

SKETCHING

TUTORIAL

Jiayi Hong

Sketches are...

- quick, freehand drawings
- can include labels or captions
- don't need to be pretty

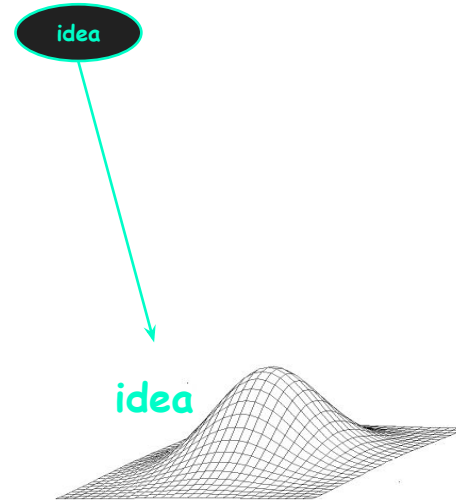
- goal:
 - for communication
 - for brainstorming

*try to communicate ideas
with as few lines (as little
“ink”) as possible!*

WHY SKETCHES?

getting the design right

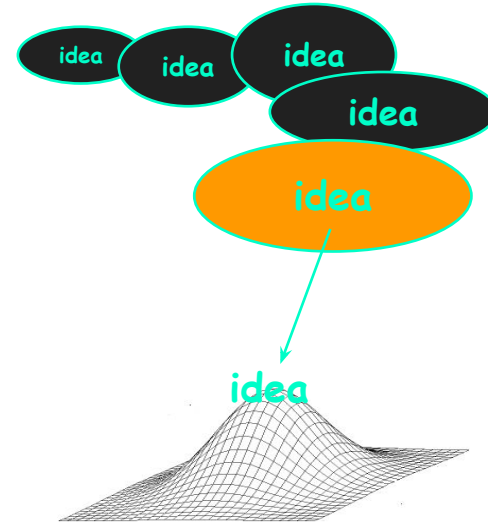
- generate an idea



WHY SKETCHES?

getting the design right

- generate an idea
- iterate and develop it



but is it the best idea?

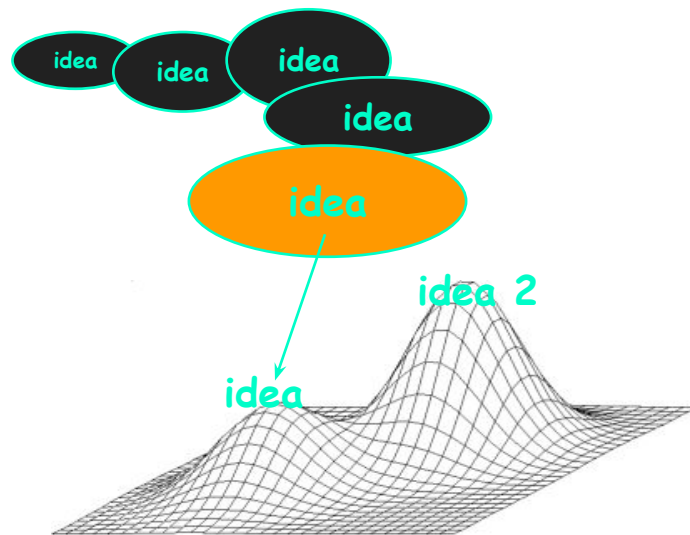
WHY SKETCHES?

getting the design right

- generate an idea
- iterate and develop it

The problem

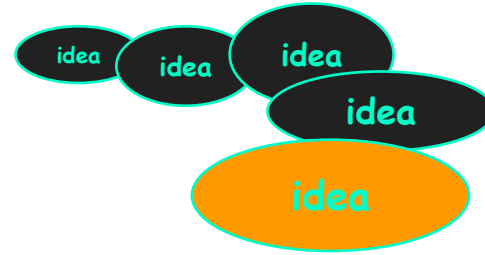
- other better solutions may be available in different ideas
- local vs. global maxima (local hill climbing)
- often results from fixating on a single idea



WHY SKETCHES?

