

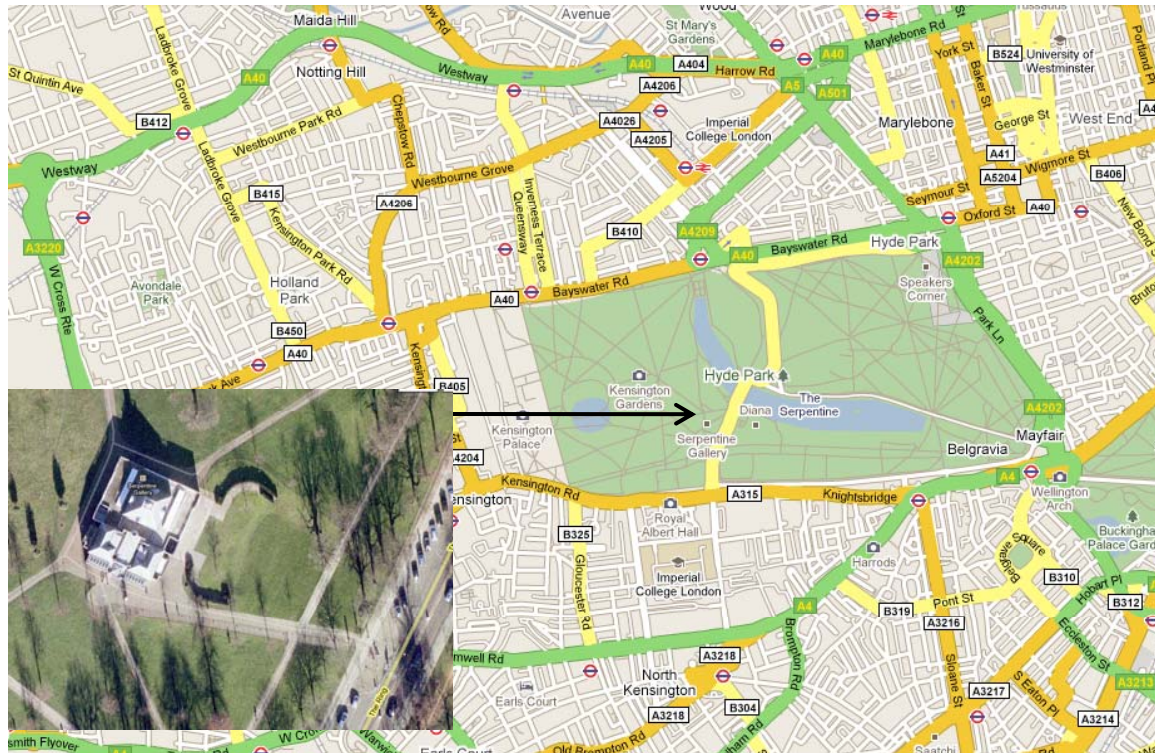
# The Rain Drop

Jesse Marble  
Teresa Heitmann  
Keith Bickford  
Paul Hauer





# Location

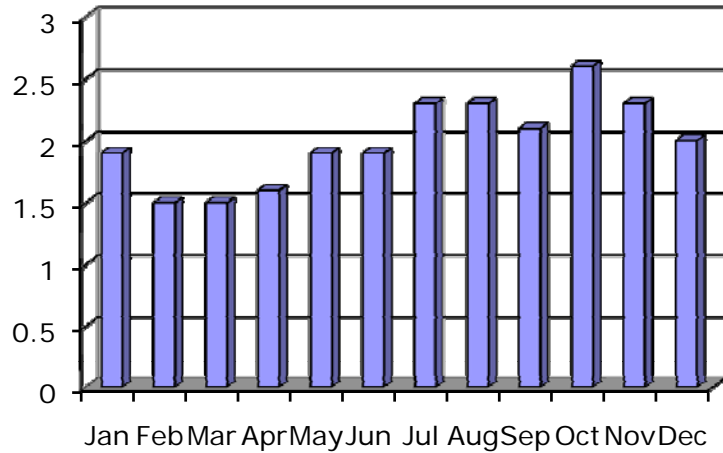


