

Your Creative Process. Making & Documentation

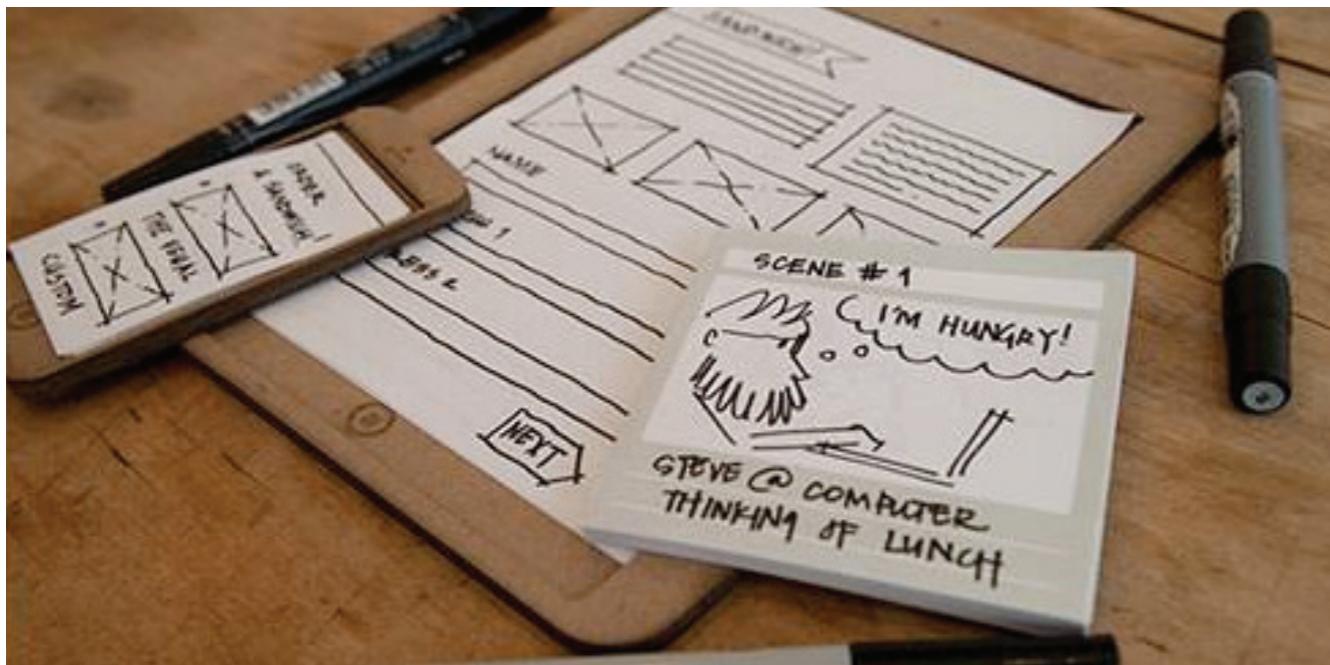
First: Prototyping.

“Prototyping helps us to find the middle ground between overspending and overthinking.”

— UX designer Matt Tyas



The word “prototype” comes from the Greek word prototypos, a compound of protos (“first”) and typos (“mold,” “pattern,” “impression”).



- » Raw presentation of our ideas
- » Requires less time, specialized skills and resources
- » Opens a conversation users' needs, designers' intentions and the goals of stakeholders

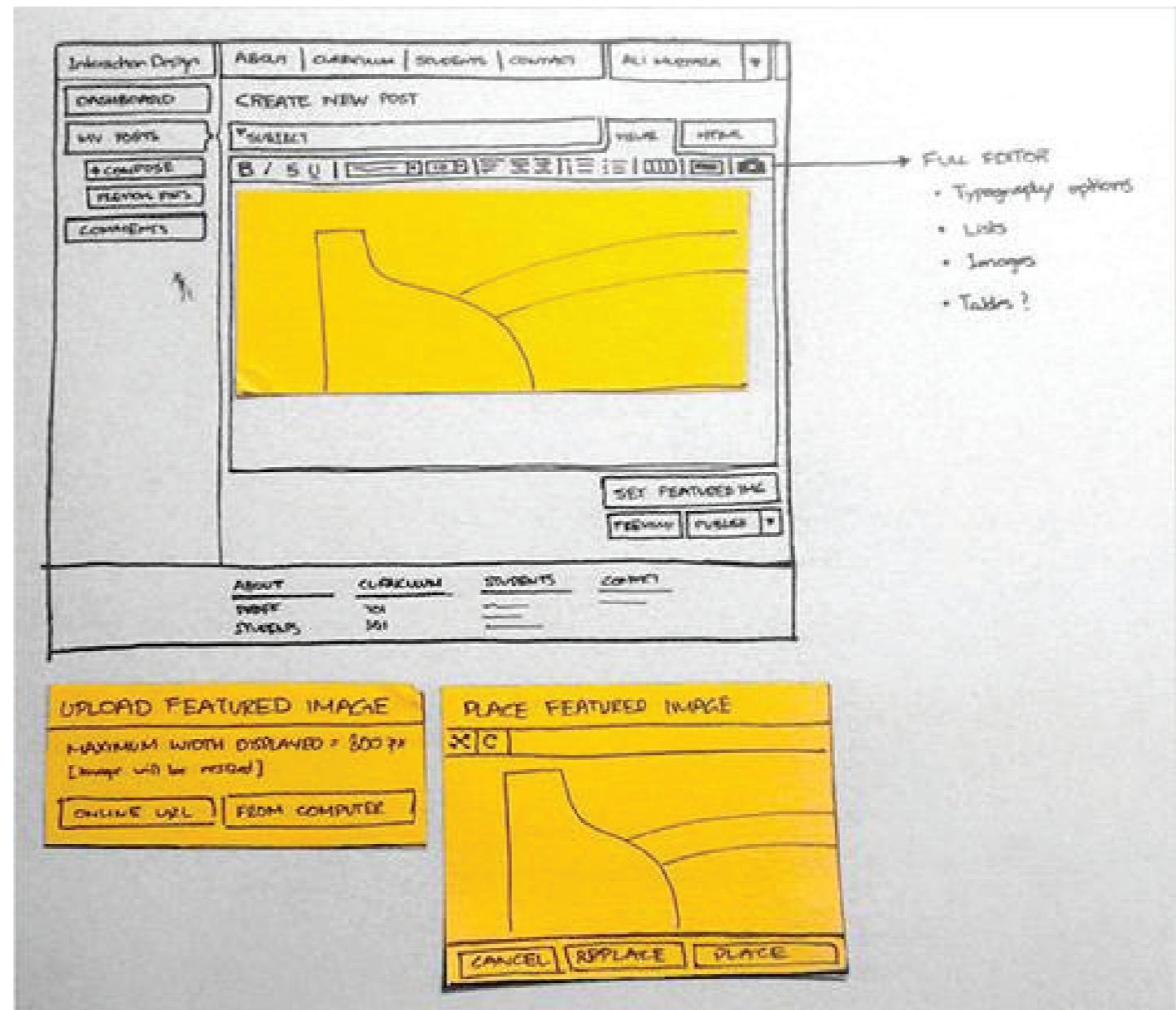
Where should you invest your time learning?

Where should you avoid investing it?

Which features will be key for the concept?

What are your next steps?

- » Build cheaply and easily
- » Low-tech methods
- » Iterate more willingly
- » Continually evolve your concepts
- » Shameless, stress-free iteration



3D prototypes imply interaction

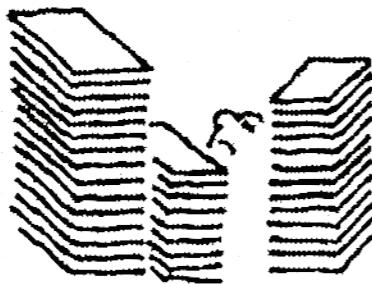
- » Low-tech tools and methods
- » Encourage manipulation
- » Add realism promote feedback



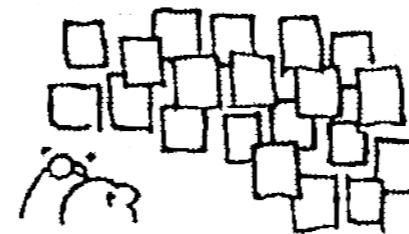
The Creative Process.

THE FOUR CARDINAL RULES FOR BETTER LOOKING

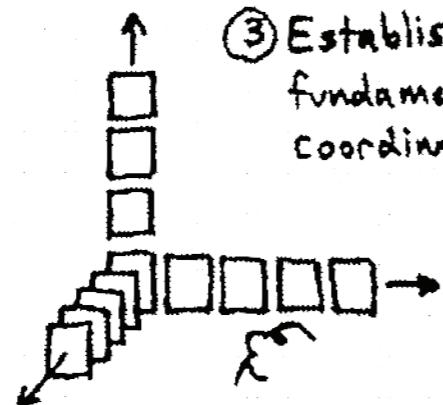
- ① Collect everything you can.



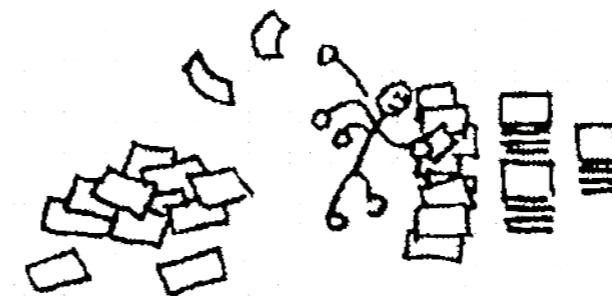
- ② Lay it all out where you can look at it.



