Michael G. Meyers Student Design & Scholarship Competition

April 18. 2008

Community Recycling & Reuse Center

.ideas
.design

Michael G. Meyers Student Design & Scholarship Competition

April 18. 2008

Community Recycling & Reuse Center

1. toolbox charrette
2. sustainable design
3. program review
4. tour architecture bldg

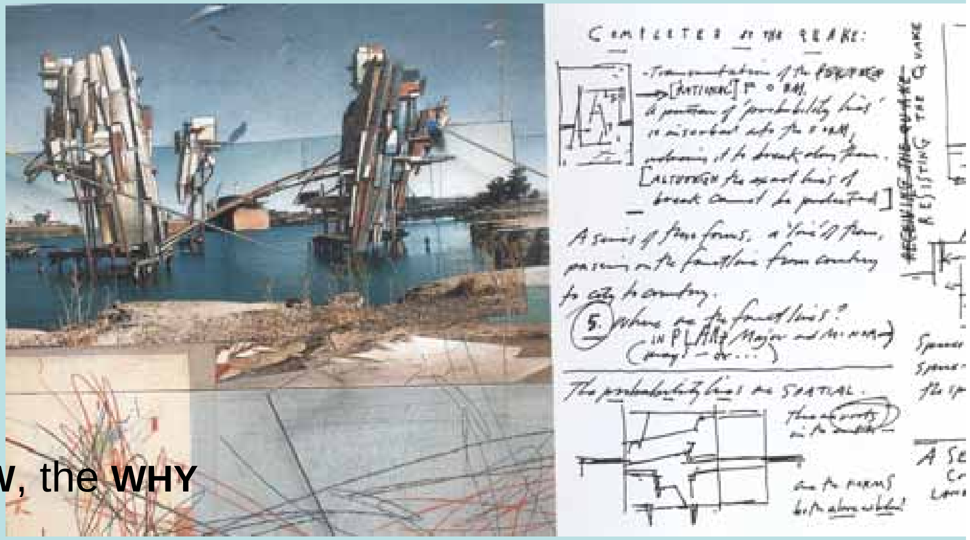
Michael G. Meyers Student Design & Scholarship Competition

April 18. 2008

writing

- WRITTEN DESCRIPTION-10 MINS

In the time allotted - As best as you can describe in one paragraph the idea behind the building you chose. Of what does the building remind you. What do you like about the building.. What is the function of the building. ...



your **ASSUMPTIONS**

your **CONCEPT**

the **WHO**, the **WHAT**, the **WHERE**, the **HOW**, the **WHY**

Defining your program ideas

writing

- WRITTEN DESCRIPTION-10 MINS

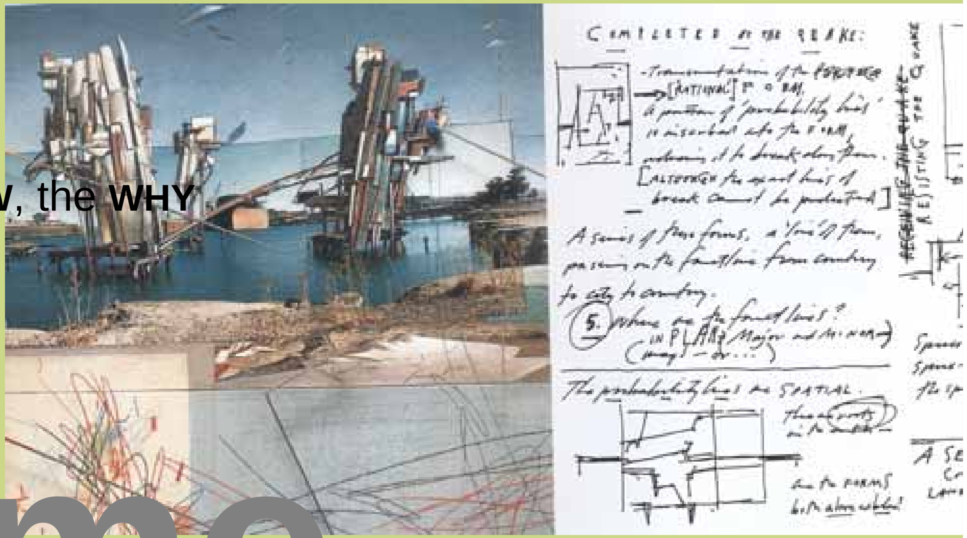
In the time allotted - As best as you can describe in one paragraph the idea behind the building you chose. Of what does the building remind you. What do you like about the building.. What is the function of the building. ...

your **ASSUMPTIONS**

your **CONCEPT**

the **WHO**, the **WHAT**, the **WHERE**, the **HOW**, the **WHY**

Defining your program ideas

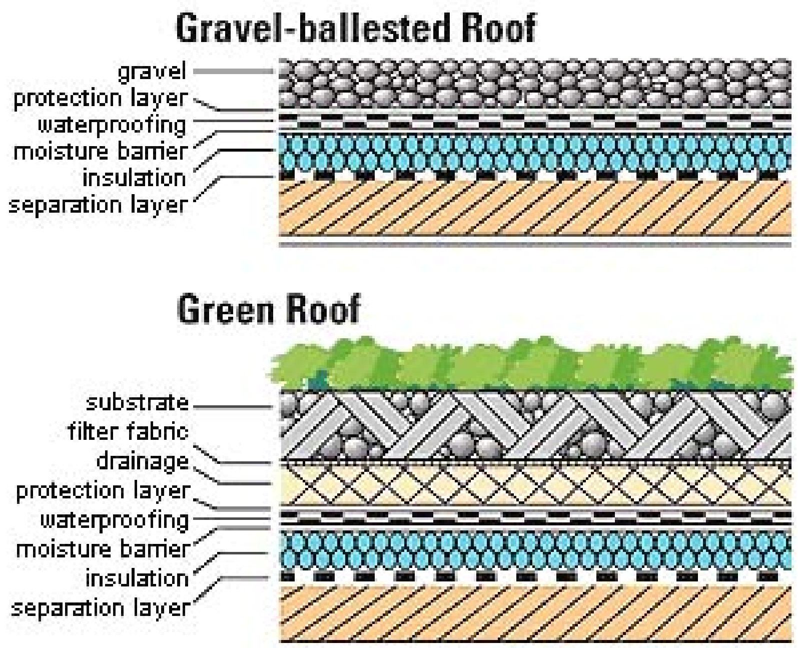


worktime

- Preserve green space or return developed land to more natural
- Be aware of drainage, minimize potential erosion
- Be smart about transportation
- Be aware of extent of impermeable surfaces, eg; roads and pavi
- Be aware of the affect of your site on adjacent properties

site

site



Green roofs: An Ecological Balance. (Courtesy of Albrect Duerr)

