



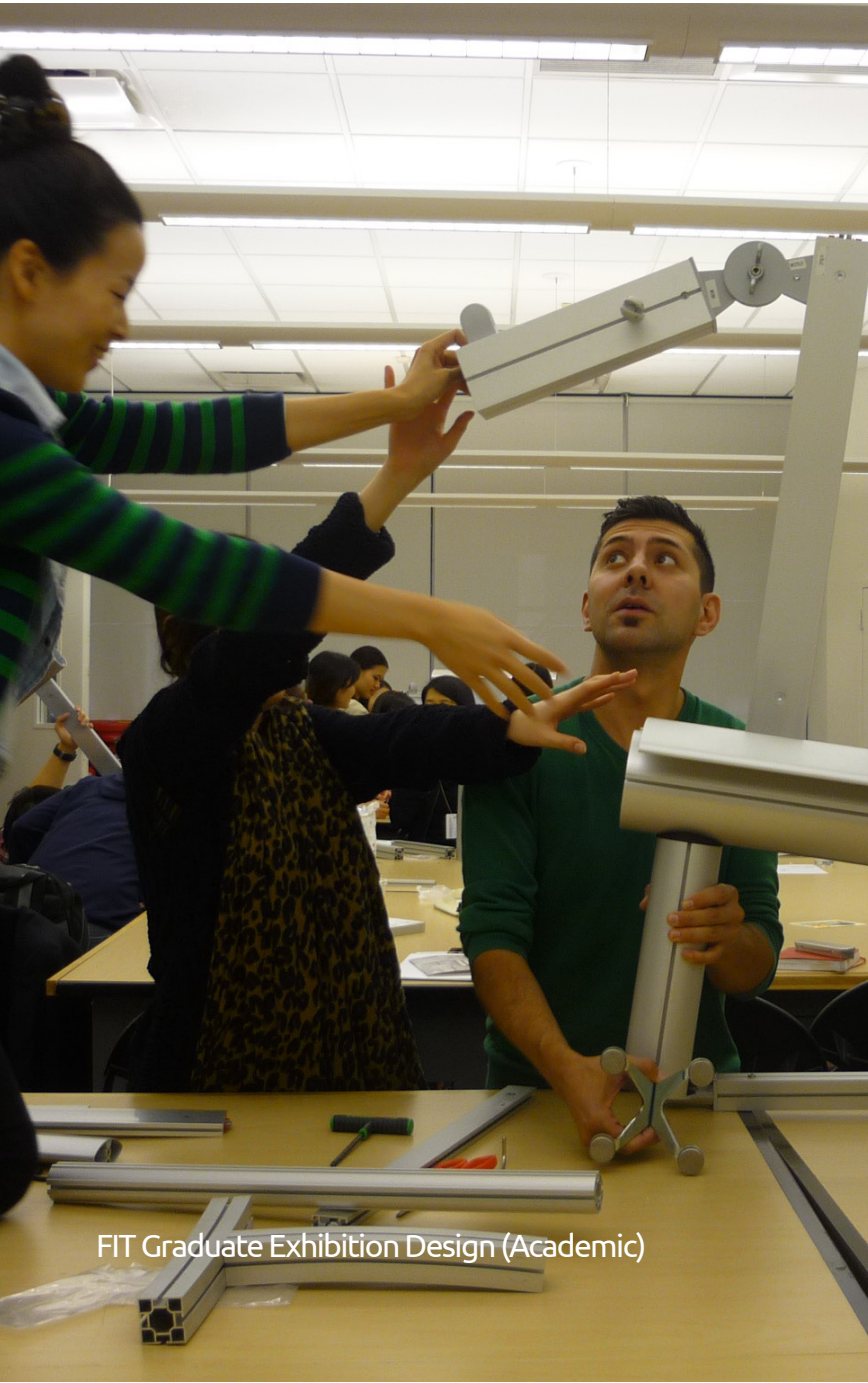
A multidisciplinary community creating experiences that connect people to place

SEGD.org

Prototyping

prepared by
Timothy McNeil
UC Davis
SEGD Academic Task Force
07.08.2018

Overview



FIT Graduate Exhibition Design (Academic)

