

SOLAR ICE PAVILION

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CONCEPT

Create a **juxtaposition** between the reality of our current melting planet and the **potential for a healthy future** through the demonstration of sustainable technology.

PURPOSE

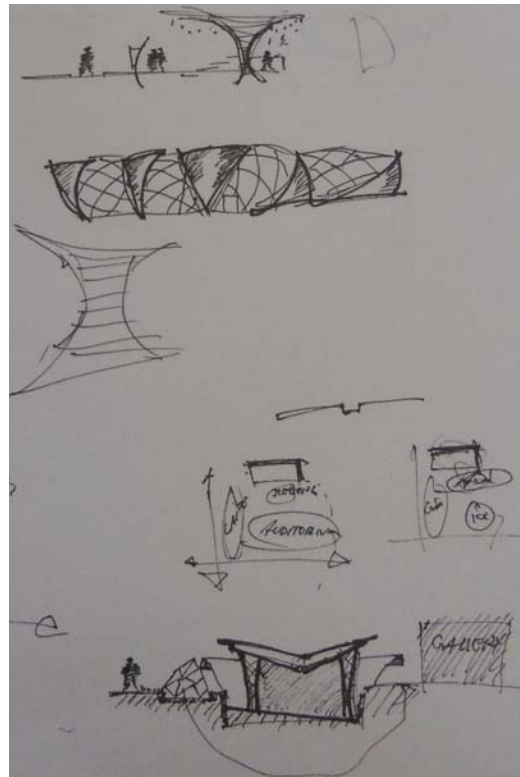
Create **interactive** micro-climate with use of ice

Display human **impact** with the ice cap

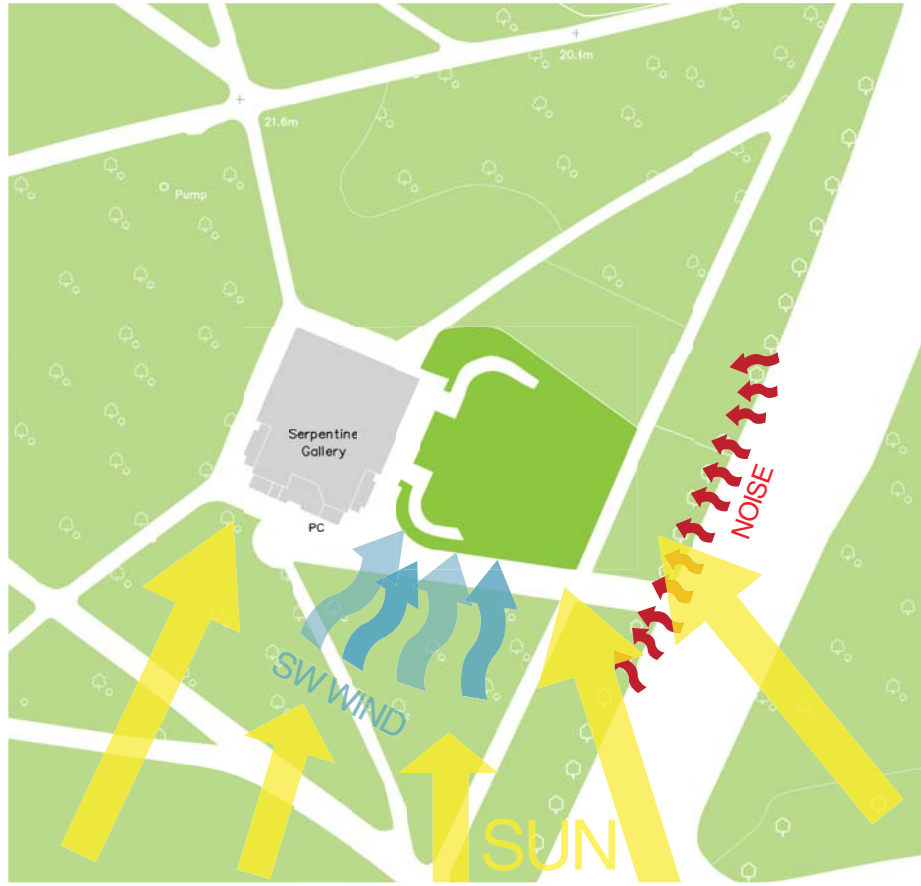
Use site to **educate** visitors on global warming

