions of quantitative values



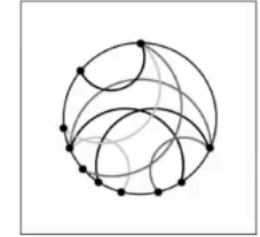
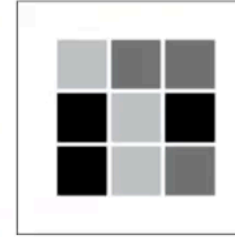
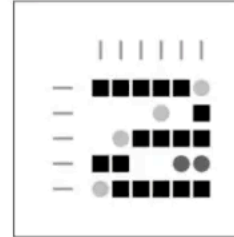
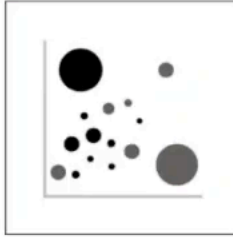
HIERARCHICAL

Charting part-to-whole relationships and hierarchies



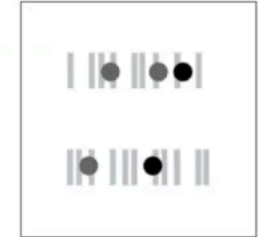
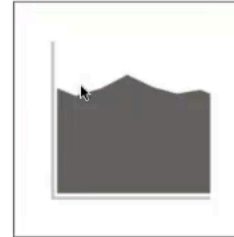
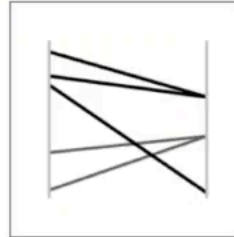
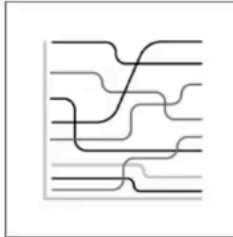
RELATIONAL

Graphing relationships to explore correlations and connections



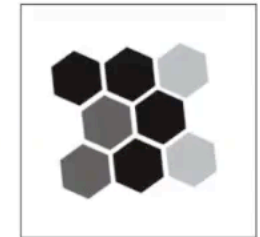
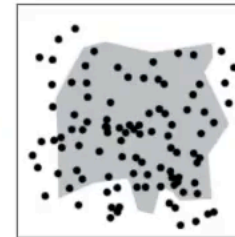
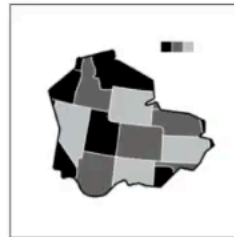
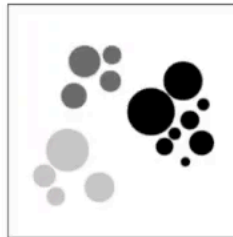
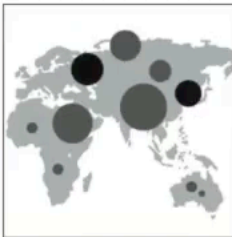
TEMPORAL

Showing trends and activities over time

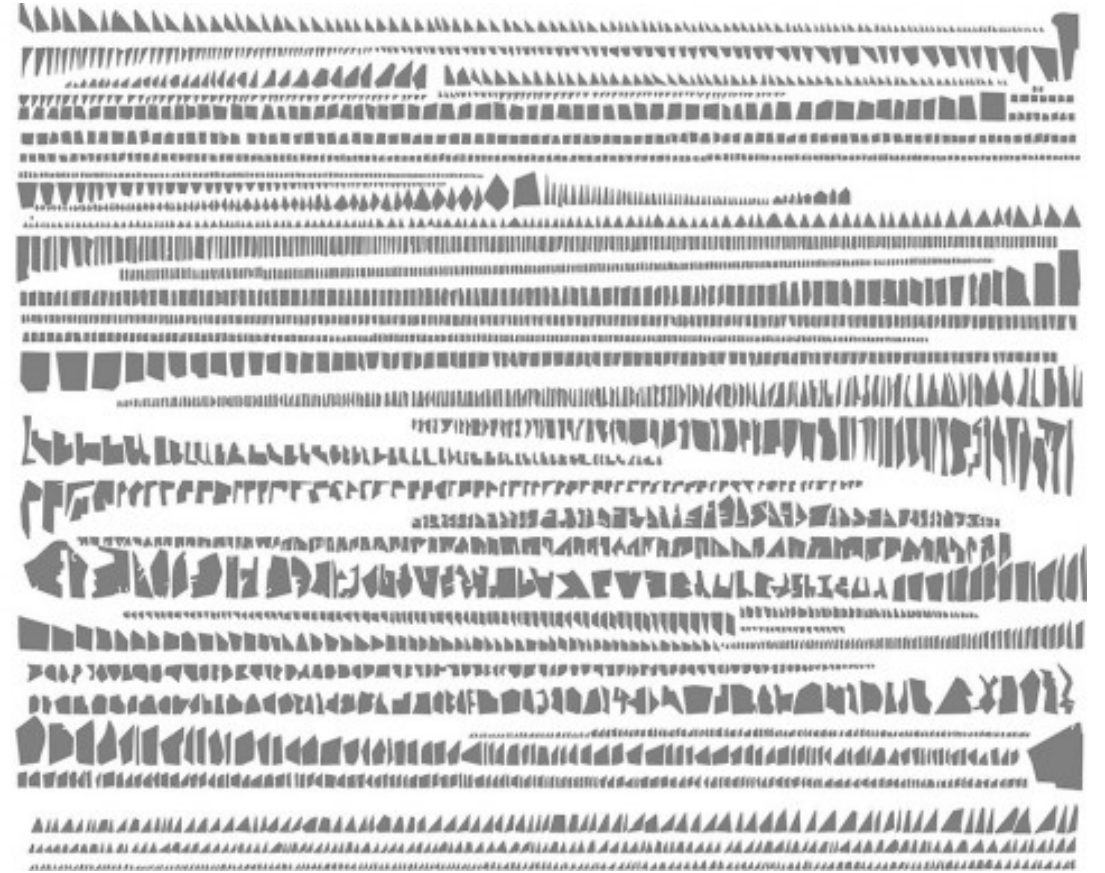
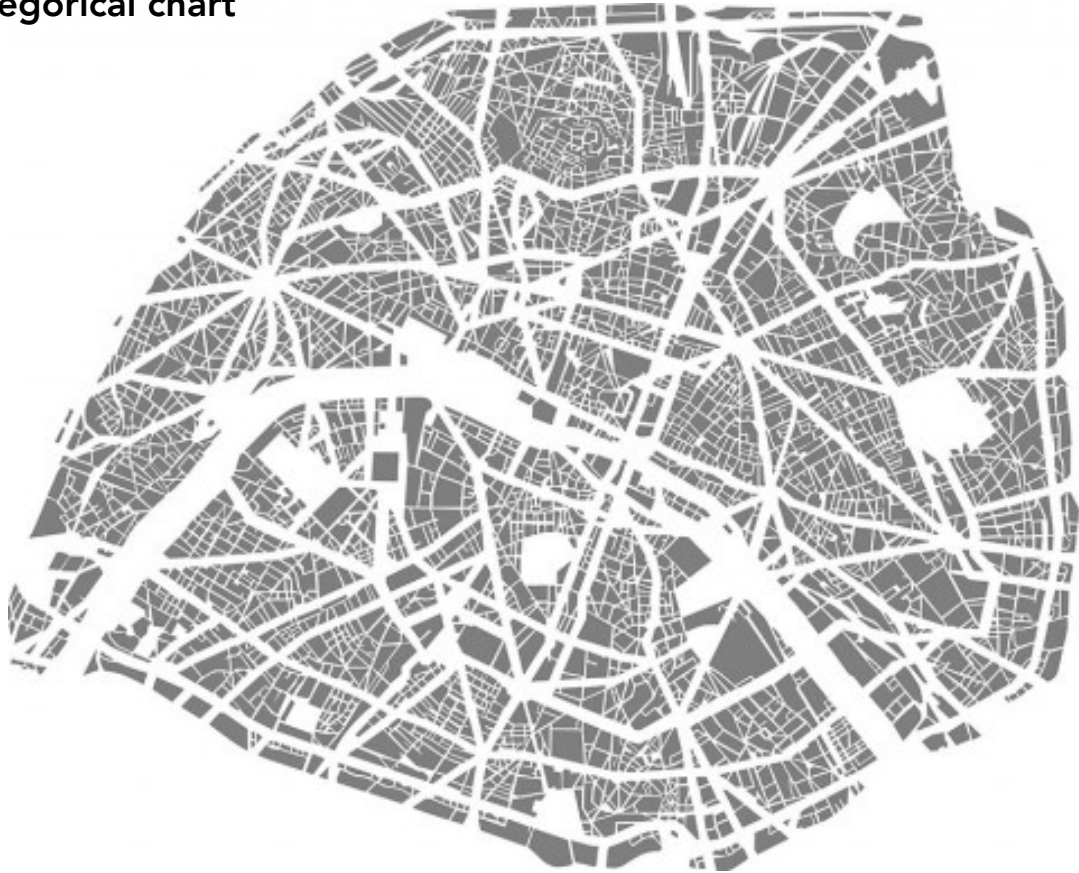