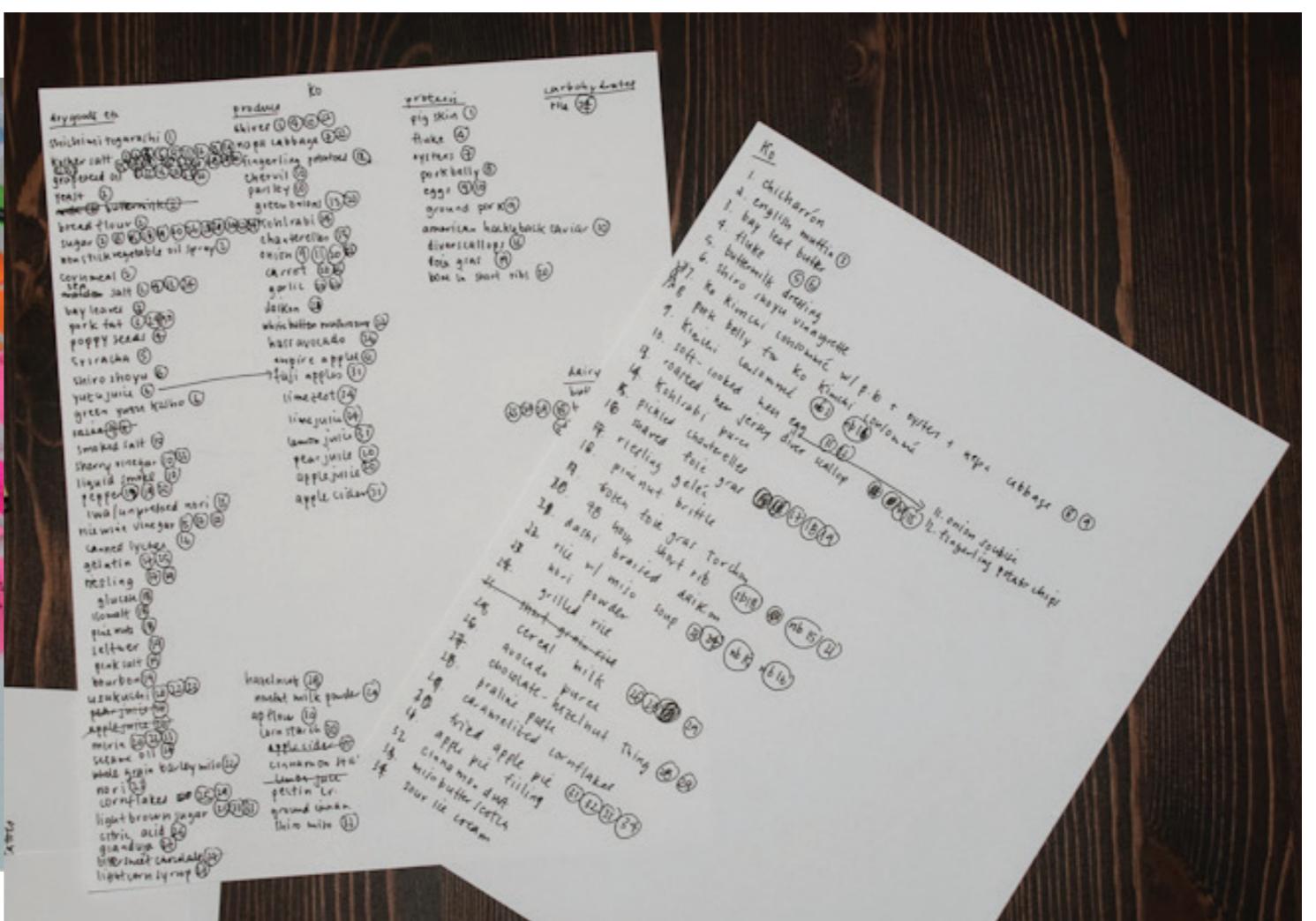
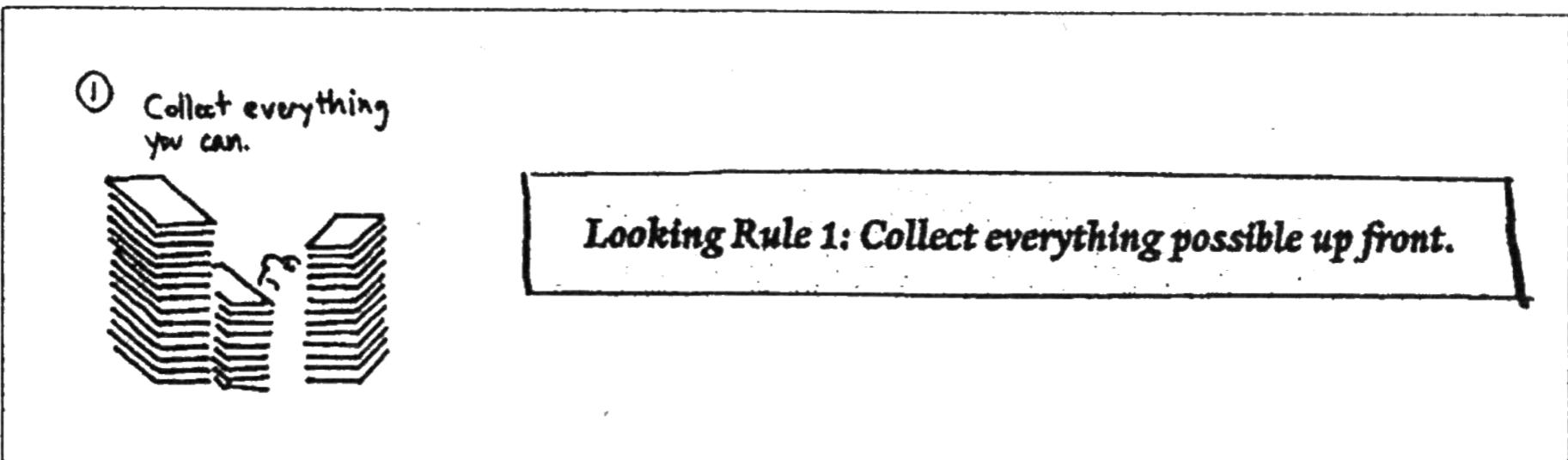
- ③ Establish fundamental coordinates.

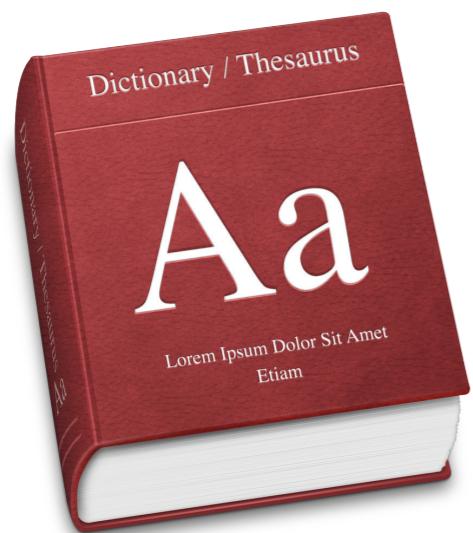


- ④ Practice visual triage.



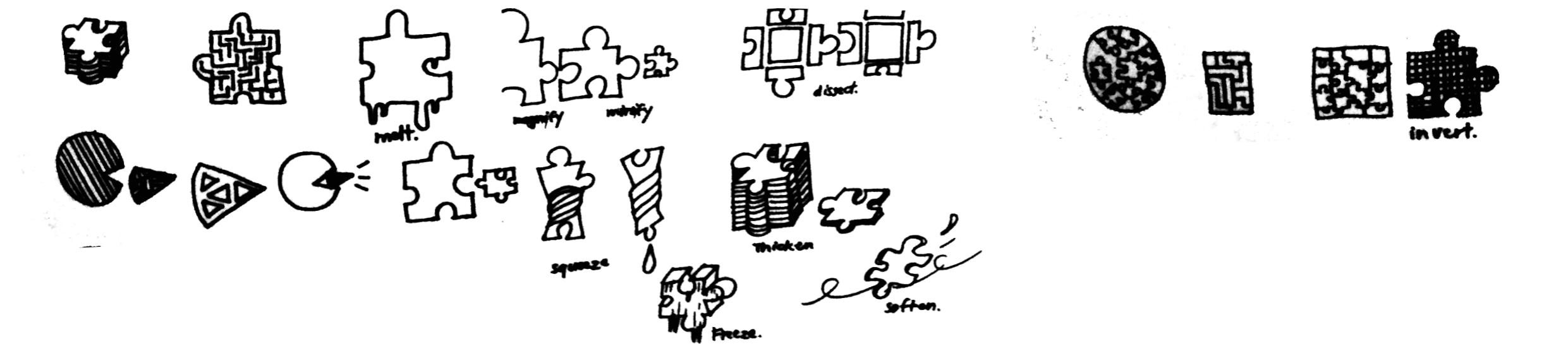
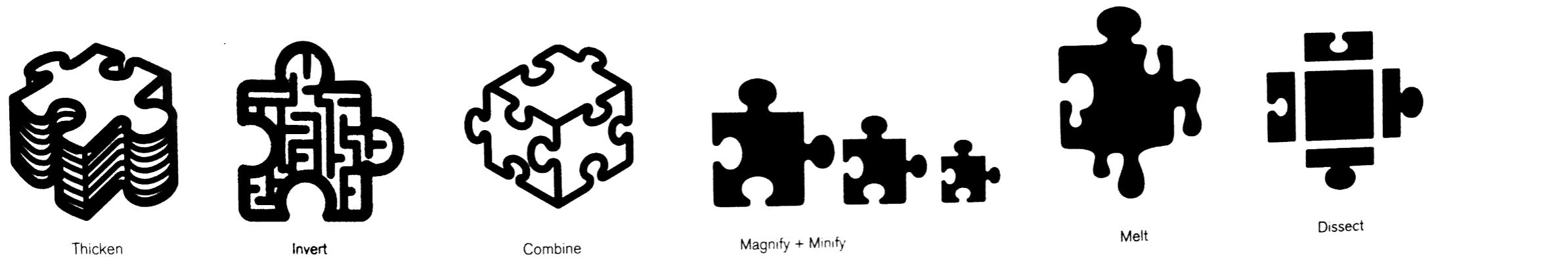
DAN ROAM, BACK OF THE NAPKIN





WIKIPEDIA
The Free Encyclopedia

Method: Action Verbs



Minify: City Cabin



Rearrange: Sleep In the Kitchen

Magnify: Giant Garage



Reverse: Live in the Garden



Minify: City Cabin

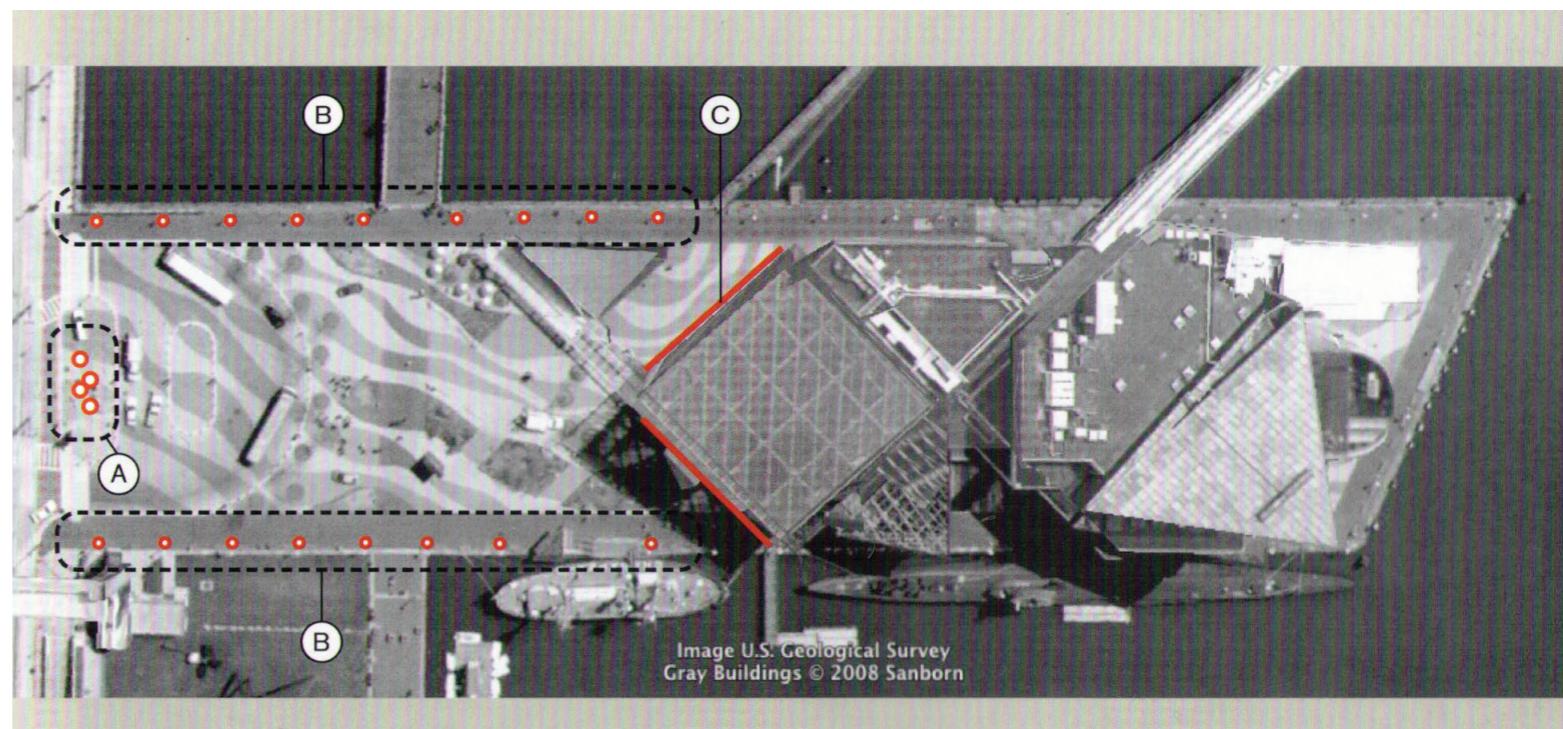


Magnify: Giant Garage

Method: Site Research



Baltimore Aquarium. Examining the flow of people, busy times, and movement in the space.

