product
form
Next Play Testing

Sunday, April 21st
2:15pm-4:30pm
Prototyping Techniques
Product form

is this subjective?

perception of artifacts

why do we like certain things?
Which do you prefer?
Which do you prefer?
People will buy what makes them feel better as long as they believe it works well enough.
People will buy what makes them feel better as long as they believe it works well enough and if it makes us feel really good, it doesn’t even need to “function”
Pleasing forms enable you to work better. Products and systems that make you feel good are easier to deal with and produce more harmonious results.

—Adapted from Norman
Importance of product form

makes me feel a certain way about myself

makes others feel certain ways about me

shelf presence
Complexity of product form

Novices

Experts
Complexity of product form

Novices          Experts
Complexity of product form

Novices

Experts

Not much!
Syntax
consistency of form vocabulary
Syntax

consistency of form vocabulary
Syntax
consistency of form vocabulary
Syntax
consistency of form vocabulary
Syntax
form language

C^0
Positional

C^1
Tangent

C^2
Curvature
Syntax
form language
Symmetry

it is natural to find symmetry aesthetically pleasing
Symmetry
it is natural to find symmetry aesthetically pleasing
Symmetry
why?
Symmetry and Balance

symmetry

balance

Nintendo SWITCH controller
Symmetry and Balance
Balance
Proportion

golden ratio 1: 1.618
Proportion + Form language
consistency!
Form
Form Color
Color

- Primary
- Secondary
- Tertiary
- Analogous
- Contrasting
- Complementary
Color Pairing

- Analogous
- Complementary
Color Branding

analogous

complementary

John Deere

THE HOME DEPOT

IKEA
Color Branding

![Hungerectomy Logo]

![Pepsi Logo]
Color in Toys

*Gender Assignment based on findings of Blakemore and Centers in “Characteristics of Boys’ and Girls’ Toys”, 2005
Pink vs. Blue

Where does that come from?

a masculine color (1800s)

Gender-based color differentiation began in 20th century

Mamie Eisenhower, 1953
Form and color in Toys!
Form and color in Toys!
Design for different ages

< 1 year old
Gross-Motor & Visual Development
Recognizing Faces

bright colors (especially red and yellows)

contrasting

soft, simple forms, rounded corners & easy grips
Design for different ages

1-3 Years Old

Understanding Cause and Effect
Entering Pretend Play

bright & contrasting colors

complex, more detailed forms

Toys that represent familiar objects
Design for different ages

4-7 Years Old

Understanding Representation
Developing rules and logic

objects with more realistic detail

colors that match familiar objects
Design for different ages

4-7 Years Old
Understanding Representation
Developing rules and logic
Design for different ages

8-12 Years Old

Skill Development
Shift from cartoons to real life

objects with even more detail

more complex color schemes appropriate to product
Now it's your turn!

for your team's toy concept, sketch three versions

one for each:
2 year old
6 year old
12 year old

consider form, color, and details!

bring them to your lab!
Form

Color
Form Color +more
Multi-sensory products
Multi-sensory products

taste + smell
Multiple senses
narrative + sound (or not)
Multiple senses
sound + sight

McGurk Effect
Lab this week

mockup work time!

bring laptops for Solidworks
Lab this week
mockup work time!
bring laptops for Solidworks
bring electronics kits

extra PDL hours on website!
Mockup Consulting Review

next Wednesday April 17\textsuperscript{th}, during lecture

as a team, build two more-refined models:

- a works-like
- a looks-like

what's the main technology?
what's the product vision?
Mockup Consulting Review

next Wednesday April 17th, during lecture

as a team, build two more-refined models:

- a works-like
- a looks-like

at least one model is play-able for play testing on April 21st
product form questions?