

# **IN4MATX 231:**

# **User Interface Design & Evaluation**

**Class 7:  
Sketching**

**Daniel Epstein**

# Announcements

- Fill out the when2meet!
  - Otherwise we'll have to default to Friday, December 13th
- New Slack channel: #in-class for sharing in-class activities like sketches

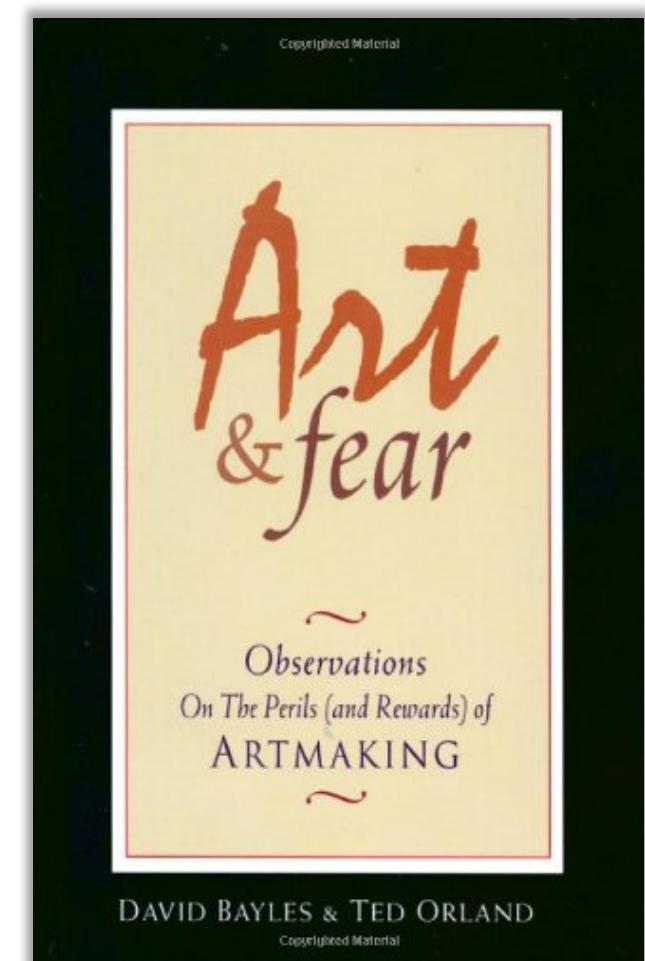
# Today's goals

**By the end of today, you should be able to...**

- Describe what constitutes a sketch (versus higher fidelity)
- Create low-fidelity sketches to explore different design ideas
- Critique sketches to give and receive constructive feedback at an appropriate level for the sketch

# Quality vs. Quantity

- Two pottery classes
  - One class told they will be graded on quality, another on quantity



# Quality vs. Quantity

- The quantity class produces better pots. Why?

# Quality vs. Quantity

- The quantity class produces better pots. Why?
- “While the quantity group was busy churning out piles of work—and learning from their mistakes—the quality group had sat theorizing about perfection, and in the end had little more to show for their efforts than grandiose theories and a pile of dead clay.”