SPATIAL

Mapping spatial patterns through overlays and distortions



Example:
Categorical chart

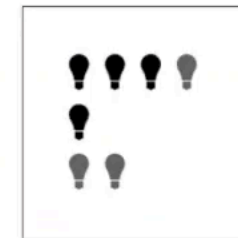
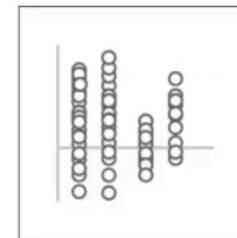
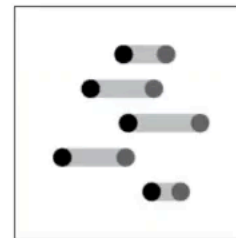
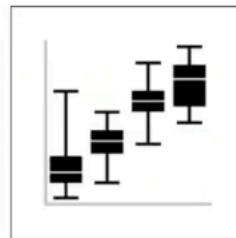
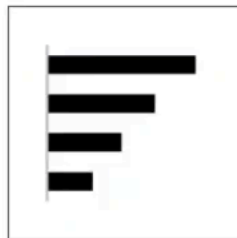


Armelle Caron

<https://www.armellecaron.fr/works/les-ville-rangees/>

CATEGORICAL

Comparing categories and
distributions of quantitative values



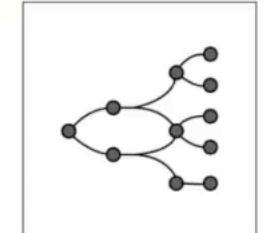
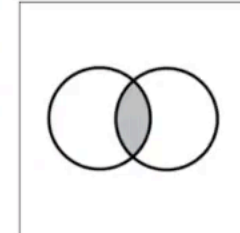
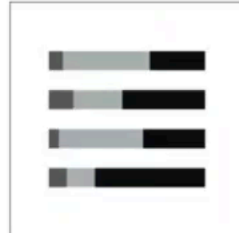
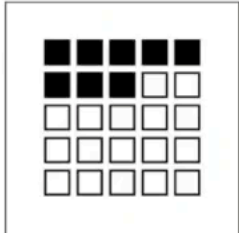
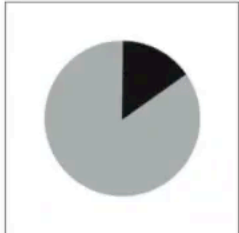


Pie chart

Example:
Hierarchical chart



HIERARCHICAL
Charting part-to-whole relationships
and hierarchies





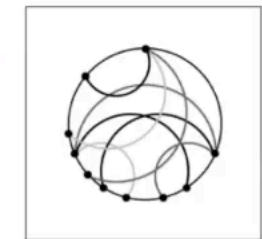
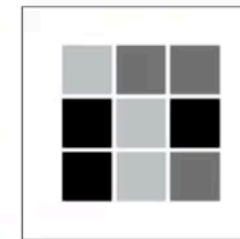
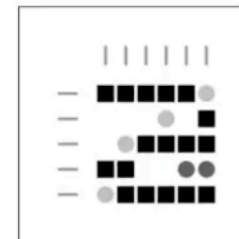
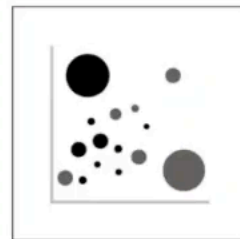
Bubble Race chart

Example:
Relational chart



RELATIONAL

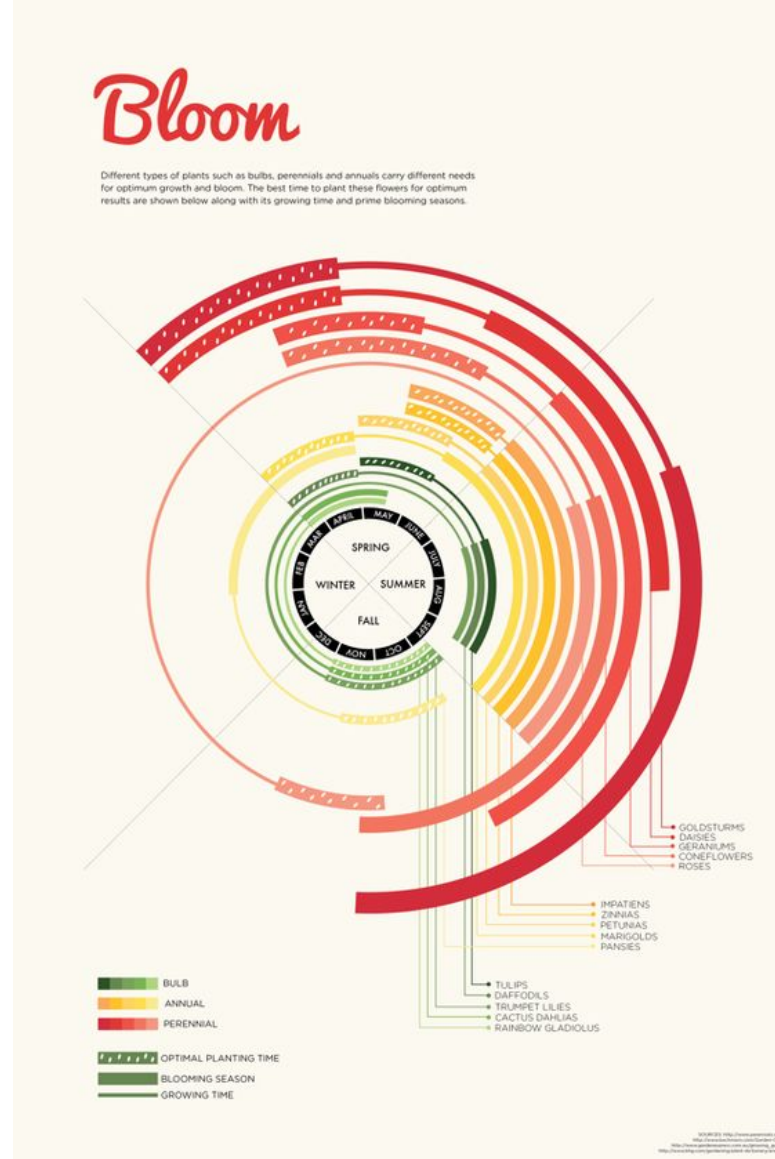
Graphing relationships to explore correlations and connections





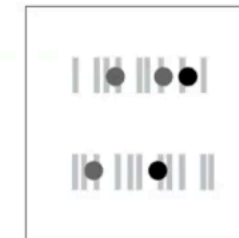
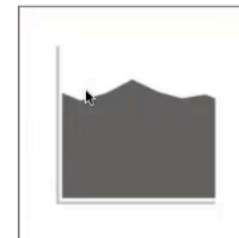
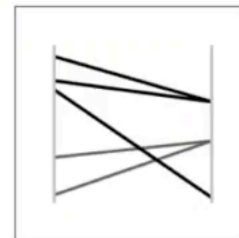
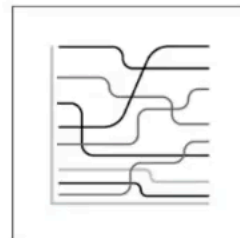
Circular chart

Example:
Temporal chart



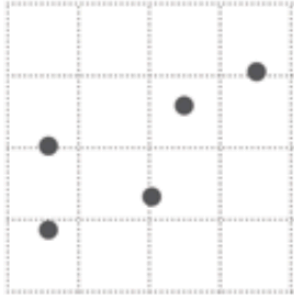
TEMPORAL

Showing trends and activities
over time



Position

Where in space the data is



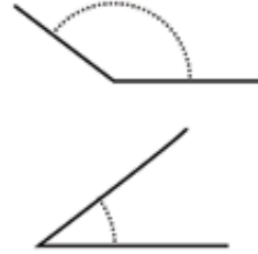
Length

How long the shapes are



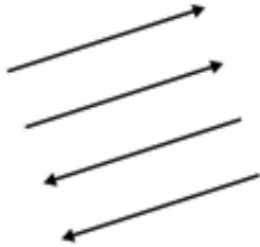
Angle

Rotation between vectors



Direction

Slope of a vector in space



Shapes

Symbols as categories



Area

How much 2-D space



Volume

How much 3-D space



Color saturation

Intensity of a color hue



Color hue

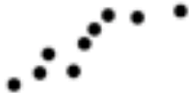





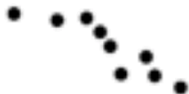





























Usually referred to as color



Visual cues

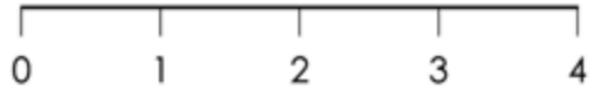
- position
- length
- angle
- direction
- shapes
- area
- volume
- color saturation
- color hue

Visual Cues

| | Position | Length | Angle | Direction | Area or Volume | Color |
|-------------|---|---|---|---|---|---|
| Patterns |  |  |  |  |  |  |
| Increase |  |  |  |  |  |  |
| Decrease |  |  |  |  |  |  |
| Combination |  |  |  |  |  |  |
| Outlier |  |  |  |  |  |  |
| Noise |  |  |  |  |  |  |

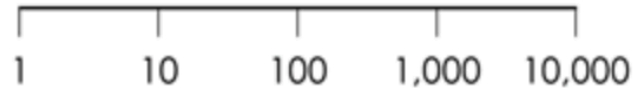
Linear

Values are evenly spaced



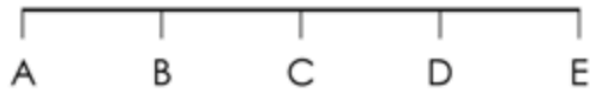
Logarithmic

Focus on percent change



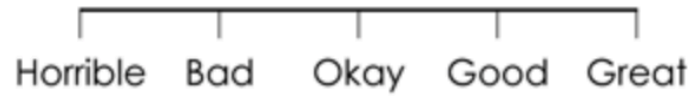
Categorical

Discrete placement in bins



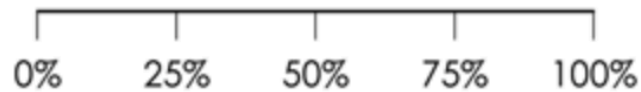
Ordinal

Categories where order matters



Percent

Representing parts of a whole



Time

Units of months, days, or hours



Scales

- Linear
- Categorical
- Percent
- Logarithmic
- Ordinal
- Time

Working with data: Understanding its properties and qualities

Qualitative (Textual)

