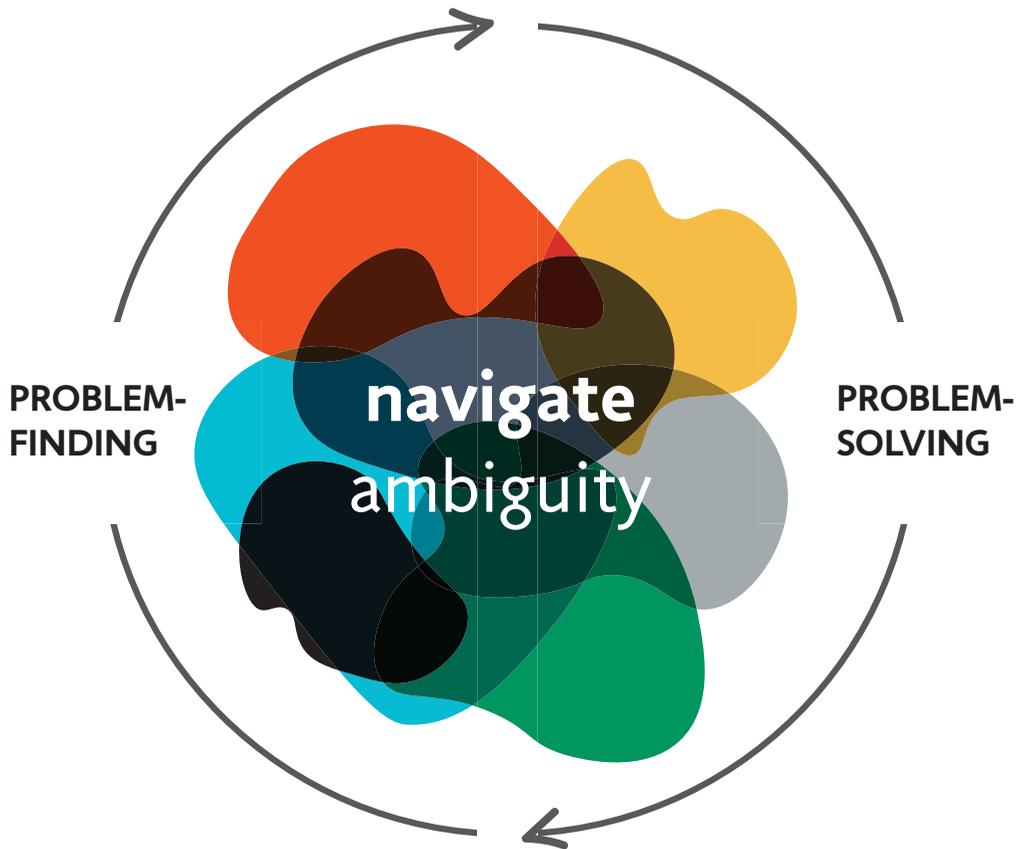


8 essential design abilities

to master the art of **problem-finding** and **problem-solving**

DESIGN THINKING STUDIO
WINTER 2019

Design is all about navigating ambiguity.

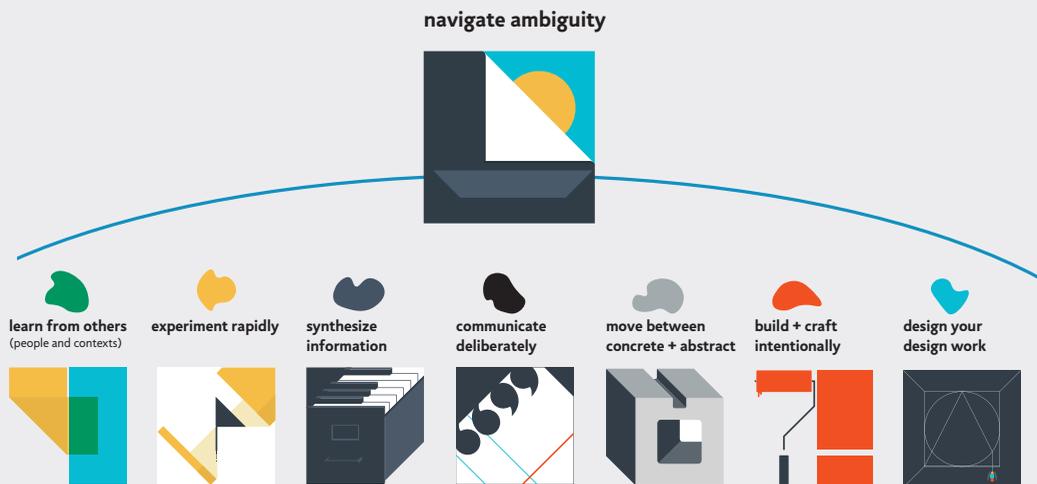


In a world that is messy and unpredictable, human-centered design offers a set of tools, methods, and abilities to navigate complexity and drive positive change.