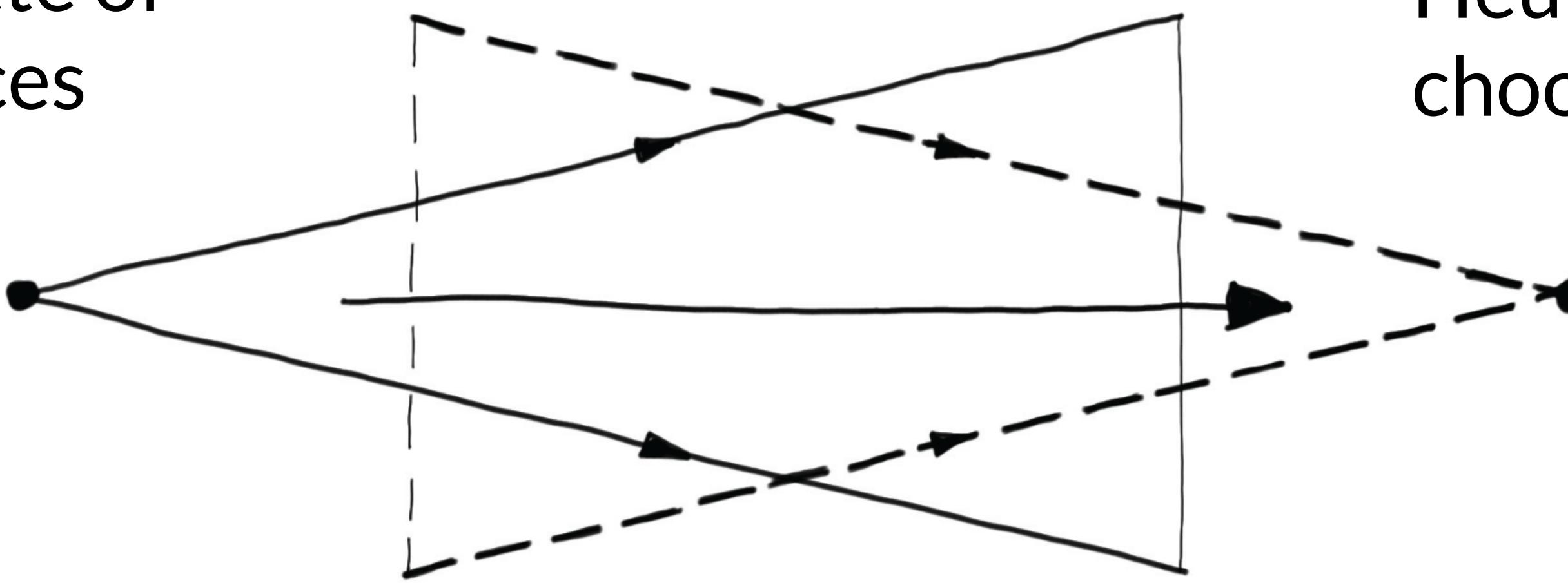
# Design as a choice

**Elaboration**

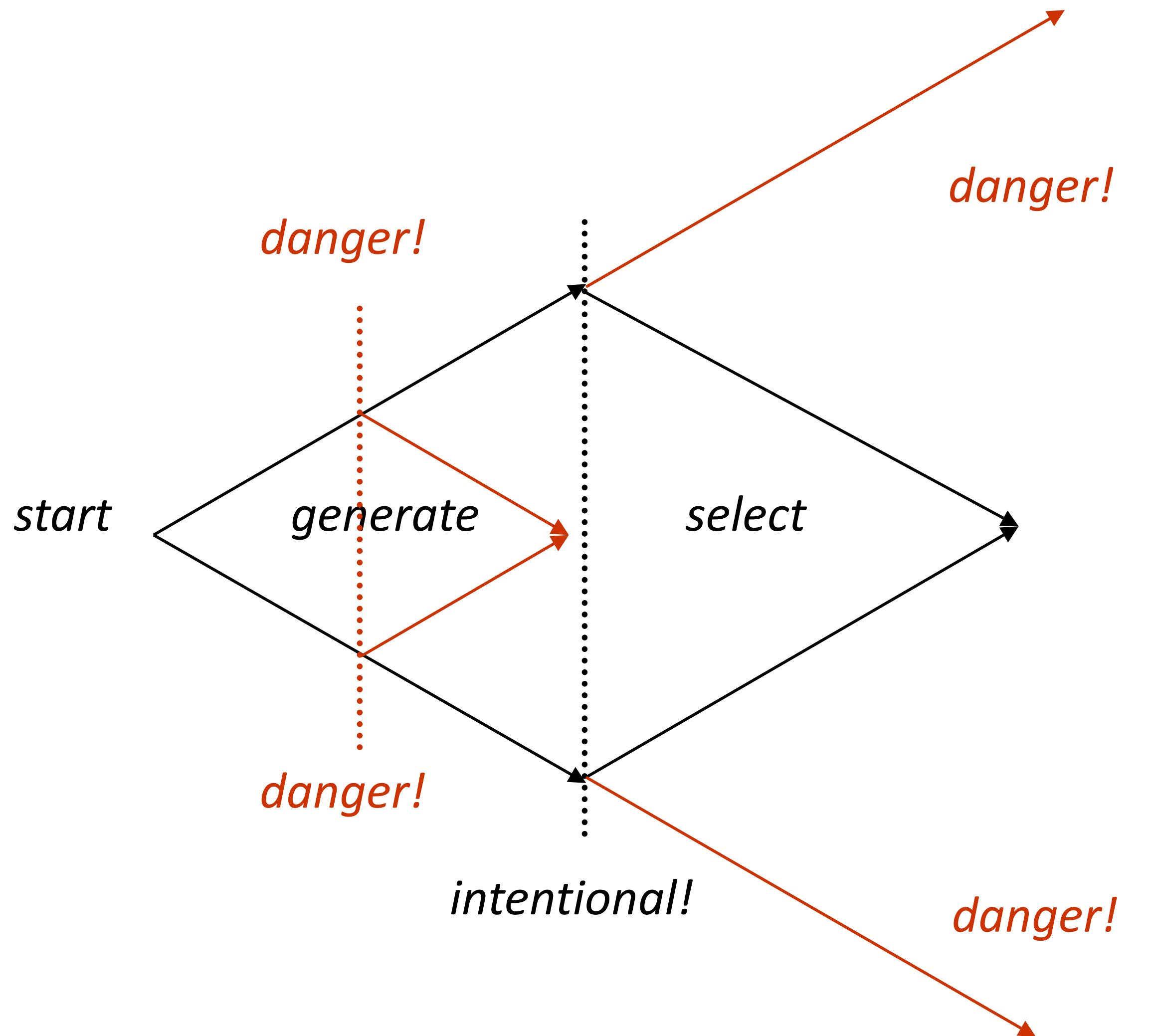
Palette of  
choices

**Reduction**

Heuristics to  
choose



# The design diamond

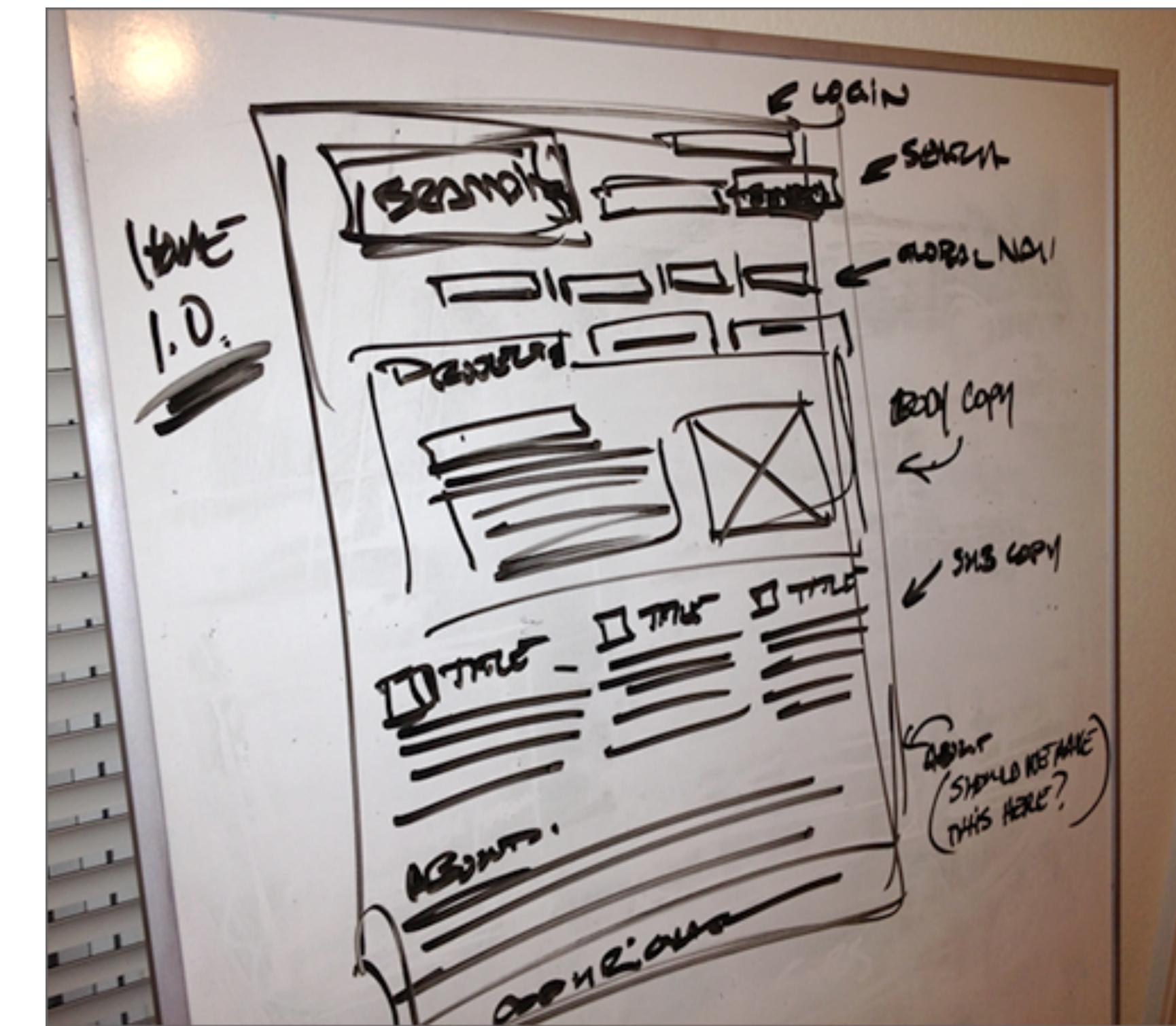


# Sketches are...

- Quick
- Timely
- Inexpensive
- Disposable
- Plentiful
- Clear vocabulary
- Distinct gesture
- Minimal detail
- Appropriate degree of refinement
- Suggest and explore rather than confirm
- Ambiguity