Bolt quote: “It wasn't perfect today, but I got it done and I'm pretty proud of what I've achieved. Nobody else has done it or even attempted it”

Categorical (Nominal)

The athletics event: **Men's 100m**

Categorical (Ordinal)

The medal category: **Gold**

Quantitative (Interval)

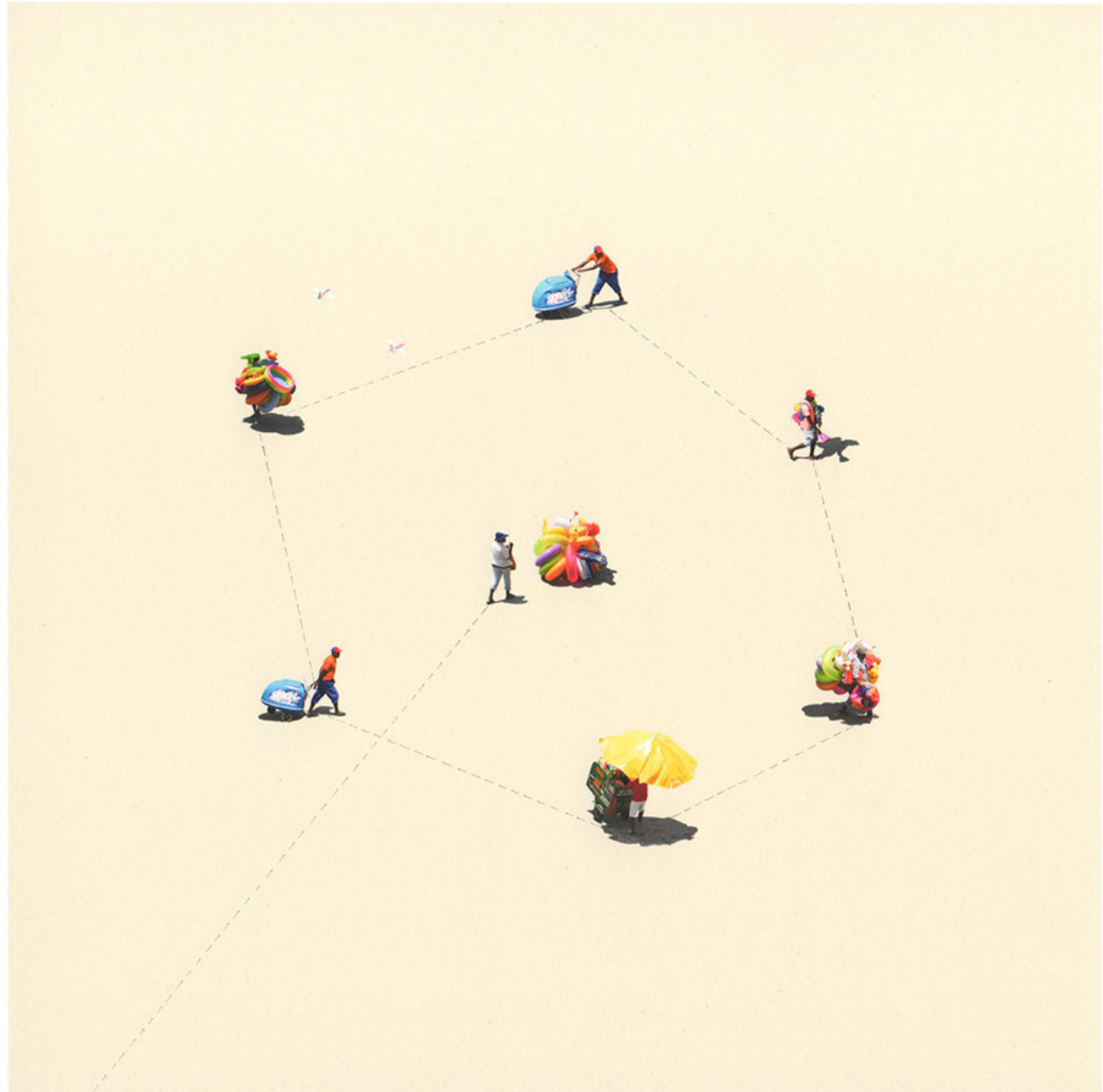
The estimated temperature at track level during the Men's 100m: **28°C**

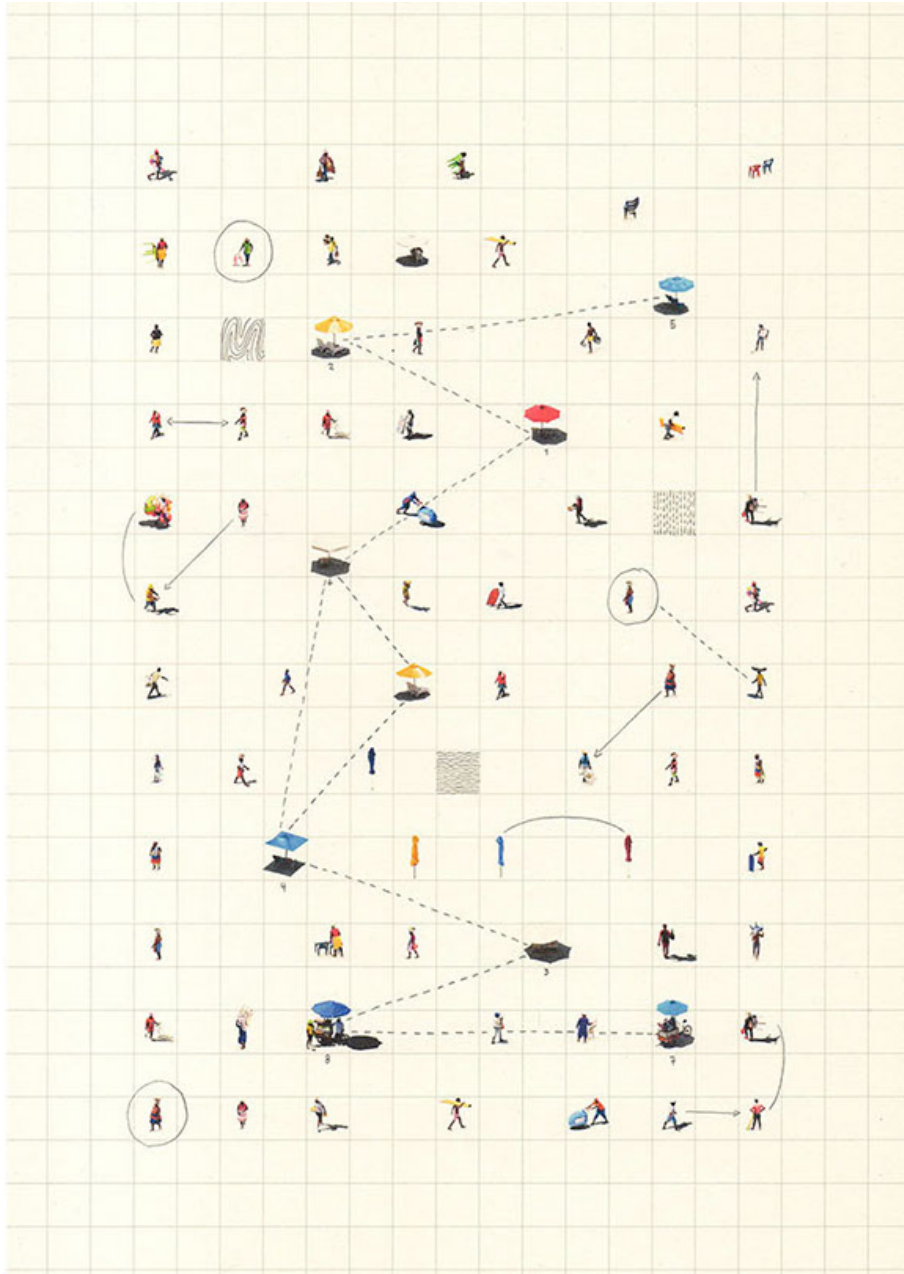
Quantitative (Ratio)