This book describes 8 core abilities that guide designers as they both uncover and identify meaningful 'problems' to solve (often unrecognized areas of need), as well as figure out how to solve them in innovative ways.

This is what design is all about.

Meet your **superpower**.



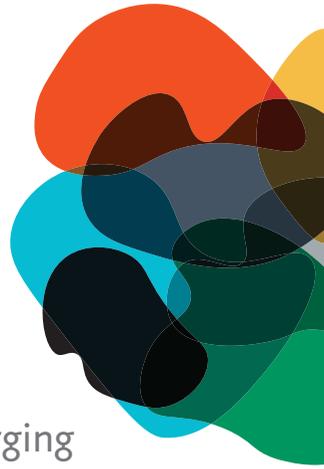
It is this master ability of **navigating ambiguity**, of thriving in a messy world of parallel possibilities, that equips designers to both discern and creatively solve complex human challenges.

Where others might see uncertainty and retreat in the face of discomfort, designers boldly plunge forward. Being able to navigate ambiguity is a competitive advantage over others who fall back on more conventional thinking.

Designers lean into ambiguity, and see it as an opportunity.

Navigate Ambiguity





This essential ability involves recognizing and stewing in the discomfort of not knowing, leveraging and embracing parallel possibilities, and resolving and emerging from ambiguity as needed. It is the designer's super-ability, necessary for both problem-finding and problem-solving.

Designers are fearless explorers of uncertainty. Projects, process, and people are inherently ambiguous. Designers find patterns in information. They re-frame problems, tune possibility, and make meaning. Ambiguity simultaneously makes creative work extremely challenging to do well, and also leads to the greatest opportunities.

You're exercising this ability when you...

- feel comfortable in holding multiple threads/directions of a project at the same time / in parallel
- ask/surface more questions than answers
- name and explore opposing tensions (and potential outcomes) for your work
- decide your next project step based on where you are in the moment and where you've been (vs. adhering to a specific process or "plan")
- reframe the nature of a problem, and pivot in the course of a project
- let go of a pre-determined solution at the outset of a project

Design fields that draw deeply on this ability include:

- Design Strategy
- Innovation & Entrepreneurship
- Social Entrepreneurship
- Design Leadership (ie. Project Leading, Creative Directing)

Learn from Others

(people and contexts)





This core ability includes the skills of empathizing with different people, testing new ideas with them, embracing diverse viewpoints, and observing and noticing in different places and contexts.

Designers cultivate an insatiable sense of curiosity and a desire to understand. Recognizing the opportunity to learn from others, and then acting upon it, is something that happens throughout a design project. Designers learn from both end users as well as other stakeholders and team members. There is a sensitivity to others that develops with this ability, and an instinct to look “out,” not “in,” for inspiration.

You’re exercising this ability when you...

- listen and watch more than you talk
- interview someone you don’t know to get a new perspective
- can empathize with and be moved by another person’s experience
- sit quietly and observe people’s behavior
- notice an unmet human need or spot work-arounds
- use your notebook regularly to capture observations, quotes, sketches, and ideas
- seek feedback on an idea with the intent to learn (not validate)

Design fields that draw deeply on this ability include:

- Human Factors
- Design Research
- Ethnography
- Quant/Qual Research
- UX (User Experience)

Experiment
Rapidly





This ability involves being able to quickly generate ideas, whether written, drawn, or built.

Designers cultivate an itch to express something; an eager willingness to try something out. In order to experiment rapidly, they learn to relax their minds into a mode of acceptance and generation, and eliminate the natural tendency to block ideas that don't seem on point or feasible. Brainstorming and prototyping are important skills within this ability. It's about letting the doing lead your thinking, and leading with your hands.

You're exercising this ability when you...