Serpentine Gallery at Kensington Gardens

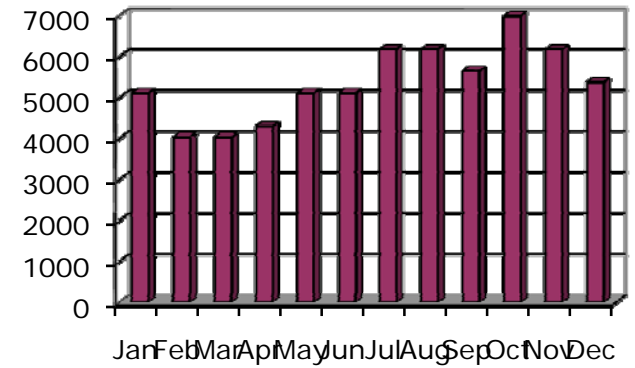


# Climate

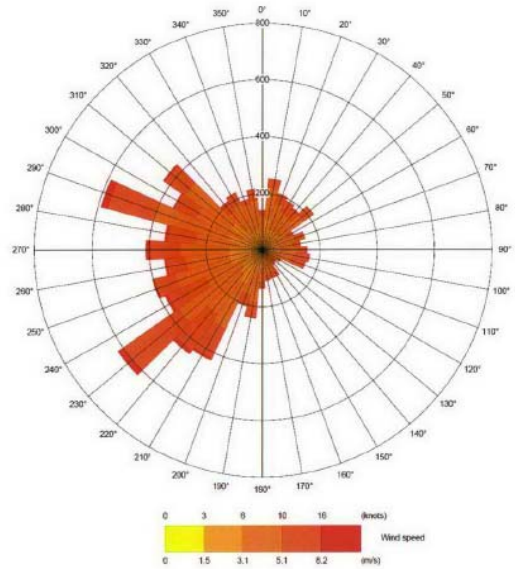
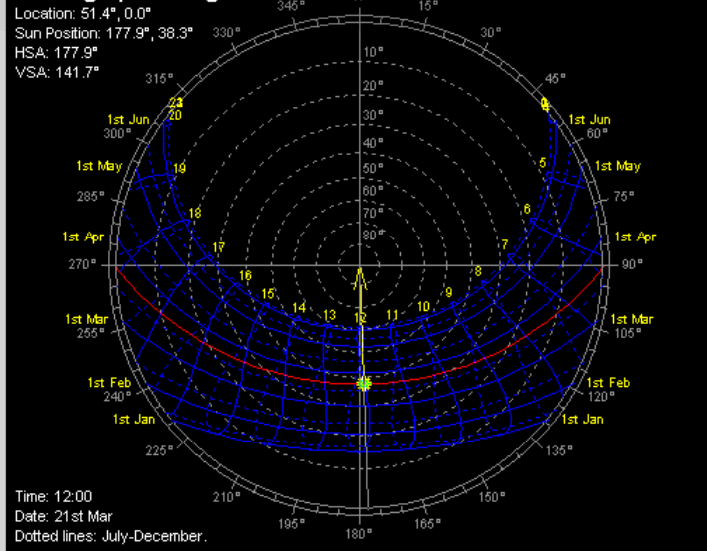
## Rainfall (inches)