site

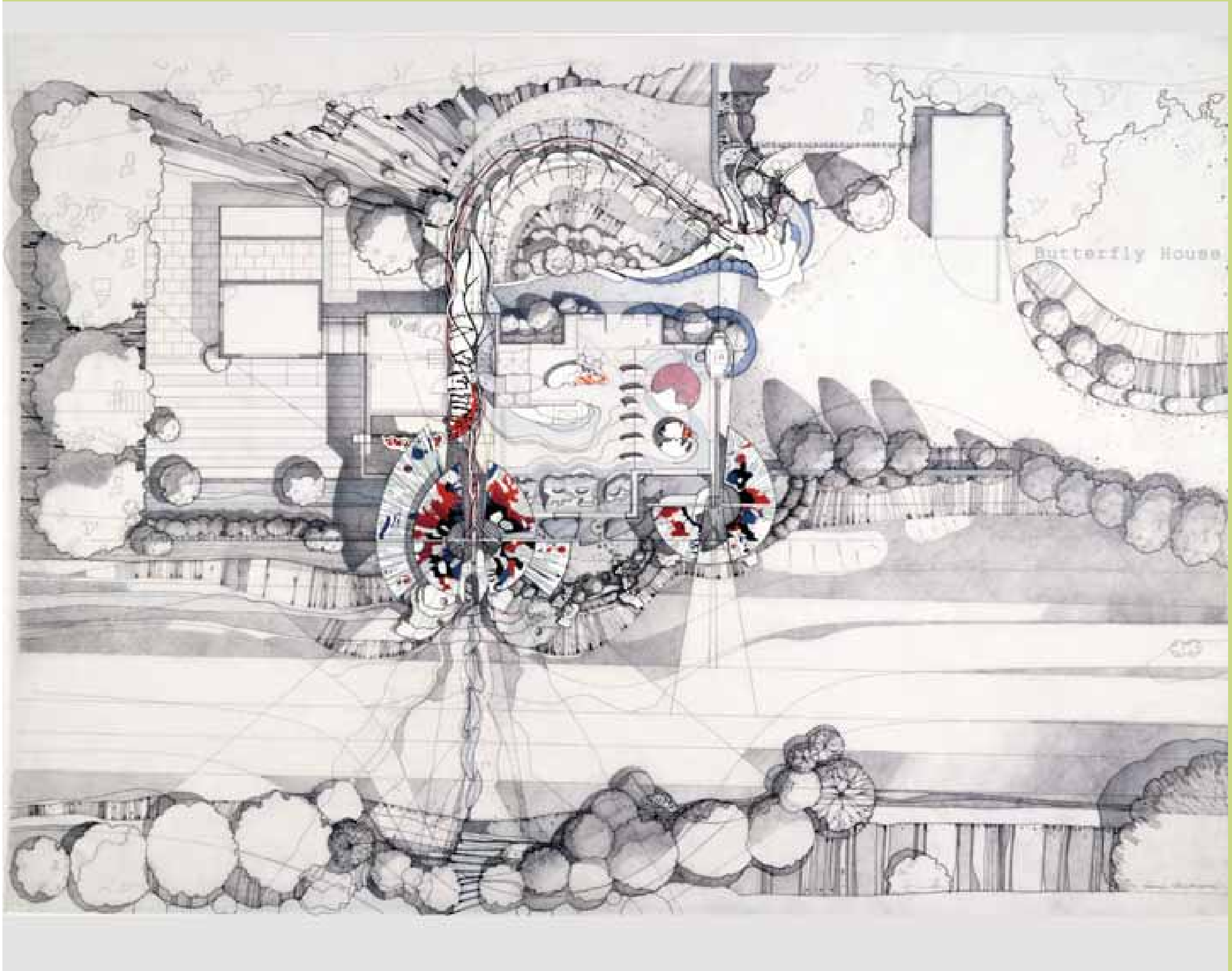
site

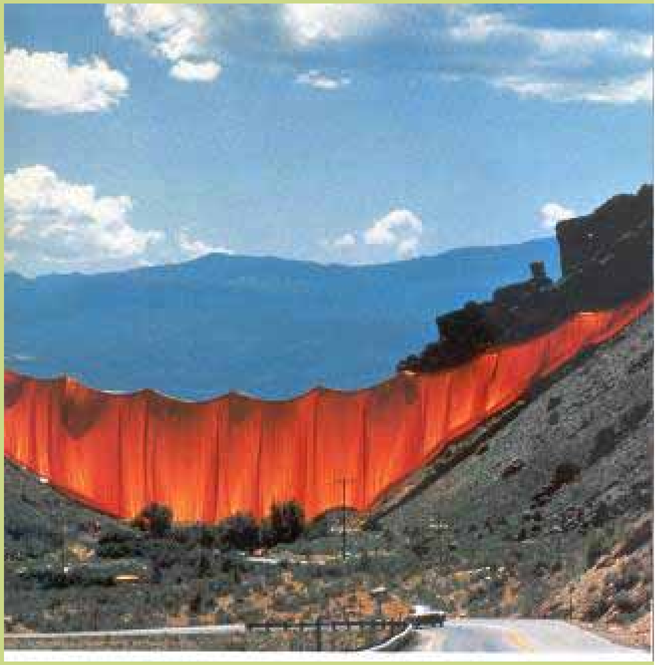
THE ENVIRONMENT

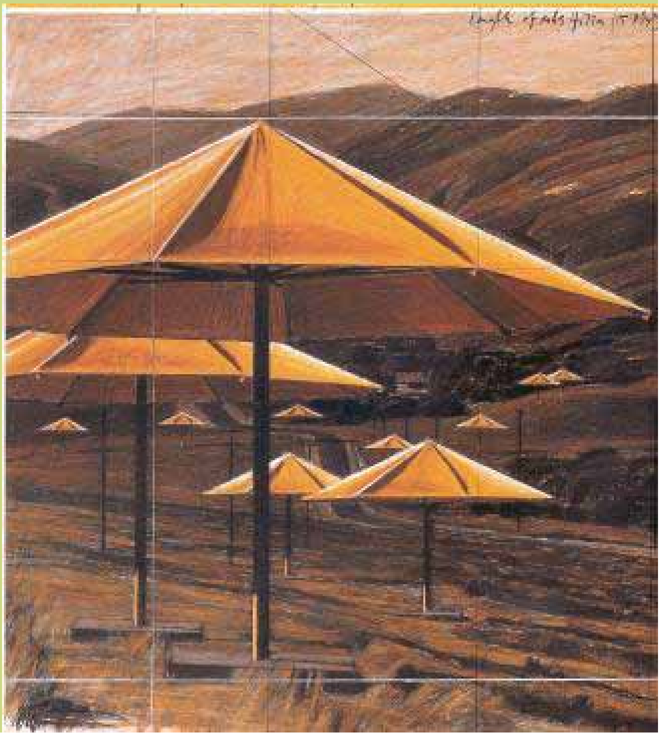
- PRESENTATION DRAWINGS/SITE ANALYSIS-10 MINS

In the time allotted -Draw and color your interpretation of a site presented. Consider the mass and space, the volumes, of the objects that occupy the site well as the **landscape*** around it. Color can be representational for example green for grass, blue for water.- or it can be totally abstract.
The idea is to create a **compostion*** that interprets the object that you have chosen to represent, and it's relationship to its surrounding landscape.
This drawing can be a plan or a 3-D presentation. Or it can be a combination of both. But remember the idea is to interpret the building and it's surroundings from the drawingsand images that you have been provided.