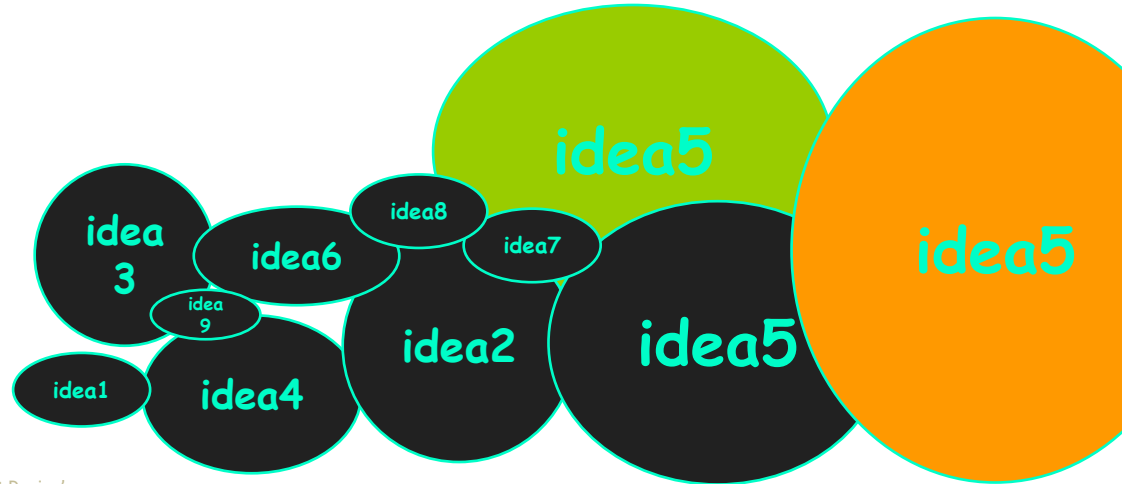
getting the design right

- generate an idea
- iterate and develop it

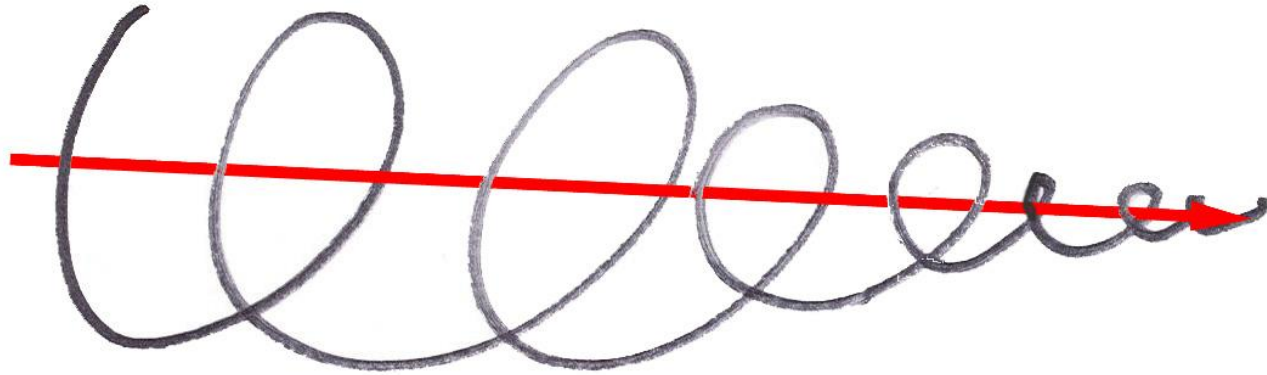


getting the right design

- generate many ideas and variations
- reflect and choose
- *then* iterate and develop your choice



EXPLORATION OF A SINGLE IDEA



THE ATTRIBUTES OF SKETCHES

quick

- to make

timely

- provided when needed

disposable

- investment in the concept, not the execution

plentiful

- they make sense in a collection or series of ideas

clear vocabulary

- rendering & style indicates it's a sketch, not an implementation

constrained resolution

- no higher than required to capture its concept

consistency with state

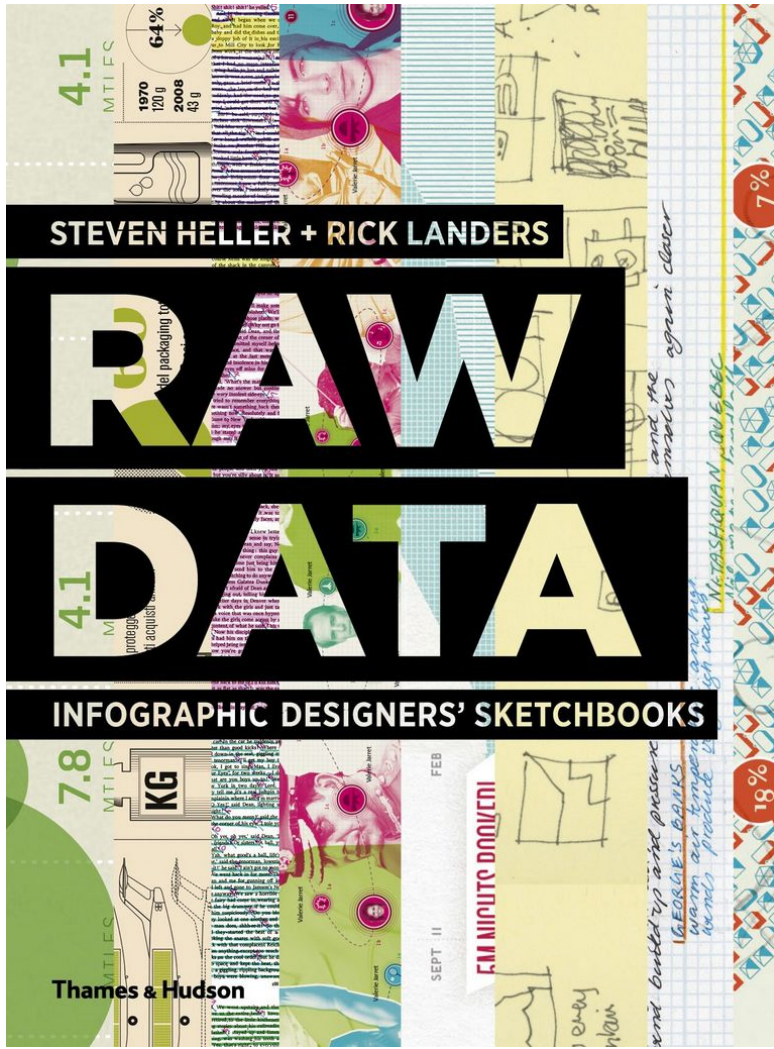
- refinement of rendering matches the actual state of development of the concept

suggest & explore rather than confirm

- value lies in suggesting and provoking what could be i.e., they are the catalyst to conversation and interaction

a catalyst

- evokes conversations and discussion



"Drawing plays an important role in the production and communication of knowledge, and in the genesis of new ideas," says design director Giorgia Lupi, founder of Accurat, an information design agency with offices in Milan and New York. "In addition, the act of drawing and the fact we choose to stop and draw focuses the attention. When I'm sketching, I always try to find a way to interpret both the single visual elements and the overall composition."

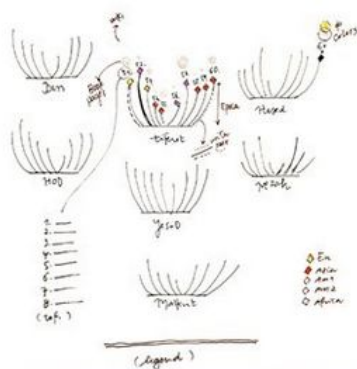
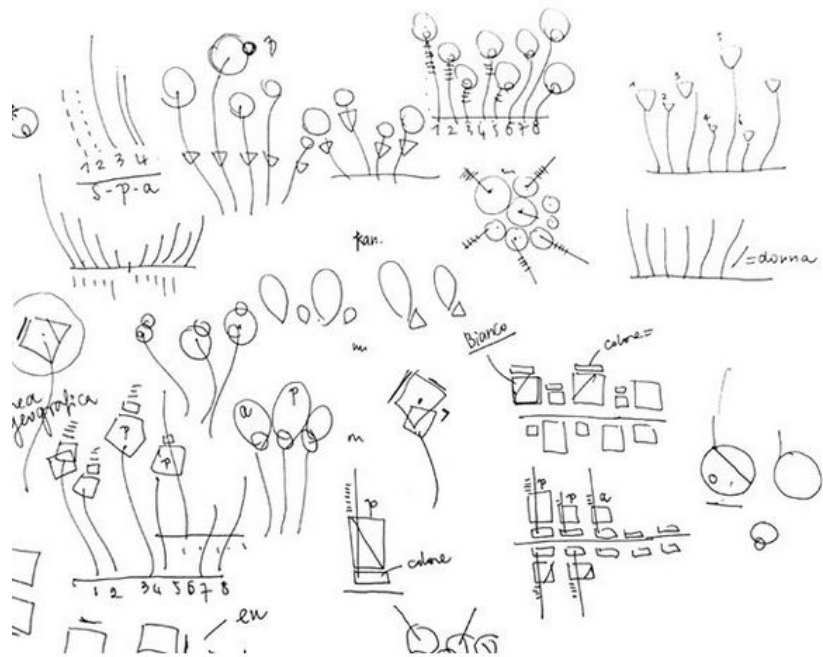
Lupi draws on white paper with Muji black-ink pens. Drawing is her primary expression, a "functional tool for capturing

