Making a Maker Space

Chris Sledziona
Marya Schnedeker
Hello.

CHRIS

Background in Architecture, Design, + fabrication

Manages shops and adjunct faculty at Wentworth Institute of Technology, Dept. of Architecture

Member of Artisan’s Asylum
Hello.

MARYA

Background in mechanical engineering, human factors engineering, and engineering education

Experience in designing maker spaces

Manages Tufts Mechanical Engineering design, instrumentation and fabrication labs.
The Plan

Background on Maker Spaces

Method 1: space critique

Method 2: space design

Wrap up
What is a Maker Space?
What is a Maker Space?

- Maker Space is a concept
- not simply rooms full of tools
- social spaces which serve a community
- inhabited by people with a common interest in making
What is a Maker Space?

Maker Spaces are shaped by their community and their interests.
What is a Maker Space?

PRIVATE

institutional

professional + coworking

educational

community workshop

PUBLIC

Fig 2

Fig 4

Fig 6

Fig 8

Fig 3

Fig 5

Fig 7

Fig 9
Why are Maker Spaces important in education?
Why are Maker Spaces important in education?

- Technical literacy
- Active learning
Why are Maker Spaces important in education?

- Fun
- Motivation
Why are Maker Spaces important in education?

- **Creativity**
- **Problem solving**
What are the ingredients of a Maker Space?
What are the ingredients of a Maker Space?

1/ CULTURE
2/ EQUIPMENT
3/ ENVIRONMENT
What are the ingredients of a Maker Space?

1/ CULTURE
What are the ingredients of a Maker Space?

2/ EQUIPMENT

Fig 14

Fig 15

Fig 16
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

Fig 17
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

The built environment is a reflection of the mission and values of the community. Form follows function.

IDEO - product + brand innovation

Norman Foster Architects
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

DESIGN CONCEPT: zoning
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

DESIGN CONCEPT: defining space + zones
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

DESIGN CONCEPT: mobility

Fig 21
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

DESIGN CONCEPT: modularity + stationization
What are the ingredients of a Maker Space?

3/ ENVIRONMENT
DESIGN CONCEPT: LOTS of storage
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

DESIGN CONCEPT: dynamic workspaces
What are the ingredients of a Maker Space?

3/ ENVIRONMENT

DESIGN CONCEPT: project display
Method 1: Space Critique
1/ What is/are the:
- Space and defined “zones”
- Strategies for spatial flexibility
- Storage strategy
- Workspace types
- Project display methods

2/ What types of use and behaviors does the design of the space encourage or discourage?

3/ What do you like about this space? Not like?
Method 1: Space Critique

Stanford D.School

Stanford, CA
Tufts Crafts Center
Tufts University, Medford MA
Menlo School
Atherton, CA
Port Discovery Children’s Museum

Baltimore, CA
New York Hall of Science
New York, NY
TechShop
San Francisco, CA
Method 2: Space Design
Method 2: Space Design

- Collaboration Space
- Work Zone
- Work table
counter
- Curvy Chair
- Projects on Display
- Whiteboard
- Storage area
- Step stool
- Paint area
Method 2: Space Design
Wrap Up
Nedlam’s Workshop - How engineering inquiry within a maker context could change the way students and teachers come to recognize and value what counts as productive and academic knowledge.

Investigating STEM Literacy Practices in Makerspaces - A study of experienced makers to identify the ways in which they use texts and other representations as they go about their work.

Play, engineering, and making - Examining how narrative accompanies making, how different forms of documentation can allow us access to the thinking and reasoning of young makers, and how playfulness exists and supports making.

The Early Childhood Makerspace at Eliot-Pearson - An interactive Maker Space that will unify novel and traditional approaches to child development within a constructionist education framework.
Next Steps

Research and Critique Other Spaces

Visiting other spaces

Online research

- Fab Foundation - [http://www.fabfoundation.org/](http://www.fabfoundation.org/)
- Make Space by Scott Doorley and Scott Witthoft

How can the space reflect the values of your community?
What is the role of the space within your institution?
What potential programming would you like to provide?
Thank you


Works Cited


Fig 17: Table to Table Space. Digital image. Philadelphia Woodworks. N.p., n.d. Web. 2 June 2016.


Fig 26: Campers in the DMA Studios program gather at Stanford’s D School or the Institute of Design, for one of the first main production meetings. Digital image. *DMA STUDIOS FILM CAMP KICKS OFF AT STANFORD’S D SCHOOL*. Digital Media Academy, n.d. Web. 2 June 2016.