## Water Collection (Gallons)



## Stereographic Diagram





# Program

Arts and Entertainment Venue

Café

Sustainable Education



# Design Objectives

Artistic expression

Culturally relevant

Sustainable

Easily disassembled and reassembled

Shelter

Shade



# Vision

Celebrate significance of water

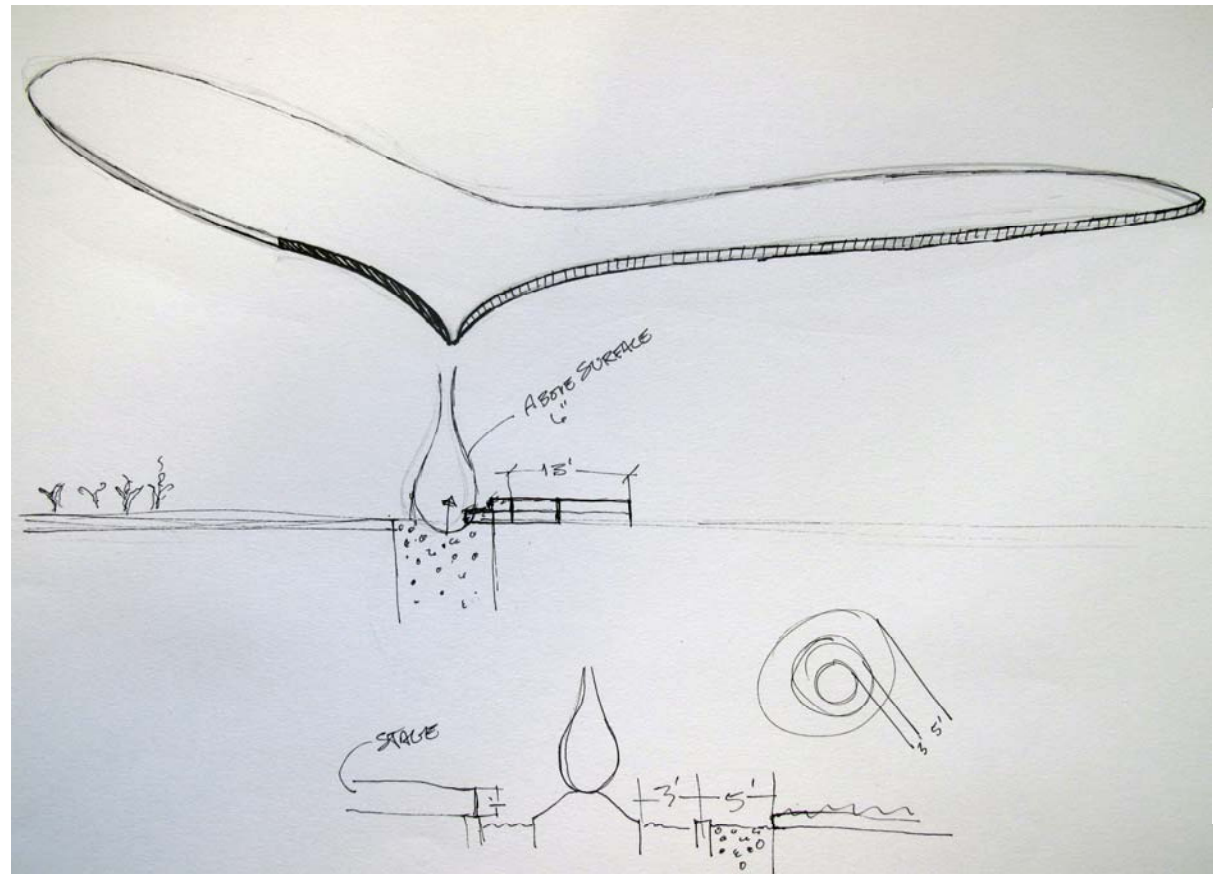
## Life

Food

Transportation

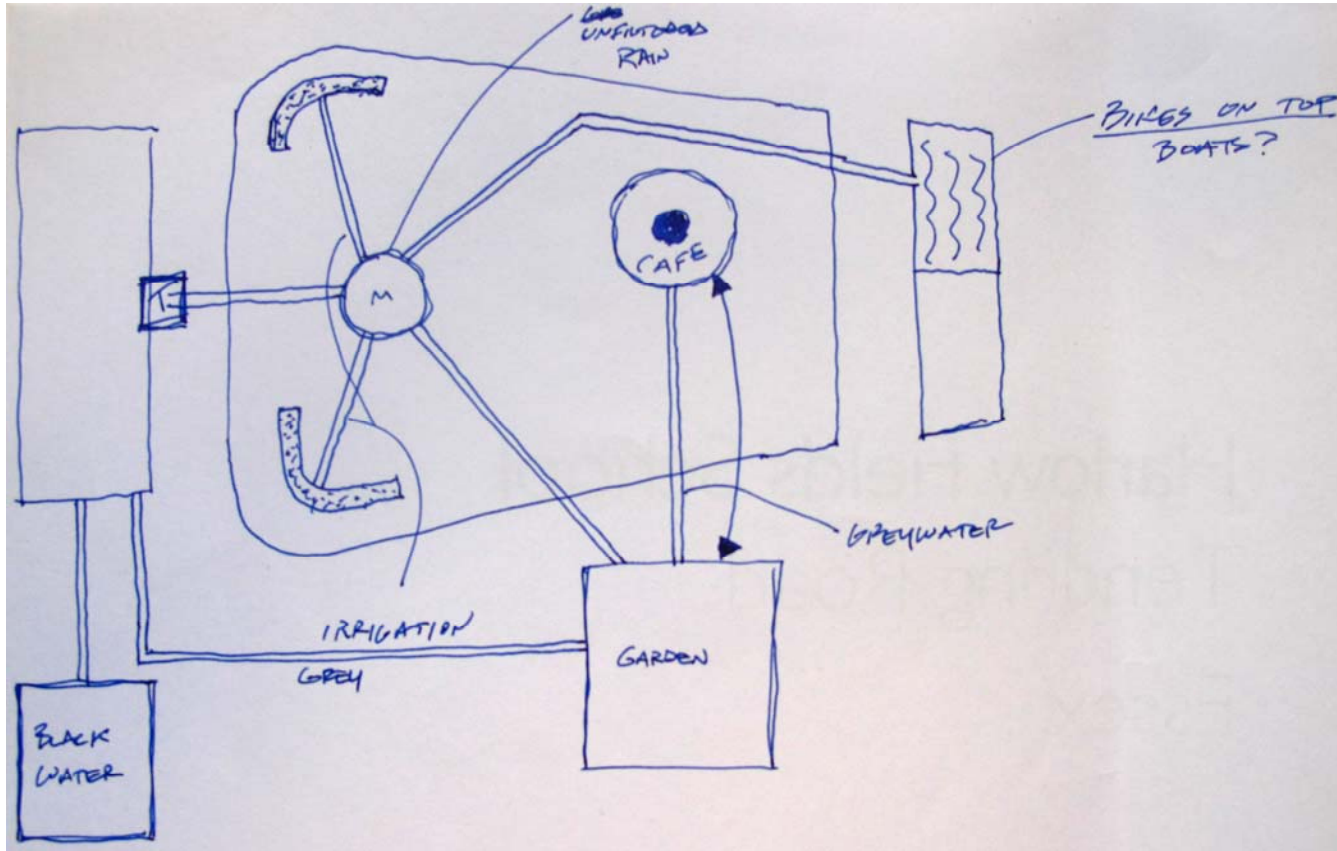
Recreation

Utilities





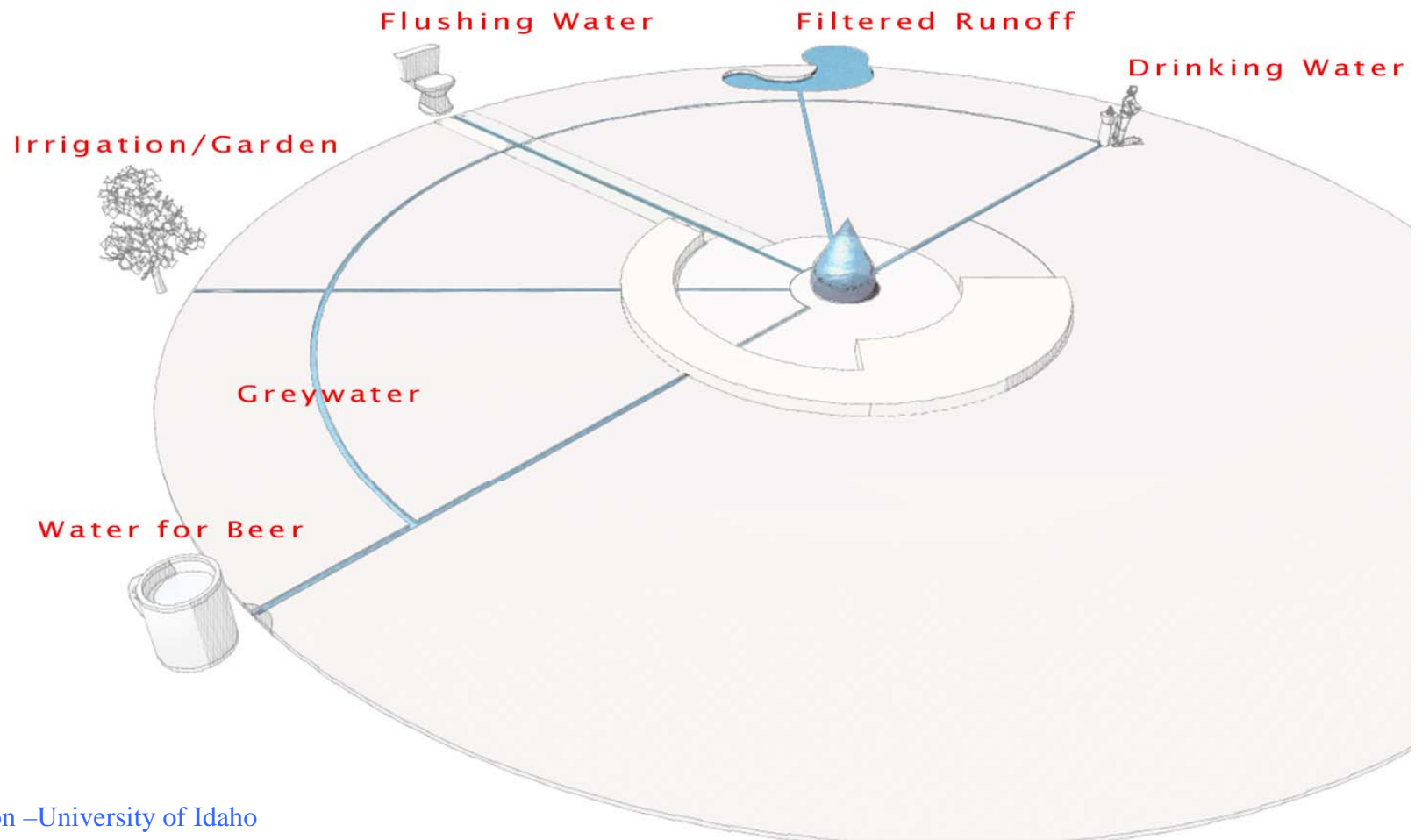