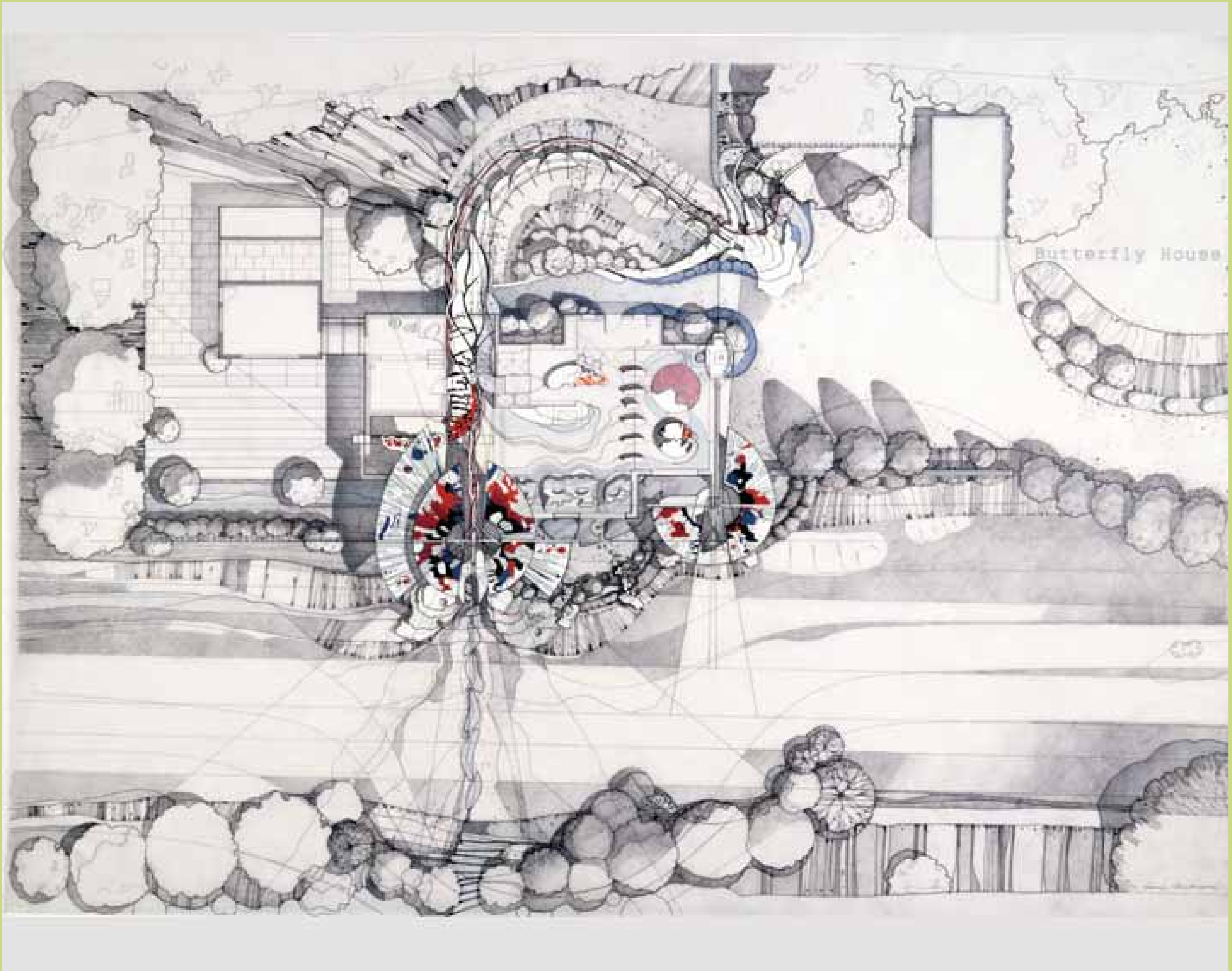
Butterfly House United Kingdom 2003
architect: Laurie Chetwood







