Brewing up a Community

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Problem Statement

Through design, how can different zoning types, such as commercial and industrial, be combined to create a hybrid structure that would complement each zoning type?
Typology

• Destination Brewpub

• A brewpub is defined as a restaurant-brewery that sells 25% or more of its beer on site. A majority of beer is to be consumed on site. They are allowed to sell “to go” beer to off site accounts.
Theoretical Premise/Unifying Idea

• Approaching an integrated design with a holistic view draws upon multiple influences that, when combined create new design opportunities and solutions.

Project Justification

• With increasing Industries, mixed-use buildings provide new jobs and products. These buildings must be looked at in a holistic sense in order to integrate them into the community.
Multiple Influences

- Research Focus in two main categories
  - Brewing Industry
    - History and tradition of brewing
    - How the brewing process works
    - The current state of the industry
  - Commercial needs
    - Personal experience as a beertender
    - Ray Oldenburg’s writing on the importance of space
Brewing History

• The origin of beer dates back thousands of years to the beginning of the agricultural revolution

• The process of making beer has not change much over the years, we have just gained a better understanding of the brewing science

• Four main ingredients are need:
  • Malted Barley
  • Water
  • Hops
  • Yeast
Brewing History

- As cities became industrialized, their water supplies became polluted. Because beer has to be boiled during the processing it meant that beer would be safer to drink than the local water.

- By studying the different types of styles we are able to gain an insight into history. Each style is an outward expression of the political, social and economical conditions.
Style Research

• IPA
  • The name IPA stands for India Pale Ale. The British breweries started to hop their beers excessively in order for the beer to survive the trip to the outer colonies.

• Doppelbock
  • This strong beer was brewed for the monks to drink during their fasts. Because of the strength of the beer, it provided the monks with nutrition.
Current state of the Industry

- German immigrants introduce lager brewing
- Decline of smaller brewers as macro lager brewers fight for market dominance
Current state of the Industry

- Prohibition kills many small breweries and forced many large breweries to create new products like 1919 root beer
Current state of the Industry

• In 1978 Jimmy Carter makes homebrewing legal

• These early homebrewers pioneer the massive surge of new craft breweries
Current state of the Industry

- The craft brewers provide an estimated 108,440 jobs in the US
- There is roughly 2,416 breweries in the US with 2,360 being classified as craft breweries
- 13,235,000 barrels of craft beer was sold in 2012
  - = about 400,000,000 gallons
- Overall US beer market is 99 billion in sales
  - 200,000,000 barrels of beer
Personal experience in the Industry

JUNKYARD
BREWING COMPANY

Picture taken from fmbeer.com
Personal experience in the Industry
4 tips for a successful Brewery

• 1 - Supply their home market with a quality craft product

• 2 – Turnover of kegs both in house and off site accounts

• 3 - Gain insightful feed back from patrons

• 4 - Supply the community with more than just beer
My take on the Industry

• I feel the craft beer industry will continue to grow as long as there is a passion for the art. Brewing beer is a labor of love much like that of any artist or chef.

• The brewer is a student of the past and present, learning the techniques of yesterday and adapting them for tomorrow. The industry is filled with passionate professionals who care about their communities.
Beertending at JLBeers
Observations from behind the bar

• Having an active interest in the history and production of beer

• When we step behind the bar that is our stage to shine, all of our worries and problems can be left at the door

• Always have something new to talk about

• Make an extra effort to remember people’s names, there is a level of respect that is shown when you address a person by their name
Importance of Space

• Ray Oldenburg

• The Good Great Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community
Importance of Space

• 1st space – Home
  • A place of privacy and security

• 2nd space – Work
  • A place of formal interactions that consumes a major of our time

• 3rd space – Common meeting place
  • A place of unexpected possibilities
Defining the 3rd space

- 3rd space where people can live outside predictable lifestyles of house and work. A space of unexpected possibilities
  
  - Neutral ground where neither are bound by the rules of hospitality
  
  - Social Leveling – allows people to remove their day-to-day titles and be one with the crowd. Creates informal and simple conversations
  
  - The space allows for the opportunity of conversations
Case Studies

Great Northern Brewery
Whitefish, MT

• They do a great job displaying the brewing process

• The unique experience makes this building a great destination

• The brewery sponsors fun events like the Big Trade and K9 keg pull
Case Studies