“Prototypes evolve along with the design process; simple prototypes serve as initial three-dimensional sketches and are then replaced by iterations of successively more refined versions” —Bjarki Hallgrímsson

Behind every successful design is a story of numerous refinements and long hours. Prototyping is a key problem-solving activity that starts at the beginning of a project and continues through into the fabrication phase. Prototypes range from preliminary to finished versions, and can be executed by hand (cardboard, foamcore, clay etc.) or rapid prototyping (computer driven printers, CNC mills, laser cutters, 3D printers etc.).

Overview



Manetti Shrem Museum of Art

Often simple and low-cost materials can adequately serve to simulate a design idea, allow for study, and compare alternative design approaches. Working at scale (actual size) and in three-dimensions will quickly move the design from concept to a refined solution, allow for important user testing, and facilitate buy-in from a team. Prototypes allow for quick iterations based on the same idea, and transition the project into design detailing.

Learning Outcomes

- Select the appropriate communication tools to represent design concepts that integrate knowledge of materials, color, typography, form, space, structure, tactility, multi-sensory experiences and interactive media.
- Execute a series of hands-on and iterative material and/or fabrication studies as part of an experimental research plan.
- Test the integration of materials, technology and fabrication through at scale or proportional mock-ups/models within relevant spatial contexts and user scenarios.
- Analyze the effectiveness of design concepts/prototypes through formative evaluation with human participants addressing relevant accessibility, human factor, and sustainability criteria.
- Communicate findings of experimental research and prototyping through written reports, visual analysis and presentations at critical junctures in the development and approval process.



FIT Graduate Exhibition Design (Academic)

Case Studies per practice area



Wayfinding

Davis Pathfinder

Designer: City of Davis; Fabricator: UC Davis Sign Shop

Actual size prototype to evaluate scale, contrast and message hierarchy.
Adhesive vinyl print on cut aluminum.

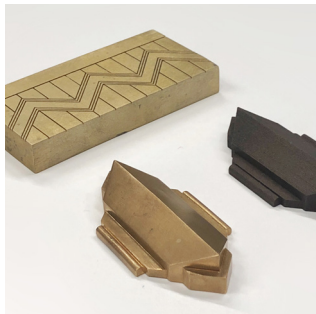


Exhibitions

Home Lands: How Women Made the West, Autry National Center

Designer: munizmcneil; Fabricator: Cinnabar

Scale model of exhibit to test object placement and relationships.
3-D printed figure, inkjet print, paper and foam board.



Wayfinding

Cal Edison DTLA, Rising Realty Partners

Designer: Altitude Design Office; Fabricator: WeidnerCA

Art Deco inspired rosette sign element presented to client for approval.
Painted 3-D printed object and brass prototype.

Case Studies per practice area



Wayfinding

Manetti Shrem Museum of Art, Davis CA

Designer: Tim McNeil; Fabricator: UC Davis Reprographics

Actual size prototype to evaluate scale, placement and legibility.
Inkjet print on vinyl and hung by crane.



Placemaking

Open office cubicle name plaques, Bloomberg

Designer: Volume Inc.; Fabricator: WeidnerCA

Actual size prototype presented to the client to show real world application and functionality.
Painted acrylic, metal and vinyl.



Signage

World of Coca Cola, Atlanta

Designer: Selbert Perkins.; Fabricator: Design Communications Ltd.

Scaled prototype for large complex monument sign.
Painted 3-D printed object, acrylic, and metal.

Resources

Books

Prototyping for Designers: Developing the Best Digital and Physical Products, Kathryn McElroy, O'Reilly, 2017

Prototyping for Architects, Mark Burry and Jane Burry, Thames & Hudson Limited, 2016

Prototyping and Modelmaking for Product Design, Bjarki Hallgrímsson, Lawrence King Publishing, 2012

Prototyping: A Practitioner's Guide Paperback, Todd Zaki, Warfel, Rosenfield Media, 2009

Designing Interactions , Bill Moggridge, MIT Press, 2007



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