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Sr. User/Design Researcher / Information Architect Specialist

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Universal Principles of Design

- Whether a marketing campaign or a museum exhibit, a video game or a complex control system, the design we see is the culmination of many concepts and practices brought together from a variety of disciplines. Because no one can be an expert on everything, designers have always had to scramble to find the information and know-how required to make a design work—until now.
- Universal Principles of Design, Revised and Updated is a comprehensive, crossdisciplinary encyclopedia of design. Richly illustrated and easy to navigate, it pairs clear explanations of every design concept with visual examples of the concepts applied in practice. From the "80/20" rule to chunking, from babyface bias to Occam's razor, and from self-similarity to storytelling, every major design concept is defined and illustrated for readers to expand their knowledge.
- This landmark reference will become the standard for designers, engineers, architects, and students who seek to broaden and improve their design expertise.



The gist of universal principles of design:

• How can I influence the way a design is perceived?

- \circ Affordance
- o Alignment
- \circ Closure
- \circ Color
- $\circ \ \ \text{Common fate}$
- \circ Consistency
- \circ Constancy
- o Face-ism ratio
- Figure-ground relationship
- $\circ~$ Five hat racks
- $\circ~$ Good continuation
- o Gutenberg diagram
- \circ Highlighting
- o Iconic representation
- $\circ \ \ \text{Interference effects}$
- $\circ~$ Law of Prägnaz
- \circ Layering
- \circ Legibility
- \circ Mapping
- \circ Orientation sensitivity
- o Proximity
- Signal-to-noise ratio
- $\circ \ \ \, \text{Threat detection}$
- $\circ \ \ \, {\rm Three-dimensional\ projection}$
- Top-down lighting bias
- o Uniform connectedness
- \circ Visibility

- How can I help people learn from a design?
 - \circ Accessibility
 - o Advance organizer
 - \circ Chunking
 - $\circ \ \ \text{Classical conditioning}$
 - \circ Comparison
 - \circ Depth of processing
 - Exposure effect
 - o Forgiveness
 - \circ Garbage in—garbage out
 - \circ Hierarchy
 - \circ Immersion
 - o Interference effects
 - \circ Inverted pyramid
 - \circ Layering legibility
 - o Mental model
 - Mnemonic device
 - Operant conditioning
 - o Performance load
 - o Picture superiority effect
 - Progressive disclosure
 - o Readability
 - Recognition over recall
 - $\circ~$ Serial position effects
 - Shaping
 - o Signal-to-noise ratio
 - Storytelling
 - $\circ \ \ \, \text{Von Restorff effect}$



- How can I enhance the usability of a design?
 - o 80/20 rule
 - \circ Accessibility
 - Aesthetic-usability effect
 - \circ Affordance
 - \circ Confirmation
 - \circ Consistency
 - \circ Constraint
 - o Control
 - \circ Cost-benefit
 - \circ Entry point
 - o Error
 - o Fitts' law
 - o Forgiveness
 - Hick's law
 - o Hierarchy
 - o Iconic representation
 - \circ Immersion
 - o Interference effects
 - Inverted pyramid
 - $\circ~$ Layering mapping
 - $\circ \hspace{0.1 cm} \text{Mental model}$
 - \circ Mimicry
 - Performance load
 - o Progressive disclosure
 - o Readability
 - o Recognition over recall
 - Signal-to-noise ratio
 - \circ Visibility
 - \circ Wayfinding



How can I increase the appeal of a design?

- Aesthetic-usability effect
- \circ Alignment
- \circ Archetypes
- $\circ~$ Attractiveness bias
- Baby-face bias
- Classical conditioning
- Cognitive dissonance
- \circ Color
- Defensible space
- o Entry point
- o Exposure effect
- o Face-ism ratio
- o Fibonacci sequence
- Framing
- \circ Golden ratio
- \circ Mimicry
- Most average facial appearance effect
- Operant conditioning
- Prospect-refuge
- $\circ \ \ \, \text{Rule of thirds}$
- o Savanna preference
- \circ Self-similarity
- Signal-to-noise ratio
- Similarity
- $\circ \ \ \text{Storytelling}$
- o Symmetry
- \circ Top-down lighting bias
- o Waist-to-hip ratio

- How can I make better design decisions?
 - o 80/20 rule
 - \circ Accessibility
 - \circ Comparison
 - \circ Convergence
 - \circ Cost-benefit
 - o Development cycle
 - \circ Errors
 - Expectation effect
 - $\circ~$ Factor of safety
 - $\circ \ \ {\rm Feedback} \ {\rm loop}$
 - o Flexibility-usability tradeoff
 - $\circ~$ Form follows function
 - Garbage in—garbage out
 - o Hierarchy of needs
 - \circ Iteration
 - Life cycle
 - \circ Modularity
 - \circ Normal distribution
 - Ockham's razor
 - o Performance versus preference
 - \circ Prototyping
 - \circ Redundancy
 - \circ Satisficing
 - Scaling fallacy
 - o Structural forms
 - Uncertainty principle
 - o Weakest link