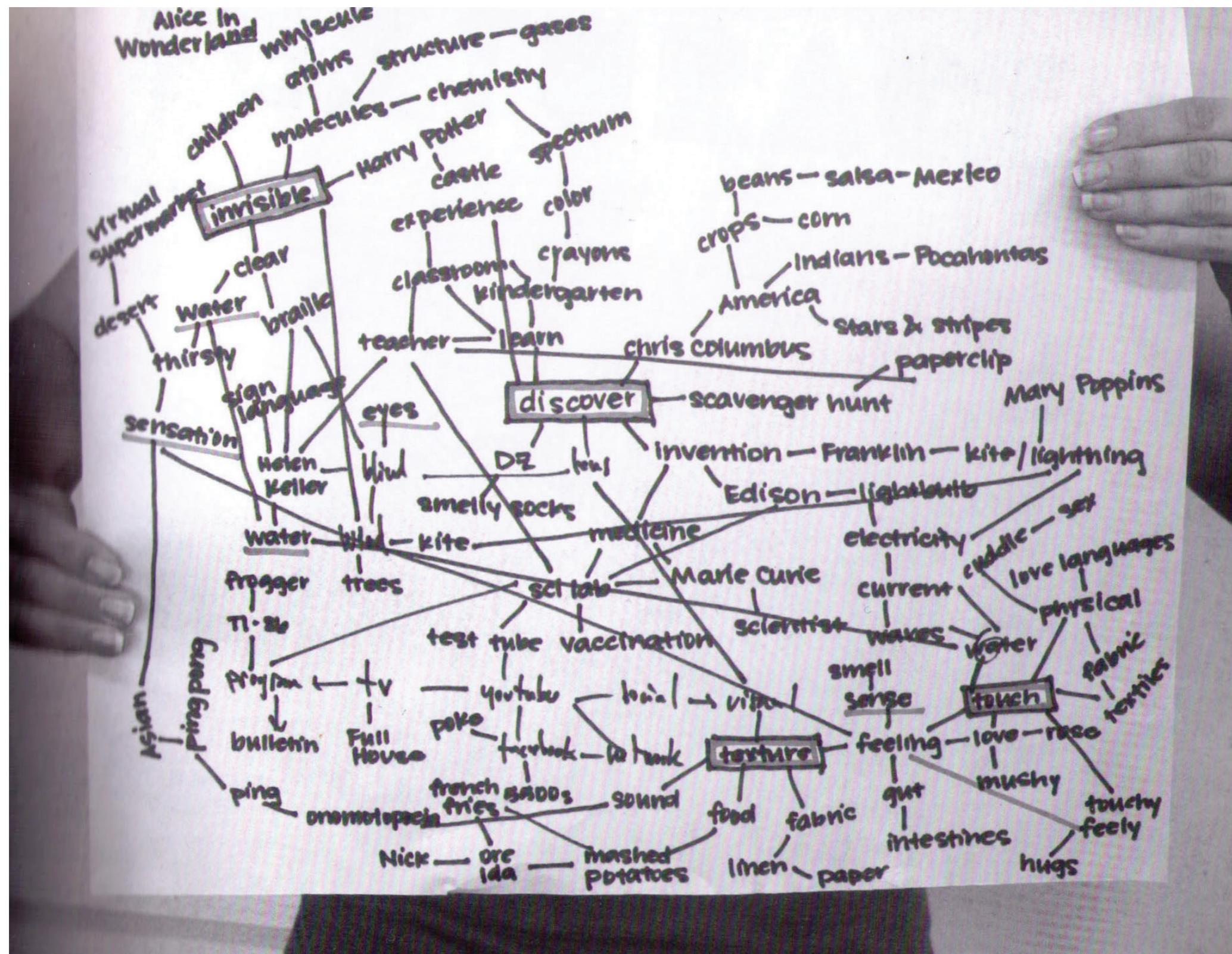


② Lay it all out where
you can look at it.



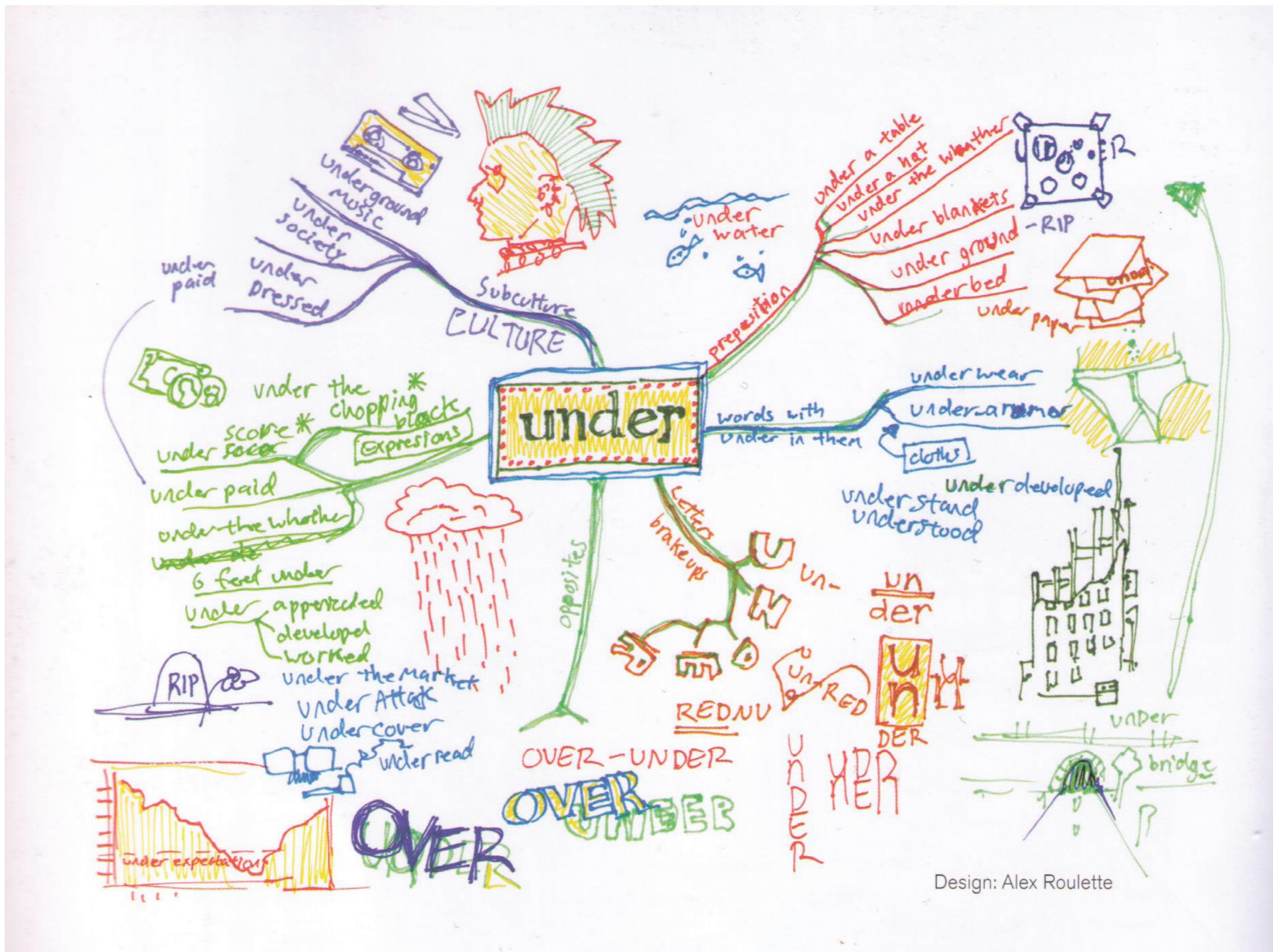
Looking Rule 2: Lay it all out where you can look at it.

Method: Mind Mapping

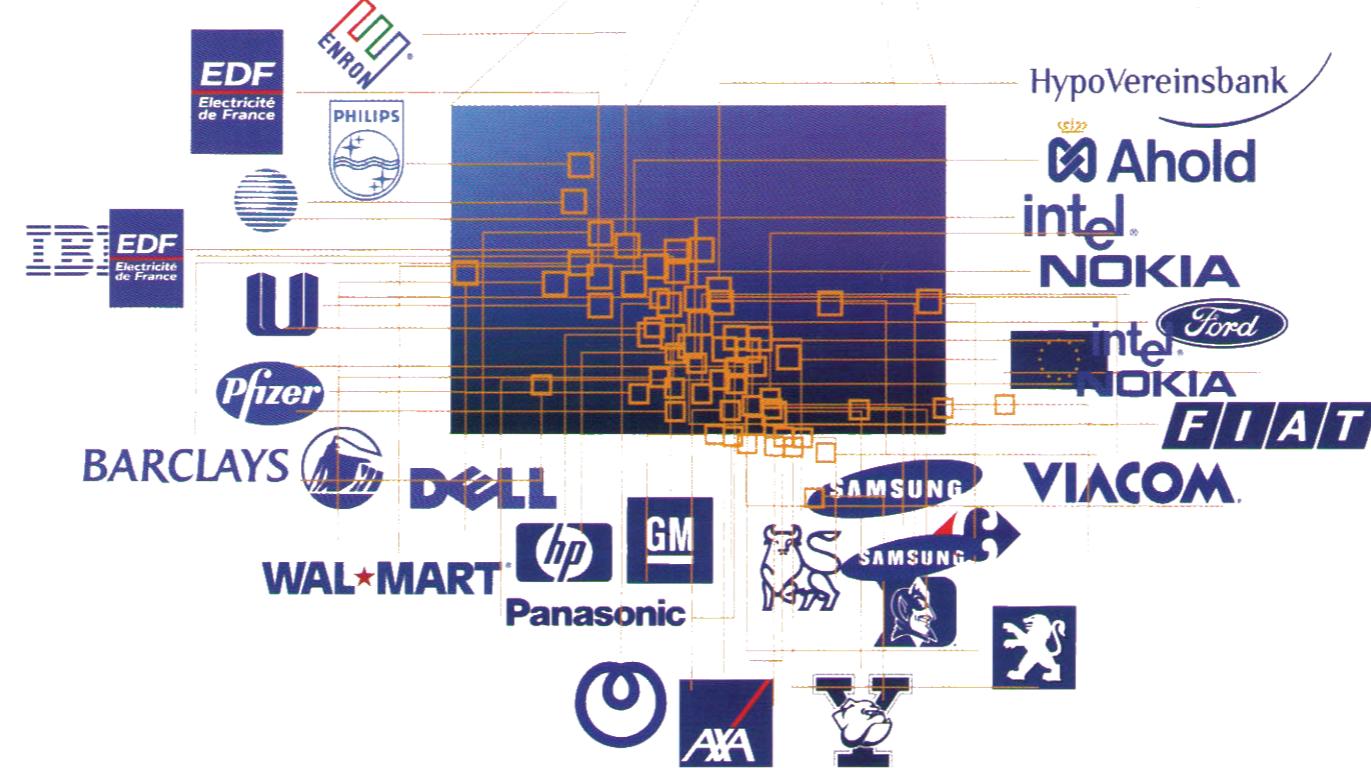
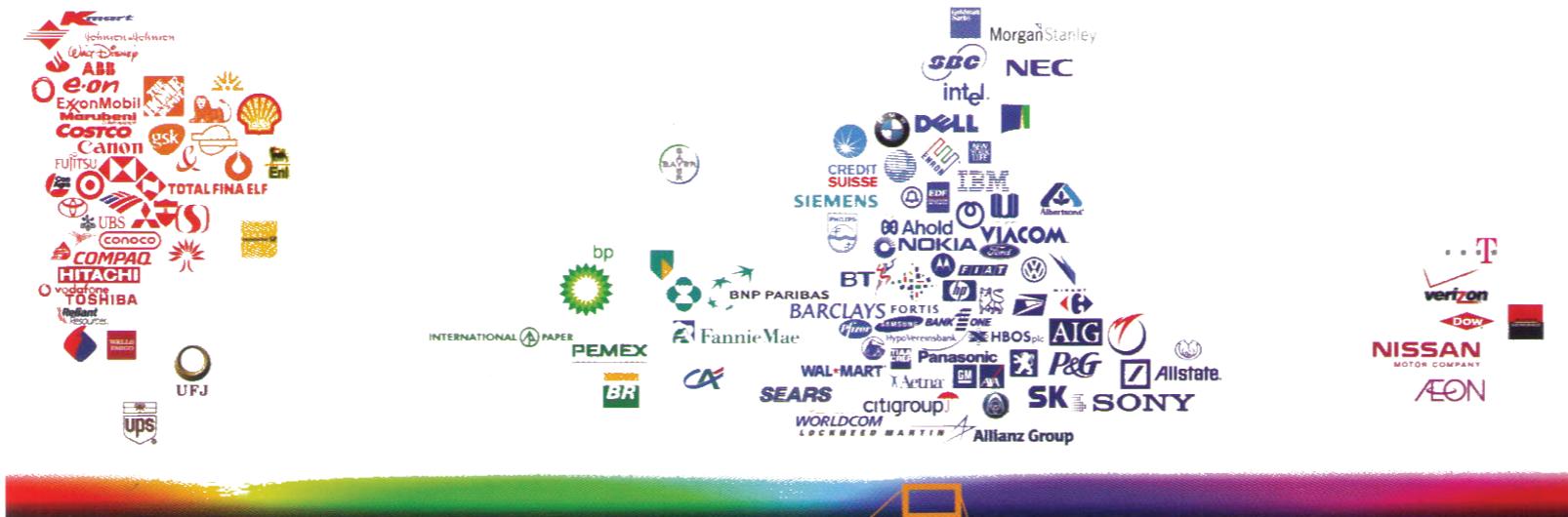


Lauren P. Adams

Method: Mind Mapping



Method: Conduct Visual Research



Method: Analyze Content

Quiksilver:

Quiksilver has developed from a 1970s boardshort company into a multinational apparel and accessory company grounded in the philosophy of youth. Our mission is to become the leading global youth apparel company; to maintain our core focus and roots while bringing our lifestyle message of boardriding, independence, creativity and innovation to this global community.