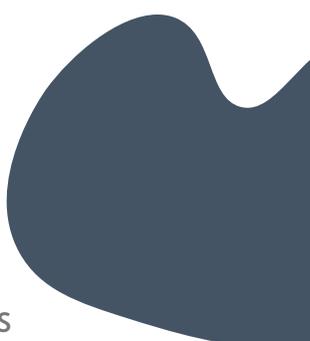
- lead a brainstorm and include several other people
- try an idea that you didn't think would work
- refrain from filtering/judging your own ideas
- sketch an idea rather than trying to explain it verbally
- make a prototype in under 5 minutes
- come up with a new idea by drawing or building it, rather than thinking about it
- build on someone else's idea
- push yourself generate a large number of ideas before acting on one of them

Design fields that draw deeply on this ability include:

- Rapid Prototyping
- Industrial Design
- Design Education
- Communications Design
- Illustration (ie. Graphic Recording)

Synthesize Information





This is the ability to make sense of many disparate pieces of information and find insight and opportunity within.

Designers cultivate a desire to interpret and synthesize information to make meaning and illuminate possibility. Data comes from multiple places and has many different forms, both qualitative and quantitative. This ability requires skills in making frameworks, maps and abductive thinking. This ability is very hard, and generally requires intentional moments of focus to exercise it well.

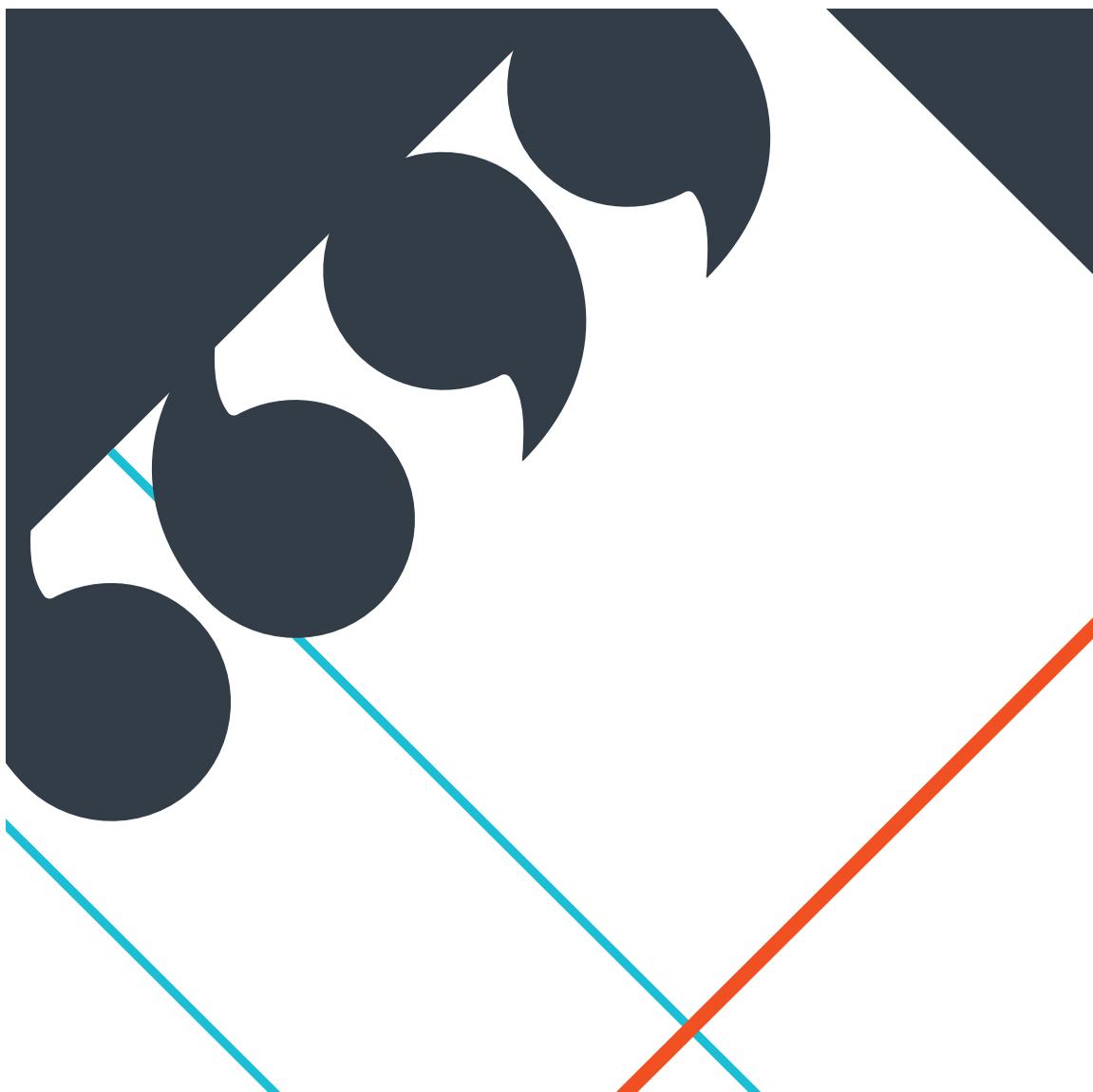
You're exercising this ability when you...