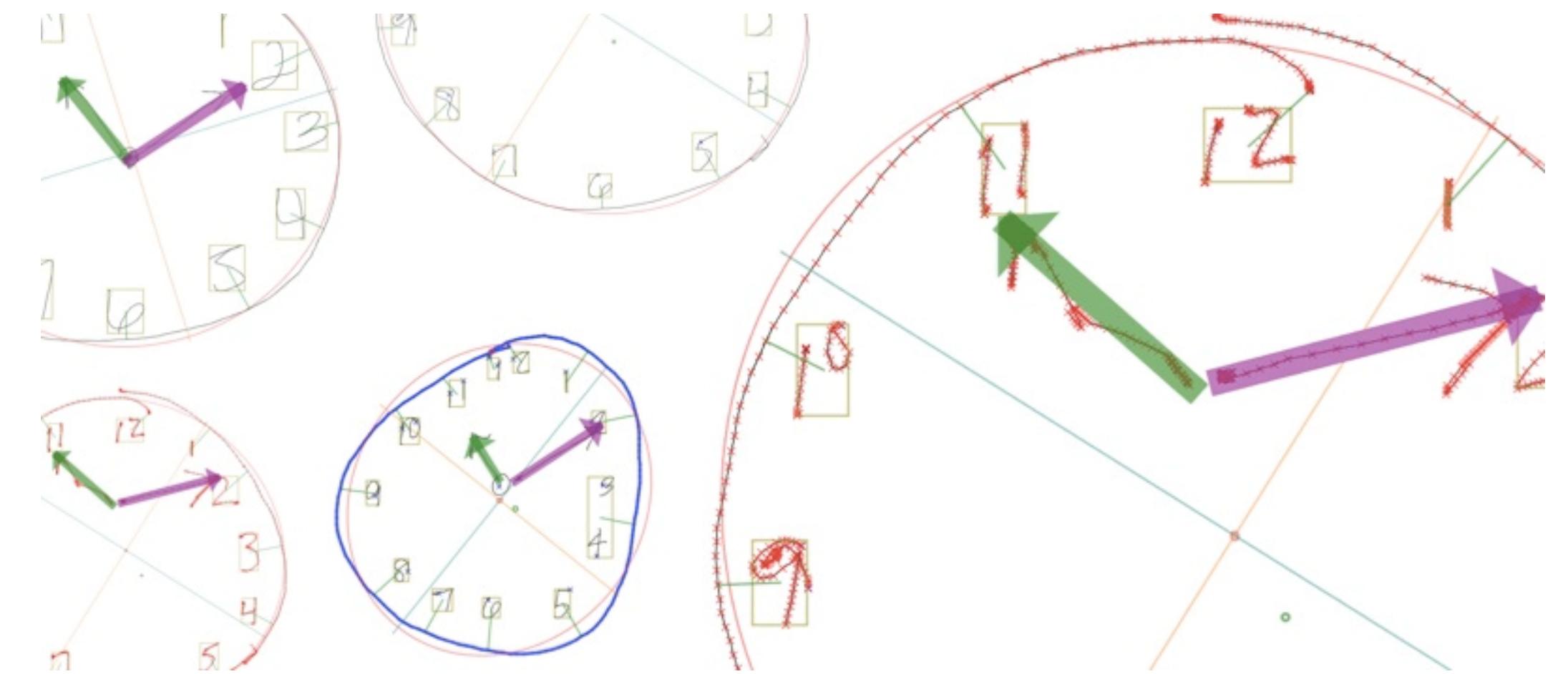
# Quick

- A sketch is quick to make, or gives that impression



# Timely

- A sketch can be improved when needed



# Inexpensive

- Cost must not inhibit the ability to explore a concept, especially early in design



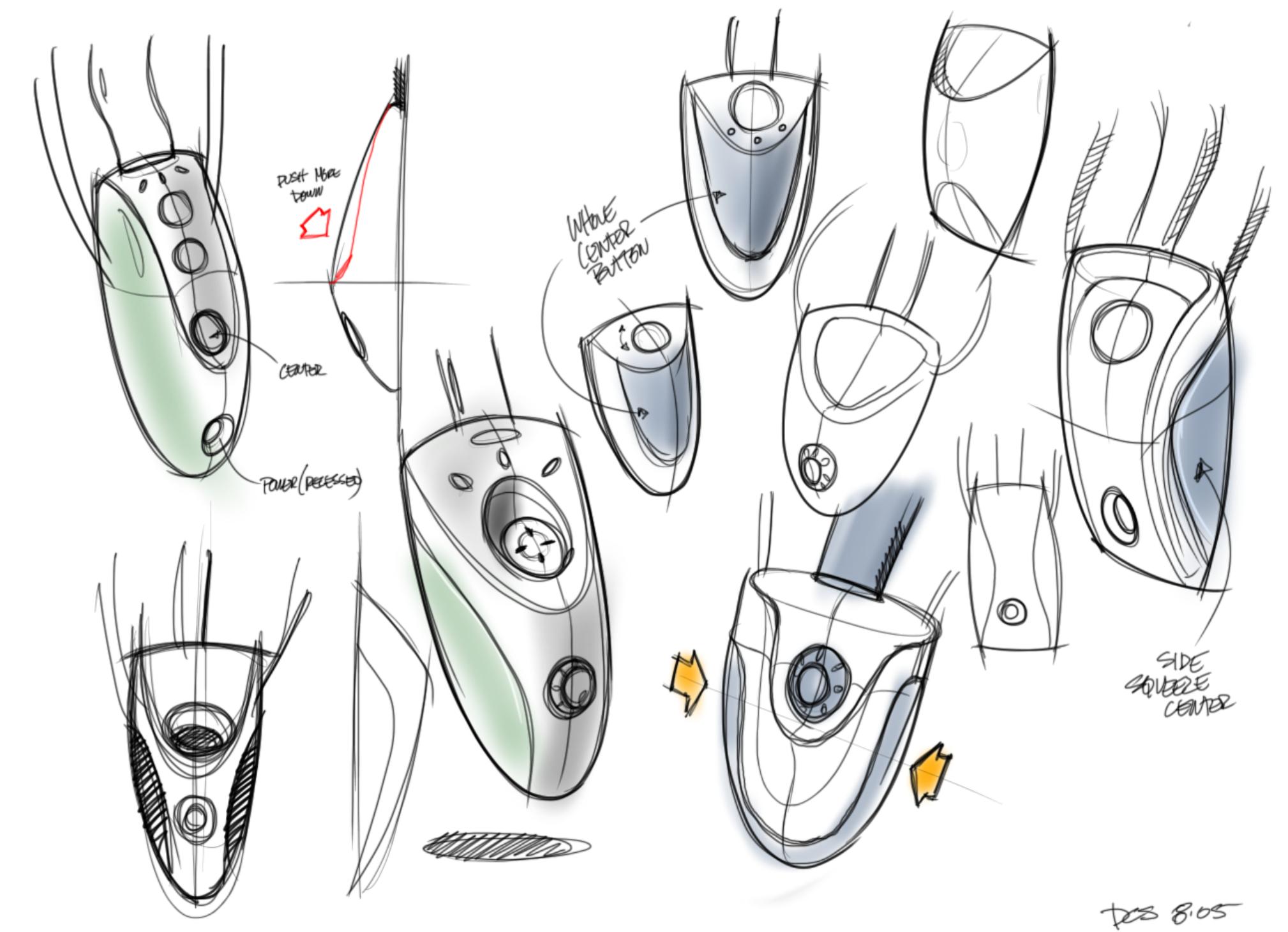
# Disposable

- If you cannot afford to throw it away (time, physical materials), it is not a sketch
- Investment is in the process, not the physical sketch
- But they are not “worthless”