Individual expression, an adventurous spirit, authenticity and a passionate approach are all part of young people's mindset and are the essence of our brands. Combine this with the aesthetic appeal of beaches and mountains, and a connection is established that transcends borders and continents. Include thirty-plus years of quality, innovation and style, and you have Quiksilver.

Rip Curl:

Rip Curl is a company for, and about, the Crew on **The Search**. The products we make, the events we run, the riders we support and the people we reach globally are all part of the Search that Rip Curl is on.

The Search is the driving force behind our progress and vision. When Crew are chasing uncharted reefs, untracked powder or unridden rails, we want to arm them with the best equipment they'll need. No matter where your travels lead you, we'll have you covered.

Rip Curl will continue to stick by the grass roots that helped make us the market leader in surfing, but we'll also charge on in to the future and push riding to a new level.

Rip Curl: Built for riding and always searching for the ultimate journey...

Hurley:

The Essence of Hurley is based on our love of the ocean and its constant state of change. With deep roots in beach culture, we are all about inclusion and positivity. Our brand was started with the idea of facilitating the dreams of the youth. Music and art are the common threads that bring us all together. We are passionate about freedom of expression and the individual voice. We place a premium on smiles. Welcome to our world - **Imagine the possibilities.**

Volcom:

The Volcom idea would incorporate a major philosophy of the times, **youth against establishment**. This energy was an enlightened state to support young creative thinking. Volcom was a family of people not willing to accept the suppression of the established ways. This was a time when snowboarding and skateboarding was looked down on... Change was in the air.

It was all about spirit and creativity. Since those wild beginnings, the Volcom Stone has spread slowly across the world. The Company has matured internally but continues to run off the same philosophy it started with. The Volcom thinking now flows through its art, music, films, athletes and clothing....

Ideals of youth

Roots and authenticity

Globalization

Love of beaches, mountains, and the streets

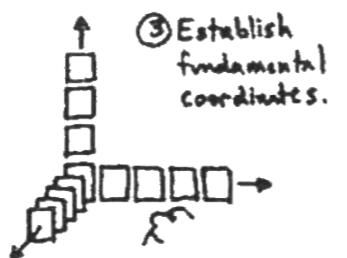
Individual expression and creativity

Progression and adventure

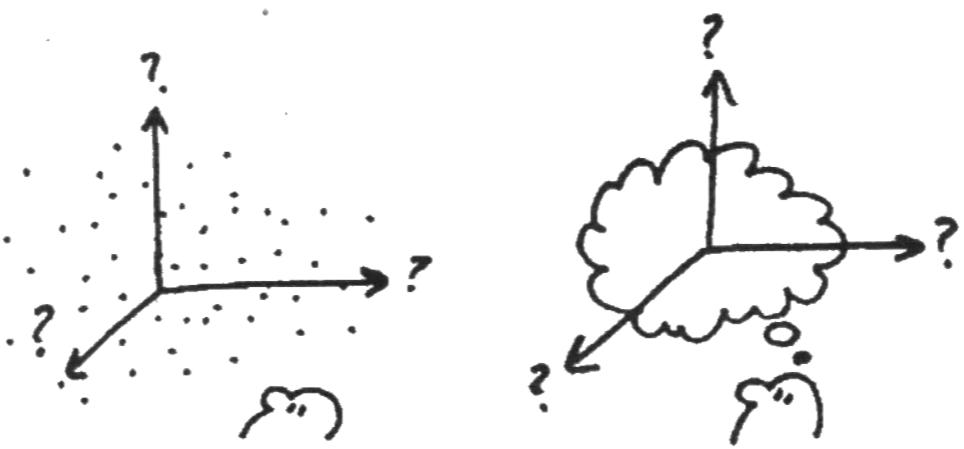
The Garage-Sale Principle:



Everything looks different when we
can see it all at once.

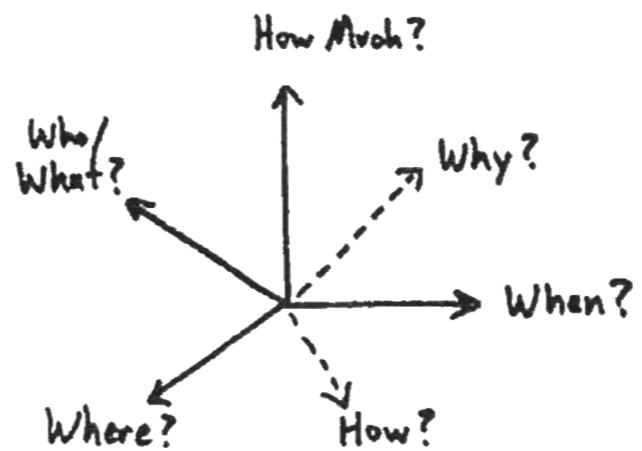


*Looking Rule 3: Establish the
underlying information coordinates.*

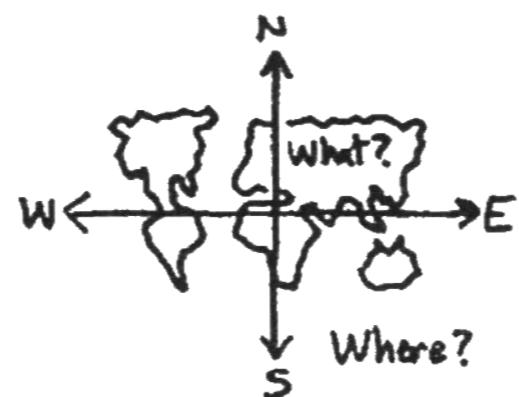
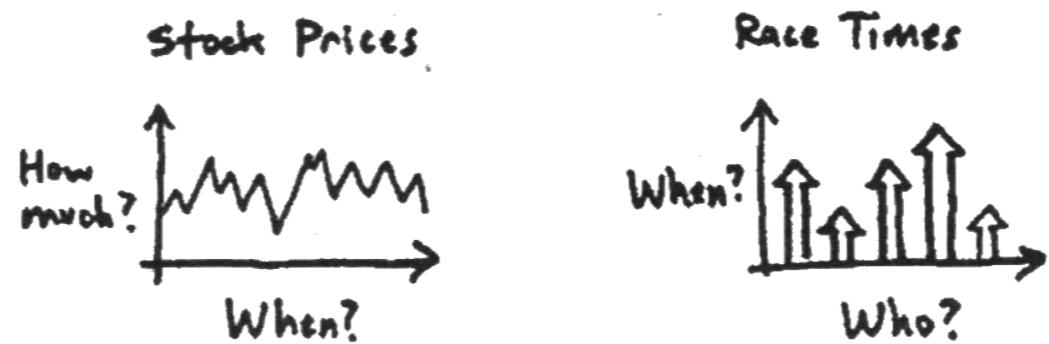


How can we find coordinates that frame raw data,
information, and ideas?

WHO/WHAT, HOW MUCH, WHERE, WHEN, HOW, WHY

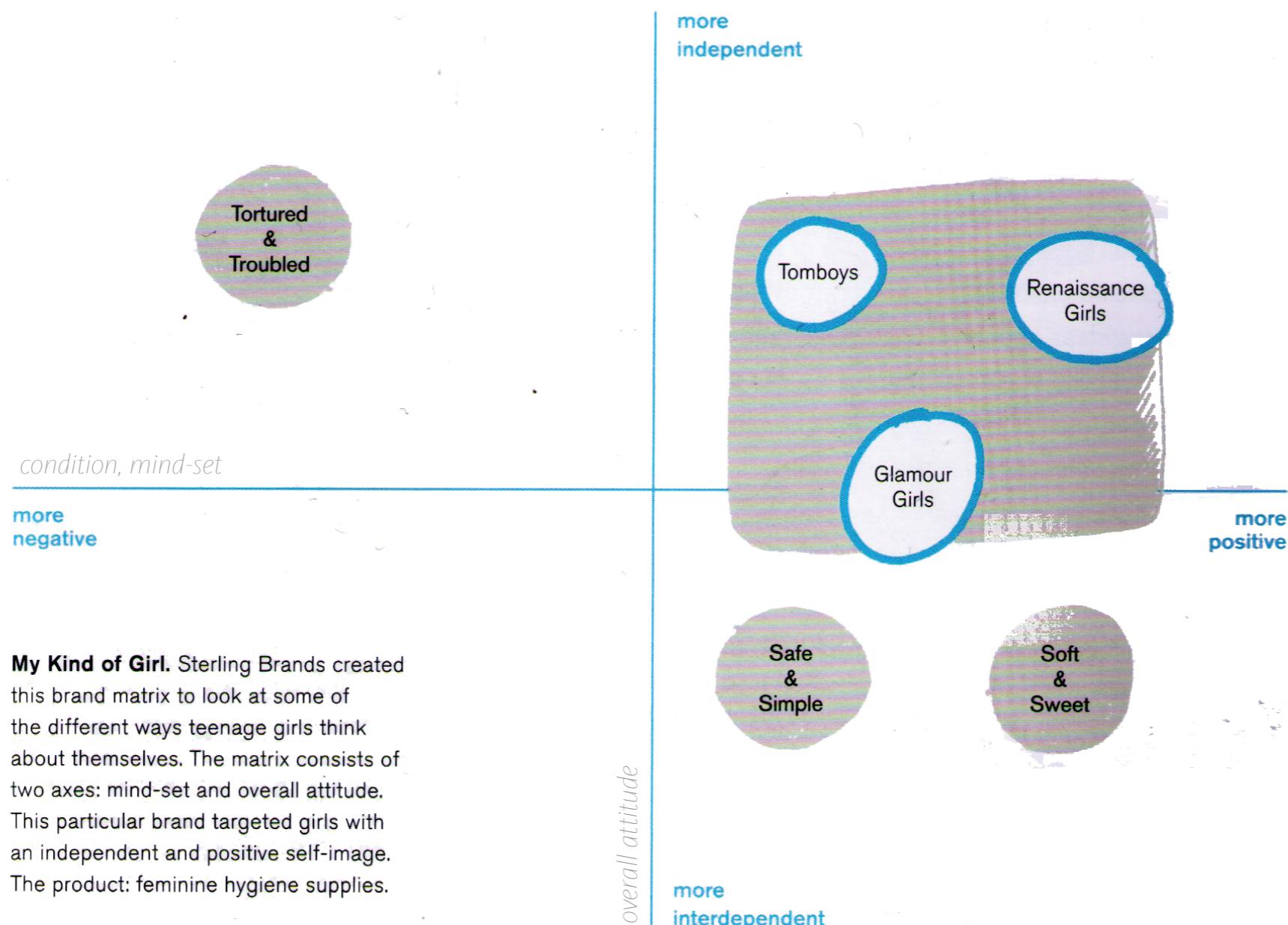


The 6 W's aren't just a set of questions we ask to define a problem. They're also the source of every pictorial coordinate system we're going to use from now on.