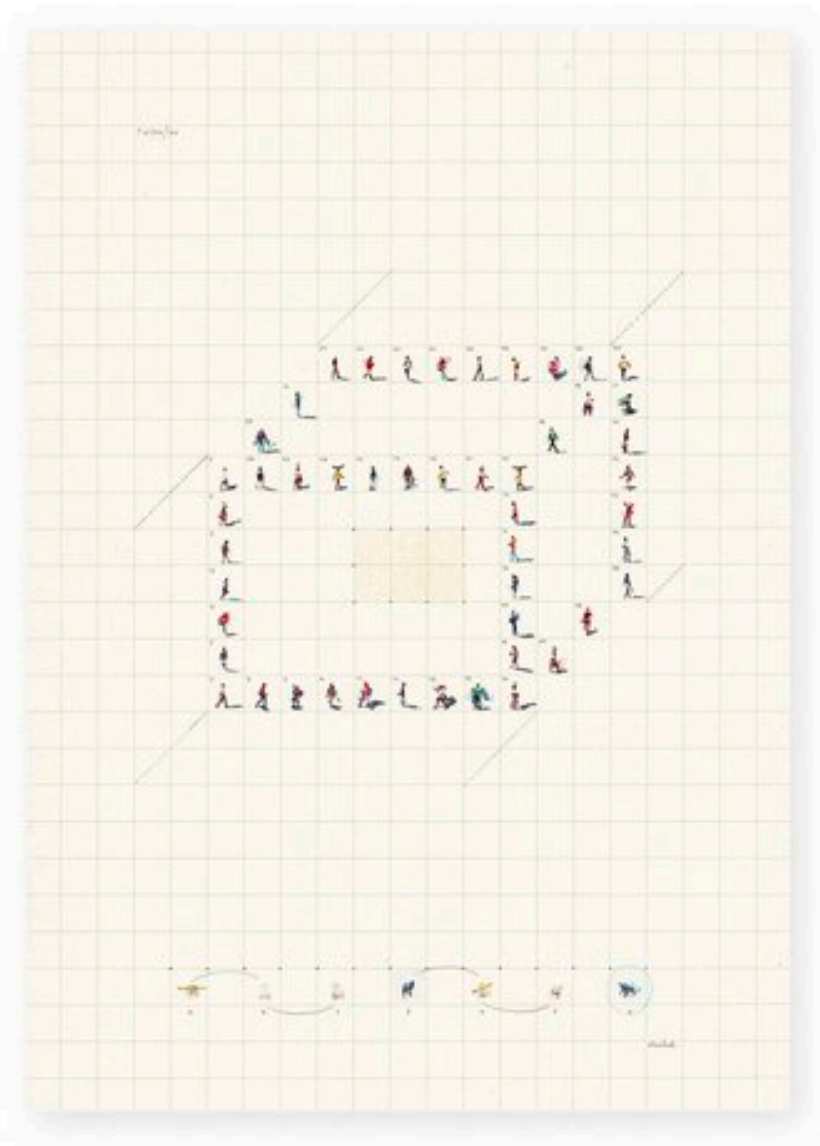
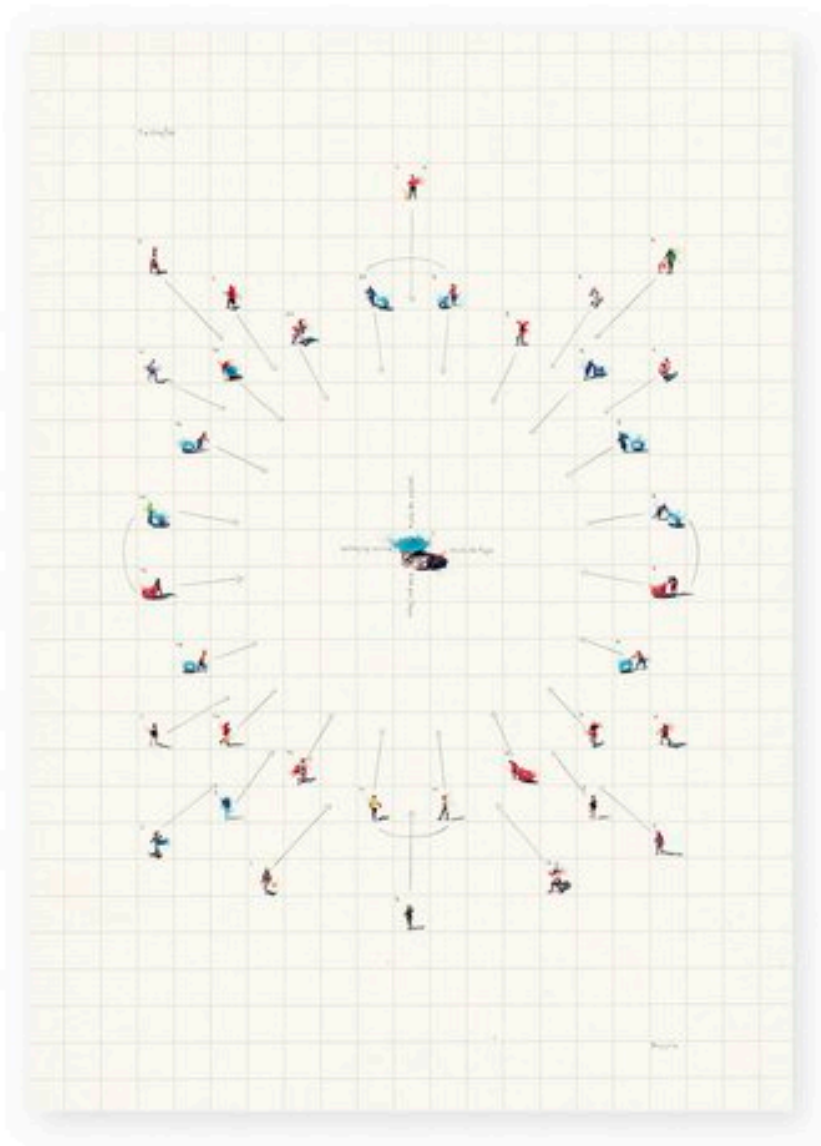
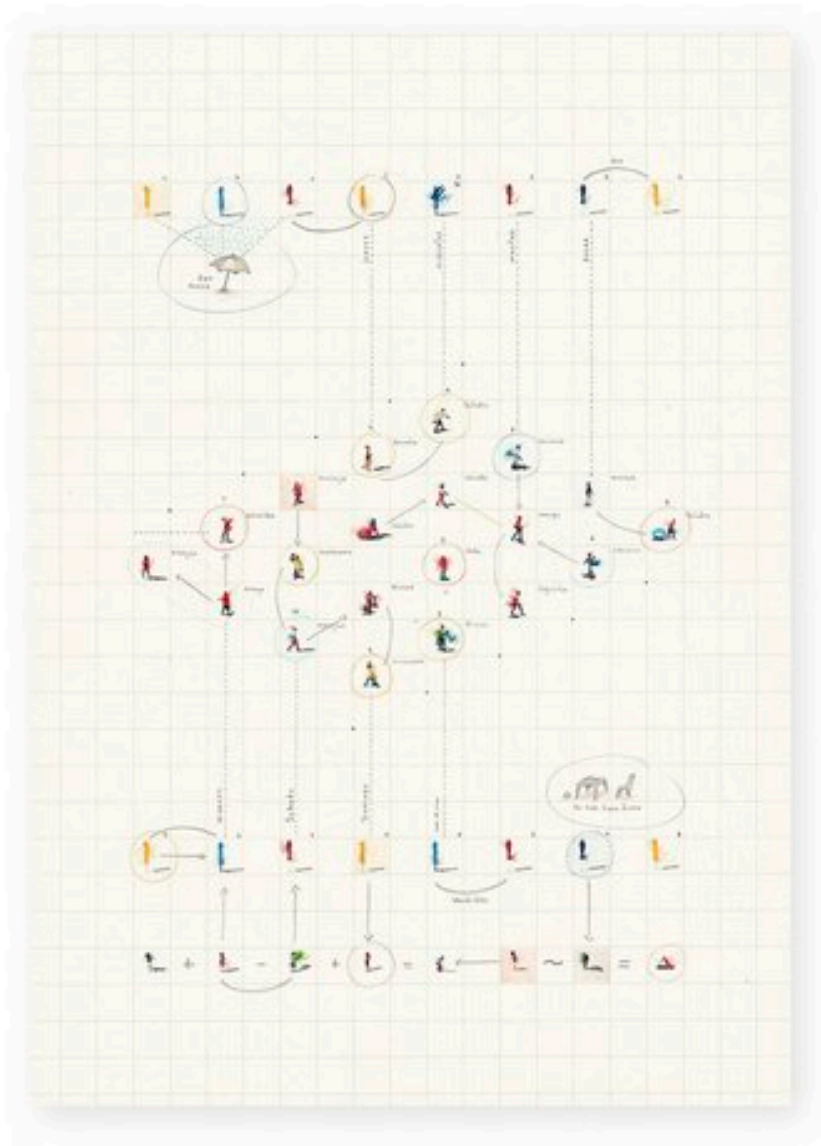
Usain Bolt's winning time: **9.81 seconds**