Butterfly House United Kingdom 2003
architect: Laurie Chetwood



Site Plan

site

The environment

Physical environment

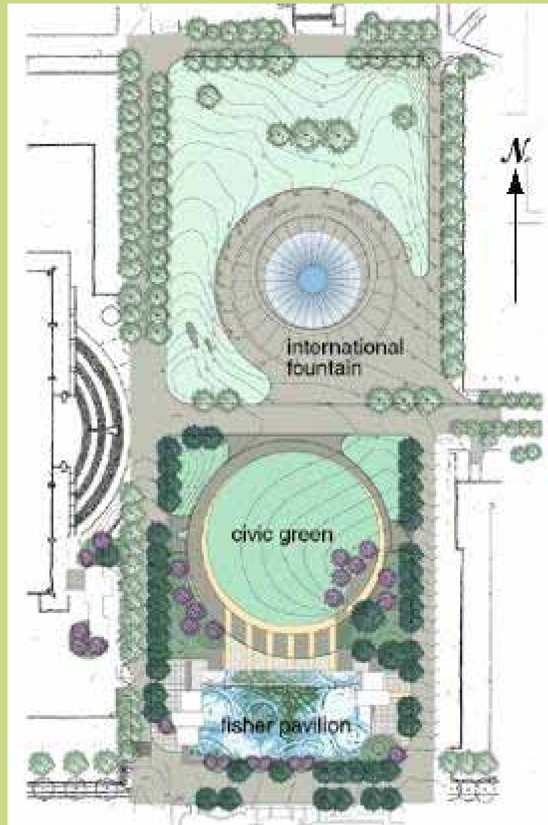
Climatic environment

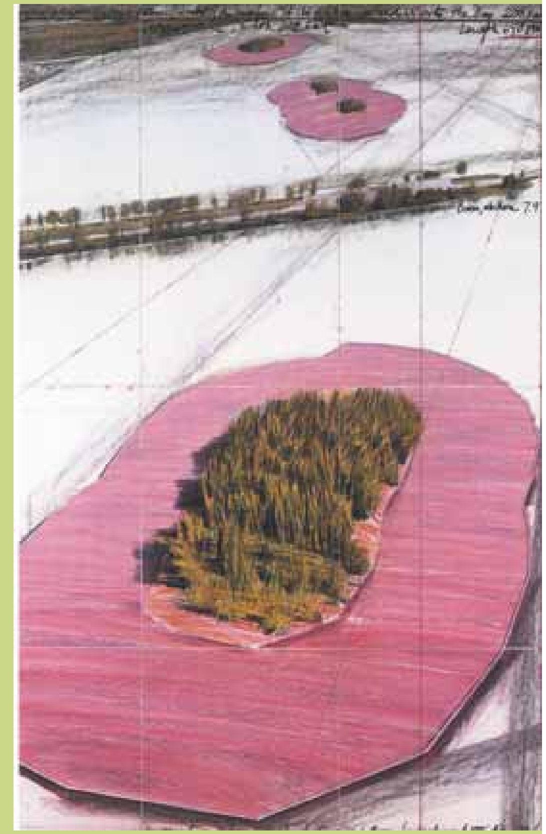
Political environment

Understanding that environment

Representing that environment

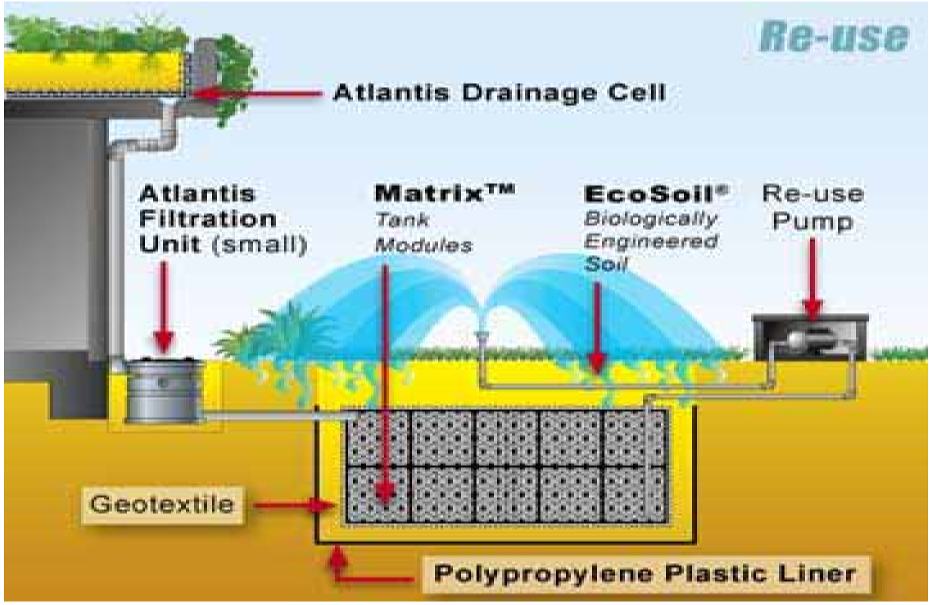
worktime



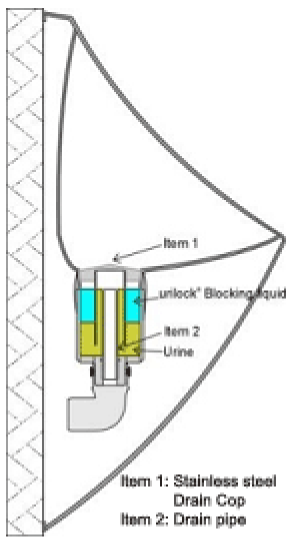


water

- Be smart about how much, and how you use and or reuse wa
- Think about ways to conserve water.
- Use native and adaptive plants, and minimize use of potable
- Adopt water technologies that reduce amount of water used.


Re-use
Atlantis Drainage Cell
Atlantis Filtration Unit (small)
Matrix™ Tank Modules
EcoSoil® Biologically Engineered Soil
Re-use Pump
Geotextile
Polypropylene Plastic Liner

water


Item 1
urilock® Blocking liquid
Item 2
Urine
Item 1: Stainless steel
Drain Cop
Item 2: Drain pipe

water

plan

understanding the program

understanding a sequence of spaces

developing your idea horizontally

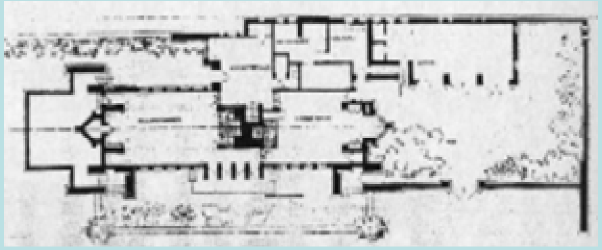
- PARTI-10 MINS

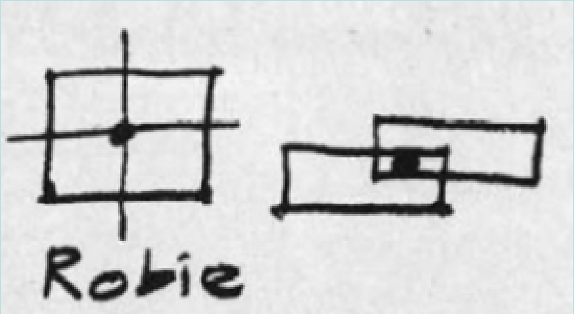
In the time allotted - draw the parti- the geometry the shapes that you believe derived the floor plan of the buildings chosen. You can do at least 3 or 4 or even more drawings in this time

Use a big fat marker for this exercise and draw floor plan as best to a visual scale. Fit drawing on to paper provided.

Parti- French for Departure- Parti can mean the organizing idea behind the project , the conceptual floor plan; the idea, the geometry from which the plan is derived or generated it can also be the thoughts behind the design

You should have time to do @ least 4 or 5 different buildings.





plan

understanding the program

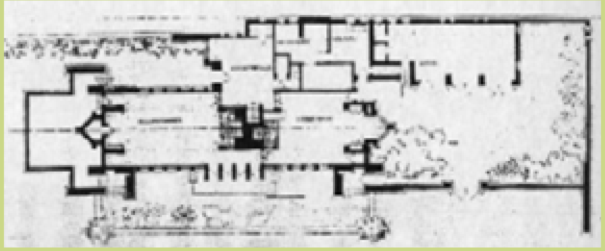
TABLE 1- PARTI-10 MINS

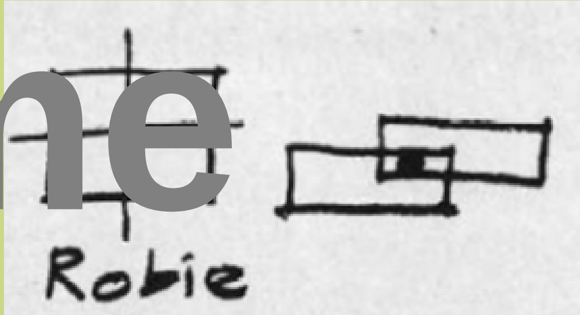
In the time allotted - draw the parti- the geometry the shapes that you believe derived the floor plan of the buildings chosen. You can do at least 3 or 4 or even more drawings in this time

Use a big fat marker for this exercise and draw floor plan as best to a visual scale. Fit drawing on to paper provided.

Parti- French for Departure- Parti can mean the organizing idea behind the project , the conceptual floor plan; the idea, the geometry from which the plan is derived or generated it can also be the thoughts behind the design

You should have time to do @ least 4 or 5 different buildings.





worktime

Be smart about how much, and what type of energy is used.
Think about ways to conserve energy

