1 The Dream Life of Objects

“The system is partly a memory of its past, just as in origami, the essence of a bird or a horse both in the nature and order of the folds made. The question that must be answered when faced with a problem of planning or design of a system, is what exactly is the system? It is therefore necessary to know the nature of inner structures before plans can be made.”—Wolfgang Jonas, “On the Foundations of a ‘Science of the Artificial’

Summary
Select a quotidian (every day) object or system that already exists, such as a piece of clothing, paper, pen, notebook, the electoral college etc. and research how it was constructed. Consider how that object might be used in a completely different environment or context, ie 20 years in the future, in a fictional society etc.

Overview:
• Choose a quotidian object;
• Research and analyze it relative position and function in various systems;
• Describe a design fiction, an exceptional, other worldly context or environment; whether speculative, fictional, or relatively unknown (more info on this below);
• Define how the object and its use might be transformed by new social context;
• Write a “user scenario,” a written description of how an entity would engage with the transformed object.
• Create a prototype from paper and / or found materials that represents some key aspect of the object’s importance, function, or the nature of it’s core experience
• Create 3 prototypes in 3 different media of your object / system / fiction

Reading
Escaping Flatland from Envisioning Information by Edward Tufte
As we May Think by Vannevar Bush http://www.theatlantic.com/doc/194507/bush
The Hertzian Tales or The Pillow by Anthony Dunne and Fiona Raby
What do Prototypes Prototype? by Houde-Hill
From user to character-an investigation into user description in scenarios Lene Nielsen

Suggested Reading
The Power of Representation by Donald Norman
The Myth of Metaphor by Alan Cooper
Interface Culture by Steven Johnson (chapters 1, 6 and conclusion)

Terms and concepts

1. Iterative design: to design in stages, increasing usability by refinements based on user testing. State the problem, research and analyze to define objectives and identify constraints, propose / prototype and evaluate
2. Speculative design involves conjecture on what impact a particular design might have on the world / culture / surroundings as we know them; or, in a different world or social context, what types of designs might be utilized and how they would function.
3. **Critical design** is work created with the intention to foreground social, psychological, & cultural issues or questions.

4. A **design fiction** is to consider the outcome of alternative logic and systemic function for a particular world or scenario, i.e., ‘if the world were flat …’

5. **Value fiction** is a term coined by Anthony Dunne and Bill Gaver. A value fiction is a tool to create discussion about the underlying assumptions embedded in designed objects, systems or experiences. In a value fiction, ideas come from imagining possible designs, based on existing technologies, and trying to understand why they would not work in our current culture, or why they would work in a fictitious one. The unfeasibility of certain proposals might not be technical or economic, but rather impossible because of current cultural values. Insofar as they are perceived as impractical, they prompt questions about what we do think is practical or useful (especially for electronic technologies), about the values that would be necessary for the proposed designs to be accepted in the culture at large. Accordingly, the deepest question value fictions raise is: ‘why not?’ (Adapted from The Pillow by Anthony Dunne)

6. **User scenarios**: are narratives portraying how a user might interact with a given system, including info about goals, expectations and reactions. Scenarios are an attempt to show how a system would be used in daily life, to illustrate its functionality. Questions to keep in mind: What role will the design object play in the user’s life? How should it look and feel? How should it be implemented?

Guiding Questions

1. What are the ways in which a designer can study an object or system? What are some methods for expressing this analysis?
2. What other forms might your quotidian object take?
3. What is an interface? Is it constrained to a culture, place or specific geographical area?
4. What are different representational strategies for depicting ideas and concepts?
5. How might different scales of thinking (on the body, around the body, local, global) influence the design of an interface, especially one that is constrained by cost and culture?

References

Design analysis examples: Tuftee, John Cage music notation, dance notation, story boards, information architecture
Practical fictions: Krzysztof Wodiczko, Andrea Zittel
Historical Precedents: fluxus games, surrealist objects, Duchamp’s The Large Glass, Meret Oppenheim’s fur lined tea cup
Consumer fictions: Maywa Denki and Diller + Scofidio (Vice Virtue Glasses)

Design Fictions

Description: Design Fictions subverts the usual way we design in order to say something about our “real-world” by freeing designs from reality and the more instrumental, market-driven qualities of design. The term Design Fictions has been used in several contexts, and in this assignment we are thinking of it in terms of how Julian Bleeker has described it (http://www.nearfuturelaboratory.com/2009/08/17/pastiche-scenarios-designcommunication/) and the ways in which Anthony Dunne and Fiona Raby have used critical design as a kind of "design for the mind":

To create a Design Fiction is not to give up all constraints. In fact, constraints can be very useful as prompts for the creative process. Instead, Design Fictions use fictional worlds and characters to create scenarios and personas that inhabit those scenarios. For this workshop, you will use the inspiration of a text in order to create your design, whether one you write yourself, or one that you acquire from film / art / literature (Italo Calvino’s *Invisible Cities* is one example).

The design you develop should be represented in the form of a scenario: a descriptive story about how your design is used in context, and then a prototype: an actual paper or 3D representation of your design.

Begin by brainstorming with a partner or group of three. Seven suggestions from IDEO about brainstorming are below.