- use pattern-finding to surface a non-obvious need
- leap from an observation(s) to make an abductive inference ("leap") as to the meaning behind that observation
- generate insights that feel actionable, inspiring, and point to a new opportunity
- visualize or map a set of information in a way that reveals insight
- identify and elevate a specific audience for your work

Design fields that draw deeply on this ability include:

- Human Factors
- Design Research
- Quant/Qual Research
- Design Strategy

Communicate Deliberately





This is the ability to form, capture, and communicate stories, ideas, concepts, reflections, and learnings to the appropriate audiences.

Designers are just as thoughtful about how they communicate, as well as what they communicate. Communication happens in a variety of contexts. It could include reflecting on your performance to a project team or crafting a video to show your product to a potential investor. In an intensely collaborative field, focused squarely on addressing human needs, communication and storytelling are paramount.

You're exercising this ability when you...

- imagine the storytelling experience in parallel with the evolution of an idea/concept (and not the night before)
- iterate on your story (and actually test it)
- ask yourself "what's the most important thing we want viewers to remember?"
- design a way for your stakeholders to really experience your idea
- share ideas with a fellow teammate, a novice, or user throughout the project
- deliberately choose the most appropriate media/medium to convey your ideas
- learn a new communication medium to better communicate your idea
- create a team culture where clear and honest communication is valued

Design fields that draw deeply on this ability include:

- Storytelling
- Visual Design
- Digital Media & Filmmaking
- Design Research
- Service Design

Move between
Concrete and Abstract





This ability contains a variety of skills, including fluidly working across multiple scales, as well as simultaneously shifting between the equally important worlds of tangible and intangible.

Designers recognize, and are energized by, the reality that everything is connected. When building out a new concept, whether a product, service, or experience, they need to be able to situate it within the larger ecosystem that relates to it and consider diverse stakeholders. We have Ray and Charles Eames to thank for showing us the power of zooming in and out of a particular context, looking at both the high-level view, as well as granular details like specific features. Designers also continuously and fluidly move between the realms of tangible information/artifacts and abstracted meaning as they cycle between understanding and creating.

You're exercising this ability when you...

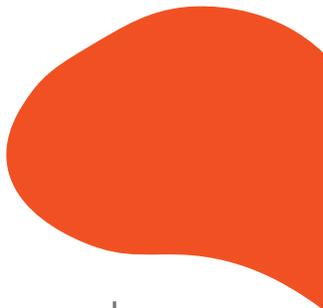
- make journey maps at various time scales
- populate a stakeholder map or a system diagram
- consider multiple users and stakeholders in your work
- infer insights from stories and observations from user research (concrete to abstract) then use those insights to generate ideas and testable prototypes (abstract to concrete)
- form abstracted design principles or frameworks from specific data, which can guide and inspire the creation of specific design solutions

Design fields that draw deeply on this ability include:

- Organizational Design
- Design of Social Systems
- Design Strategy
- Social Entrepreneurship
- Designing Education Systems

Build and Craft Intentionally





This ability is about thoughtful construction and showing work at the most appropriate level of resolution for the audience and feedback desired.

Designers know that details matter when you're bringing an idea to life, no matter if the medium is cardboard, pixels or text. Furthermore, there are many sub-disciplines of design, each with their own set of tools and techniques. UX designers have a set of tools specific to creating human-centered digital interfaces. Architects have an arsenal of techniques to bring new structures into the world. Every other discipline (immunology, macroeconomics, K12 education, etc.) has its own methods as well. This ability requires a sensitivity to the tools needed to create beautiful work in the domain that you are working in.