# Process





Water as art  
as education

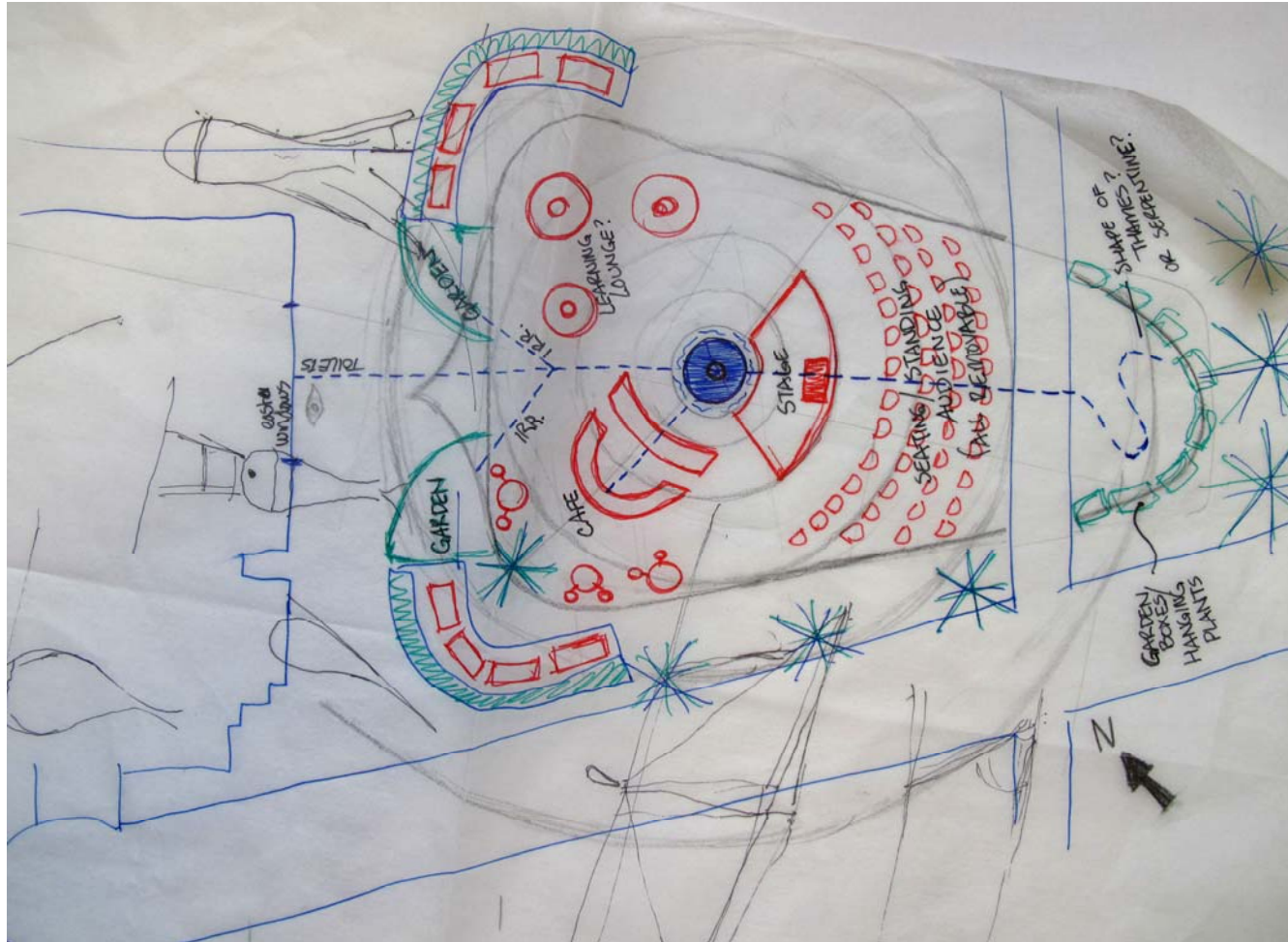
# Process





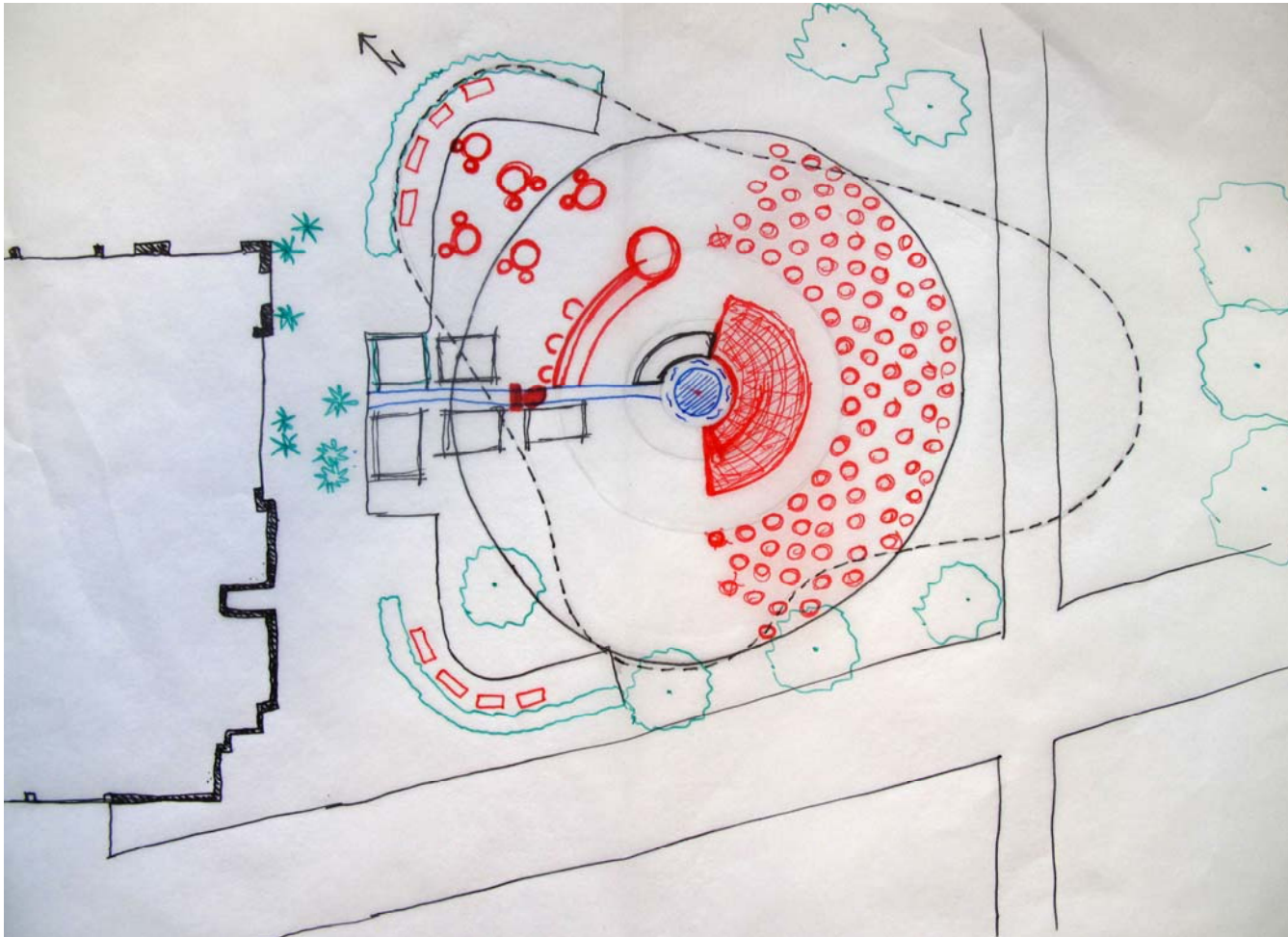