Promote **sustainability** by using and recycling materials and systems

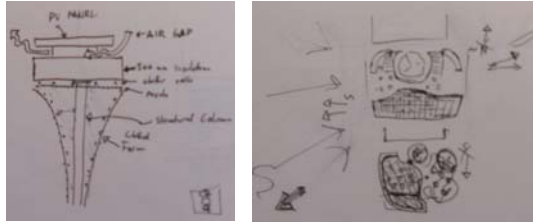
APPROACH



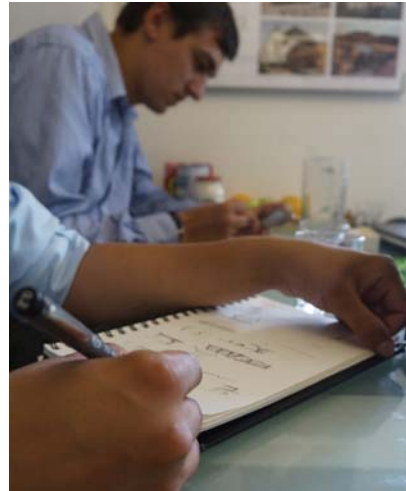
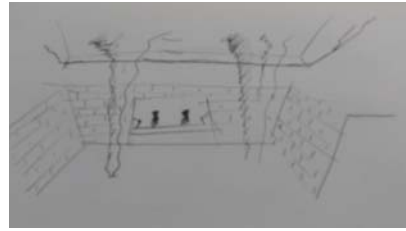
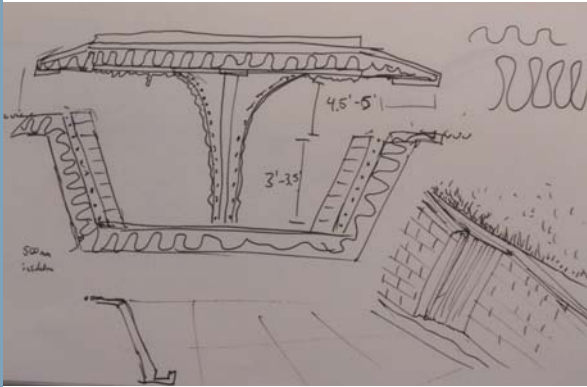
ANALYSIS