and exploring thoughts and exploring ideas towards the production of the final piece". Her team approaches problems in the way that journalists would, rather than as data analysts, understanding in which contexts they must interpret their data.

When describing Geniuses, Visualized, the company's project for *La Lettura*, a magazine supplement in the Italian newspaper *Corriere dello Sera*, Lupi says: "We aim to deliver rich visual narratives, able to maintain the complexity of the data but still making this complexity more accessible and understandable through the visualization."

They also provide several layers of exploration on the data set being analysed. "We call it "non-linear storytelling", Lupi says, "where people can get lost in singular elements, minor tales and "last-mile" textual elements within the greater visualization."

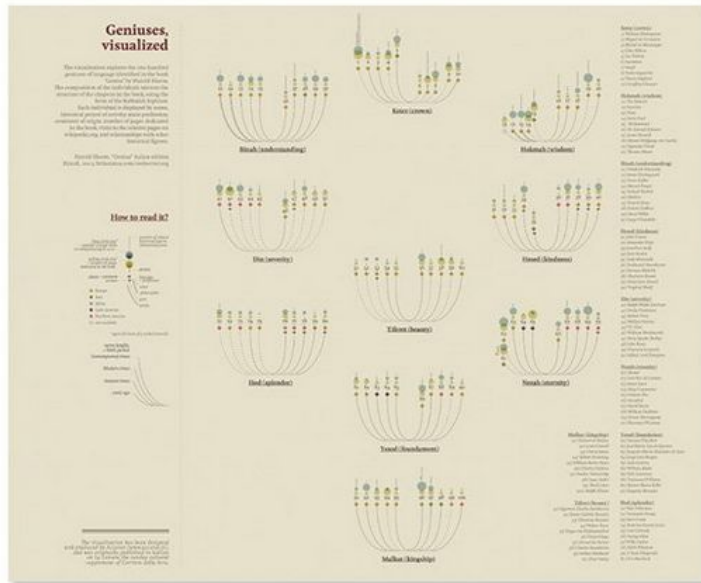
Lupi and her team regularly push the boundaries on how to "compose" data-visualizations that achieve aesthetic beauty and elegance through new visual metaphors, intentionally avoiding the more usual and already tested styles of representation.

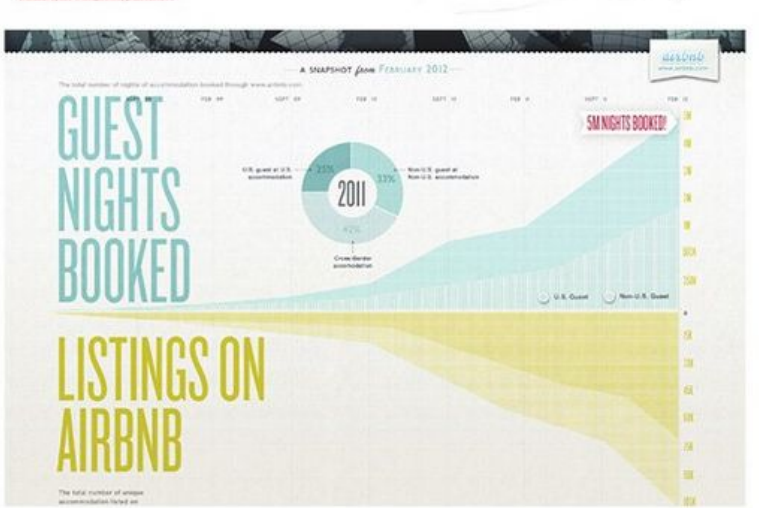
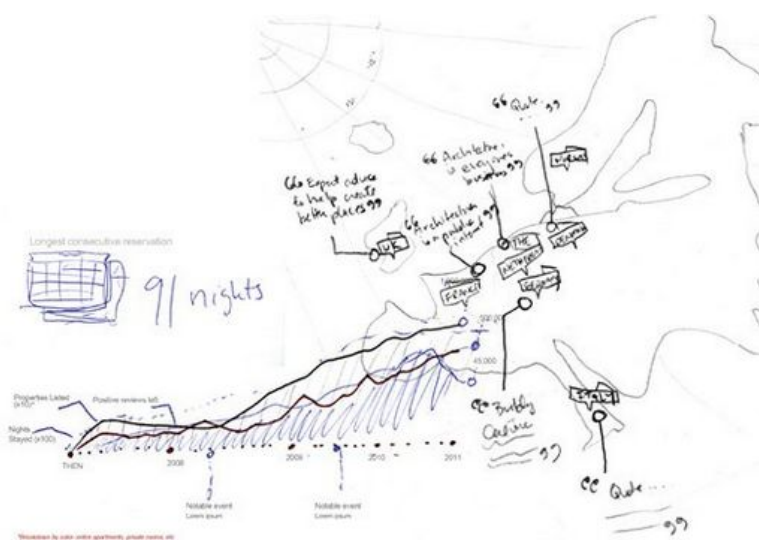
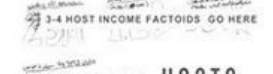
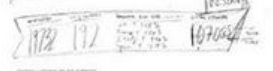
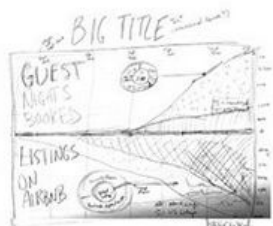


Geniuses, Visualized

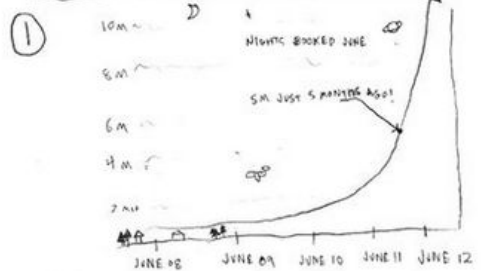
La Lettura, 2012

This infographic looked at the 100 "exemplary creative minds" identified in literary critic Harold Bloom's book *Genius*. Flaying off Bloom's use of the Sefirah, the ten emanations of the Kabbalah, to organize the taxonomy of his chosen "geniuses" of language - from Shakespeare to Lewis Carroll - the visualization depicts the geographic origin, time period and field of each genius, correlated with number of Wikipedia hits and connection to related historical figures.