energy

energy

section

understanding the program

developing your idea vertically

understanding the sequence of spaces

vertical plan

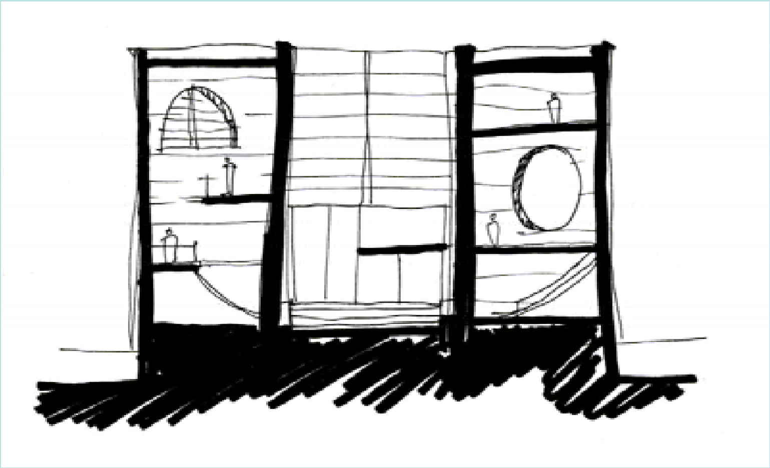
vertical circulation

- BUILDING SLICES-10 MINS

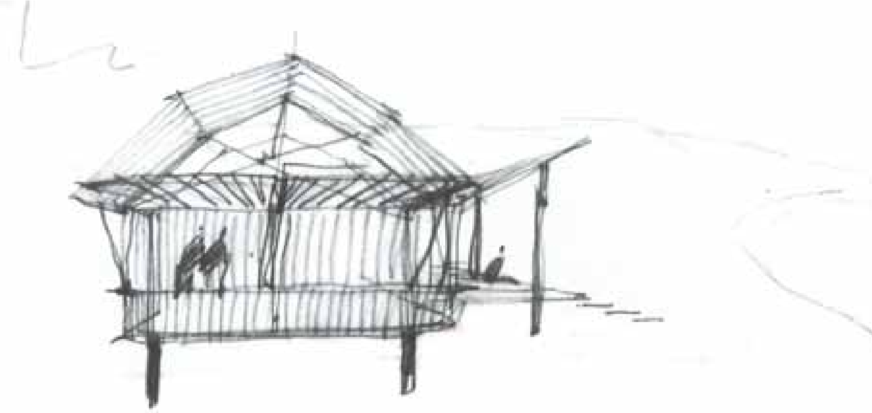
A floor plan is a horizontal slice through a building. A section is a vertical slice through a building (like cutting through a cake. You can see through all the layers).

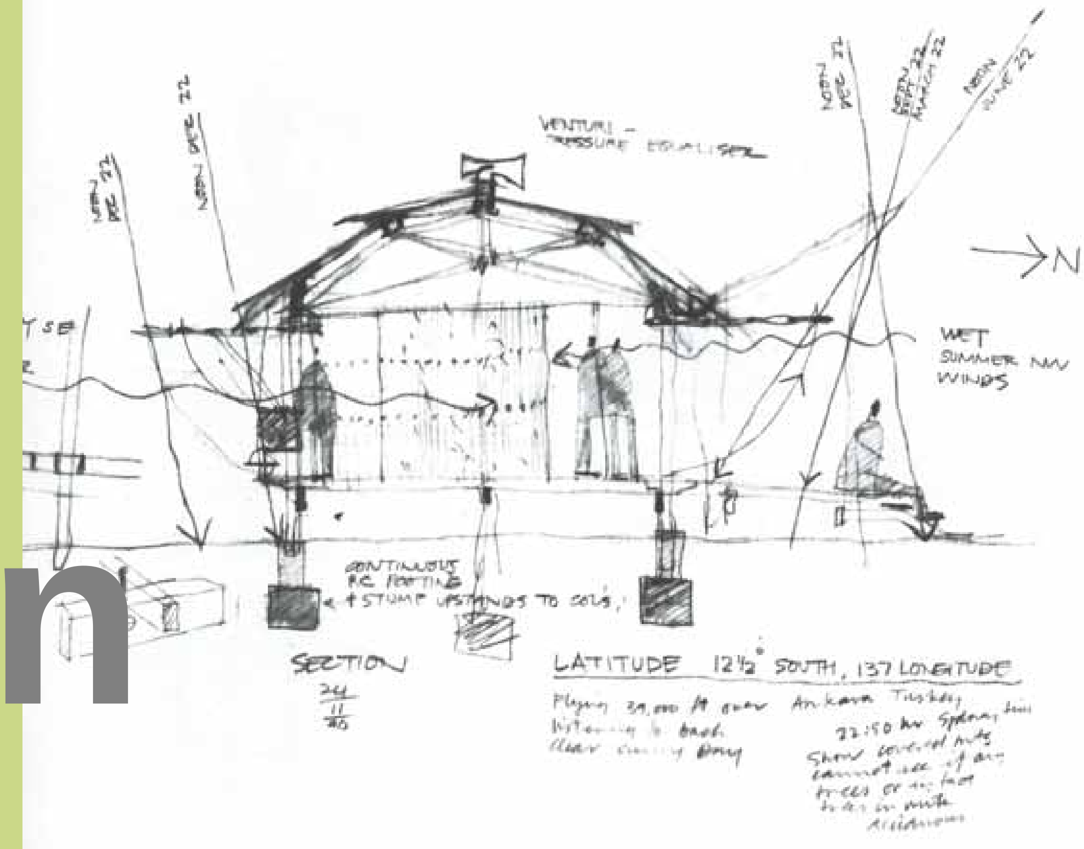
In the time allotted --Cut down through as many buildings, as you can long ways or short ways it doesn't matter and sketch what you think are the layers of the building. Keep it simple using lines and shapes.