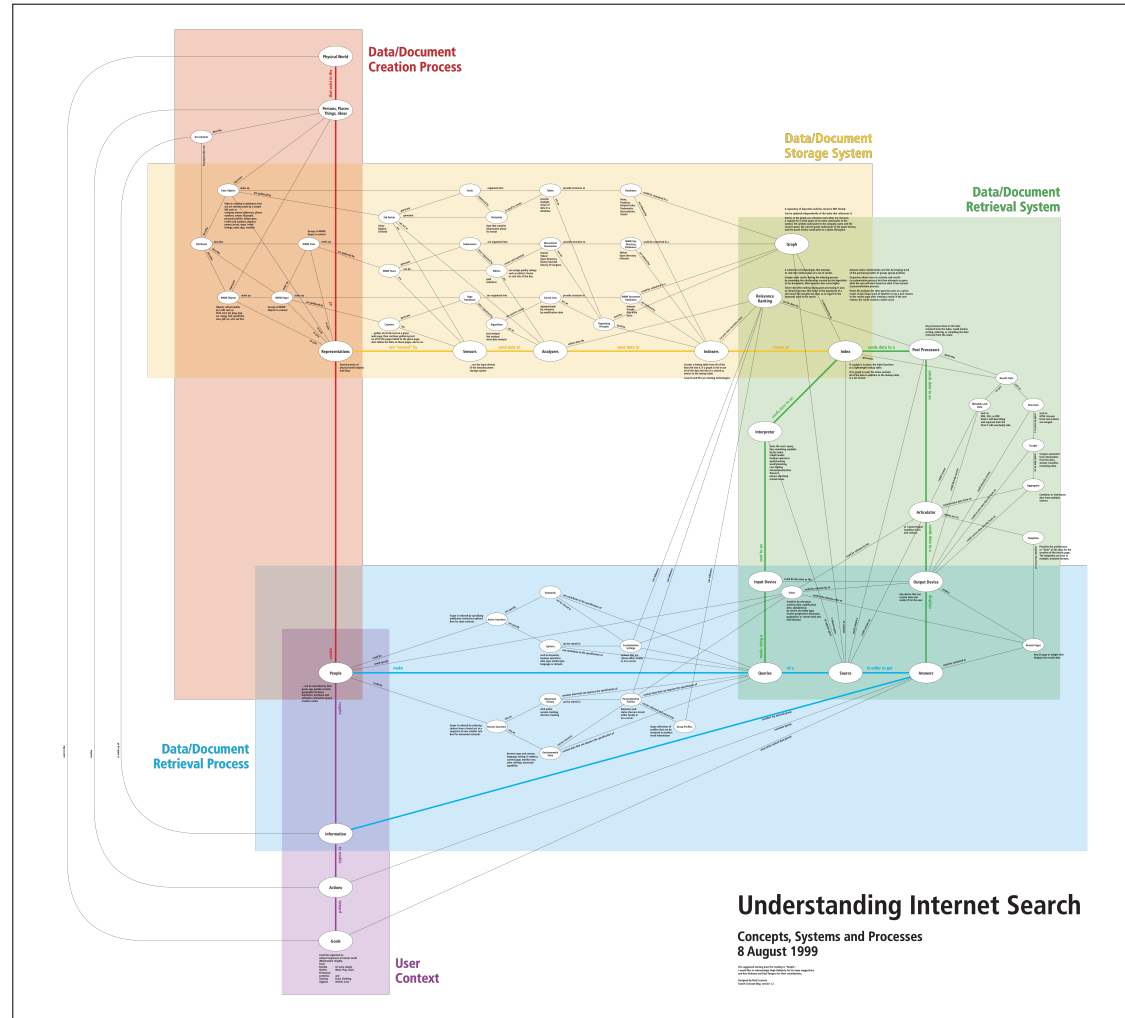
project 3

Some more examples:









Dubberly Design Office: concept map

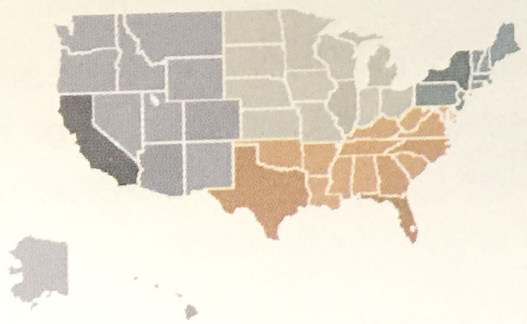
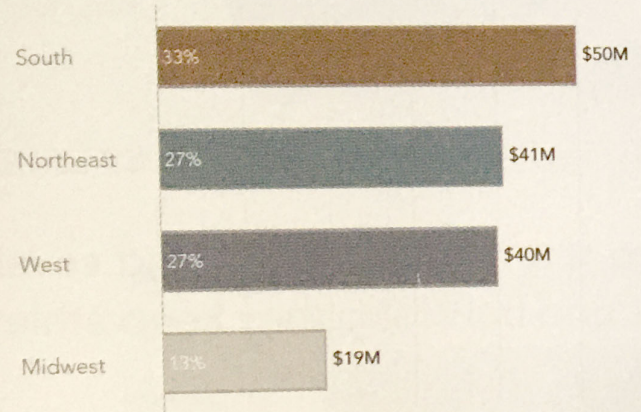
2015 Workers Compensation Regional & Industry Analysis



Primary KPI:

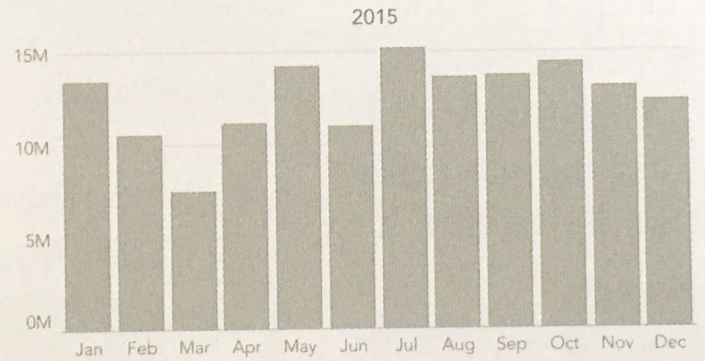
| | | | | | | | |
|------------------------------|-----------------------------|--------------------------------------|-----------------------------|-------------------------------|-------------------------|--------------------------------|---------------------------------|
| Agriculture \$2.0M ▲ 135% | Construction \$13M ▲ 25% | Finance & Real Estate \$16M ▼ -3% | Manufacturing \$43M ▲ 9% | Retail Trade \$8.2M ▼ -16% | Services \$40M ▼ -2% | Transportation \$8.4M ▲ 21% | Wholesale Trade \$20M ▼ -17% |
|------------------------------|-----------------------------|--------------------------------------|-----------------------------|-------------------------------|-------------------------|--------------------------------|---------------------------------|

Regional Analysis

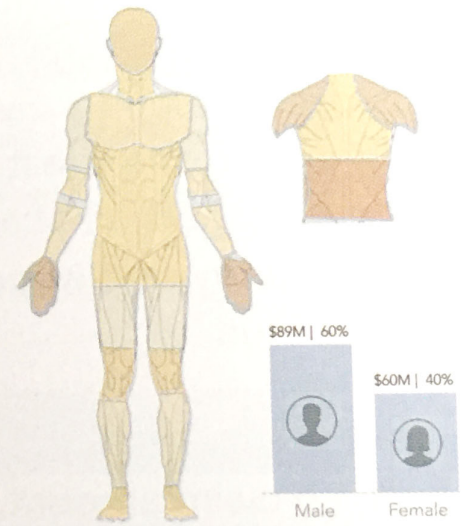


Avg Recovery Time # of Cases Incurred Amount

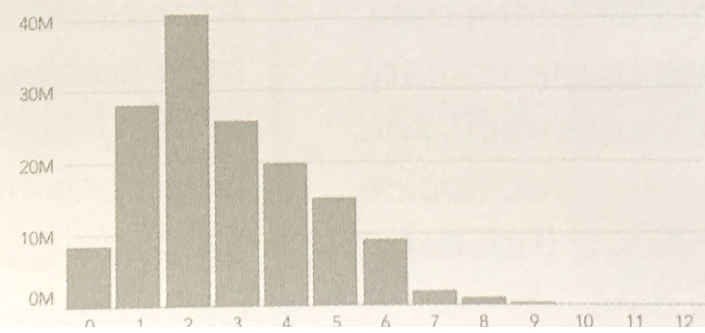
17.3 Days 10,661 \$150M



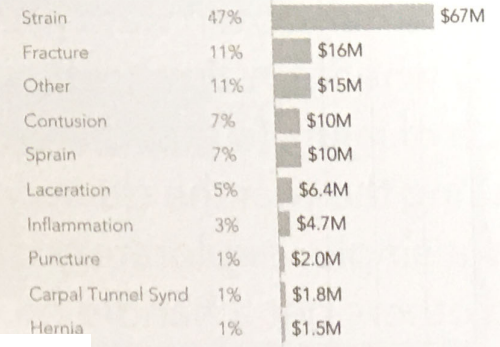
Area of Injury by Amount Incurred



Recovery Time (Weeks)