1. Defer judgment: Don’t dismiss any ideas. Any idea is a good idea, no matter how crazy.
2. Encourage wild ideas: Embrace the most out-of-the-box notions because they can be the key to solutions. The whole point of brainstorming is coming up with new and creative ideas.
3. Build on the ideas of others: No “butts”, only “ands.”
4. Stay focused on the topic: Always keep the discussion on target. Otherwise you can diverge beyond the scope of what you’re trying to design for.
5. One conversation at a time: No interrupting, no dismissing, no disrespect, no rudeness. Let people have their say.
6. Be visual: Use yellow, red and blue markers to write on big 30-inch by 25-inch Post-its that are put on a wall. Nothing gets an idea across faster than drawing it. Doesn’t matter how terrible of a sketcher you are.
7. Go for quantity: Aim for as many new ideas as possible. In a good session, up to 100 ideas are generated in 60 minutes. Crank the ideas out quickly.

2. Self Container (variation)

**Overview**

This project pairs a technology (a piece of paper), a system (an instruction set), and a context (a fictional world). Using a three-stage process (analysis, interpretation, transformation) you will first analyze the properties of a particular instruction set selected from the book Structural Package Designs, as a way to learn as much as you can about that system. In the second stage, you will interpret a short, fictional text, as a defining context (or world) for your instruction set, proposing different ways the instruction set might operate within that world. In the third stage, you will form small teams to develop one of these proposals into a more refined design. The final deliverable will be a “telling of the story” of this design, in a media of your team’s choice.

In this project, basic methods for analysis will be explored, including physical prototyping, the creation of diagrams and schematics, narrative storyboards, maps, as well as methods for evaluation.

**Guiding Questions**

6. What are different ways to study an object or system? What are some methods for expressing this analysis?
7. How might different scales of thinking (on the body, under the body, around the body) influence the design of an interface?
Process

Stage 1: Analysis

1. Choose one instruction set from the packet of designs taken from Structural Package Designs.
2. Build a physical prototype of the instruction set. Consider scale and materials.
3. Tell as much as you can about the instruction set by designing multiple studies (visual, diagrammatic, verbal, gestural, sonic, etc.) that help others see it in different ways. These “studies” can be very simple. For example, you might want to design a diagram that uses color to map relationships between surfaces that share the same shape, or a comparative list that presents the lengths of each of the folds. Your studies can also be more complex. For example, you could write a narrative description of how to assemble it or develop a visual diagram that shows a step-by-step set of instructions for assembly. There is no limit to the kinds of studies you might do and you are not limited to working in any particular media. Your studies can be done digitally or non-digitally, be 3D, 2D, or time-based, and can use any kind of material that is appropriate.

Some concepts to consider:
1. points of interaction (connections)
2. surfaces (continuities, discontinuities, regions)
3. boundaries (across, between, separations, frictions)
4. sequence (ordering through time)
5. hierarchy
6. time
7. space
8. scale

Stage 2: Interpretation

In this stage, we will introduce a new element—a fictional text. This text describes a world that will serve as a context.

1. Choose a “world” as described in one of two texts: Einstein’s Dreams or Invisible Cities.
2. Read and analyze this text: what is unique about the world described? What kind of “instruction set” is in operation that affects they way the world, time, people, geographies behave or are described?
3. With a partner or in a group of 3, create several “scenarios” that pair the container and the fictional world. How might your “container” be transformed into an interface between a person(s) and this world? Is your container a sheltering structure, a piece of clothing, a communicator, a mode of transportation, etc.?  
4. Scenarios may be depicted in a variety of ways: as storyboards, as narrative user scenarios, image sequences, as written stories.
5. Evaluate the strengths and weaknesses of each proposed scenario as a group. Choose one to move forward into Stage 3.

Stage 3: Transformation

The final deliverable will be a “telling the story” of a single design, produced collaboratively by your team, which shows the interface in use. This “story” can be told in any media, but your team should consider how the choice of media, material, or technology reinforces qualities or characteristics of the world, and scenario, described.

1. Working in small teams of 2 or 3 develop a design strategy to best “tell the story” of the proposed scenario selected from Stage 2.
2. Choose an appropriate media/technology (suggestions: paper, found materials, sound / img video created with your phone
3. Design, present.
4. If time allows, evaluate and iterate (strongly suggested!)

3. Interaction Relabeling

Description:
Choose two unusual “everyday” objects, for example, a date book and a nerf gun.
Study and list all the functions of one, all aspects of the interface and fictional affordances of the other.
Map the functionality of one object onto the design of the other, to create an object that does something entirely new.
Example: events or tasks could be written & rolled to form “bullets” for the nerf gun, which would fire them as suction darts at your computer screen to alert you to an upcoming event.
Document and communicate your ideas. How will you express the function and behavior of this new object?

Based on “Interaction Relabelling and Extreme Characters” by Djajadiningrat et al.

Guiding Questions:
How do the material affordances of your chosen interface influence the ideas you generate for a “new” object?
What tools and approaches do you use to communicate your ideas and why?
How does the way you present your idea influence others’ understanding of what you make?