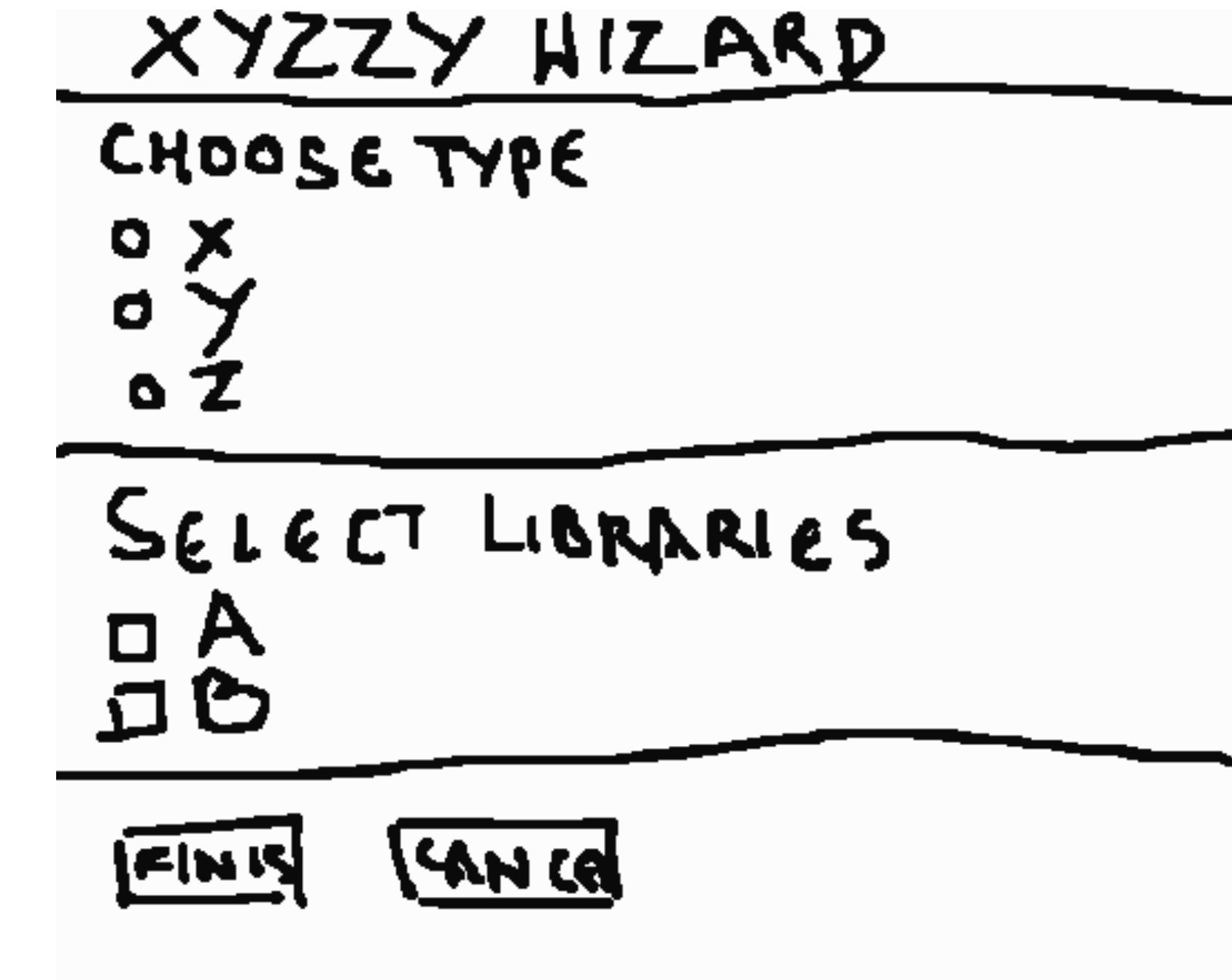
# Plentiful

- Sketches do not exist in isolation
  - Meaning and relevance is in the context of a collection or series



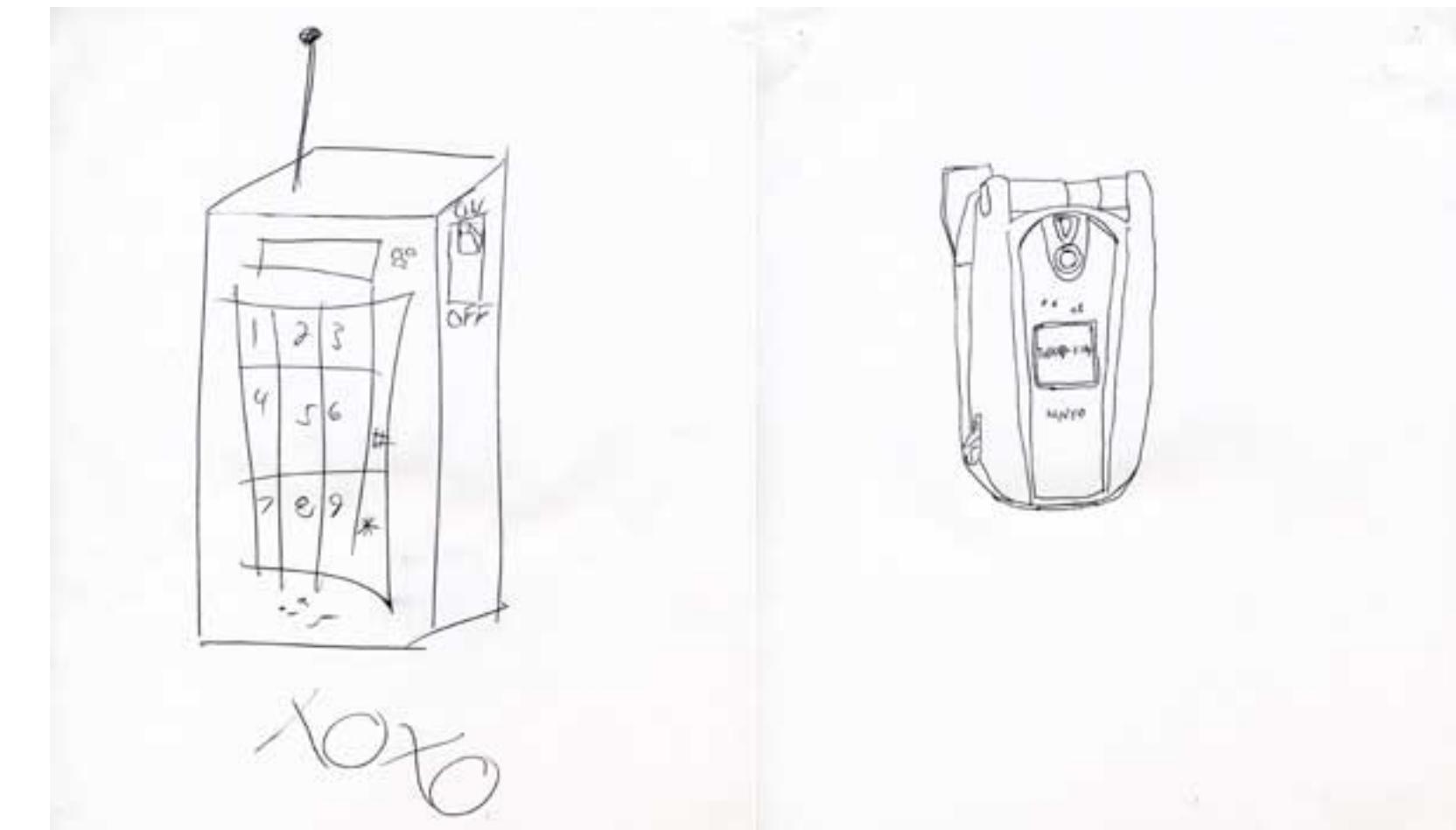
# Clear vocabulary

- The way it is rendered makes it distinctive that it is a sketch (style, form, signals)

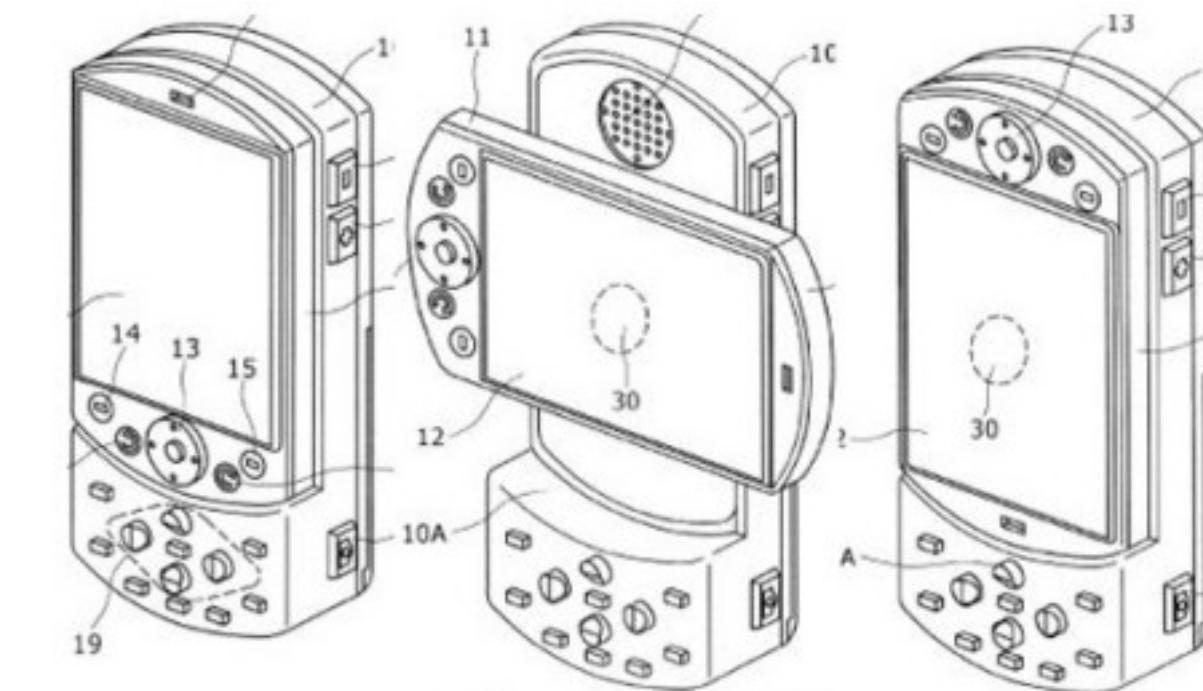


# Distinct gesture

- Fluidity of gestures give them a sense of openness and freedom
- Opposite of engineering, which is tight and precise