You should have time to do at least 2 buildings

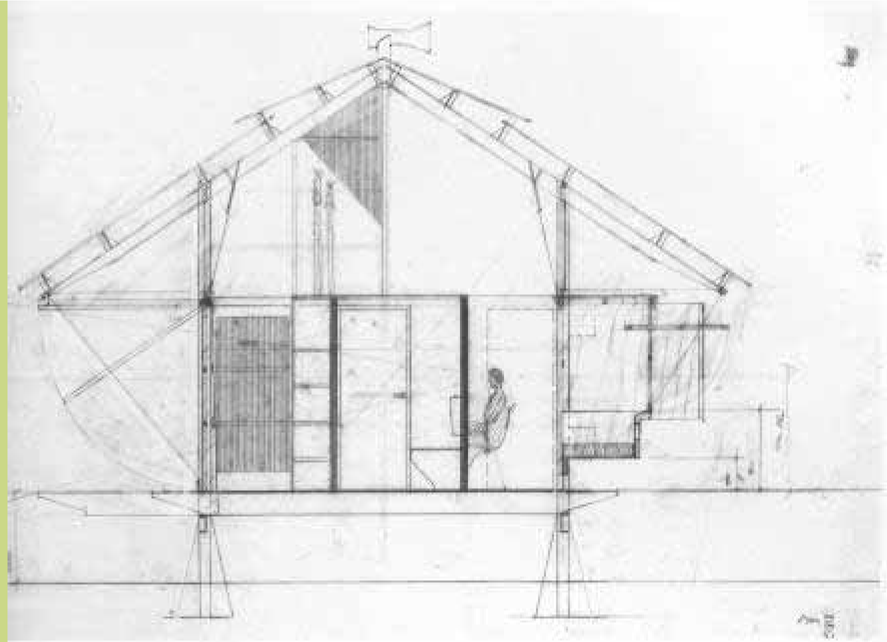


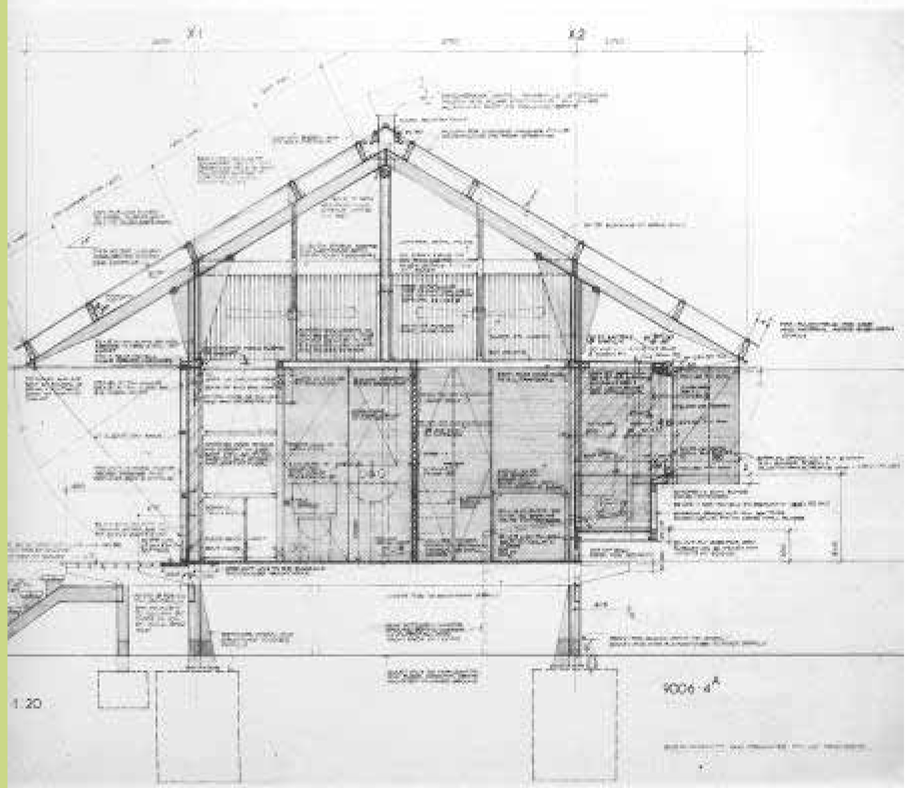
section




VENTURI - PRESSURE EQUALISER
NOON DEC 22
NOON SEPT 22 MARCH 22
NOON JUNE 22
N
WET SUMMER NW WINDS
CONTINUOUS RC FOOTING + STUMP UPSTANDS TO COL'S.
SECTION
LATITUDE 12½° SOUTH, 137 LONGITUDE

section





section

understanding the program

developing your idea vertically

understanding the sequence of spaces

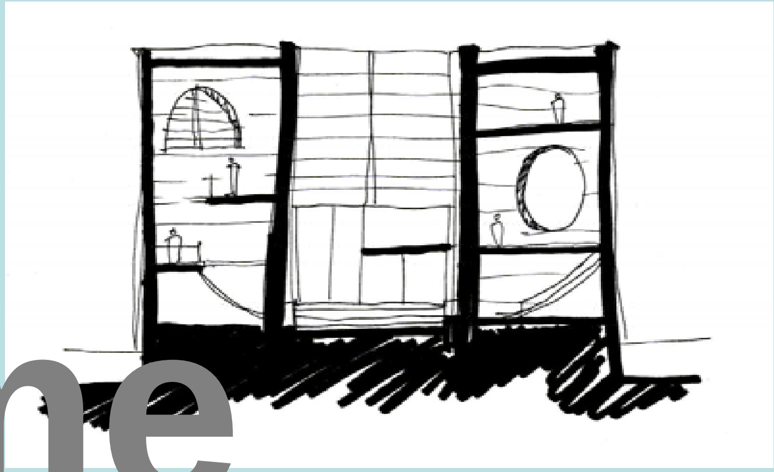
vertical plan

- BUILDING SLICES-10 MINS

A floor plan is a horizontal slice through a building. A section is a vertical slice through a building (like cutting through a cake. You can see through all the layers).

In the time allotted --Cut down through as many buildings, as you can long ways or short ways it doesn't matter and sketch what you think are the layers of the building. Keep it simple using lines and shapes.

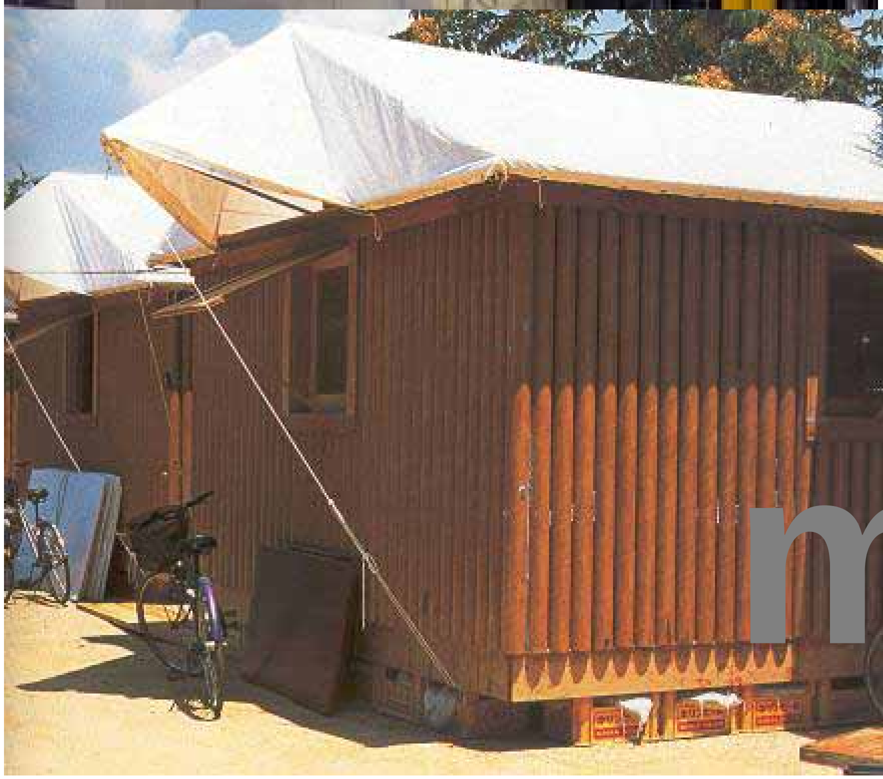
You should have time to do at least 2 buildings



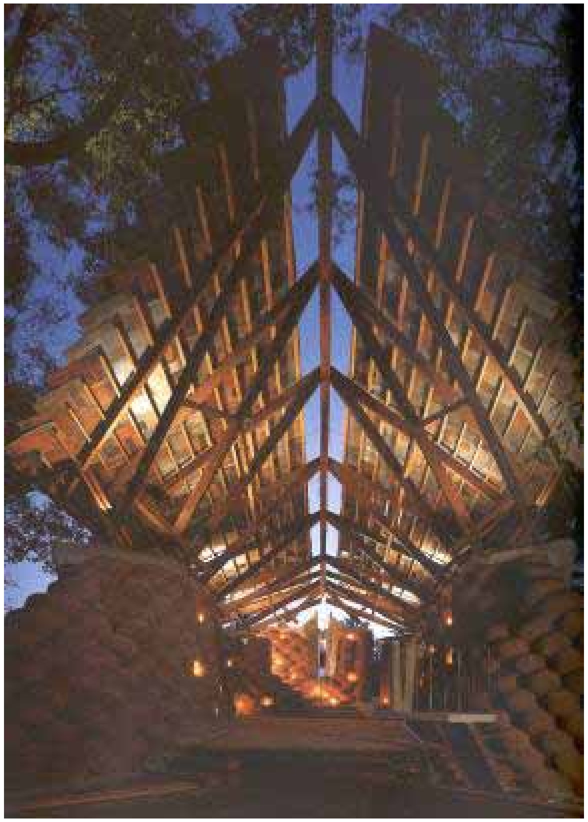
worktime

Consider the impact of products used in the construction of the Building;
this would include materials with recycled content, salvaged, rapidly renewable and local materials

materials



materials






materials

elements

of architecture

putting the pieces together

Roof, walls windows, doors entry

TABLE 5- BUILDING ELEMENTS-DOORS WINDOWS & ROOFS10 MINS

In the time allotted – Buildings are made up of different elements. Roofs walls doors, windows. Design of these elements is very important to the overall look of the building. As best as you can sketch what you see as the separate building elements. Draw what you see as the doors, the windows the roof.