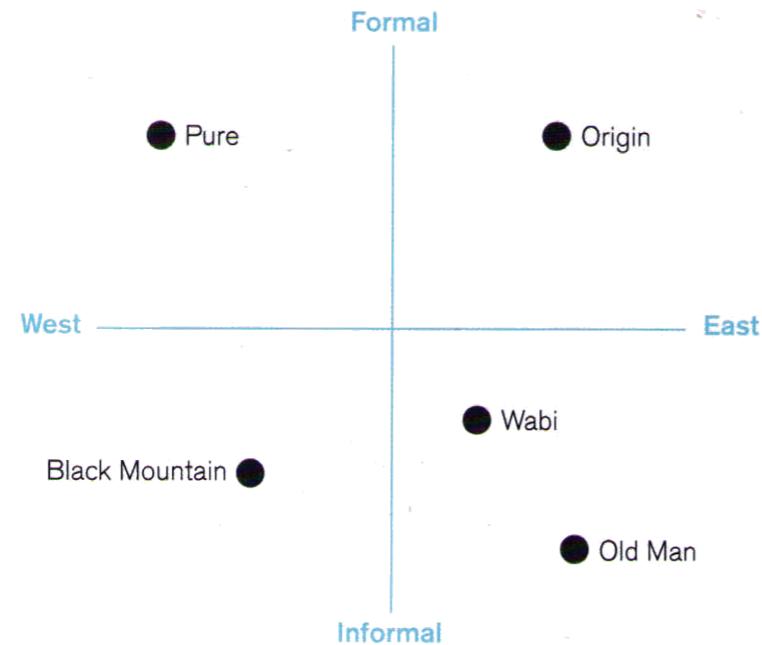
The 6 W's are used as coordinates for almost every descriptive picture we're likely to face.

Method: Brand Matrix



Case Study

Tea Packaging Prototypes



Laid Back. This tea brand uses hand-drawn elements, natural colors, and matte materials to convey an updated hippie attitude. Design: Alex Roulette.

Tea Space. The matrix presented on the left maps the intersection of East/West and Formal/Informal.



Clean Cure. Many people view tea as a cleansing elixir. This brand responds with high-tech, pharmaceutically inspired graphics. Design: Cody Boehmig.



Upscale Eastern. This elegant prototype uses sleek contemporary graphics to celebrate the Eastern origins of tea. Design: Yu Chen Zhang.



Down Home. Drinking sweet tea from Mason jars is a favorite in the American South. Black Mountain is a historic town in North Carolina. Design: Julia Kostreva.



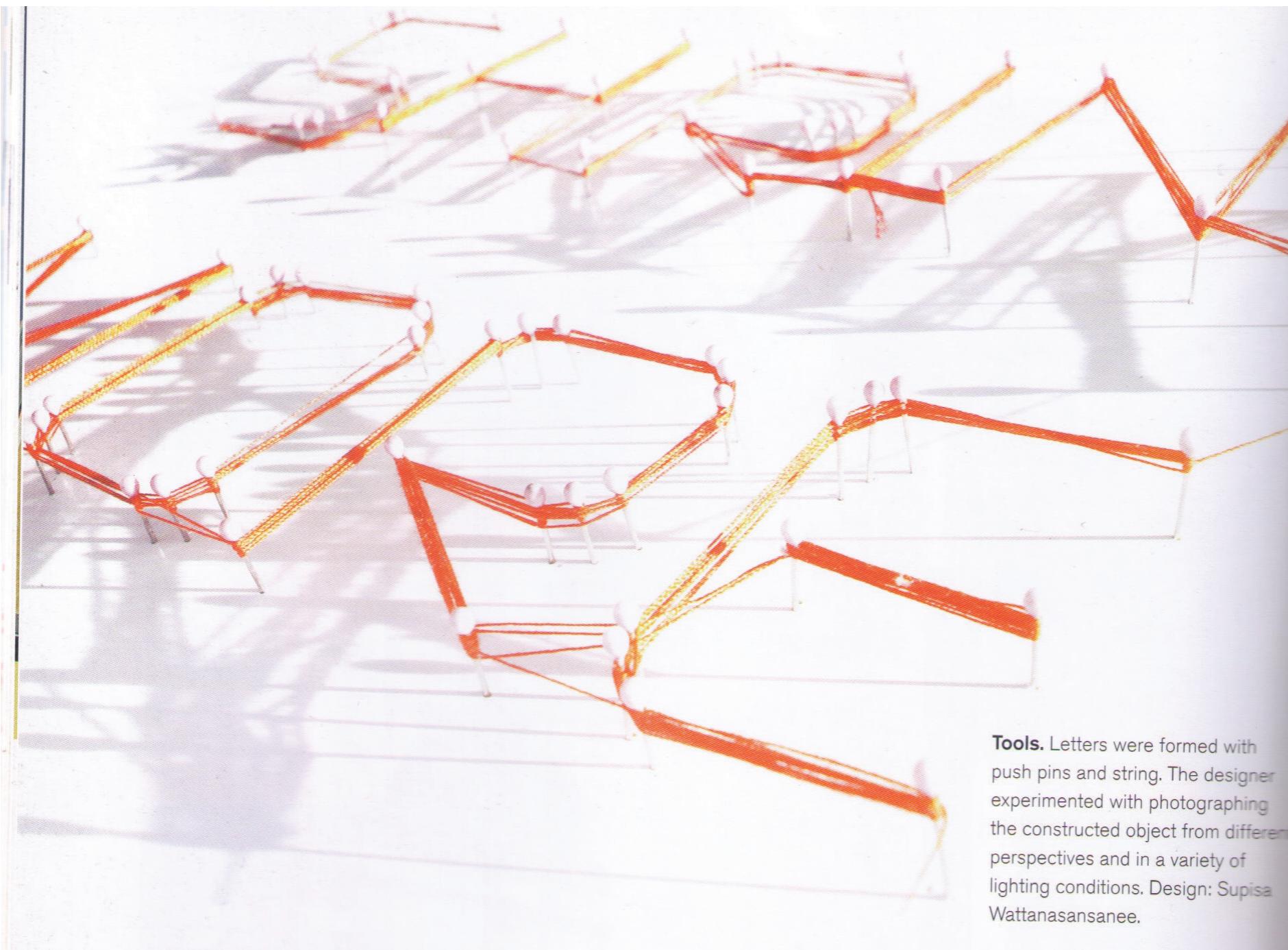
Asian American. This packaging combines Chinese characters with humorous illustrations to suggest Asian life in the American suburbs. Design: Tiffany Shih.

④ Practice
visual triage.



Looking Rule 4: Practice visual triage.

Method: Use Unconventional Tools



Tools. Letters were formed with push pins and string. The designer experimented with photographing the constructed object from different perspectives and in a variety of lighting conditions. Design: Supisa Wattanasansanee.

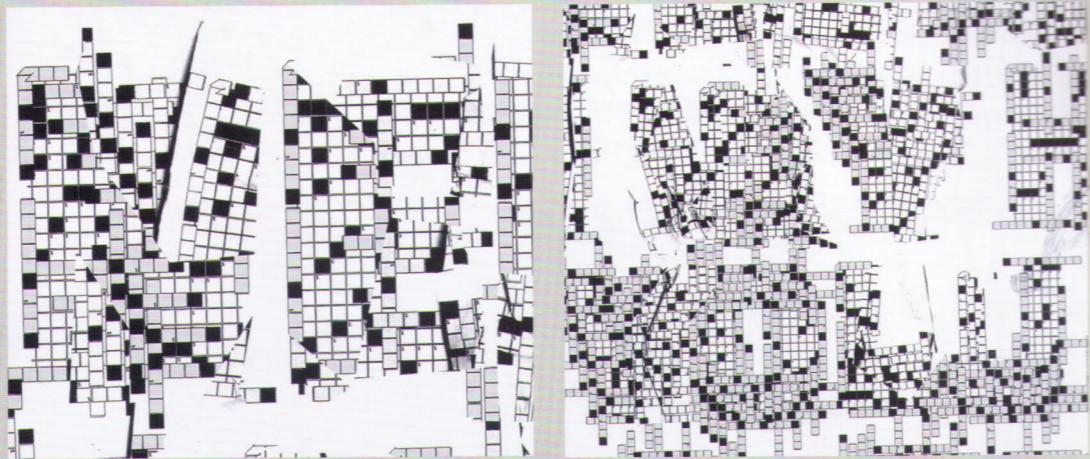
Prototyping

Method: Expose the physical environment



Stefan Sagmeister's environmentally driven billboard. Sagmeister laid stencils on top of newsprint on the roof of this NYC home. The exposed areas yellowed in the sun. As more sunlight hit the billboard, the message failed. Consider texture, climate, light, time of day, projection.

Crossword Logic. Creating crossword-puzzle typography is harder than one might expect. An even dispersion of black and white squares reads only as a checkerboard, not a crossword. The visual language of a crossword puzzle conforms to the length and direction of words in a given language. The numbering system also plays a subtle yet critical role in the unmistakable patterning of this graphic genre. Design: Christopher Clark.



How to Reconstruct

01 Collect source material.

Choose your inspiration actively: Renaissance paintings, sixteenth-century clocks, or the poetry of Walt Whitman. Find what moves you.

02 Analyze and replicate your sources.

If you want to know how a clock works, take it apart. The same thing applies to style. Understanding why something looks a certain way comes from unpacking it and playing with its elements.

03 Observe.

As you analyze your sources, you will begin to notice how their means of construction make them look the way they do. Take note of the details and study their origins.

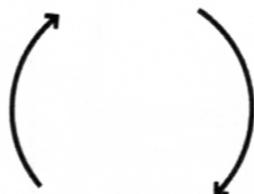
04 Compile a dictionary of elements.

If you were learning German or Chinese, you would study a word list. Likewise, designers can learn by building collections of shapes and marks. Use your list as a graphic vocabulary sheet.

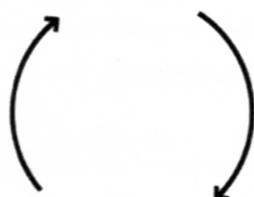
05 Make your own images.

Now that you understand a grammar and vocabulary, start constructing new sentences on your own. Draw lines and shapes based on those in your source material, but communicate your own vision and ideas. As you gain fluency in your new language, the potential becomes endless.

Hypothesis 1



Prototype 1



Instructions 1



HEIGHT IN FEET: 10

SQUARE FEET OF STRUCTURE: 100

WEIGHT IN POUNDS: 120

DOLLARS PER SQUARE FOOT: 9

HOURS TO MILL: 6

HOURS TO ASSEMBLE: 1

NON-SPECIALISTS AS WORKERS: 2

TOOLS REQUIRED PER WORKER: 3

SHEETS OF PLYWOOD: 10

STEEL FASTENERS: 632

PLYWOOD WEDGES: 52

PLYWOOD SLATS: 144

COMPONENTS

Thin flat material
Joining
Arrangement

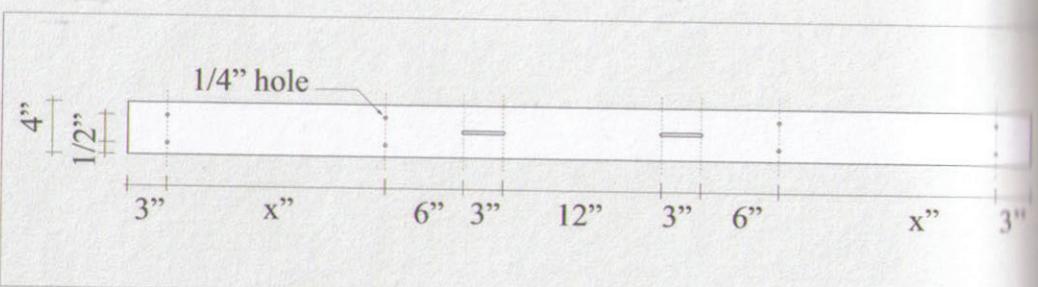
MATERIALS

Baltic Birch Plywood, 1/4" thick
Machine screws (1/4"-20, 3/4" length)
Hex nuts (1/4"-20, 7/16" width)
Saw, drill, rubber mallet

THIN FLAT MATERIAL

1: Create at least three plywood slats.