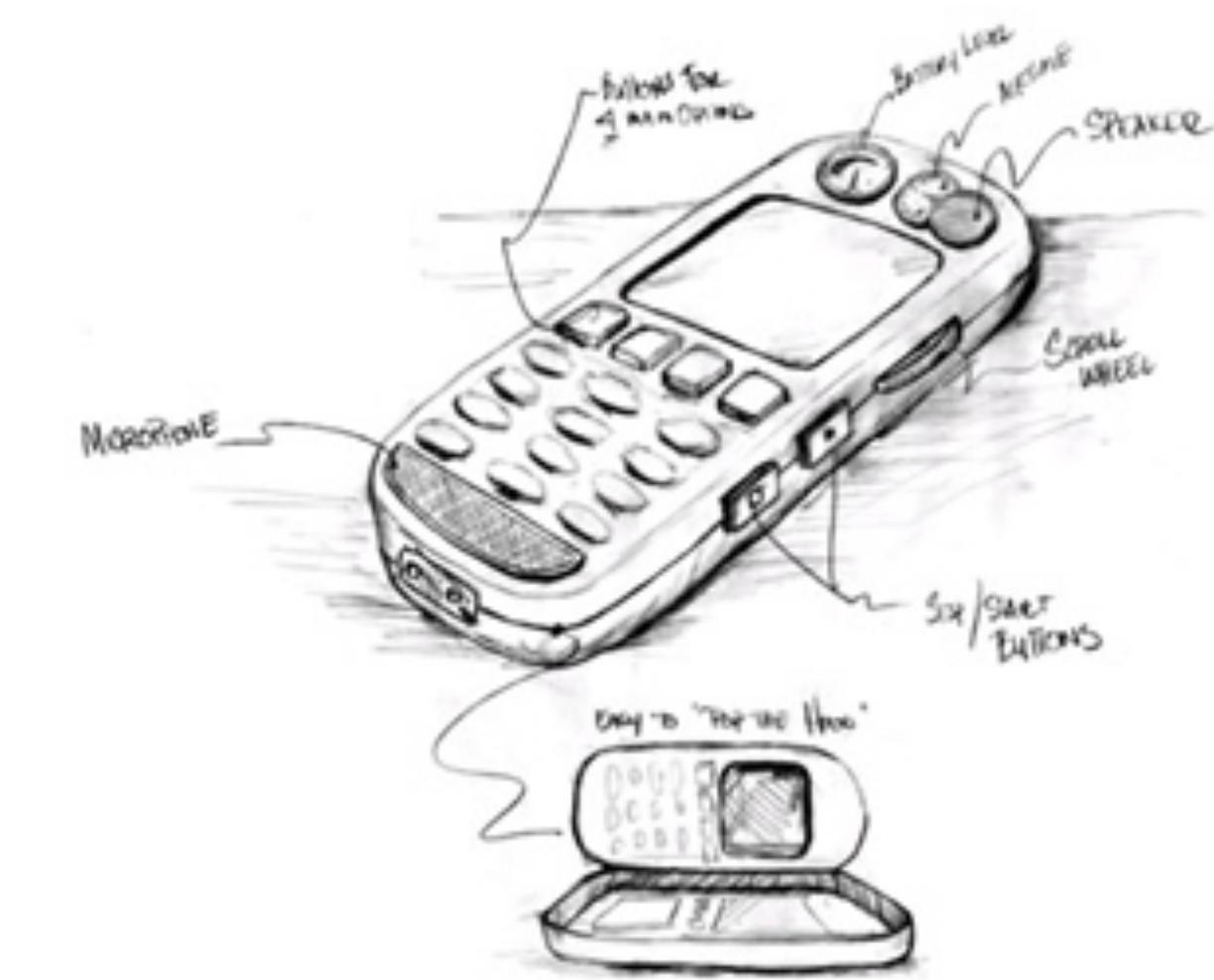
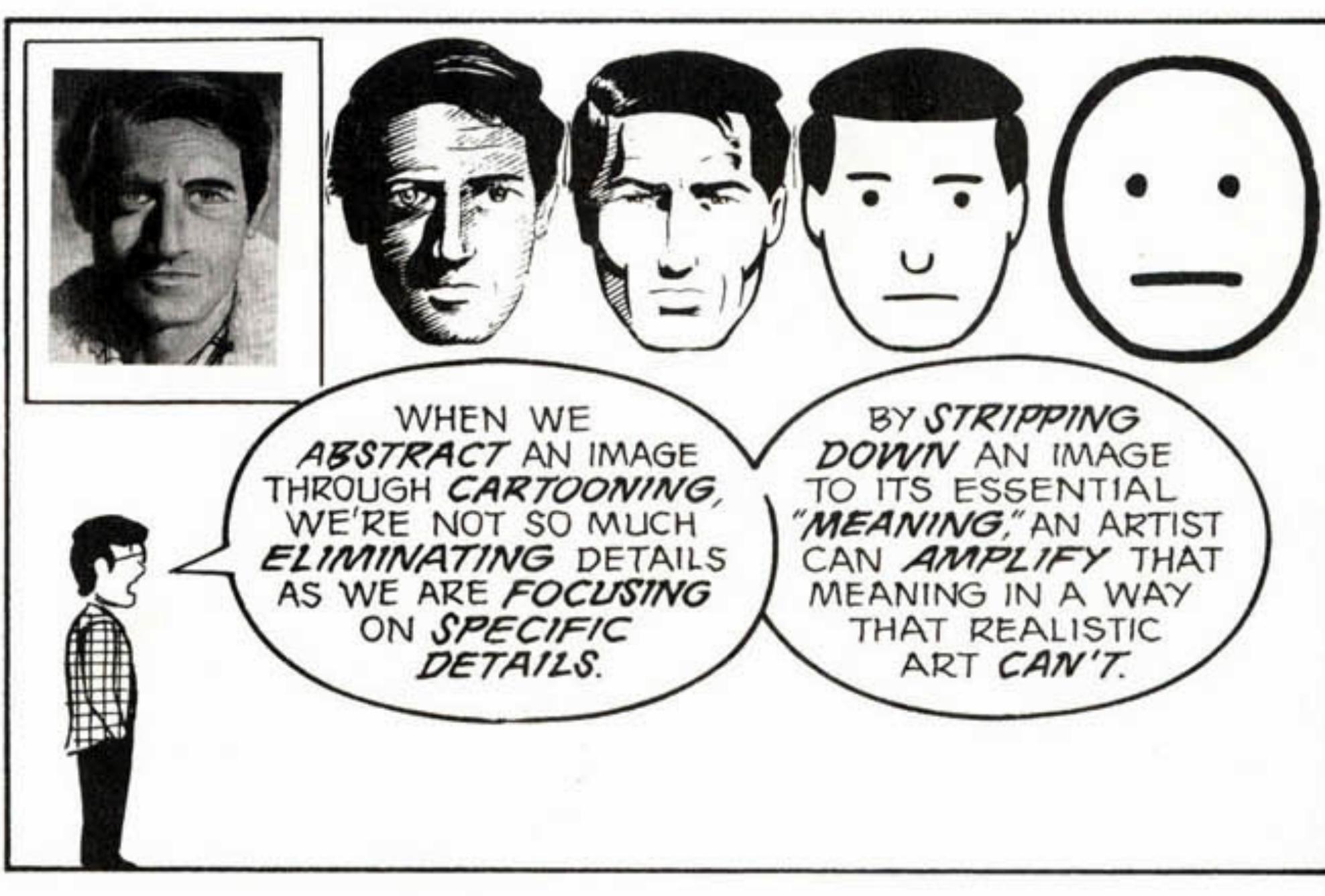


vs.