PROCESS



PROCESS

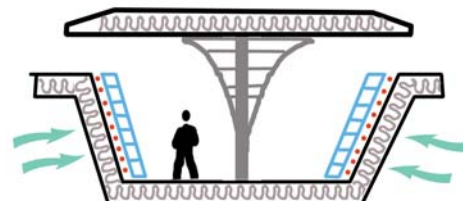


GOALS

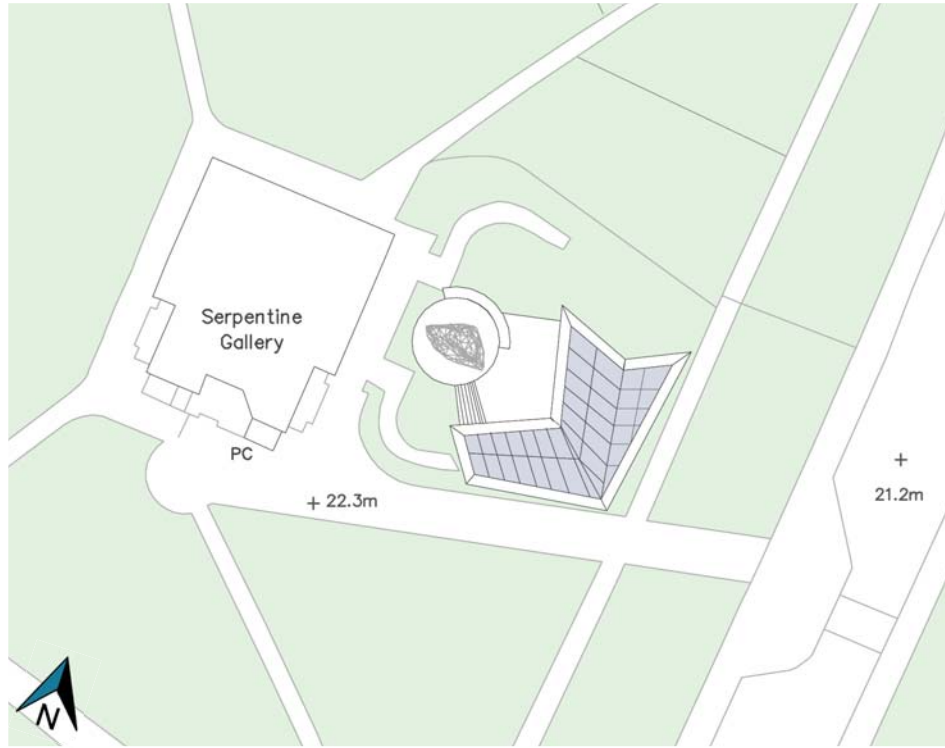


Important factors on the site to consider that affect our design include the **visibility** from the human level from the entrance just south of the site which also includes vehicular traffic. The level of the canopy should allow drawing interest into the area and draw people into the buried space. The use of actual ice within the pavilion will affect how much **sun penetration** we want to enter the interior space. The rate of melting during the day may also be mitigated by providing shelter for the iceberg to the north. The iceberg is located between the proposed pavilion and the existing gallery to provide a **connection of the two** spaces. From the inside, the patron is able to look out and see the ice and the pavilion.

To help preserve the ice inside the pavilion under colder temperature, the base of the pavilion will be placed **4' beneath** the surface. The walls will be super **insulated** as well to help keep most of the cold air in and warmer air out. The ice walls will be built up of **ice blocks** that will be supported by **glycol chilled coils** that allow the transfer of below-freezing water to also be used on the column structure that will create a **web** of ice