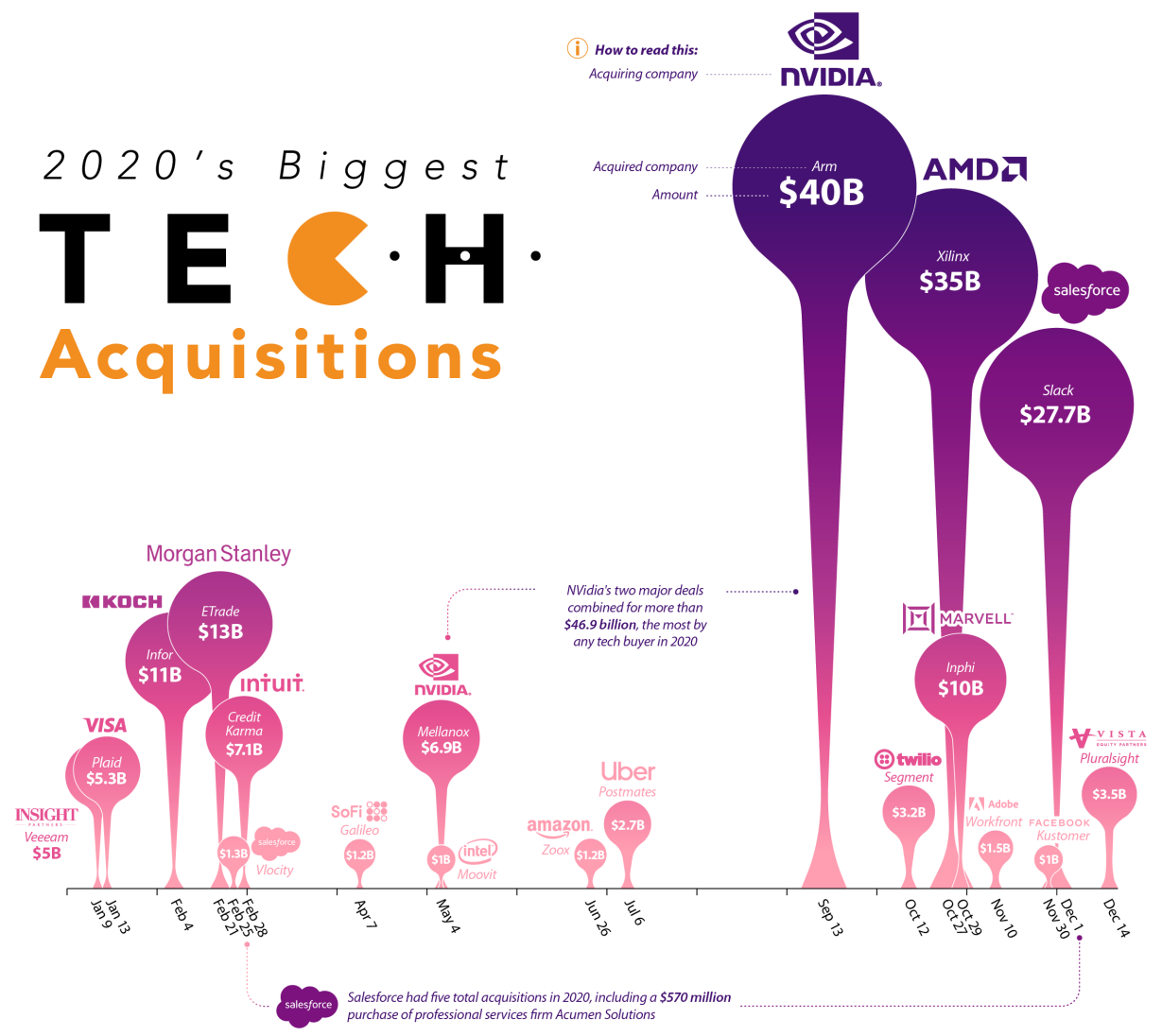


Top 10 Nature of Injuries



Dashboard for compensation of industrial accidents

2020's Biggest TECH Acquisitions



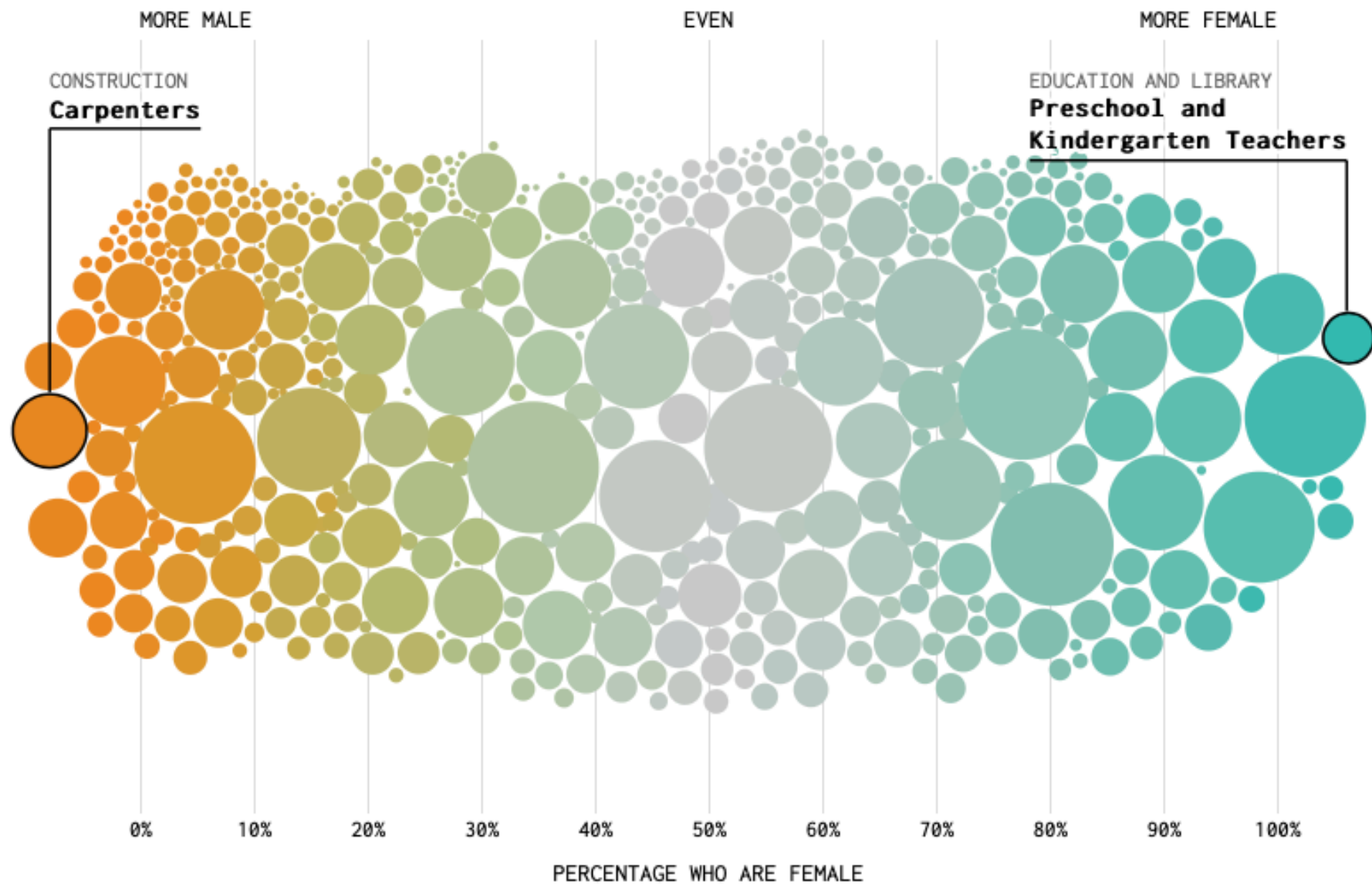
[f](#)
[▶](#) /visualcapitalist
 [t](#)
[@visualcap](#)
[visualcapitalist.com](#)

COLLABORATORS RESEARCH + WRITING Raul Amoros | DESIGN VC

Dashboard for building and maintenance tasks

MALE AND FEMALE OCCUPATIONS IN 2015

Larger circles represent more common jobs.

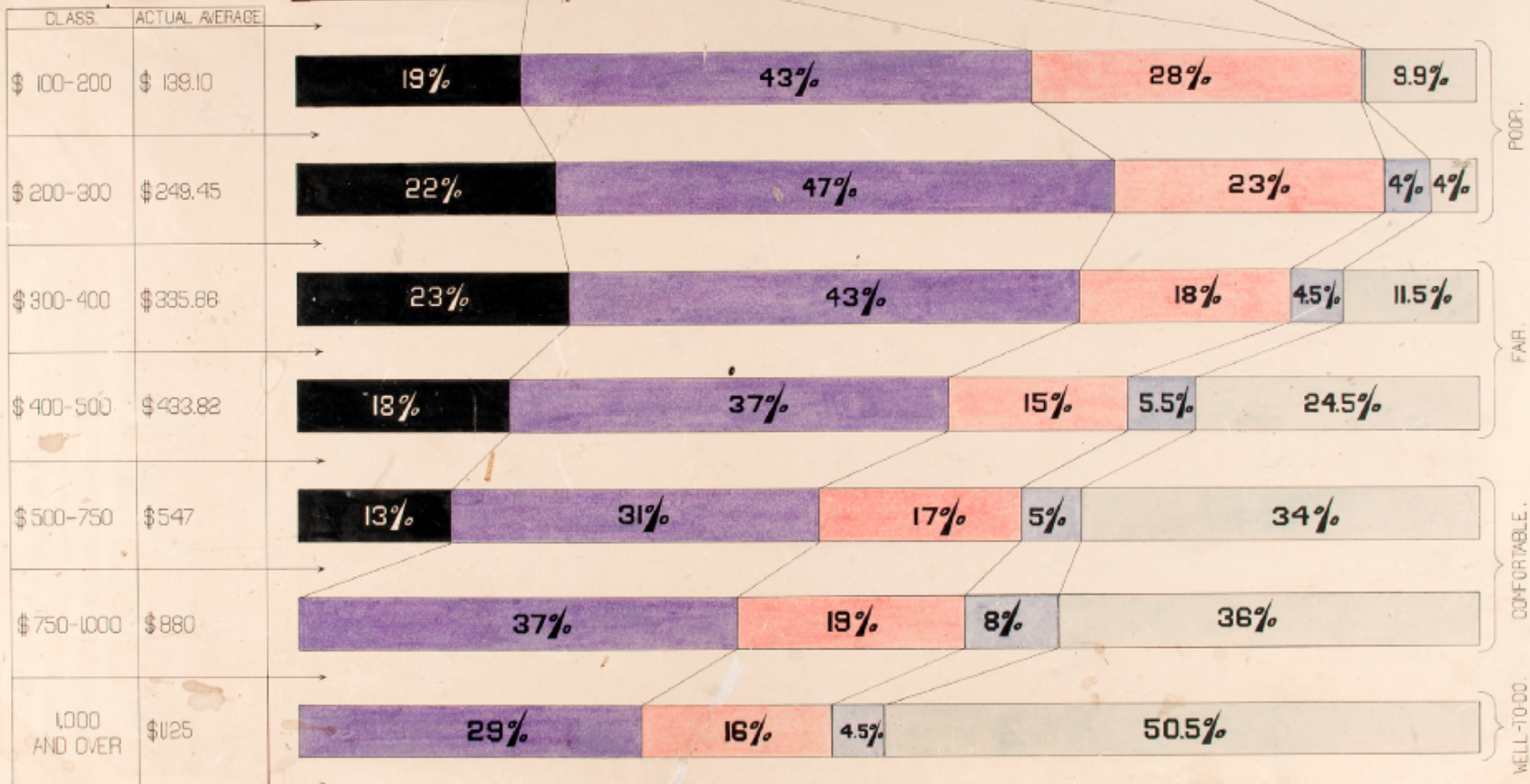


INCOME AND EXPENDITURE OF 150 NEGRO FAMILIES IN ATLANTA, GA., U.S.A.