Miranda Winery
Oxley, Australia
Popov Bass Architects

- The tower helps to draw in on lookers and develops a place of interest

- The building creates a stage for tasting and education
Case Studies

Lowell Small Brewery
Thesis project by Andrew Garvin

• Introduced the idea of an Industrial landscape

• Created a valley like layout where patrons could look down upon the brewing process
Site

Fargo, North Dakota
Corner of 3rd avenue and Broadway
Why this site

- Currently it is a parking lot that acts as a large void on the Broadway streetscape
- It has a central location along Broadway
- Has access to alley way to the north
- This site has a prime location for community events
Truck Access
Renaissance Zoning

• The Place to Be – Make downtown a key destination for visitor/convention goers and a key destination for residents

• Ground Floor Uses – Reserve ground floor land uses to spaces that will encourage the streets to come to life

• Spruce up the area – Encourage artist to use place-based artwork that brings a sense of community pride to downtown Fargo

• Connections and Coordination – Coordinate public and private efforts to create strong connections between people and place to create a sense of community
Streets Alive
Cruisin Broadway
Early Process Drawing

Brew house separation

Tour - Hood

Kitchen

25 x 25

Café 25

O25 Make it for

View from the Bar?

OFF center the Main Circulation

3 season climate change

Density

Brew is small

Circulation

Core but separate

Argle like a Pirate - Why Does a new Design Inspire so much Drive

housing/2

The mash sheet

Density

With Diversity

Grand stair case

Separate For Housing

Storage Bar

For storage

Object of circulation

Density with diversity

Ferment Base

Main level

Package storage
Early Process Drawing
Midterm Changes

Western Section

Western Facade
Midterm Changes

Southern Perspective
Midterm Changes
Site and surrounding buildings
1st Floor

1 - Walkway
   1450 sq.ft

2 - Bathroom
   555 sq.ft

3 - Lower Dining
   2000 sq.ft

4 - Lower Bar
   250 sq.ft

5 - Kitchen
   680 sq.ft

6 - Keg/Package
   900 sq.ft

7 - Loading Dock
   960 sq.ft

8 - Cold Liquor Tank
   200 sq.ft

9 - Whirlpool Kettle
   370 sq.ft

10 - Event space
    4745 sq.ft
2nd Floor

1 - Mezzanine
   1190 sq.ft

2 - Upper Dining
   3100 sq.ft

3 - Upper Bar
   450 sq.ft

4 - Bathroom
   555 sq.ft

5 - Greenhouse
   800 sq.ft

6 - Boil Kettle
   150 sq.ft

7 - Lauter Tun
   180 sq.ft

8 - Mech. Space
   300 sq.ft

9 - Mudroom
   1000 sq.ft

10 - Observation Space
    625 sq.ft
3rd Floor

1 - Residential Space
   4800 sq.ft

2 - Patio Space
   1100 sq.ft

3 - Mash tun
   190 sq.ft

4 - Hot Liquor Tank
   150 sq.ft
Basement

1 - Fermenters
   1050 sq.ft

2 - Lab Space
   210 sq.ft

3 - Grain Room
   400 sq.ft

4 - Office
   160 sq.ft

5 - Cold Storage
   265 sq.ft

6 - Employee Lounge
   350 sq.ft

7 - Prep. Space
   480 sq.ft

8 - Mech. Space
   500 sq.ft
Walkway
Lower Bar
Upper Bar
Mezzanine
Residential Unit
Brew House
How to Brew
HVAC Integration
Wall Detail

- Copper Sheet Roof
- Hidden Gutter Channel
- 12" Rigid Insulation
- 4" Structural Wood Deck
- Fixed Greenhouse Glass

Cap Flashing
Continuous Screen Vent
4" Brick Veneer
1" Air Space
2" Rigid Insulation
8" CMU
4" Metal Stud w/soy Insulation
4" Interior Finished Brick

Flashing with end dams and weepholes

Finished Wood Flooring
6" Structural Slab
Concrete Footing
Set 5' Below Grade

Operable Garage Door

3 1/2" Structural Wood Deck
Batt Insulation
4" Structural Wood Deck
12" Glulam Beam
Steel Plate Connector
10" Timber Post

4" Brick Veneer
1" Air Space
2" Rigid Insulation
8" CMU
4" Metal Stud w/soy Insulation
4" Interior Finished Brick