Use Baltic Birch—a strong plywood with multiple thin layers. Though it is weak and flexible at a thickness of 1/4", it is possible to create a strong structure out of it.

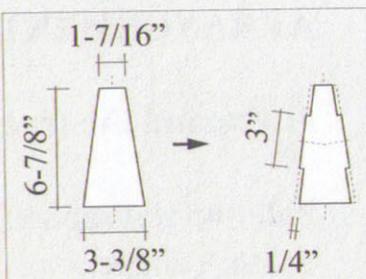


Each slat should be 4" wide and 3-8' long, depending on the height desired for the prototype.

Drill eight 1/4" holes and cut two 1/4" wide channels in each slat, as indicated.

2: Create at least two plywood wedges.

Use the same Baltic Birch plywood. For each wedge, first create a trapezoid 6-7/8" tall as indicated. Then cut out the four corners of the trapezoid as indicated. The wedges should be symmetrical and precise.



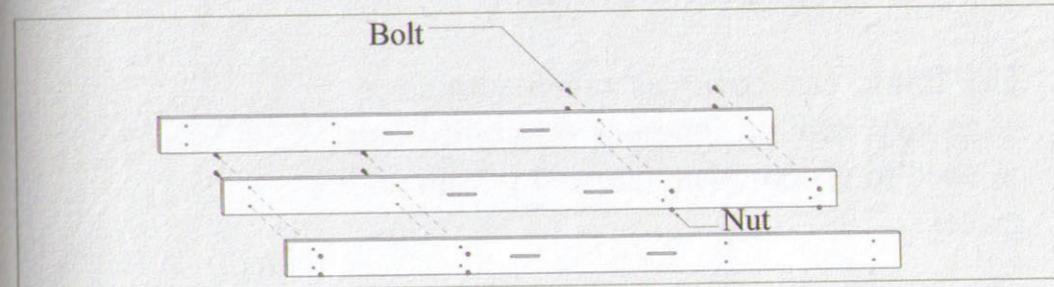
JOINING

3: Attach the slats with nuts and bolts.

Align two slats so that they are layered exactly beside each other and attach them with four pairs of nuts and bolts as indicated.

In order to allow the system of slats to expand after they have been bolted, use the alternate end of one of the slats to connect to the third slat, as indicated. The slats should be connected in a kind of a zig-zag.

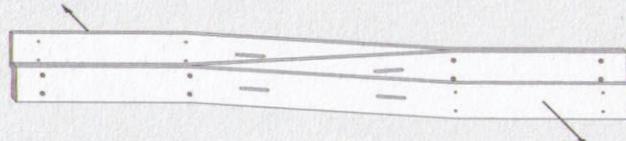
Repeat with as many slats as desired.



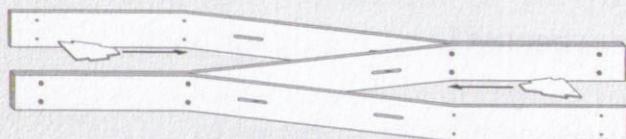
ARRANGEMENT

4: Expand the frame.

Pull two slats apart (about 6"-12") to create a thin A shape.



Insert a wedge perpendicular to the slats and push it towards the intersection of the A shape. The wedge should gently force apart the slats. Use a rubber mallet to gently knock the wedge into place so that its flanges fit snugly in the channels of the slats on either side.



Repeat with at least one more wedge.

5: Stand up the prototype frame.

The frame can cover as much ground as necessary and its inherent flexibility can be used to accomodate unusual terrain and spaces.

This simple structural system has components of thin material, joining, and arrangement.

FURTHER STEPS

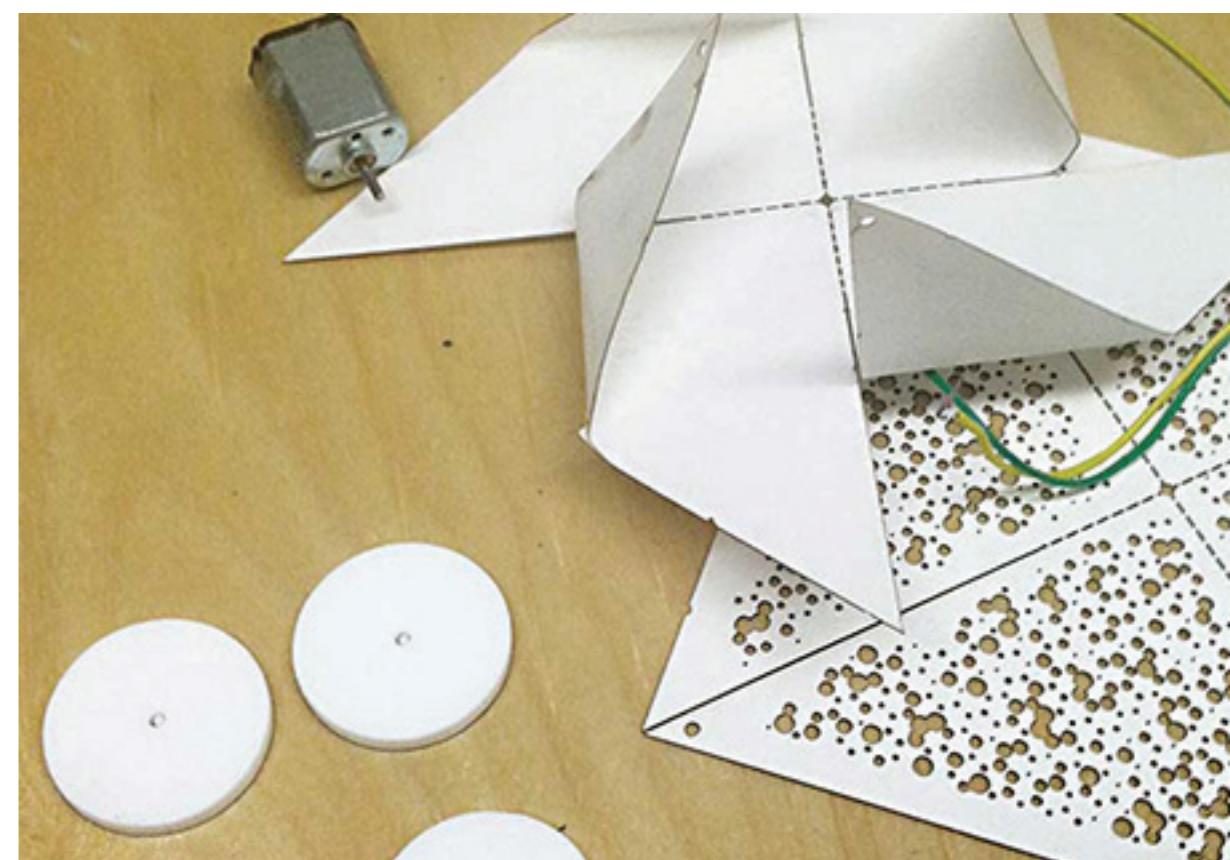
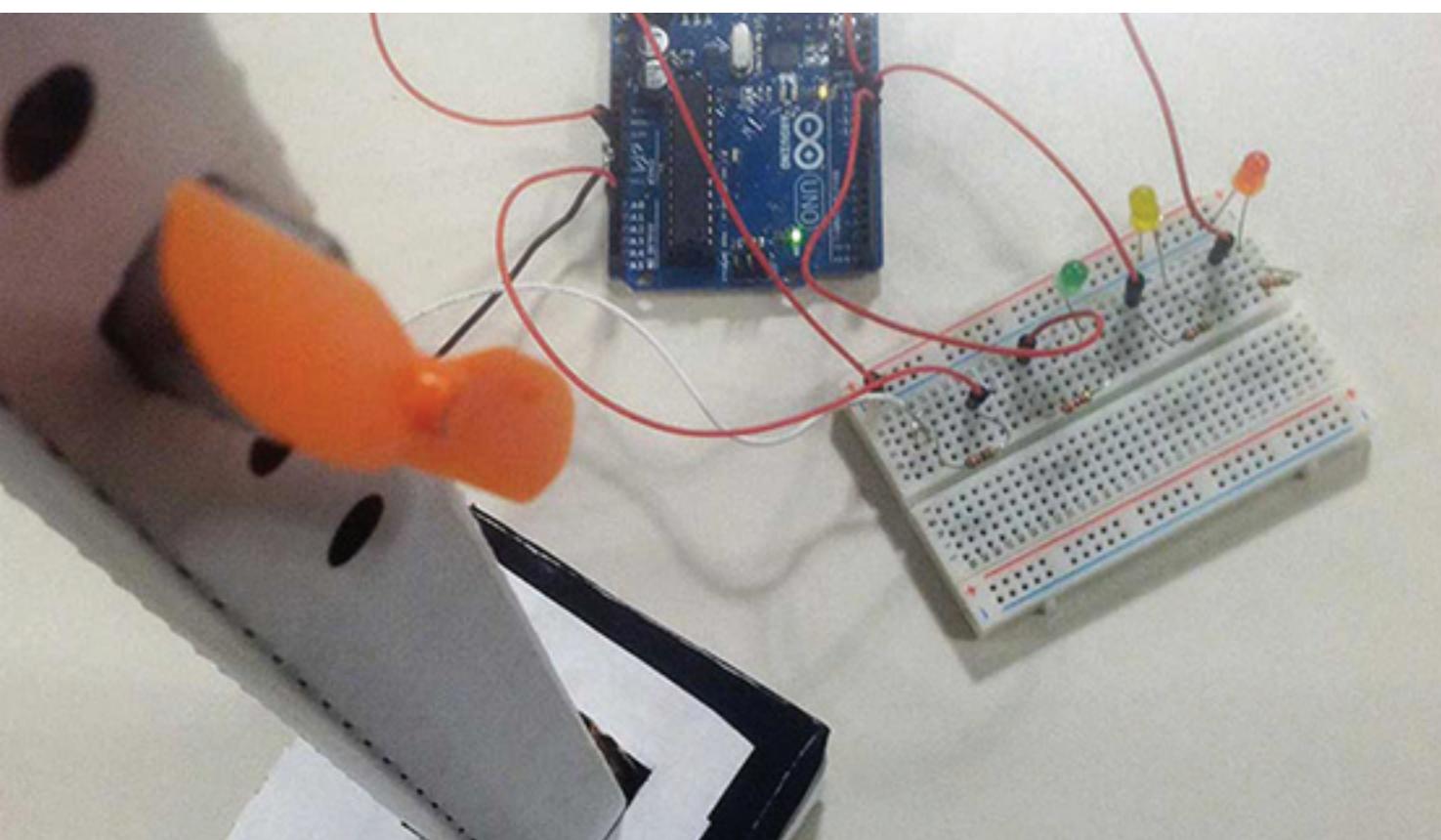
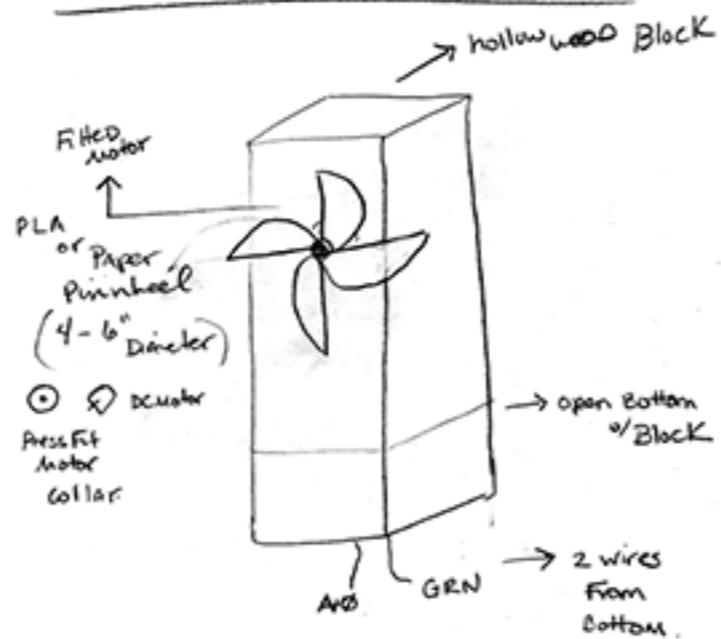
You should be able to swap or upgrade each of the components of the system.