# Minimal detail

- Include only what is required to render the intended purpose of the concept



Create JSP for this page

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Name:

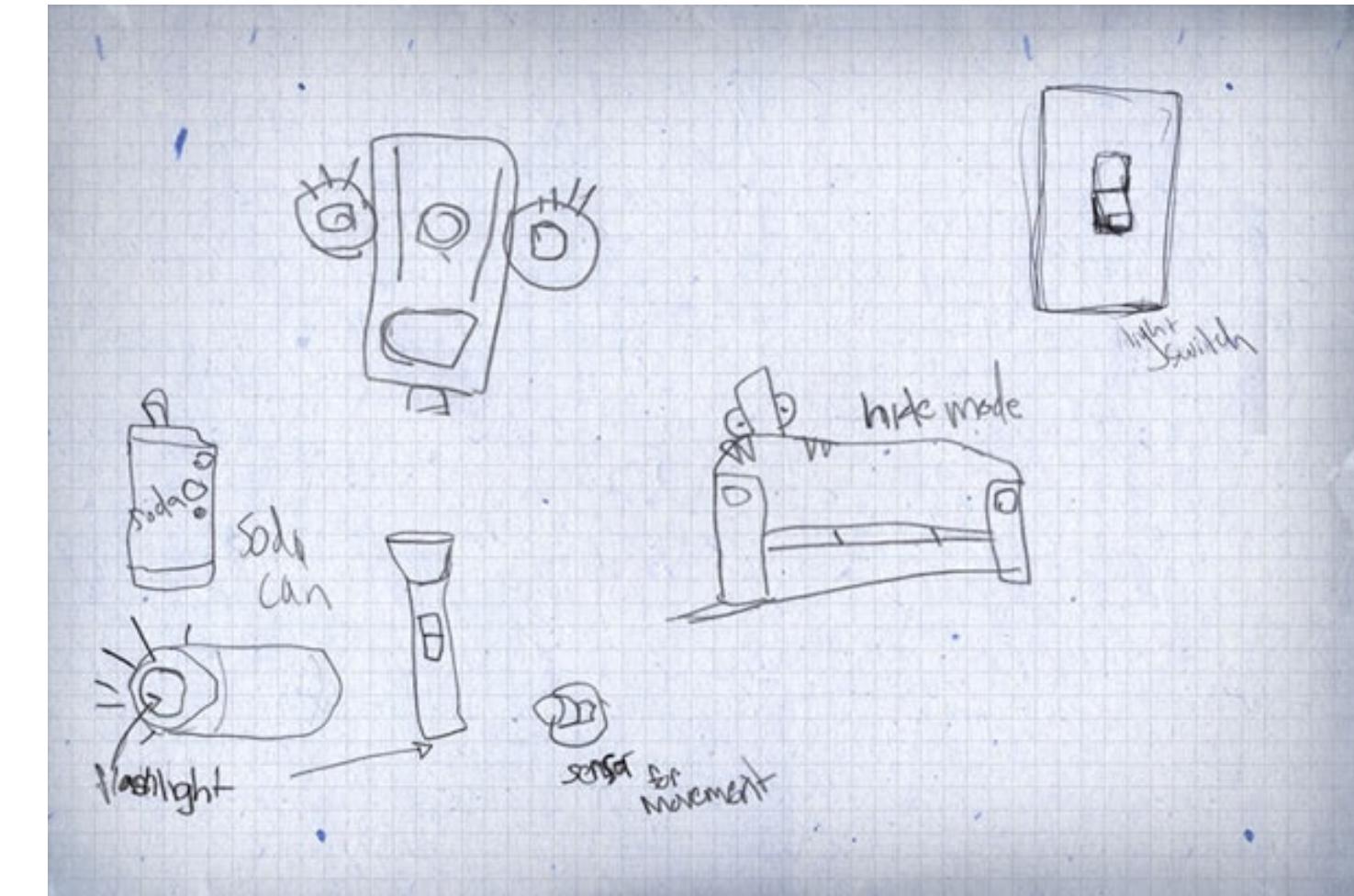
Number:

Category:  Clothing

Price Range:  0.00 to  9,999.99

# Appropriate degree of refinement

- Make the sketch as refined as the idea
  - If you have a solid idea, make the sketch more defined
  - If you have a hazy idea, make the sketch look rougher or less defined



# Suggest and Explore rather than Confirm

- Sketch should act as a catalyst to the desired and appropriate behaviors, conversations, and interactions



# Ambiguity

- Intentionally ambiguous
- Value comes from being able to be interpreted in different ways, even by the person who created them
- Sketches have holes



# Sketch vs. Prototype

**Sketch**

Invite

Suggest

Explore

Question

Propose

Provoke

Tentative, non-committal

**Prototype**

Attend

Describe

Refine

Answer

Test

Resolve

Specific description

# Sketch vs. Paper Prototype

- Sketch to explore design ideas, paper prototype to refine them
- Both early-stage designs; both still somewhat non-committal
- More on paper prototyping next week