ANNUAL EXPENDITURE FOR

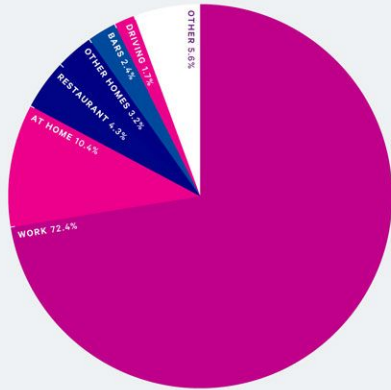
| RENT. | FOOD. | CLOTHES. | DIRECT TAXES. | OTHER EXPENSES AND SAVINGS. |
|--|--|---|--|--|
|  | DIETARY OF WELL-TO-DO NEGRO FAMILY FROM BULLETIN U.S. DEPARTMENT OF AGRICULTURE NO 71. |  | THE STATE TAX RATE IS: 1880-\$3.50 PER \$1,000 1895-\$3.50 1890-\$3.98 1895 \$4.56 1899 \$5.38 STATE AND COUNTY TAXES RAISE THIS TO \$81 PER \$1,000 IN ATLANTA. | THE HIGHER LIFE. RELIGION. ART. EDUCATION. SICKNESS. SAVINGS. AMUSEMENTS. BOOKS AND PAPERS TRAVEL. |



FOR FURTHER STATISTICS RAISE THIS FRAME.

With Ryan

EVERYWHERE



DAYS TOGETHER

79³/₄
471 different encounters

MOST TIME SPENT TOGETHER

- PALO ALTO** — 58% DAYS
- MANHATTAN** — 11 DAYS
- BROOKLYN** — 2% DAYS
- SAN FRANCISCO** — 1% DAYS
- MILL VALLEY** — 1% DAYS

MOST VISITED PLACE TOGETHER

Facebook 1601
194 visits

COFFEES ENJOYED WITH RYAN

269
92% filter coffees

SODAS CONSUMED WITH RYAN

Seven
4 Oranginas, 2 Coca-Colas and 1 Izze Soda

BAR VISITED TOGETHER

21
15 in New York City

TIME TOGETHER



Wednesday
22% of time together

DIFFERENT CITIES VISITED WITH RYAN

12
Barlingame, Cupertino, Menlo Park, Mill Valley, New York City, Palm Desert, Palm Springs, Palo Alto, Portola Valley, San Francisco, San Rafael and Sunnyvale

TIME SPENT WITH RYAN AND...

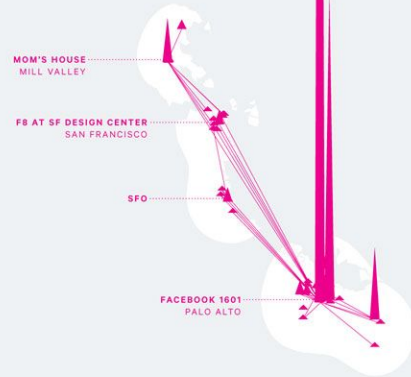
- OLGA** — 4% DAYS
- BONNIE** — 2% DAYS
- MATT** — 2% DAYS
- AMADOR** — 2 DAYS
- JESSICA** — 1 DAY

WEDDINGS ATTENDED TOGETHER

One
Aaron & Jessica's wedding

With Ryan

IN THE BAY AREA



DAYS TOGETHER IN THE BAY AREA

63¹/₄
Approximately 79% of time together

BAY AREA PLACES VISITED TOGETHER

59
16 restaurants, 7 homes, 6 bars, 4 offices, 3 gas stations, 3 parking lots, 3 shops, 2 airports terminals, 2 open houses, 2 outdoor places, 2 venues, 2 workplaces, a bank, a bowling alley, a grocery store, a liquor store, a parking garage, a racetrack and a rental car office

MEALS TOGETHER AT FACEBOOK

197
91% of meals out together in the Bay Area

TOP BEVERAGES IN BAY AREA WITH RYAN

- FILTER COFFEE** — 253 SERVINGS
- SIERRA NEVADA PALE ALE** — 47 SERVINGS
- COCONUT WATER** — 38 SERVINGS
- GRAPEFRUIT JUICE** — 19 SERVINGS
- CARROT JUICE** — 18 SERVINGS

OLDEST SCOTCH ENJOYED WITH RYAN

Chieftain's Springbank 40
To celebrate the launch of timeline

TIME TOGETHER IN THE BAY AREA



MOST FREQUENTED CITY TOGETHER

Palo Alto
Approximately 92% of time in the Bay Area

MOST VISITED BAY AREA PLACES

- FACEBOOK 1601** — 282 VISITS
- PALO ALTO APARTMENT** — 62 VISITS
- STANFORD VILLAS** — 24 VISITS
- SUNNYVALE APARTMENT** — 14 VISITS
- MOM'S HOUSE** — 9 VISITS

TOP SPORTING ACHIEVEMENT WITH RYAN

Five Strikes in a Row
June 1, 2011 at Bowlimor Cupertino

MOST VISITED RESTAURANT TOGETHER

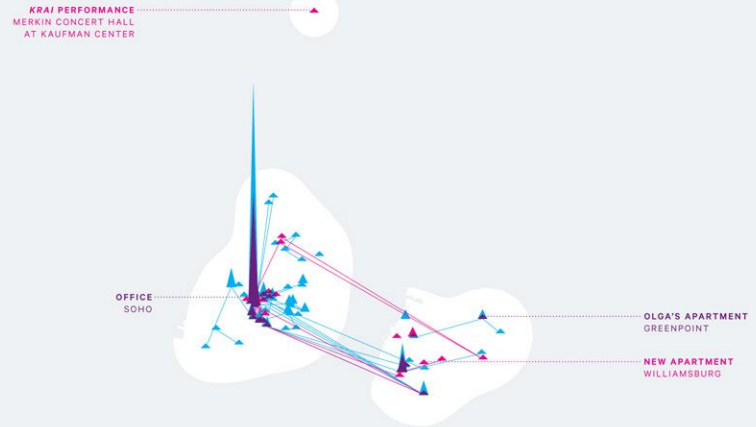
Palo Alto Sol
Visited 6 times

TOP SONG WITH RYAN IN BAY AREA

"Adult Goth"
By Gang Gang Dance — 36 listens

With Ryan

IN NEW YORK CITY



DAYS TOGETHER IN NEW YORK CITY

13¹/₂
Approximately 17% of time together

MOST VISITED NYC PLACES

- OFFICE** — 67 VISITS
- LA COLOMBE SOHO** — 10 VISITS
- RYAN & BONNIE'S APARTMENT** — 10 VISITS
- SPRING STREET NATURAL** — 5 VISITS
- MEXICAN RADIO** — 4 VISITS

TIME TOGETHER IN NEW YORK CITY



SONGS LISTENED TO WITH RYAN

1,513
2% of songs from *Reptilians* by Starfucker

NYC PLACES VISITED TOGETHER

73
30 restaurants, 15 bars, 6 homes, 5 outdoor places, 4 shops, 4 venues, 2 airport terminals, 2 delis, a cinema, a coffee shop, a hotel, an office and work