AIRBNB BRINGING THE WORLD TOGETHER



10 MILLION GUEST NIGHTS BOOKED

2 A NIGHT ON AIRBNB IS BOOKED...

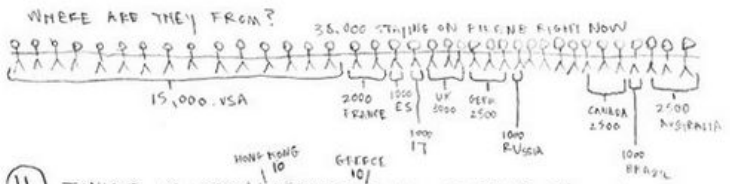
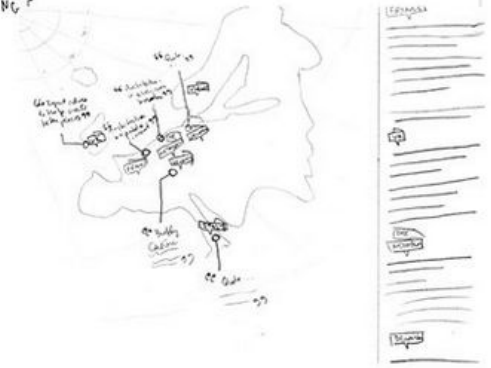
2008: 7 MINUTES
2009: 6:00 MINUTES
2010: 1 MINUTE
2011: 30 SECONDS
2012: 15 SECONDS
EVERY 2 SECONDS



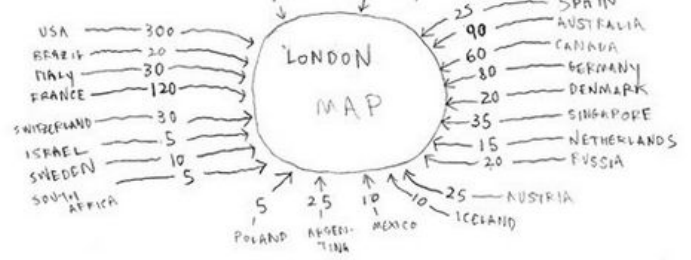
TOOK YOU TO READ THIS, SOMEONE BOOKED A WEEK'S AIRBNB. IN FACT, IT WAS THIS GUY:

HE'S GOING TO (GUY IN GARDEN COUNTRY)

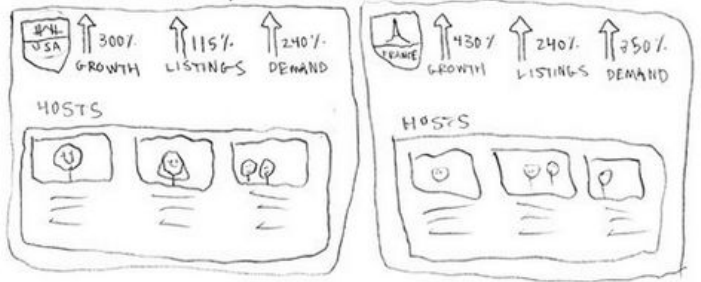
READ THIS, 38,000 PEOPLE ARE STAYING ON AIRBNB. ANYING?