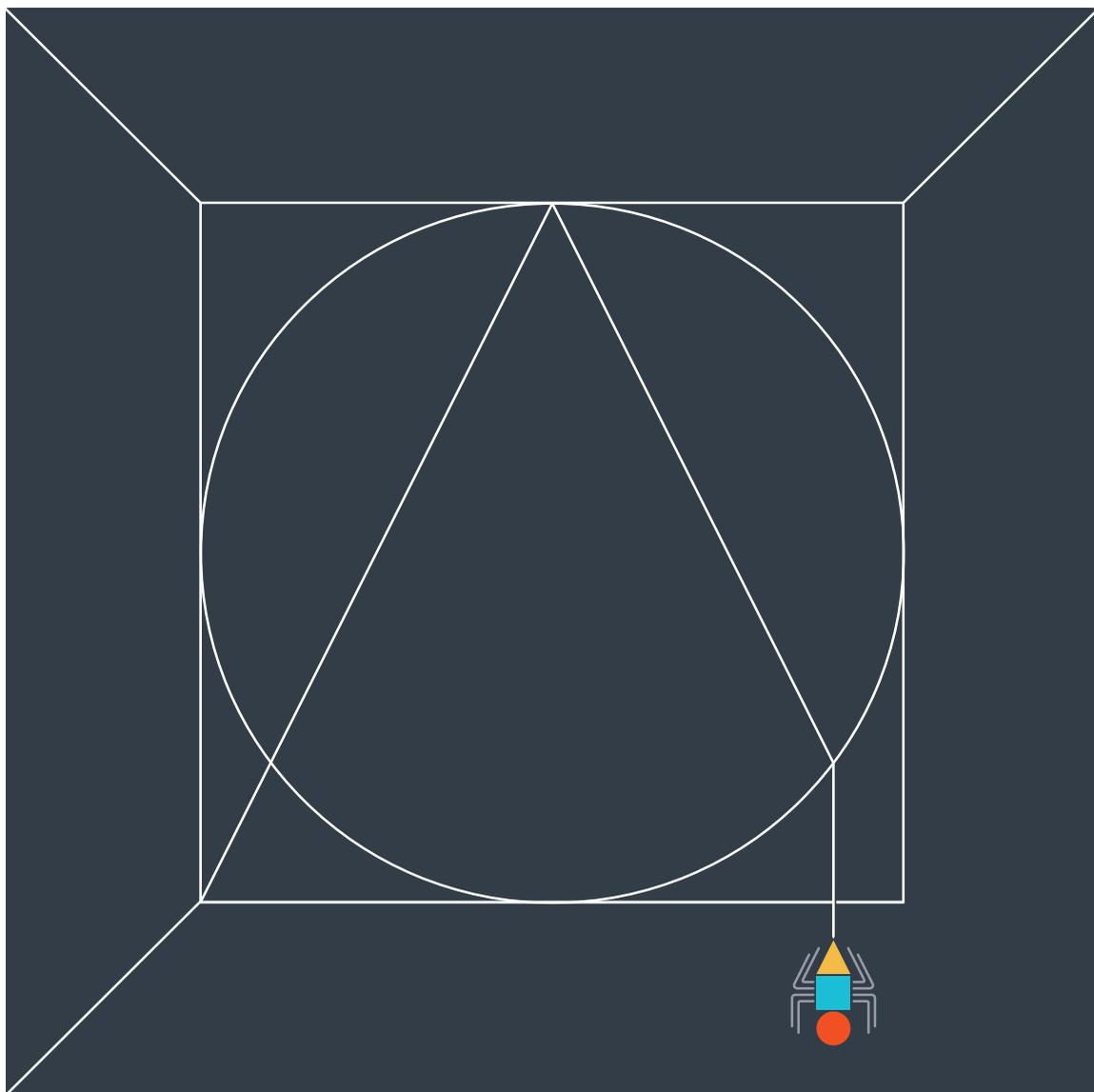
You're exercising this ability when you...

- decide to make something more polished or resolved ("high res") in order to answer a question, get feedback, or present your idea
- learn a new skill, ability, or craft (ie. InDesign) to help you better communicate, represent, or display your idea in the most appropriate way
- bring on new talent to your team to help realize a concept at a certain level
- decide purposefully to leave something more rough ("low res") than might feel comfortable to get more honest feedback (and save time where it's non-critical)
- execute a piece of work at a level you are really proud of

Design fields that draw deeply on this ability include:

- Industrial Design
- Visual / Communications Design
- High-Resolution Prototyping / Fabrication
- UX/Interaction Design
- Environments Design

Design Your Design Work





This meta ability is about recognizing a project phase or the project at large as a design problem and then deciding on the people, tools, techniques, and processes to use to tackle it.