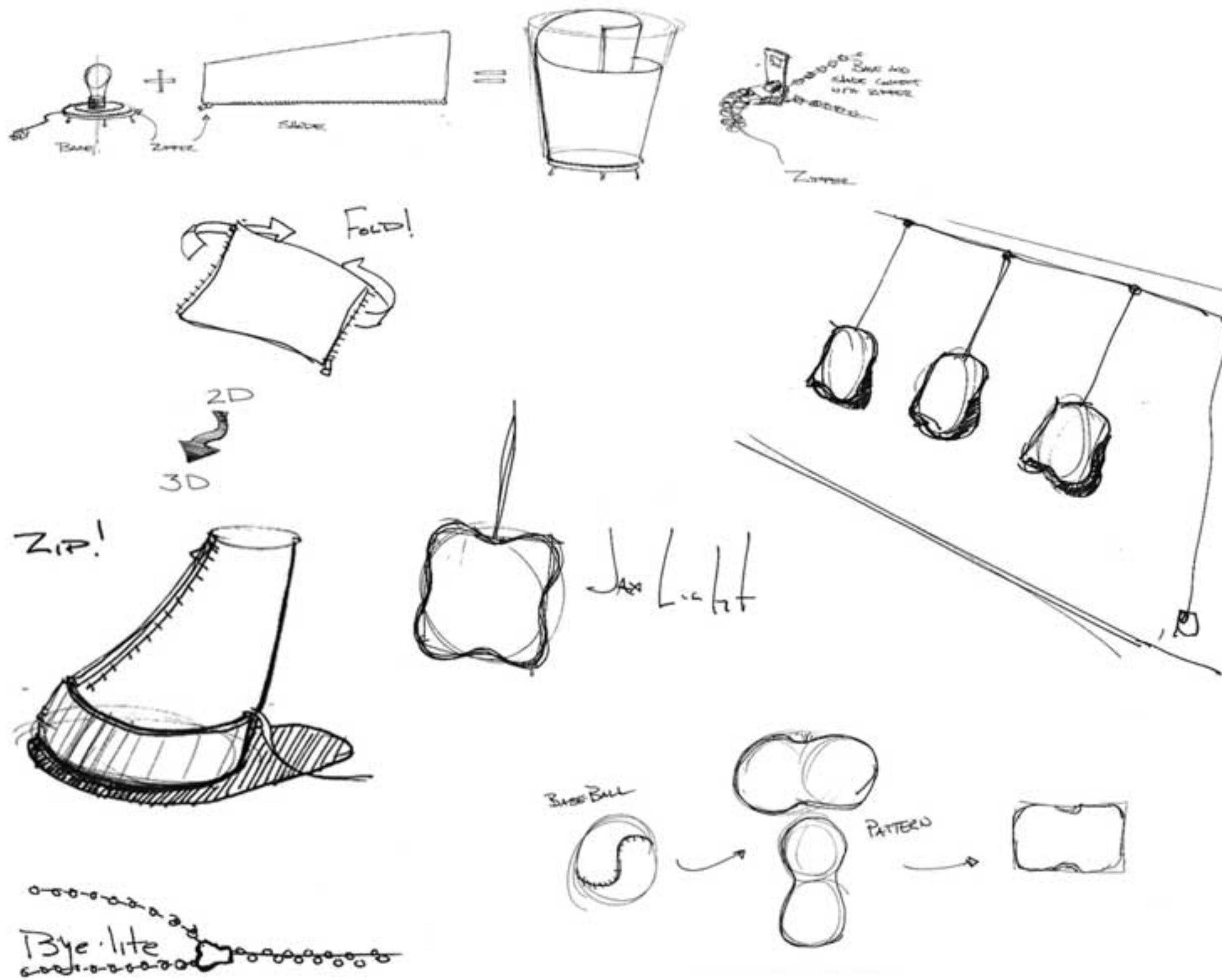
# **Practicing sketching**

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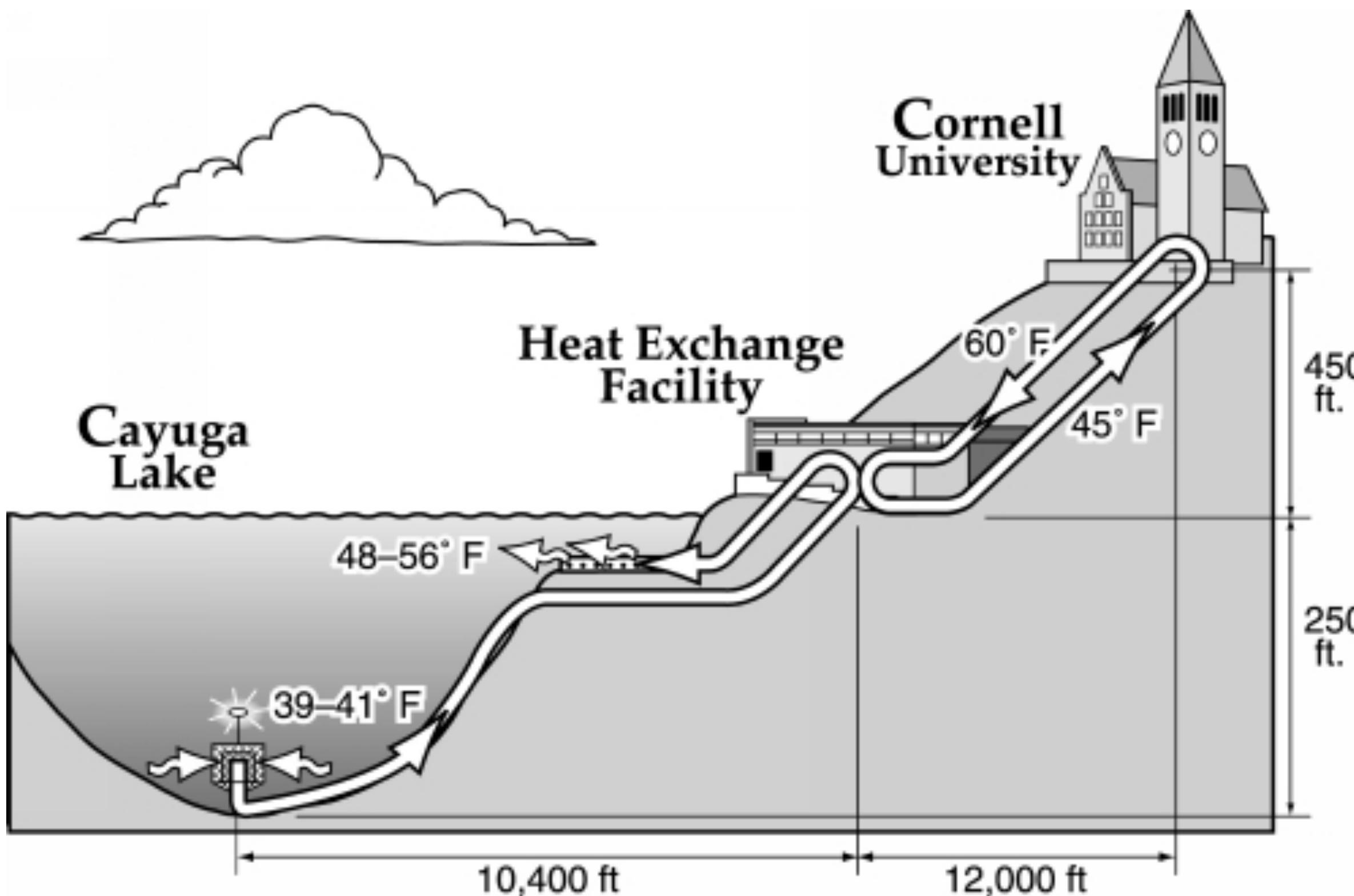


- There are many apps and devices to help people monitor their sleep.  
Some of them are journals, others use sensors to automatically record.
- Sketch 10 potential ways a person could keep a record of their sleep.

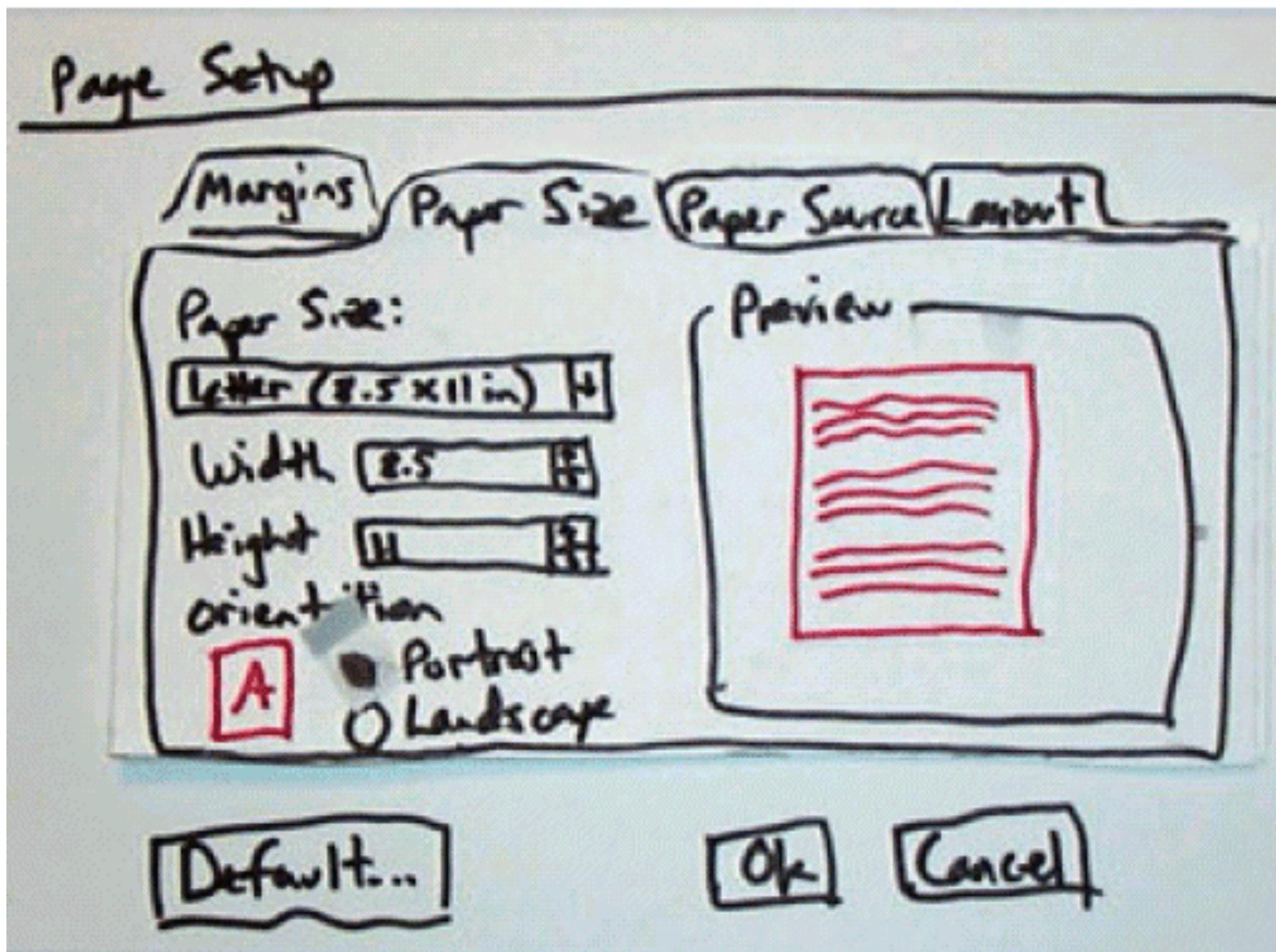
# Is this a sketch? Why or why not?