Draw the elements as separate objects not as if they are part of the building

elements

of architecture

putting the pieces together

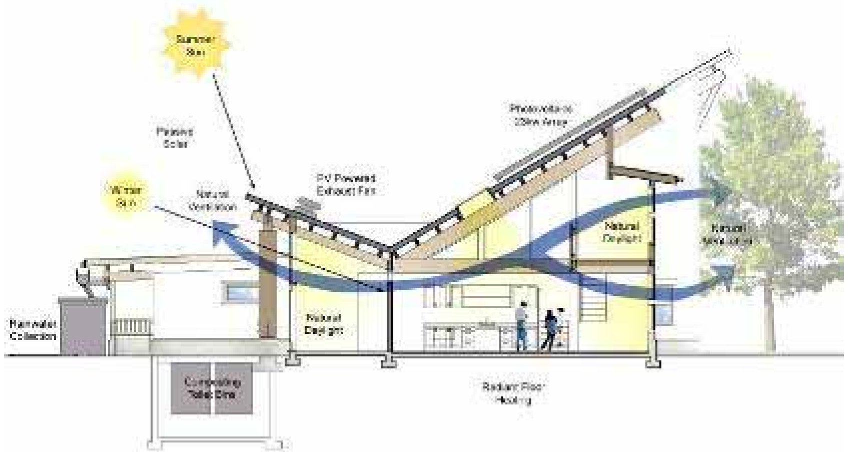
Roof, walls windows, doors entry

worktime

TABLE 5- BUILDING ELEMENTS-DOORS WINDOWS & ROOFS10 MINS

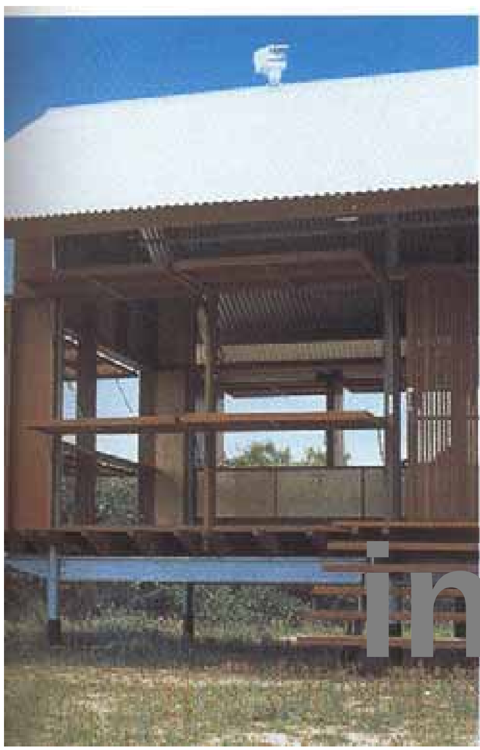
In the time allotted – Buildings are made up of different elements. Roofs walls doors, windows. Design of these elements is very important to the overall look of the building. As best as you can sketch what you see as the separate building elements. Draw what you see as the doors, the windows the roof.

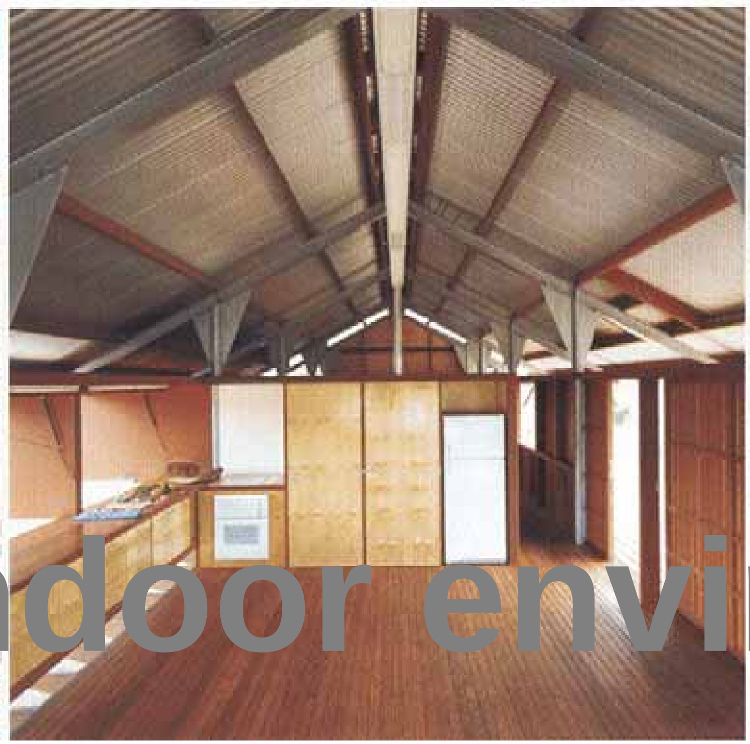
Draw the elements as separate objects not as if they are part of the building

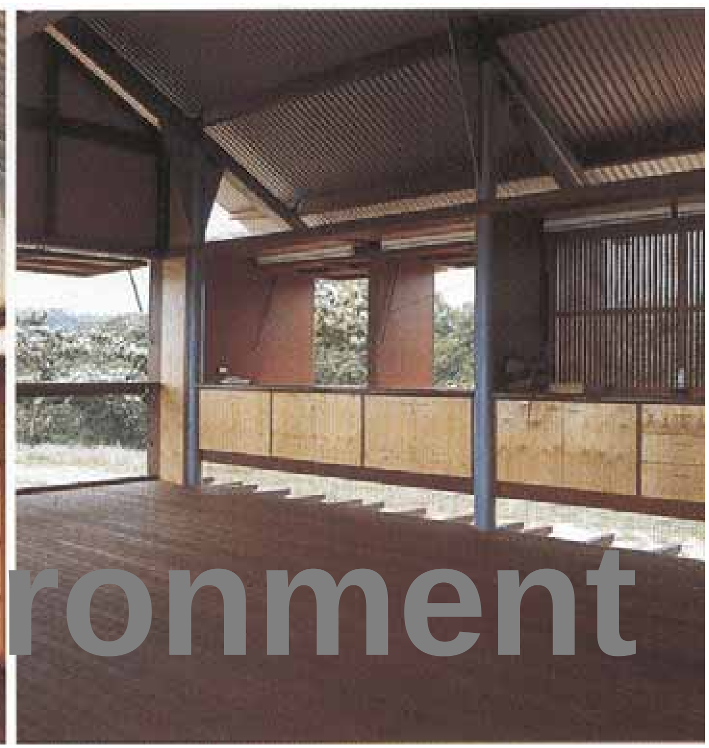


We spend the majority of our time indoors and we should optimize the quality of that environment.
Think about ways to bring lots of daylight into the building
Think about the types of materials you use inside the building and how they could affect the health of the occupants