4 TONIGHT, IN LONDON, 1200 PEOPLE WILL BE STAYING ON AIRBNB. WHERE ARE THEY COMING FROM?



5 INTERNATIONAL GROWTH - IN THE LAST YEAR THE AIRBNB COMMUNITY HAS GROWN...



0-TICKET COUNTRIES

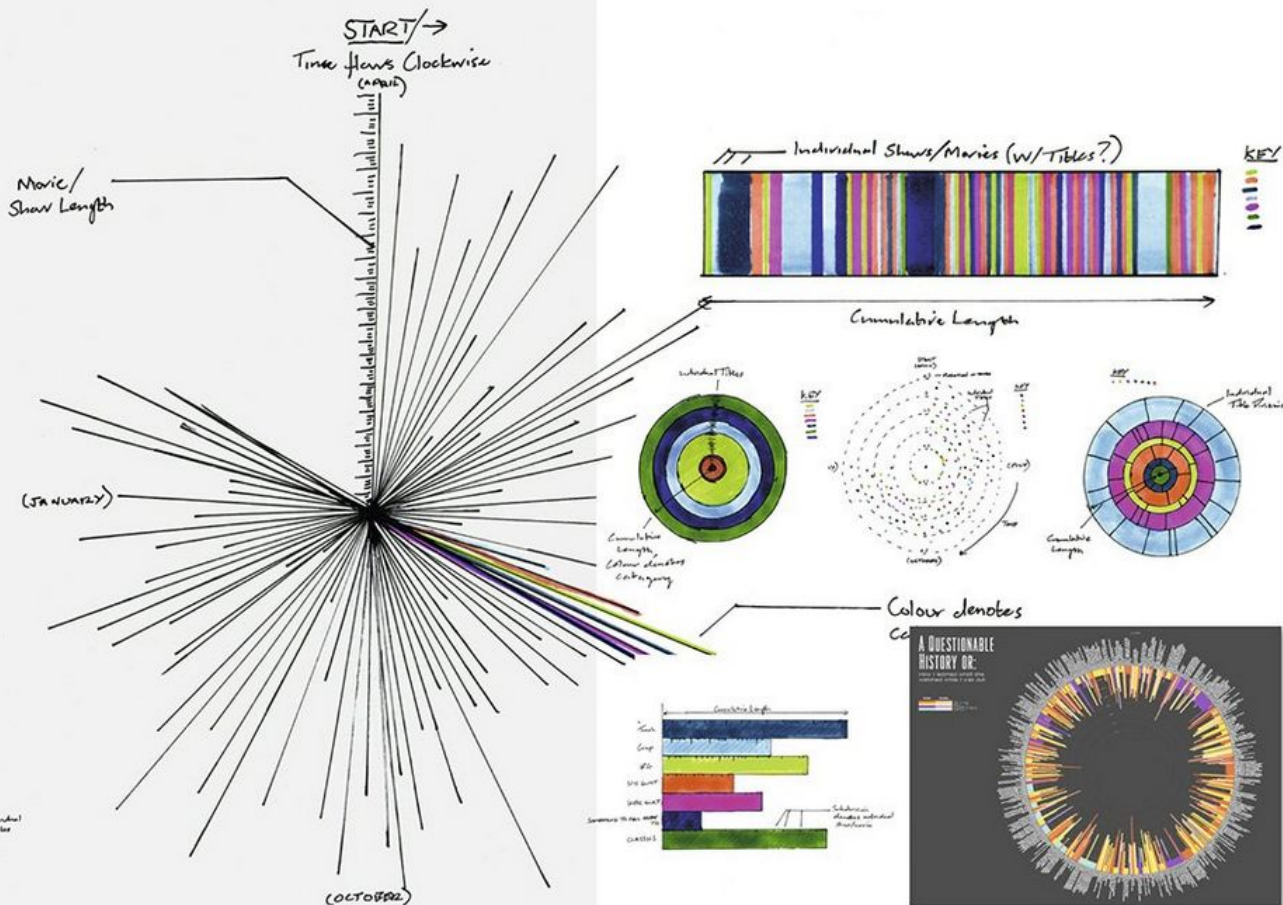
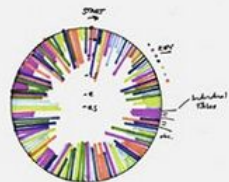
Tim Hucklesby

● Charting his own movie viewing over a year

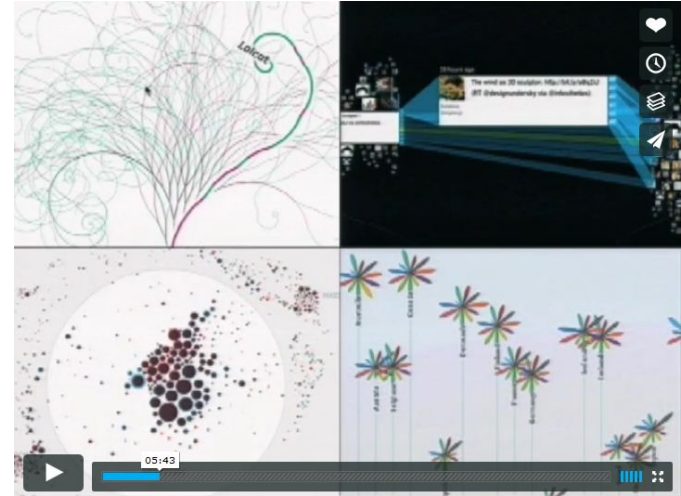
British-born Tim Hucklesby, now a designer at Doyle Partners in New York, first began designing infographics a few years ago, when he wanted to round out his portfolio before applying to the MFA Design programme at the School of Visual Arts. 'I kept designing them because I wasn't happy with the first one, and discovered that they were, in fact, pretty tough to make,' he admits. 'I always want the core idea to be a quick read, as well as encouraging the viewer to keep digging. I tend to slip up on at least one of these criteria, so will keep trying.'

Hucklesby always embarks on a project by sketching in pen or pencil, whatever is to hand. 'I want get the concept pinned down before moving to the computer,' he says. 'I've found going straight to the machine tends to pull me down certain avenues, using techniques that I've used in the past. If I start on paper, I worry far less about how I'm going to make the finished piece and aim for something a bit more ambitious as a result.'

Of the visualization of his Netflix streaming consumption, *A Questionable History* (these pages), Hucklesby says: 'In the process of sorting the data, I found a great number of movie titles I didn't recognize, which turned out to be what my wife was watching while I was out. She was catching up on TV and films I wouldn't watch with her. In the end, the project was a public shaming of both of us and our viewing habits. It also served as a wake-up call to get out more.'



Watch this video at home



<https://vimeo.com/28443920>

SKETCHING

Workshop

BUT: “I CAN’T DRAW...”

SOME PRINCIPLES FOR SKETCHING

- use as few lines as you can
- communicate the essence of the idea
- details only if they are important
- choose the detail you put in deliberately

SKETCHING WARMING-UP ACTIVITY (5 MINS)

- Quickly express the idea
- Each exercise is 30 seconds
- One page per sketch

SKETCHING

Principles

- Use as few lines as you can
- Communicate the essence of the idea
- Details only if they are important
- Choose the detail you put in deliberately

Exercise

Sketch a
cellphone
(30s)

30



SKETCHING

Principles

- Use as few lines as you can
- Communicate the essence of the idea
- Details only if they are important
- Choose the detail you put in deliberately

Exercise

Paris (30s)

30



SKETCHING DATA

SKETCH THE RELATIONSHIP BETWEEN TWO NUMBERS

(10 MINUTES)