# Is this a sketch? Why or why not?



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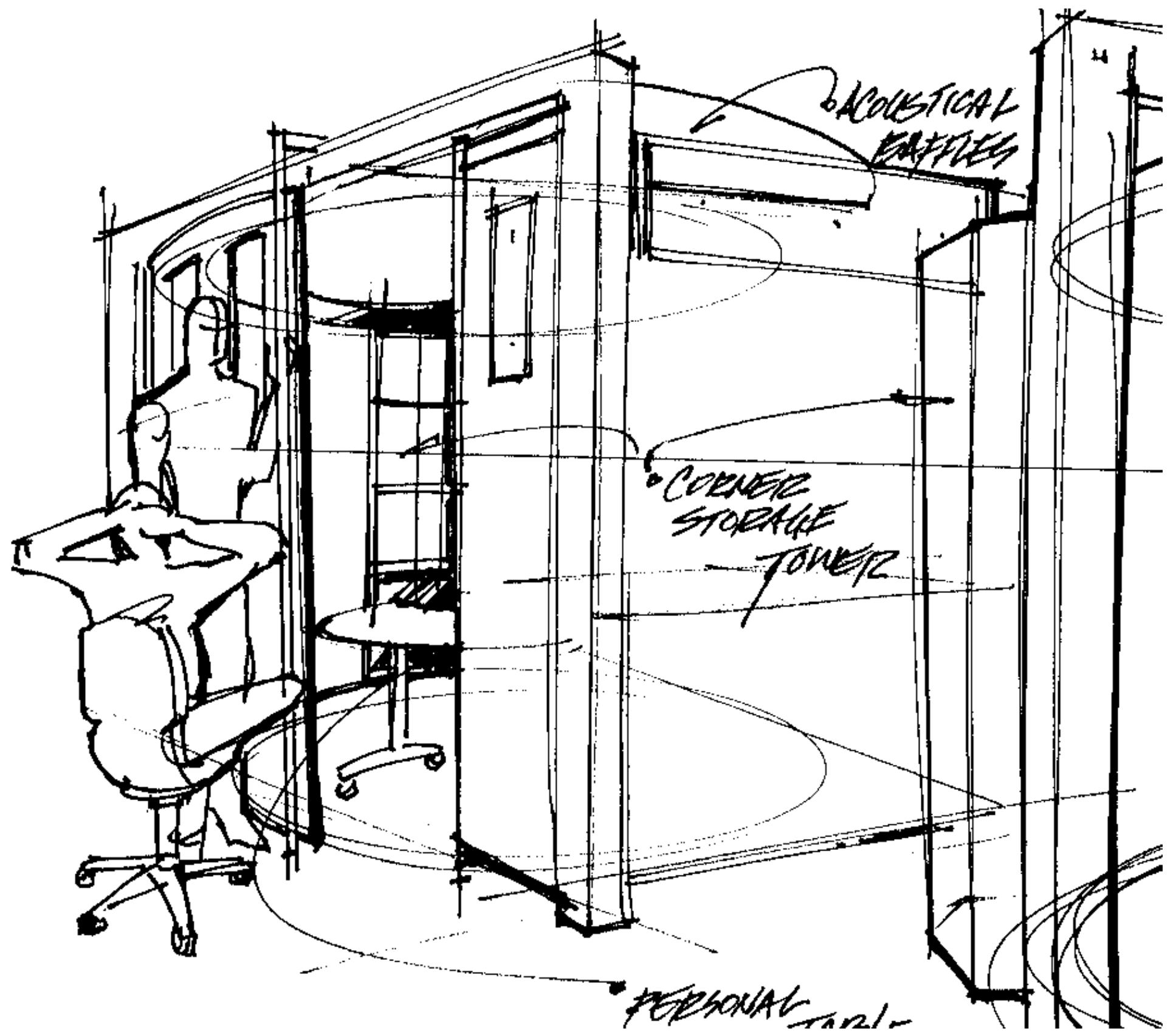
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# **Critique**

# Why critique?

- Critique helps evaluate early, often and cheaply
  - Applicable to artifacts of many types
- You are not your own worst critic
  - We collectively know more than any one of us
  - It's hard to see past your own decisions
  - Design requires getting past our own infatuation

# Critiquing sketches is important

- Ideas are both good and bad
  - Both are useful in design
  - By making clear what it a bad design, we can avoid actually implementing it
  - Bad ideas help you justify good ideas
- Feedback can turn a good idea into a great idea
- Sketching generates too many ideas to implement

# Critique process

- Presenters sit down with critics
- Quickly explain their artifact (e.g., less than 2 minutes)
- Critics give feedback, ask questions
- Presenters respond, take notes on what is discussed

# Critique is neither criticism nor design

- Not just a list of complaints
- Critics offer honest feedback
- Both positive and negative
  - Presenters should be able to learn *what works well* and *what is problematic* about their artifact
- It is then the presenter's responsibility to sort through feedback, decide what is important, how to act
  - You must take notes for later review

# Tips for presenters

- Critique can be hard, especially at first
- Try to avoid being defensive
  - You are not your work, separate yourself
- Remember the expertise you bring
  - Even if “the room” knows more about design, you know more about your problem/artifact and your rationale for the current design

# Tips for presenters

- Taking advice is not giving authorship
  - You still make the final decisions
  - A half-baked suggestion does not contain all of the details of a finished solution
- Design your critique
  - What you show invites different forms of feedback
  - Verbally indicate what kind of feedback you want, but also provide an artifact of an appropriate form

# Tips for critics

- Hamburger method
- I like, I wish, what if
- Socratic method

# Tips for Critics: Hamburger method

- Bun
  - Something fluffy and nice
- Meat
  - How to improve
- Bun
  - Something fluffy and nice

# Tips for Critics: I Like, I Wish, What If

- I Like
  - Lead with something nice
- I Wish
  - Often leading from what you like
- What If
  - An idea to spark further conversation, better than: “I think you should have...” or “Why don’t you...”
  - Gives the presenter the benefit of the doubt if they did already think of your idea, can present rationale

# Tips for Critics: Stocratic Method

- Identify an aspect of the design and ask, “Why?”
  - Can be good if unsure what else to say
  - Forces presenter to give, or develop, explanations for design decisions, which can help build up the design rationale
  - Not fundamentally negative, hard to get defensive

# Critique practice



- Pick one of your sleep sketches and pair up to give each other feedback
- Aim to follow one of the three methods discussed:
  - Hamburger method
  - I like, I wish, what if
  - Socratic method

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