indoor environment







indoor environment

1. **recycle center**

2. **destination element**

3. **sustainable design**

Michael G. Meyers Student Design & Scholarship Competition

April 18. 2008

Community Recycling & Reuse Center


OCT 27 2004


NO WASTE BY 2010
recycling
closing the loop


PLANZER


TRU
FREITAG
ust
FREITAG


Beer Can House

2008 Michael G. Meyers Design Competition

sponsored by
the American
Institute of
Architects,
Houston Chapter

Community Recycling & Reuse Center

Background

re·duce *transitive verb* \ri- düs, - dyüs\

(1): to diminish in size, amount, extent, or number > (2): to decrease the volume

re·use *transitive verb* \( )rē - yüz\

: to use again especially in a different way or after reclaiming or reprocessing <the need to *reuse* scarce resources> <*reuse* packing material as insulation>

re·cy·cle *transitive verb* \( )rē - sī-kəl\

1: to pass again through a series of changes or treatments: as a: to process (as liquid body waste, glass, or cans) in order to regain material for human use

At 1,609 pounds per person per year, the U.S. is the primary trash-producing country in the world. This means that 5% of the world's people generate 40% of the world's waste. With an ever increasing rate of consumption, until we learn to reduce, recycling and reuse must be a big part of our daily lives. Everything comes in some sort of packaging most of it not integral to the use of the product. Many of our food & household items come in some kind of container, fortunately more and more of these containers can be recycled and are made of recycled materials.

In Architecture the concepts of reduce, reuse and recycle are part of the Sustainable Design movement. In these ideas Architects focus on design solutions that minimize our impact on the environment. In this year's project you will be asked to address the issue of sustainable design relative to Site, Water, Materials, Energy and Indoor Environment.

Your challenge this year is to design <u>more</u> **than a recycling center**. The project requires that you to provide a Recycling Center, along with an additional program element of your choice. The hope is that you create a place that is a destination, not just a drop off. A place that helps to promote the values and continues to educate a community that recycles.

Program

Project Elements

RECYCLE Center

Provide the following open, covered, or enclosed storage areas for the material to be recycled
Storage/Collection zone for Glass - minimum 200 sqf
Storage/Collection zone for Metal - minimum 200 sqf
Storage/Collection zone for Paper & cardboard- minimum 400 sqf
Storage/Collection zone for Plastic - minimum 200 sqf

Office space for Recycle Center employees (2 each) @100 sqf
Storage and maintenance room for Recycle Center employees @ 200 sqf
Men's and Women's restroom with shower and changing area @ 120sqf each

Vehicular circulation for Recycle center fork lifts, loaders, trucks, trailers etc,

Vehicular and Pedestrian zone & circulation for Community Drop off

DESTINATION ZONE

Design an open, enclosed or covered space with a program defined by you the student.
Your program should make the recycling center an educational and fun place to visit.
(For example, Car wash, Resale Store, Art Studio)

Provide between 800 sqf to 2,500 sqf
Provide restrooms 2ea @ 60sqf
Provide parking spaces for 12cars and accommodate bicycle parking

Project Requirements

The design for your Community Recycling & Reuse Center must

1. Develop a distinctive solution that addresses the requirements of the program, a recycling center & destination zone.
2. Address the concepts of sustainable design in your solution by incorporating ideas that deal directly with @ least two of these concepts: Site, Water, Energy, Materials, Indoor Environment. These concepts are discussed in further detail on the following page.
3. Provide a written description (maximum one page) of the Destination Program developed and the Sustainable design concepts pursued.

Sustainable design

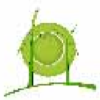
Site

Preserve green space or return developed land to more natural state
Be aware of drainage, minimize potential erosion
Be smart about transportation
Be aware of extent of impermeable surfaces, eg; roads and paving
Be aware of the affect of your site on adjacent properties

Water

Be smart about how much, and how you use and or reuse water.
Think about ways to conserve water.
Use native and adaptive plants, and minimize use of potable water.
Adopt water technologies that reduce amount of water used.

Energy

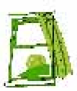


Be smart about how much, and what type of energy is used.
Think about ways to conserve energy.

Materials

Consider the impact of products used in the construction of the Building; this would include materials with recycled content, salvaged, rapidly renewable and local materials.

Indoor Environment



We spend the majority of our time indoors and we should optimize the quality of that environment.
Think about ways to bring lots of daylight into the building
Think about the types of materials you use inside the building and how they could affect the health of the occupants

Presentation Requirements

essay (should be firmly affixed to the front of one board)

Your descriptive essay should include some detail to explain your design. Please limit your essay to one 8 ½ x 11 @ 12 point Arial font.

Suggestions of what to include in your essay:

- Clarify the program of your chosen destination zone, what you do there, how does it service the community, how is it educational.
- What are the sustainable design strategies that you have chosen for your project, and how they affect your design
- What are the ideas behind your Recycle Center design solution.

drawings

The following **minimum** requirements should be mounted on two 24" x 36" or 30" x 42" foam core or similar rigid boards *(do not submit more than two boards)*:

- A **site plan**, to scale, showing outdoor features and site improvements and the roof of your project (if there is a roof)
- 1/8" = 1'-0" scale **floor plan** of the building showing walls, doors, windows, countertops, plumbing fixtures, room names, and other descriptive information that defines the space.
- 1/8" = 1'-0" scale **exterior building elevations** showing roof heights, building materials, windows, and other descriptive information.
- 1/8" or 1/4" = 1'-0" **section** of the building showing where openings are located in walls and how spaces are connected or divided.
- At least one accurate **perspective** drawing at any scale of an interior or exterior view of your project.
- Three or more **hand sketches** that document your design process.

models

A 1/8" = 1'-0" **scale model** of the project *(building only, no site model)* is required for team projects.

**Models are optional for individual participants, but all are encouraged to experiment with models to help answer questions about their designs.

deadline for submissions

Entries are due by 5:00 pm on Friday, **18 April 2007** at the AIA Houston offices **315 Capitol Street, Suite 120, Houston, Texas 77002** [phone 713-520-0155].

Site

The site is a 2 acre empty lot that is on the corner of Harvard and Center Street, which residential 2 lane streets. The site is 1 block off 2 major streets, Washington Road which runs east west, and Heights Blvd, which runs north-south.

To the north of the site is a functioning rail line. West of the site is a residential zone with new town homes, Neighboring properties vary from commercial to industrial and entertainment. Just north of the site on Heights Blvd, is the Houston Art Car Museum.

This site is @ 134'-0" x 316'-0"much larger than previous projects. How you address the site, in relation to the program and to the sustainable design concepts will be evaluated, by the judges.