A different thin, flexible material, such as a plastic or metal, could be used. The joining component could be altered or enhanced, adding puzzle-piece joints to connections, or using other types of notching and interlocking. This component becomes especially important if the structure is to grow taller than the length of a standard sheet of material. The arrangement of the slats and of the final expanded prototype could be altered by varying the flat shapes of slats or wedges. The frame could be fine-tuned for performance vertically or horizontally, and the final shape could incorporate both curved areas and straight areas.

For further references, please see:

<http://www.arch.columbia.edu/publications/lifesize>

INPUT DEVICE - CONTROLLER

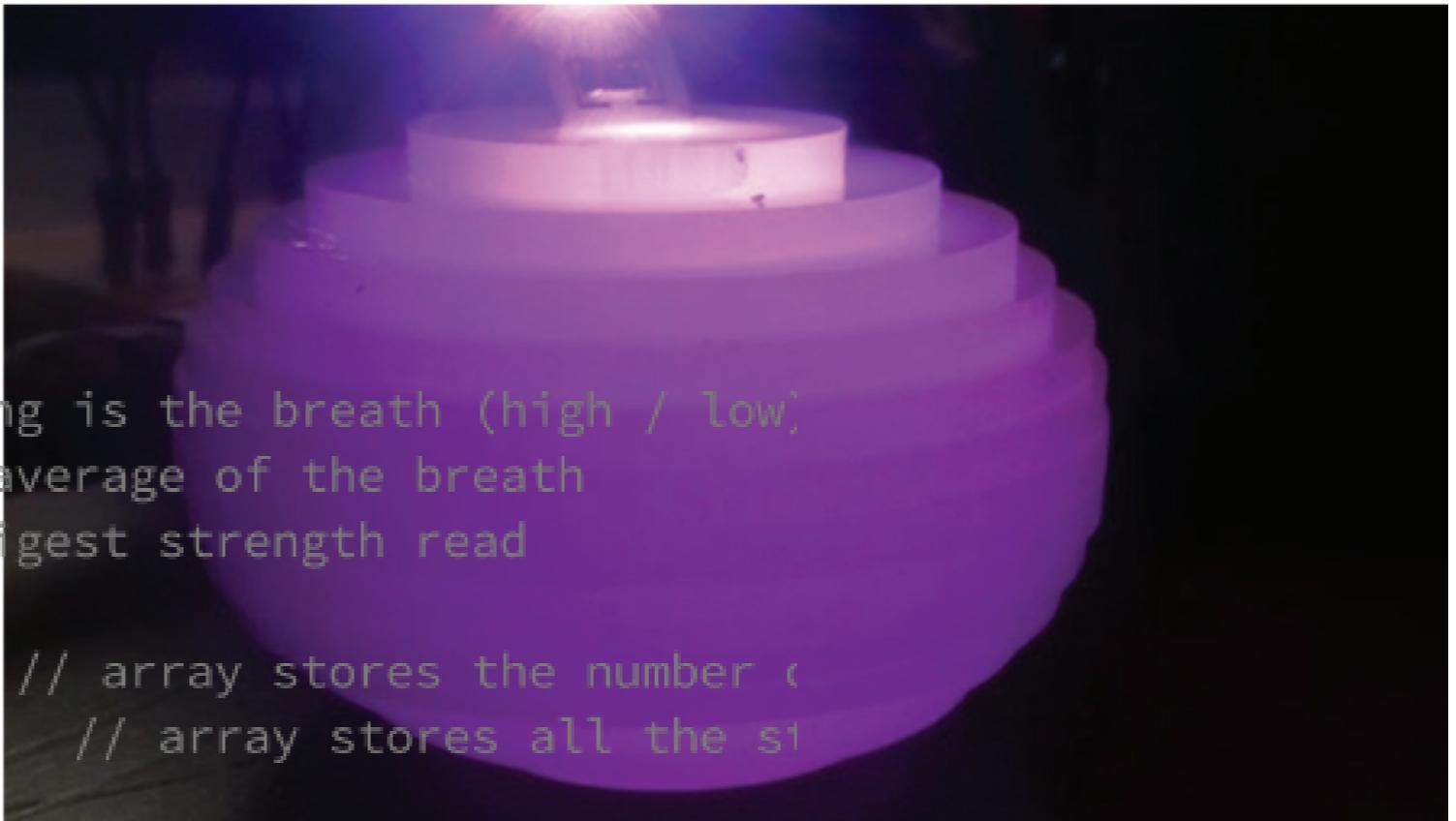


```
nt strength = 0;           // how strong is the breath (high / low)
nt runningAvg = 0;         // running average of the breath
loat highest = 0;          // find higest strength read

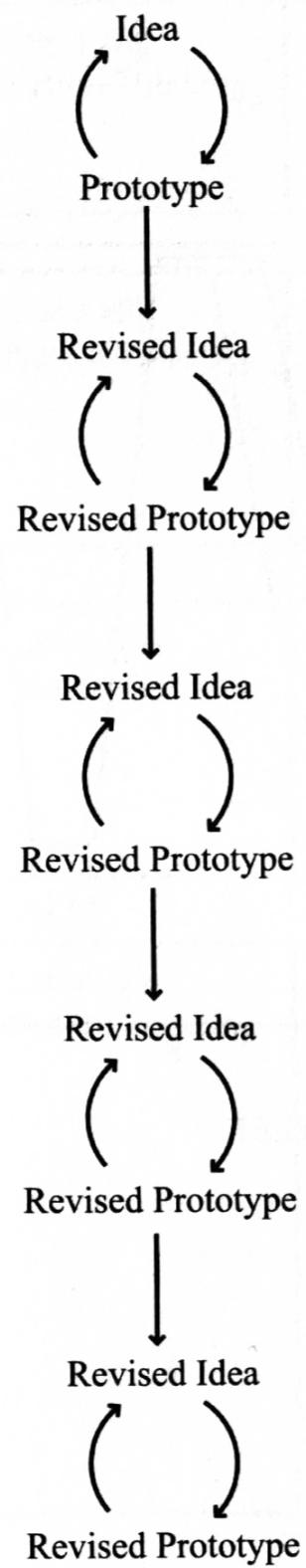
loat[] blows = new float[500]; // array stores the number of breaths
loat[] blowValues = new float[500]; // array stores all the strength values

oid setup() {
    size(680, 382, P3D);
    gfx = new ToxiclibsSupport(this);
    initPhysics();

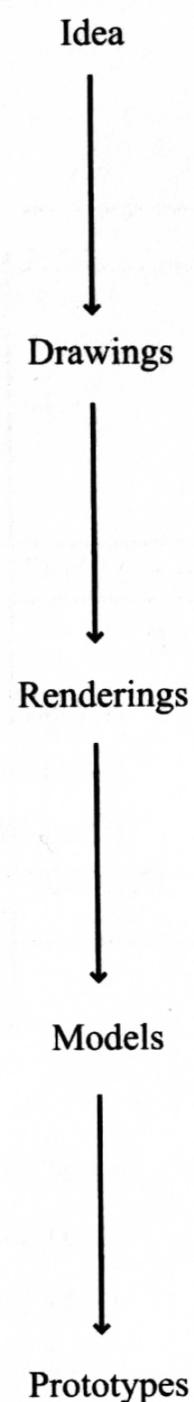
    String portName = Serial.list()[portIndex];
```