# Process



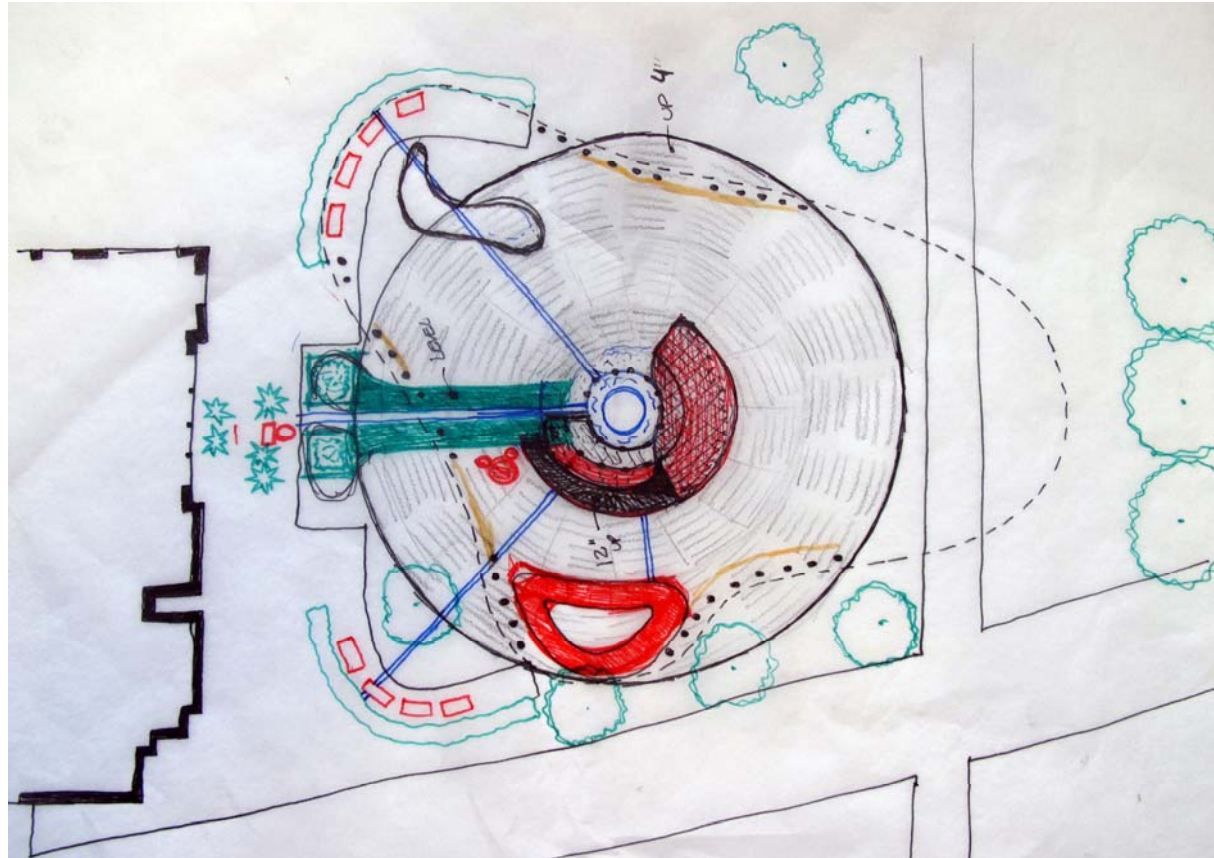


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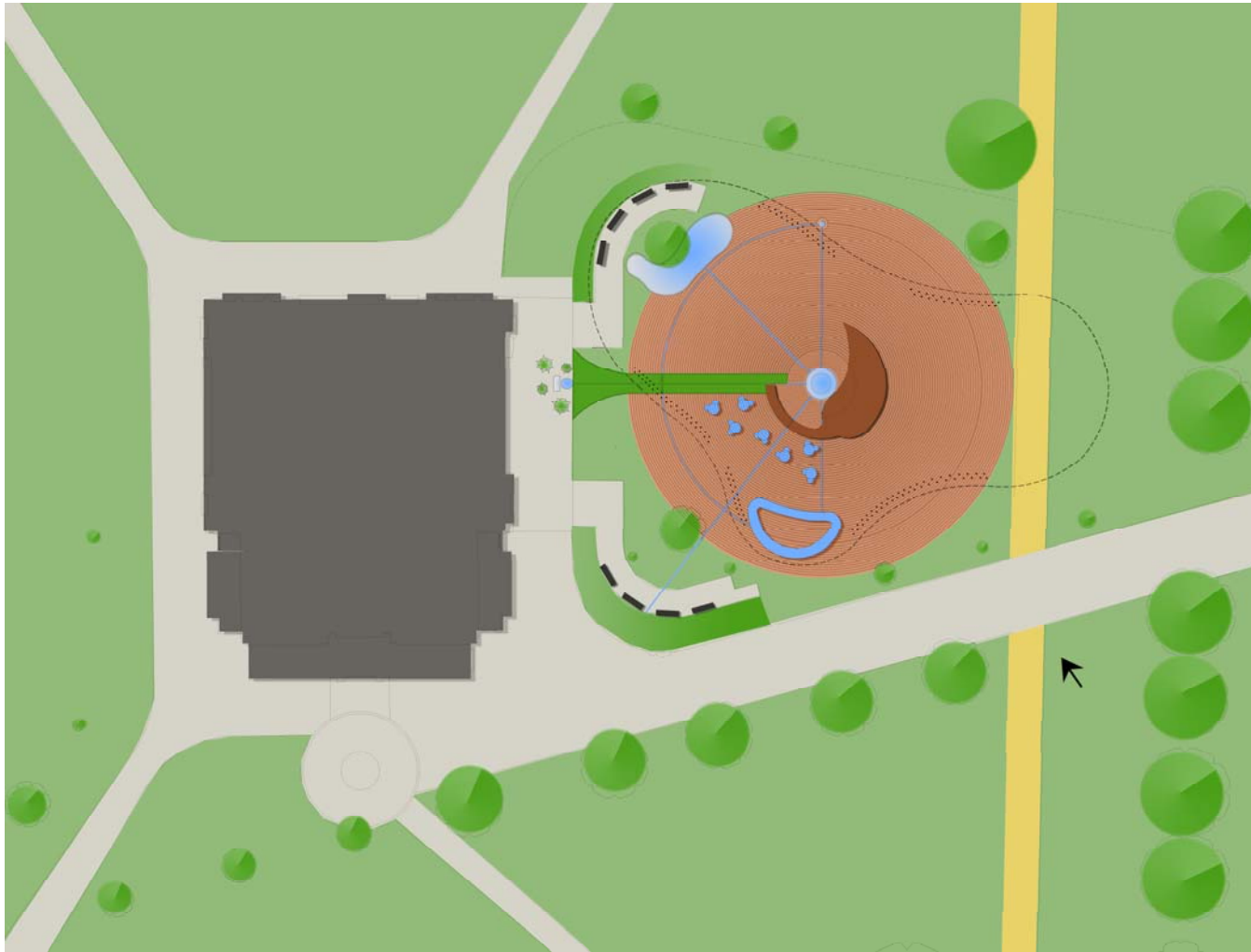