MOVIES SEEN IN NYC TOGETHER

Inception
With Olga & Bonnie — July 18, 2010

NYC BAR VISITED MOST TOGETHER

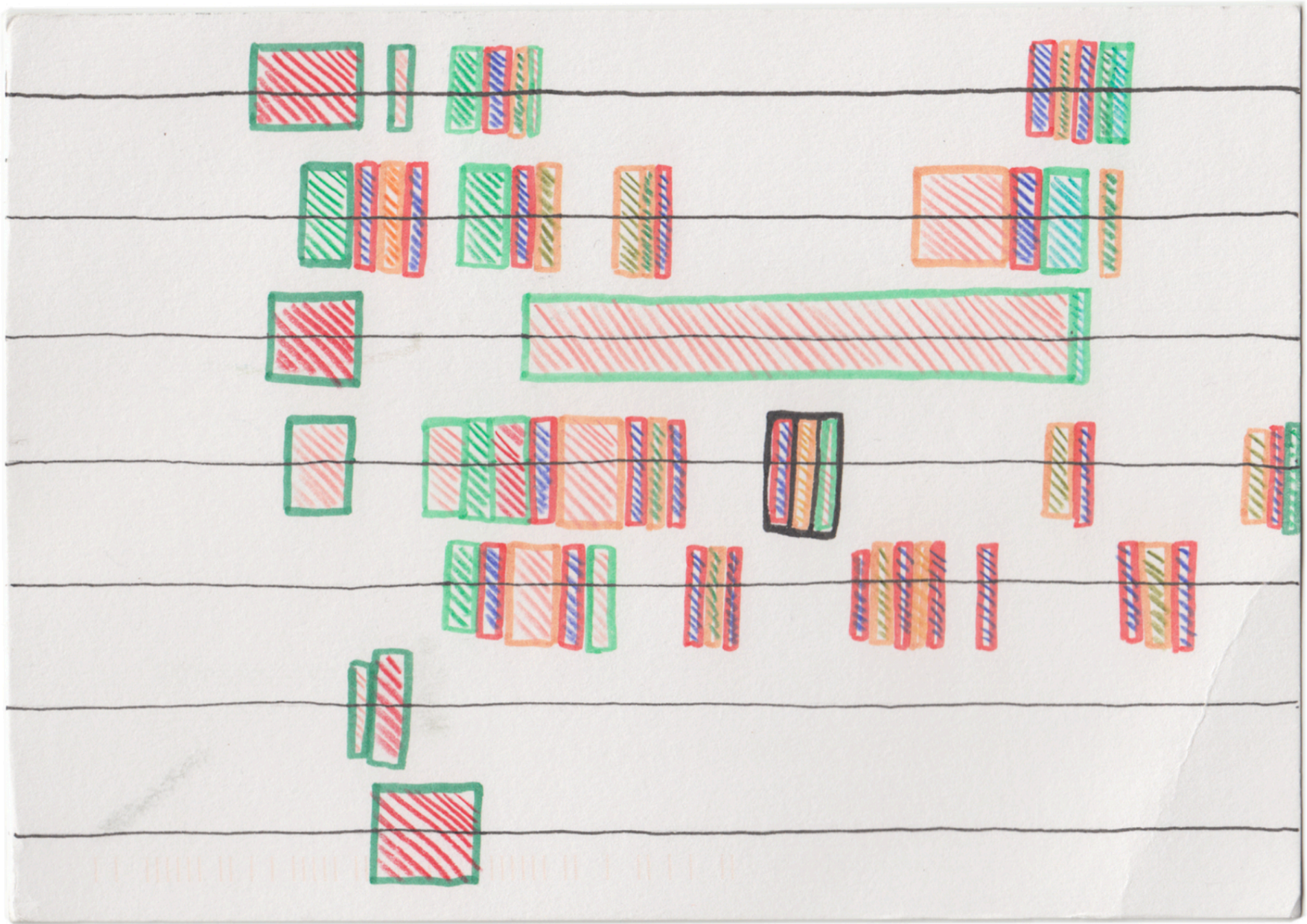
The Room
Visited 4 times

FAVORITE NYC BEER WITH RYAN

Guinness
9 servings

BEERS IN NYC AFTER MIDNIGHT WITH RYAN

2
Brooklyn IPA and a Negra Modelo

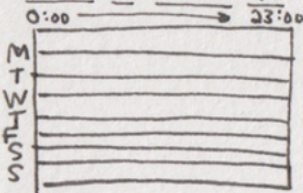



DEAR DATA - WEEK 30

A WEEK OF BEING ALONE

THE DATA: I COUNTED MOMENTS WHEN I WAS ALONE, ALONE BEING THAT I WAS IN A PLACE FILLED WITH STRANGERS OR IN A PLACE WHERE I WAS PHYSICALLY ALONE. I'VE ALSO DIFFERENTIATED BETWEEN BEING ALONE AND FEELING ALONE.

HOW TO READ IT:



EACH  REPRESENTS A TIME I WAS ALONE.

THE WIDTH OF THE BAR INDICATES THE LENGTH OF TIME I WAS ALONE IN THIS PARTICULAR SITUATION, SCALED TO THE WIDTH OF THE CARD (= 24 HOURS.)

WAYS I WAS ALONE:

-  IN HOUSE WITH HUSBAND ASLEEP
-  PHYSICALLY ALONE IN A SPACE
-  ALONE IN A SPACE FILLED W/ STRANGERS
-  ALONE IN A CITY OF STRANGERS (OUTSIDE)
-  THE ONLY TIMES I FELT EMOTIONALLY ALONE

WHAT I WAS DOING WHEN I WAS ALONE:

-  EXERCISING
-  SHOPPING
-  WORKING
-  DEAR DATA!
-  WASTING TIME ON INTERNET
-  MORNING/ EVENING ROUTINES
-  WALKING
-  TRAVELLING (PUBLIC TRANSPORT)
-  BUYING/ PREPARING FOOD, GETTING COFFEE

TOP 3 ACTIVITIES I DID WHILE ALONE THIS WEEK:

- ① WORK - 17:11 (I WORK FROM HOME WHEN I'M LAZY)
- ② DEAR DATA - 6:56 (I GET UP EARLY TO DRAW)
- ③ WALKING - 5:46 (I WALK TO/FROM MY STUDIO)

FROM:
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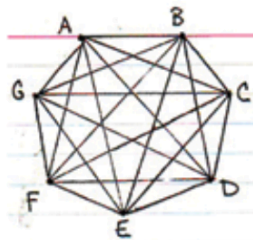


TO: GIORGIA LUPI

BROOKLYN, NY 11249

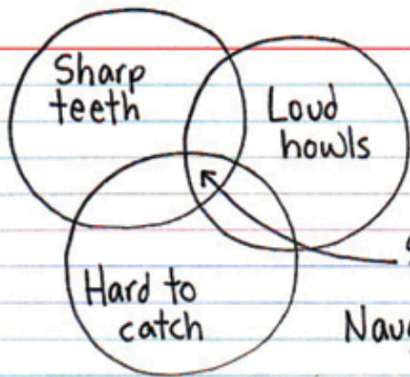
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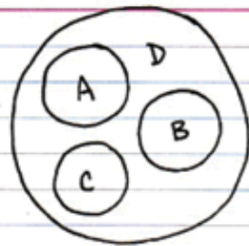


A = Lust
 B = Gluttony
 C = Greed
 D = Sloth
 E = Wrath
 F = Envy
 G = Pride

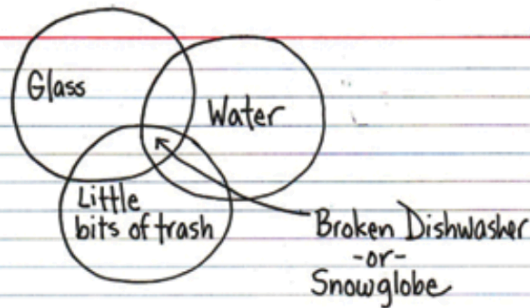
AB = Edible Undies CF = Advertising
 AC = Prostitution CG = Status Symbols
 AD = Quickie DE = Passive Aggression
 AE = Domestic Abuse DF = Welfare
 AF = Adultery DG = Slackers
 AG = Trophy Wife EF = Cattiness
 BC = Last Donut EG = Boxing
 BD = Saturday GF = 2nd Place
 BE = Bulimia
 BF = High Metabolism
 BG = Fat men in Speedos
 CD = Get Rich Quick Scams
 CE = Muggings



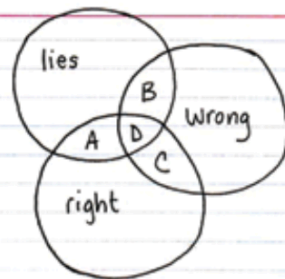
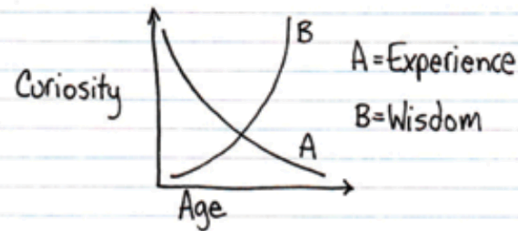
Stray dogs
 -or-
 Naughty children



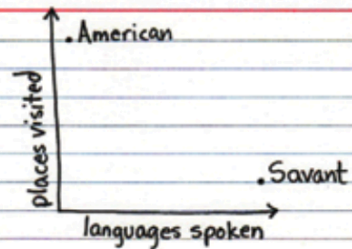
A = Striptease
 B = Limbo
 C = Polka
 D = Dances involving Poles

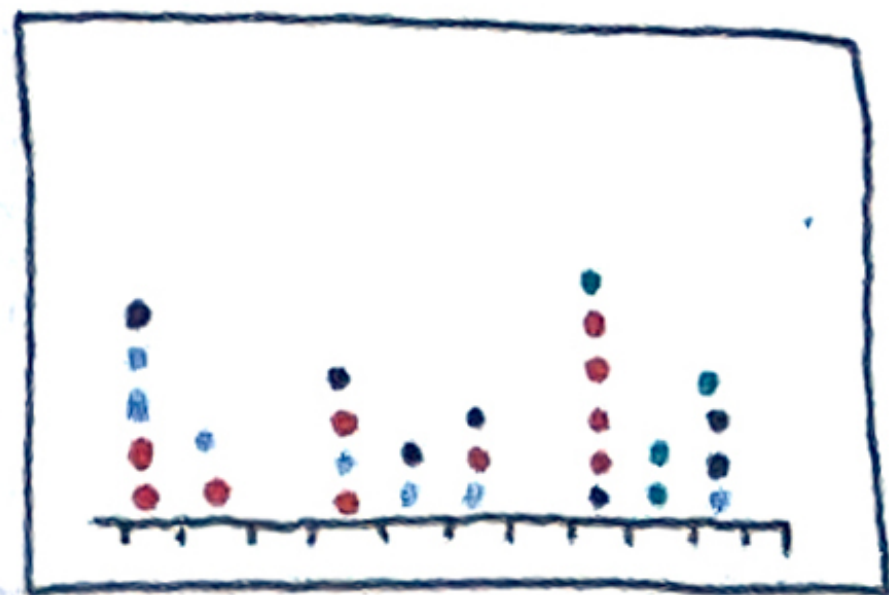


Broken Dishwasher
 -or-
 Snowglobe



A = "You don't look fat at all"
 B = "I'm not drunk, ocifers"
 C = turning on red in London
 D = "We're winning in Iraq"





... IN CHRONOLOGICAL
ORDER..



The Fallen of World War II

Watch on youtube: <https://www.youtube.com/watch?v=DwKPFT-RioU>

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Hans Rosling | TED@State
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The deadline to deliver a complete first version of two or three new graphics representing data from your spatial graphic is: Friday, June 3, 2022. 17:00 hours.

Add your work to the Miro board:

https://miro.com/app/board/uXjVO8fTpio=?share_link_id=995166510691

project 3

Have fun!