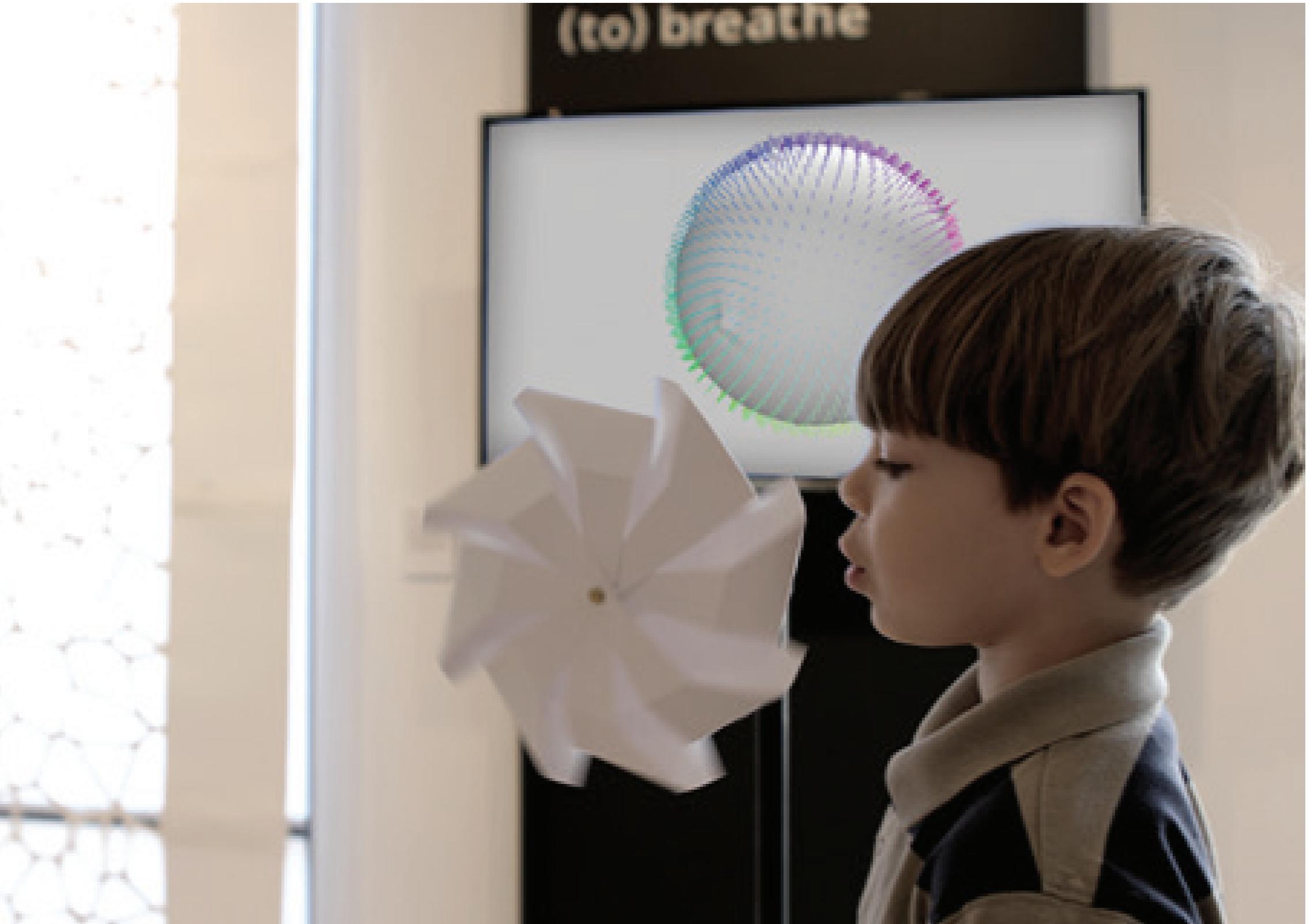


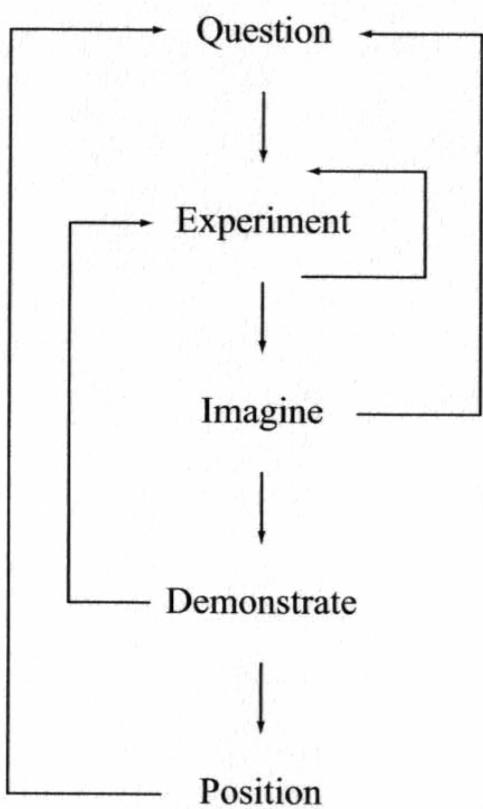
THIS



NOT THIS







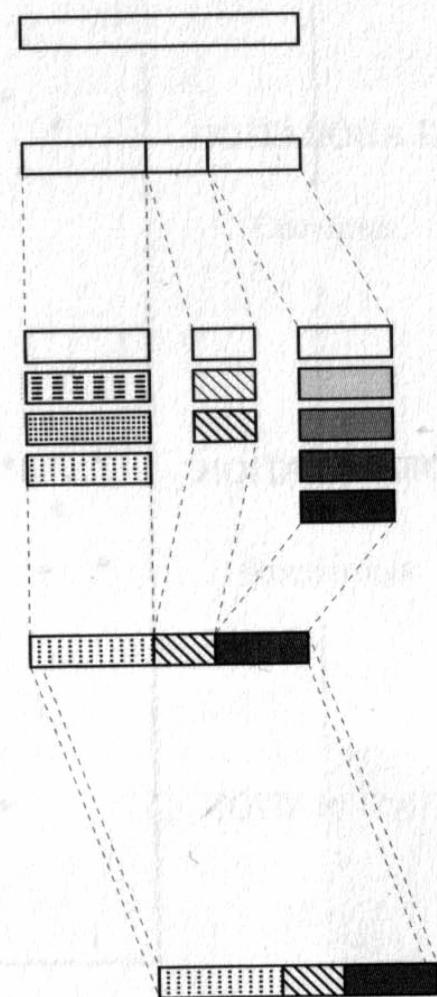
Question

Break Down Question
into testable modules

Experiment
Imagine

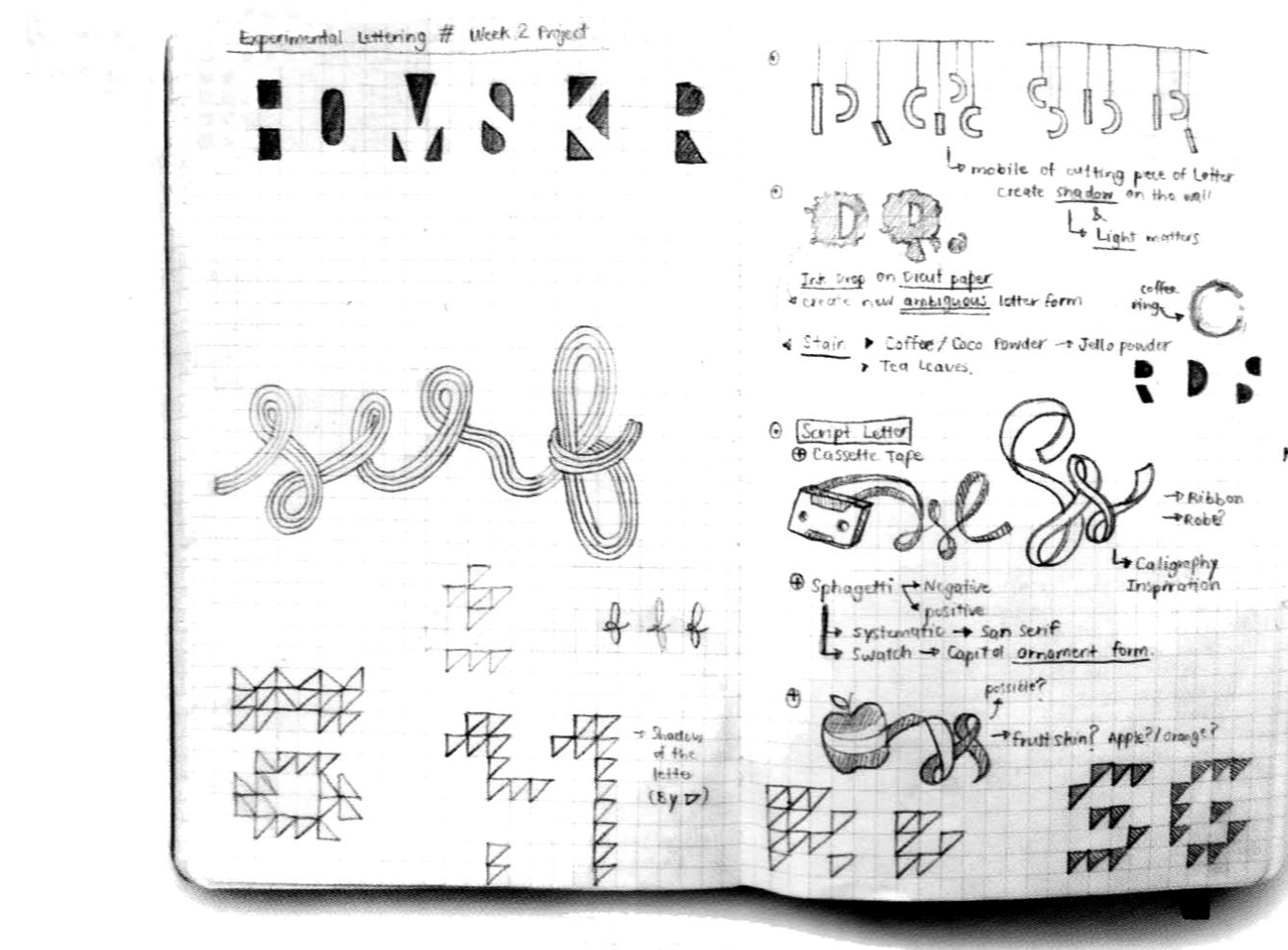
Demonstrate

Position



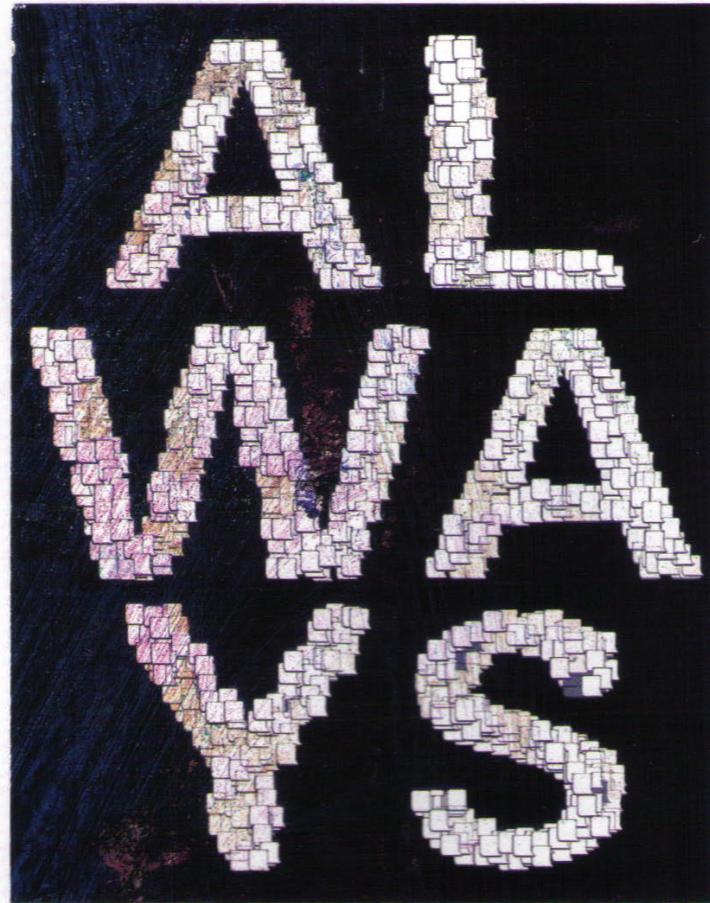
Documentation

Method: Build a small library of ideation.



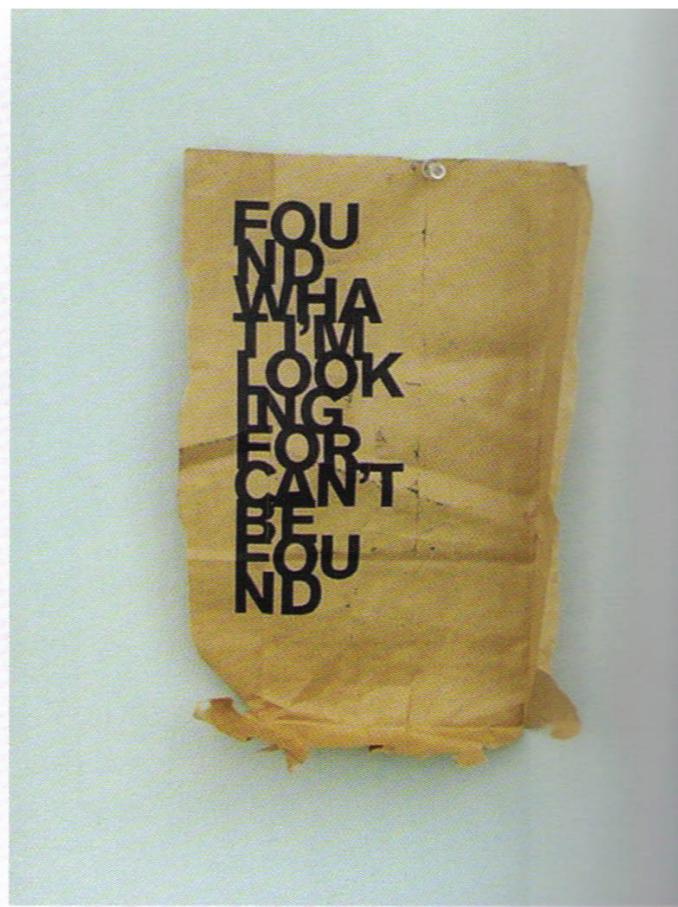
Sketches: Supisa Wattanasansanee

Collect source material. Observe.
Analyze and replicate your sources.
Compile a dictionary of elements.



today i am not
a bird whatever
it's rainy
i could not stop
sleeping
i saw a man
bold
in his dog in
his hand as
he walked
across the
street

Method: Work in 30 minute sprints.



Presentation

Pitch your concept. Back it up with research and experiments.

The slide displays four screenshots of the Skyline application:

- Top Left:** A dark-themed landing page with the title "Skyline". Below it is a descriptive paragraph: "is a web-based tool that allows users to: **BUILD** their own constellation, **SHARE** their interstellar creation with friends, **EXPLORE** galaxies of user-created constellations, and **ENGAGE** with science in a fun, inspiring way."
- Top Right:** A detailed view of the "DESIGN TOOL" section of the website. It shows a star map with a newly created constellation highlighted by orange lines and dots. Callouts point to various UI elements: "Tool Palette", "Direction Controls", "Location, Date & Time Controls", "Name your constellation and write a mythology about its origin.", and "Interesting celestial objects that also appear near your constellation".
- Bottom Left:** A "GALLERY" section showing a grid of six small images, each representing a different user-created constellation.
- Bottom Right:** A screenshot of the "Explore" mode in the mobile application, showing a star map with a constellation highlighted.

Frame your project. Organize user interactions and functionality.

Interaction designers use schematic screen captures to illustrate product features and narrate typical user interactions before building out functional prototypes. Diagrams and problem statements help designers deliver ideas clearly.