# Process





# Process





# Materials

## Rain Drop

recycled plastic with embedded crushed glass

## Roof

south end - colored glass set into recycled  
aluminum frames

north end - photovoltaic panels set into recycled  
aluminum frames

## Decking

chestnut decking elevated above grass, obtained from local  
forests

## Foundation

screw piles

## Water Channels

aluminum flashing set into chestnut decking



# Energy



Ten SharpSolar 175w crystalline off the shelf panels (~400 amperes on five hour charge)  
Stored and used as DC power throughout to avoid conversion losses



Eight 12v 100Ah sealed batteries



# Energy



Lighting Science Flexilume LED

40 Lumen 2W 16 lamp modules



Lighting Science R16 LED lamps

119 Lumen 3W modules



rotorflush 120 lpm 405w submersible

Used only when batteries at full charge



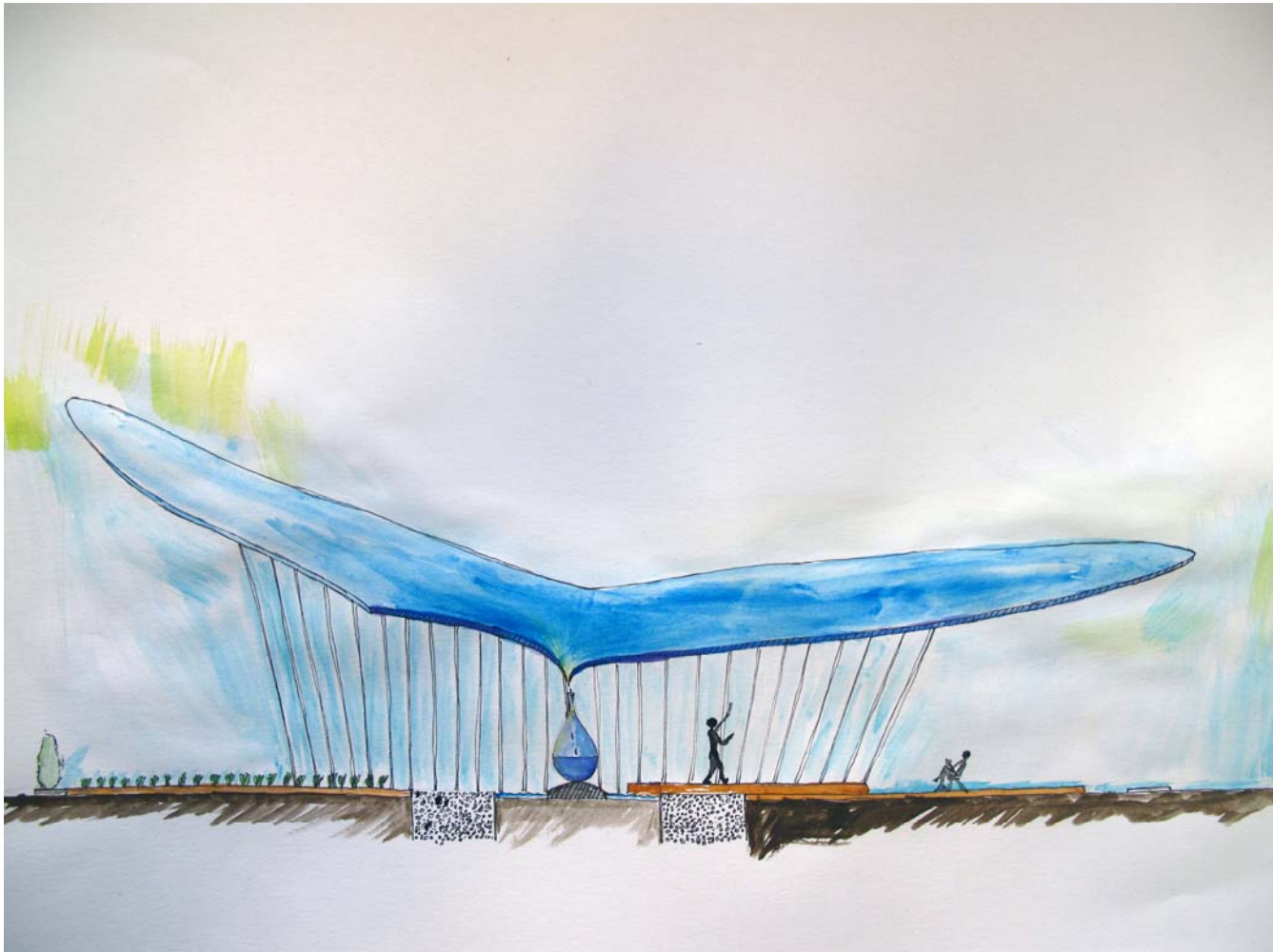
# Process







# Process



The Serpentine Pavilion –University of Idaho



# Process