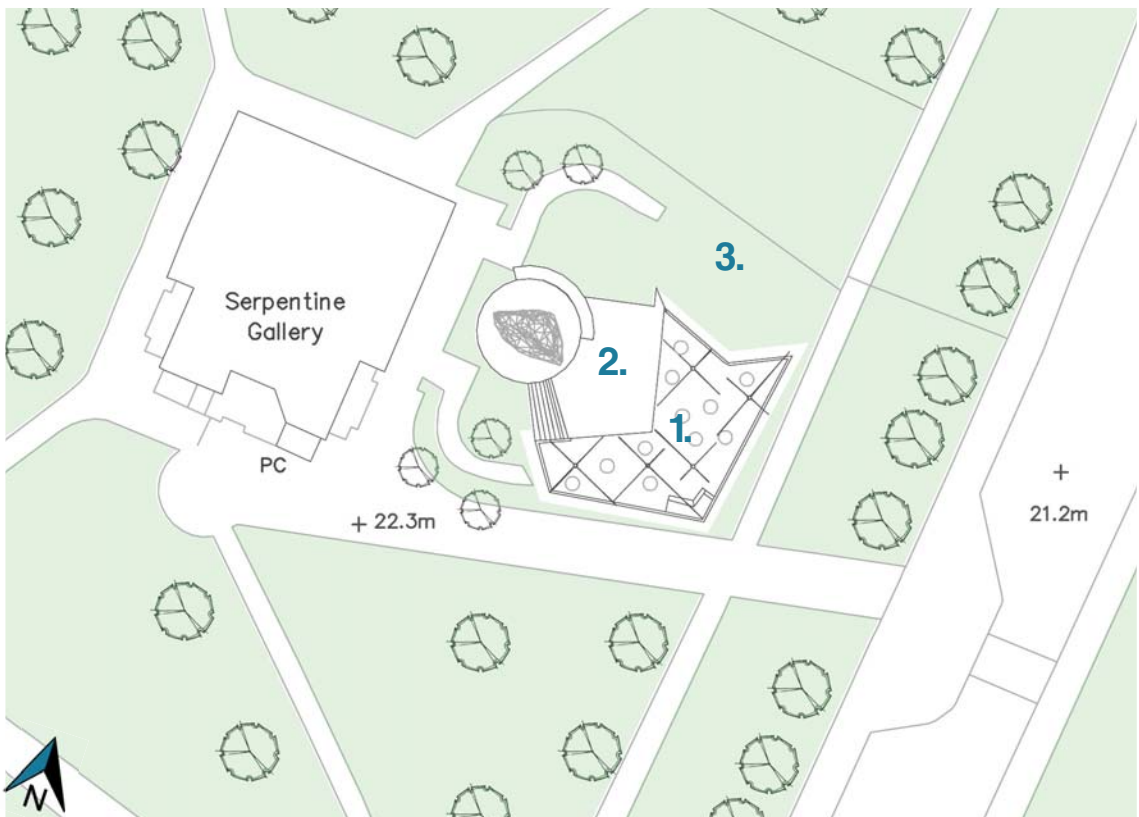


SITE PLAN

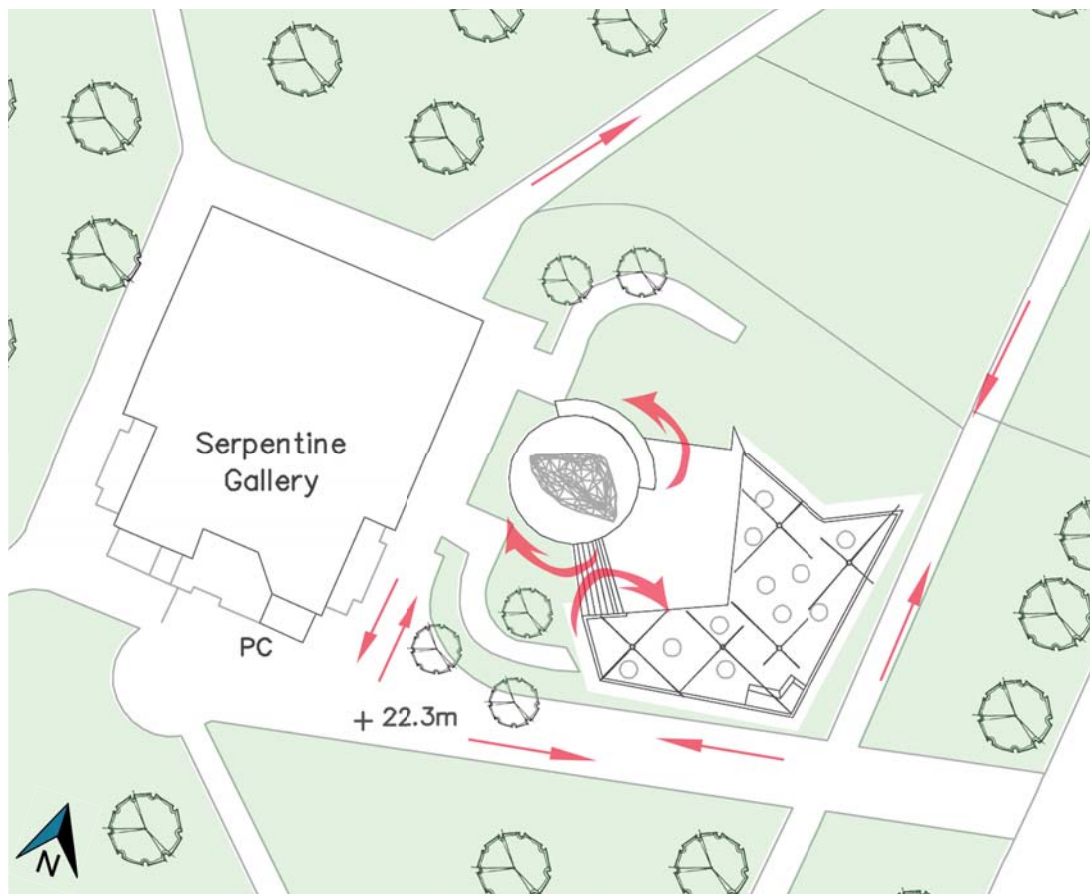


FLOOR PLAN

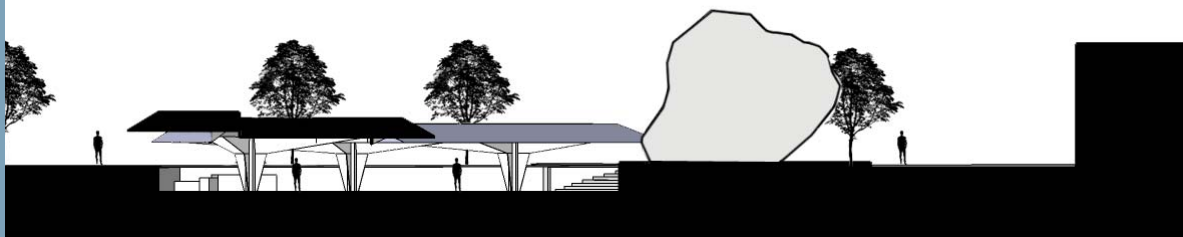
1. Cafe and Seating 2. Open Air Seating 3. Outdoor Gathering



FLOOR PLAN CIRCULATION



SECTION



EXTERIOR RENDER



INTERIOR RENDER



THE CHECKLIST

Regeneration-Based Checklist for Carbon-Neutral, Zero Net Energy Design and Construction

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Project: _____

	degeneration			sustainability			regeneration		
	100 always	75 usually	50 sometimes	25 a bit	0 balances	25 a bit	50 sometimes	75 usually	100 always
planet	consumes energy disproportionately								consumes energy equitably
	serves few								serves many
	differentiates man-made and natural								conflates man-made and natural
	imports all its energy								exports energy from site
	emits carbon								sequesters carbon
	pollutes air								cleans air
	pollutes water								cleans water
	wastes rainwater								harvests rainwater
	is built on a greenfield								is built on a brownfield
	consumes food								produces food
site	destroys rich soil								creates rich soil
	dumps wastes unused								uses wastes as resources
	destroys wildlife habitat								provides wildlife habitat
	lacks site integration								is integral to the site
	decreases density								increases density
	promotes fuel-powered transportation								promotes pedestrian and transit access
	creates uncomfortable micro-climates								creates comfortable micro-climates
	ignores building size issues								optimizes building size
	excludes natural light								uses natural light effectively
	uses only mechanical cooling								uses passive cooling effectively
building	uses only mechanical heating								uses passive heating effectively
	is unconcerned with performance								monitors and improves performance
	discourages user control of systems								encourages user control of systems
	produces human discomfort								enhances human comfort
	uses inefficient equipment								uses highly efficient equipment
	uses non-renewable fuel-powered circulation								uses benignly powered circulation
	pollutes indoor air								enhances indoor air quality
	needs cleaning and repair								maintains itself
	uses high-carbon materials								uses carbon-sequestering materials
	is designed for demolition								is designed for disassembly
culture	uses materials wastefully								uses materials carefully
	cannot be recycled or reused								can be recycled or reused
	serves as an icon for the apocalypse								serves as an icon for regeneration
	discourages community interaction								encourages community interaction
	is socially and ecologically exclusive								is socially and ecologically inclusive
is a bad neighbor								is a good neighbor	
is crassly ugly								is sublimely beautiful	

negative score	positive score
3700 possible	3700 possible
-100	2850

final score: **2750**