75 37

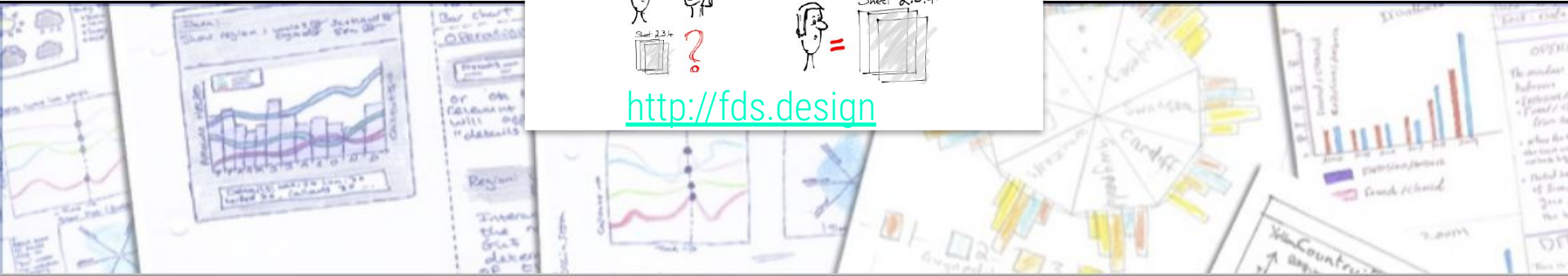
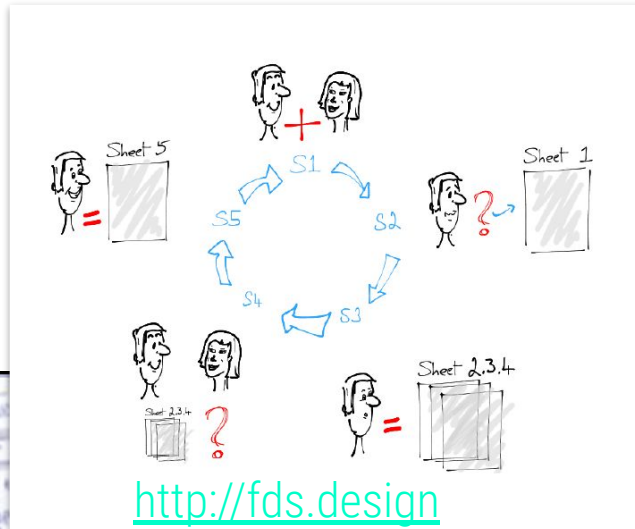
(there are at least 45 different ways)

GENERAL ADVICE

Get to know your data first

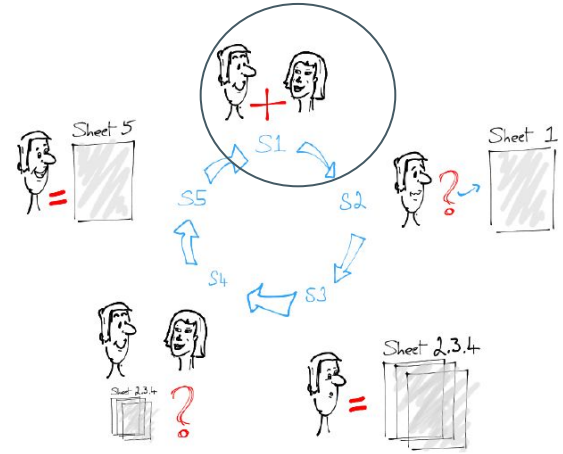
- what attributes are included? How do the attributes relate to each other?
- what are the types of attributes included?
- can I derive new attributes from the existing attributes?
- what questions does the data trigger in you? Write them down

THE 5 DESIGN SHEET METHODOLOGY

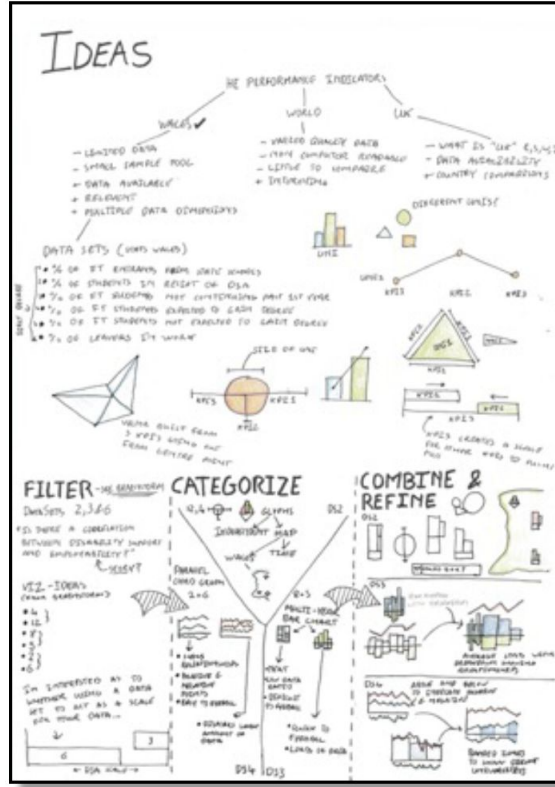
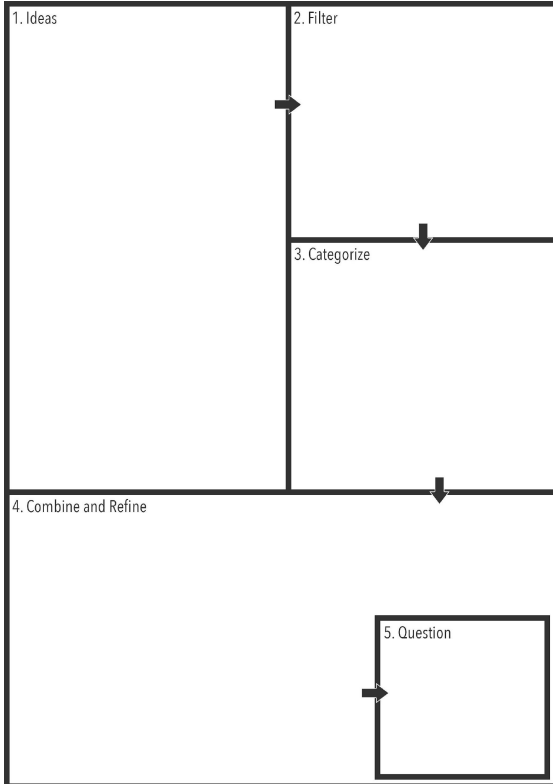


STAGE 1

- Consider the task
 - if you have a client – meet them
 - try to understand the tasks
- Understand the data
 - meaning of attributes
 - types of attributes
 - static/dynamic properties
 - range & distribution
- Start to come up with possible questions the vis should answer