Designers develop this ability with time and practice. There is an increased level of intuition and self-awareness that emerges with experience. It requires relying on your instincts, mashing up tools, and developing new techniques for the challenge at hand.

You're exercising this ability when you...

- recognize that you could begin a project at any number of starting points, and have the confidence to choose one
- bring an additional mentor or expert into your team if needed at certain junctures
- let different team members lead different phases or activities based on skills/abilities/experience
- modify or revisit a tool you've learned to suit your needs
- ask yourself routinely "what does our project need right NOW?"

Design fields that draw deeply on this ability include:

- Design Leadership (ie. Project Leading, Creative Directing)
- All design fields

A vertical sidebar on the left side of the page contains seven square icons. From top to bottom: 1. A red square with a white line and a black dot. 2. A yellow square with a green square and a blue square. 3. A dark blue square with a white document icon. 4. A black square with a white document icon and a red line. 5. A dark blue square with a white document icon and a yellow sun. 6. A dark blue square with a white circle and a black line. 7. A yellow square with a black triangle and a white line.

design
abilities
dipa project

How do I practice **design work**?

DPA (Design Project: Abilities) is an individual, quarter-long project designed to help you answer this question. This project will help you notice and reflect on the essential skills and abilities we will exercise in this class and how you uniquely put them into practice. At the end of the quarter, we'll help you synthesize this journey and design a way to storytell it in a succinct and powerful way.

Much of this class is dedicated to intensive team-based work, and a ton of learning and growth will happen there. This project is your opportunity as an individual to recognize and capture the transferrable skills you'll take with you going forward. You'll have 2 great case studies from your DPs, and this will help you pull out and highlight your stories.

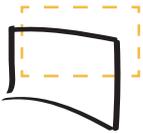
DPA Project Timeline

This project has 3 main threads that span the course of the quarter:

Inspiration + Exploration

If we were to curate a library for each of the 8 design abilities we'll practice in this class, what key resources or examples would you want to see that collection? Examples of these abilities abound in the world around us. We want you to explore and capture **5 examples** (from any 5 of the 8 abilities) over the course of the quarter to contribute to our class Library of Abilities. On these Mondays, you will bring a "library catalog card" to class for a resource that you'd like to include in a certain ability's collection. This could be for any piece of media or published work that directly address an ability, advances our understanding of it, or evokes it in an interesting way. It could be a book, article, piece of research, podcast, film, video clip, TV episode, tool/toolkit, etc.

Launch 1.9



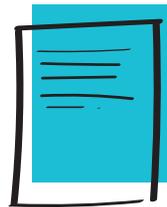
Mon 1.14



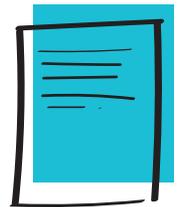
Mon 1.28



Mon 2.4



Fri 1.25



Fri 2.8

Reflection

A couple times over the course of the quarter, we will ask you to write a short (1-2 paragraph) written reflection on how you are growing and stretching in the development of your design abilities. These quick check-ins will help you connect your project work with your individual growth. We'll provide prompts for these along the way.

■ Synthesis and Storytelling

At the end of the quarter, we'll bring it all together and help you synthesize your learnings and take-aways from this class, pull out and craft specific stories, and design them into a shareable artifact. We'll start this in class together on March 6, and will have you submit your finished materials by that **Friday, March 8**. On the final presentation day on **Wednesday, March 13**, each student will have the opportunity to do a short mini-talk on one of these stories for the class.

Mon 2.11



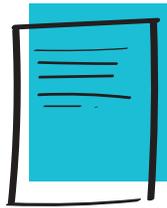
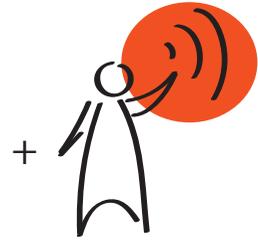
Mon 3.4



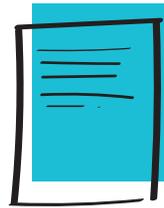
Fri 3.8



Wed 3.13



Fri 2.22



Fri 3.8



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