SHEET 1: IDEATION



Rules of Brainstorming

1. Don't criticize
2. Don't evaluate.
3. Generate-generate-generate.
4. Ideate the whole design space.

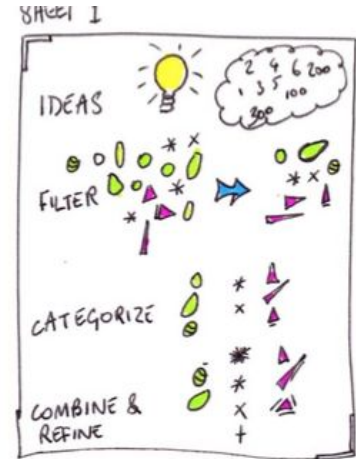
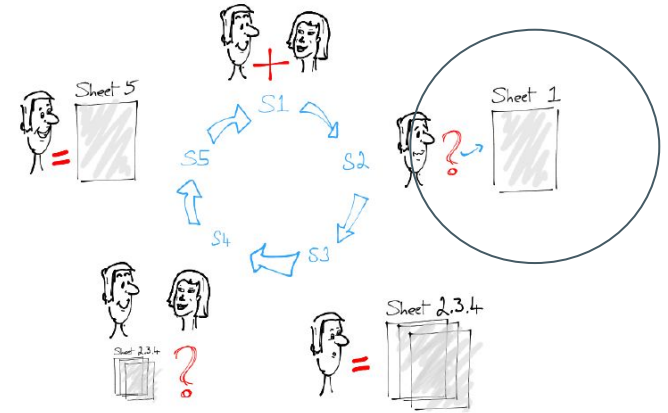
YOUR NEXT ASSIGNMENT

starts here: Stage 2

STAGE 2

Brainstorm

- **Generate** (mini) ideas, sketch
- **Filter:** remove ideas that are too similar
- **Categorize:** put similar ideas together
- **Combine & Refine:** organize mini-ideas into bigger solutions
- **Question:** question your solutions

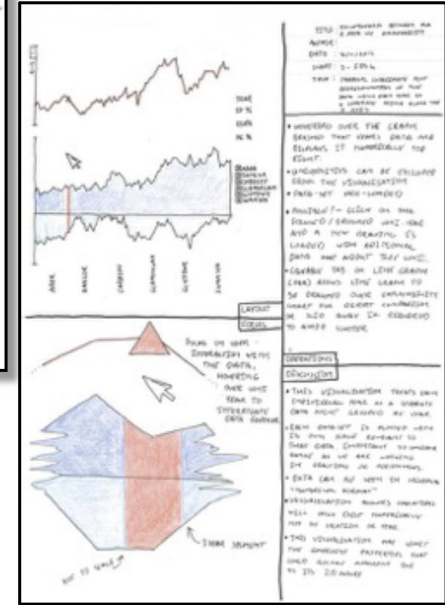
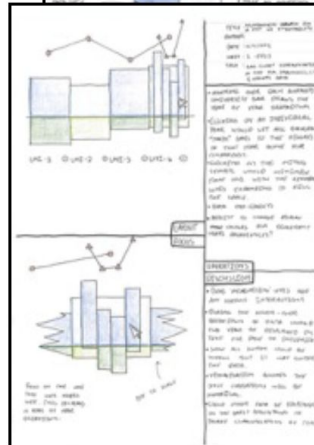


EXERCISE

- Work on your own dataset from assignment 1 & 2

STAGE 3 - SHEET 2, 3, 4

Layout	Title:
	Author:
Operations	Date:
	Sheet:
Focus	Task:
	Discussion



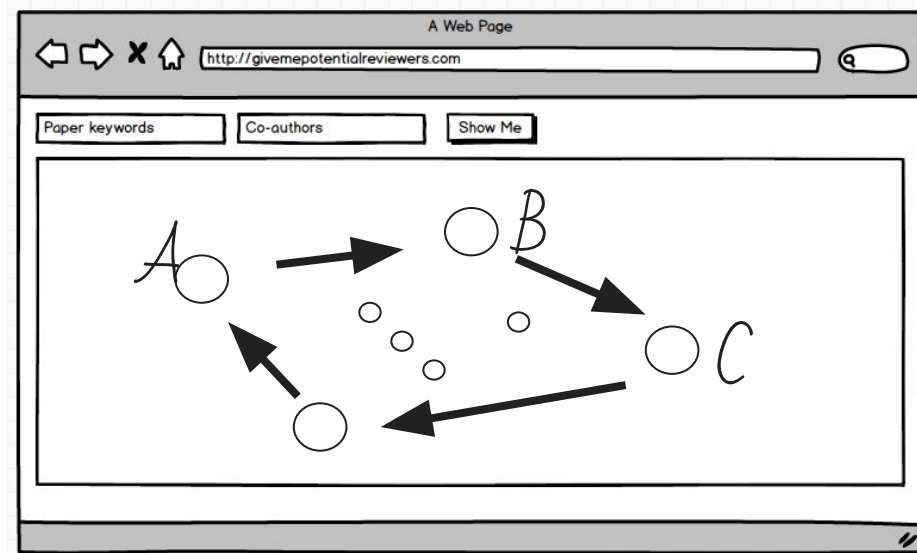
Sheets 2,3,4

STAGE 3

Create 3 alternative designs which contain:

- layout of the design

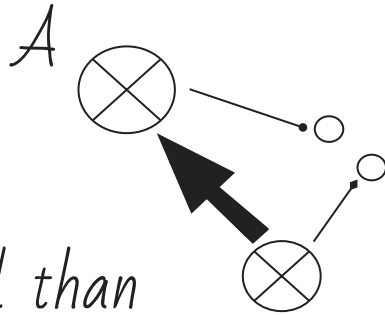
*can but doesn't
have to
be hand-drawn*



STAGE 3

Create 3 alternative designs which contain:

- focus: show the key vis techniques
- add labels to explain where necessary

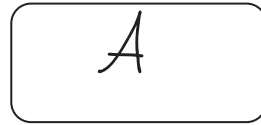
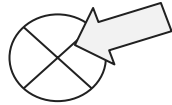


*give more detail than
in the layout view*

STAGE 3

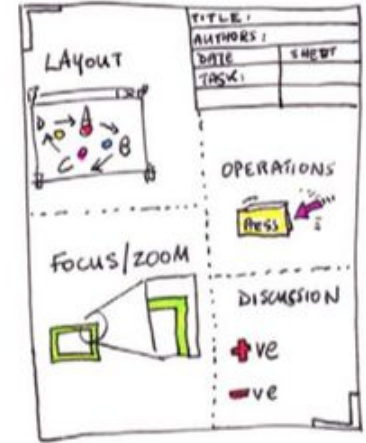
Create 3 alternative designs which contain:

- operations: how do people use your vis?
- draw or describe



Click: detail-on-demand

SHEET 2,3,4

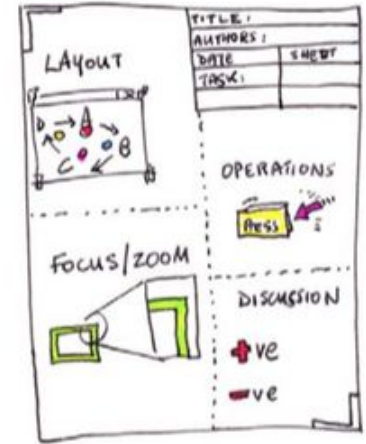


STAGE 3

Create 3 alternative designs which contain:

- discussion: advantages & disadvantages
 - write down some pros and cons of this particular design

SHEET 2,3,4

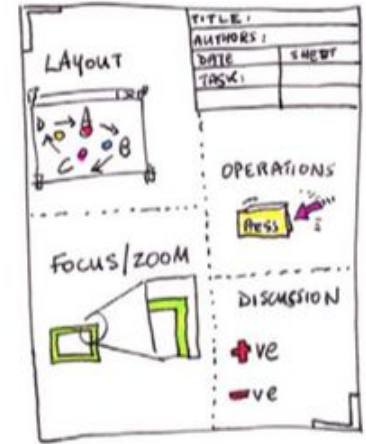


STAGE 3

Create 3 alternative designs which contain:

- meta-info
 - your group name,
 - dataset name

SHEET 2,3,4



EXERCISE

- Take out a sheet of paper and pens
- Work on your own dataset from assignment 1 & 2
- Go to:
<https://docs.google.com/presentation/d/1xfmuSOIV0NB3oyMPcOYMYInaKV9GDRFILGuo5p5tklc/edit?usp=sharing>

And share your sketches

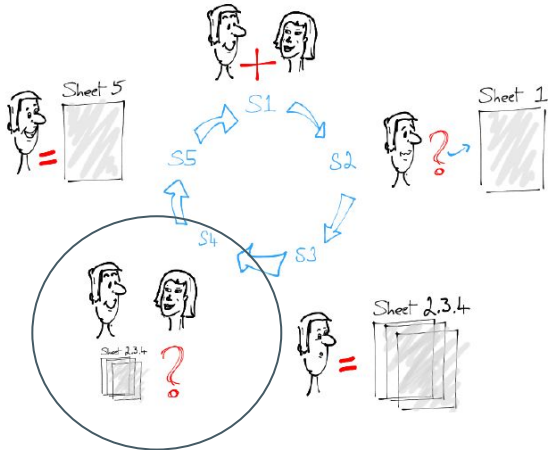
DISCUSSION (10-15 MINS)

- post up your sketches (at least one person in one group)
- what worked well?
- what didn't work well?
- what things were important to communicate the idea?
- what wasn't important to communicate the idea?
- Note: DO NOT “defend” your sketch (better yet: don't identify it is yours). Remember that your peers are the “users” of your sketch. If they find something incomprehensible, this is telling you something.

STAGE 4

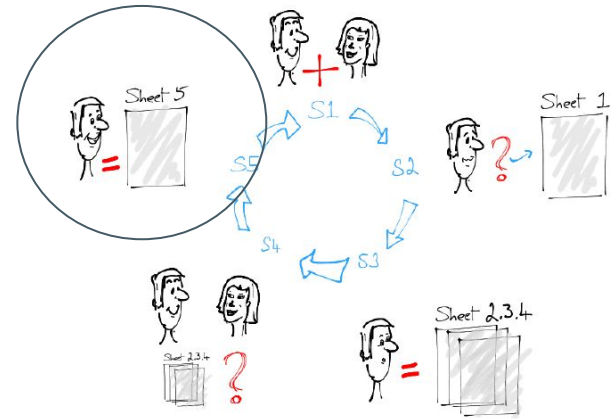
Consider the created designs

- reflect (go back to your tasks & data)
- discuss with client / end users (if you can)



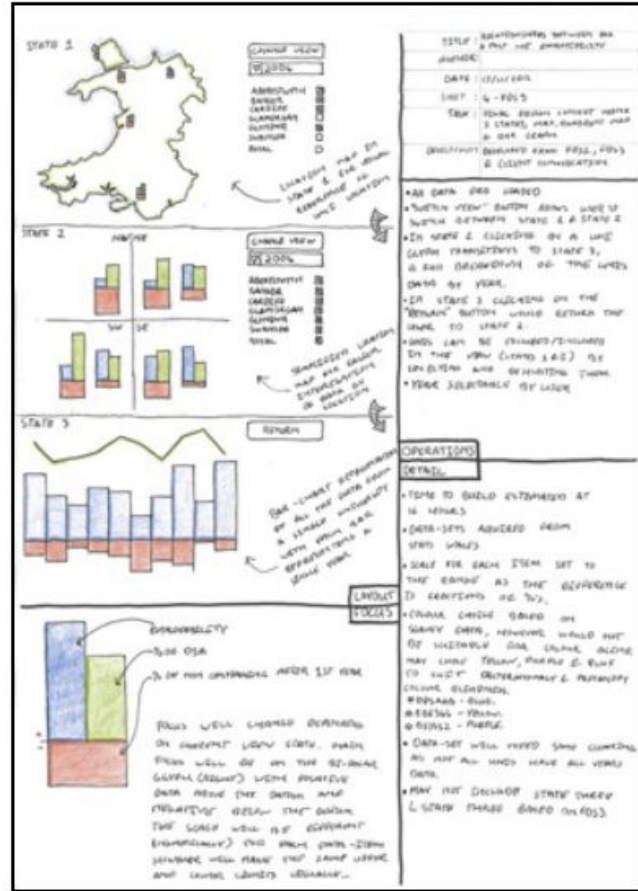
STAGE 5

Refine and merge ideas into final design



SHEET 5

Layout	Title: Author: Date: Sheet: Task:
	Operations
Focus	Detail



ASSIGNMENT 3

1. Design workshop - Deadline: March 2, 2022, 23:59

Each student should come up with one sketch → Brainstorming →

Submit the final sketch for the team (and sketch of each member in the other file)

Do not include your team name or your own name on the final sketch

2. Peer review - Deadline: March 9, 2022, 23:59

We will send e-mail, assign two random projects, and the evaluation from at latest on Friday March 4.