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PAPER : Architecture & town planning.
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QUESTION: 1

Take any building from internet put its picture in Microsoft word and explain its positive and negative points according to the principles of design. what could be done to make the building more attractive? Answer must be at least 200 words.

ANSWER:

PICTURE:

BASIC PRINCIPLES IN PLANNING A RESIDENTIAL BUILDING:

➡ ASPECTS:

The orientation of the room should be such that the users can live comfortably and get maximum sunlight and air.

➡ PROSPECT:

The house should have a good exterior view, a person should get a positive impression while viewing it from outside.

➡ PRIVACY:

Both internal and external privacy need to be maintained in a house.

➡ GROUPING:

The rooms should be arranged in reference to one another. Rooms having similar usage should be grouped together.

➡ ROOMINESS:

It can be provided by intelligently using the available space in a room and also giving small proporties (proportions) (A rectangular room looks more spacious than a square room).

➡ SANITATION:

Sanitation refers to public health conditions related to clean drinking water and proper sewage treatment. proper arrangements for ventilations, lighting is a must for planning of rooms.

➡ FLEXIBILITY:

Multipurpose use is essential for buildings having less floor area.

➡ COMMUNICATION:

Ease of communication between rooms is very important which can be achieved by proper placement of doors, staircase, passages etc.

➡ PRACTICAL CONSIDERATION:

We have to do planning considering some practical considerations. For example complicated interior works are tougher to clean and maintain then plain designs.

→ POSITIVE POINTS OF PICTURE:

→ The location of the building is good.
→ Greeness find around the building.
→ Contrast is also present in the building.
→ Variety also highlights in the building.
→ Space around the building is much more, it can also be used for futher construction.
→ Communication between the rooms is also present.
→ Aspect can also be find in this building.
→ Large front can also increase beauty in this building.
→ Swimpool and fresh water can glorify the beauty of the building.
→ Free space for outdoor building is also available.
→ Alignment is also present in the building.
→ Scale highlights much beauty in this building.
→ climate is superb in this area.

NEGATIVE POINTS OF PICTURE:

→ Balance is not present in the picture.
→ position of the stairs decreases the beauty of this building.
→ Asymmetrical balance is very less in this building.
→ color use in the building is so dark.
→ Rooms are closer to one another.
→ Front of the building is large but not modify.
→ variety of colors are present but not attractive.
→ Roof of the building is so flat.
→ Harmony didn't lies in the building.
→ Unity is alittle bit present but not as much as the front, location, area of the building.
→ Swimmingpool lies in wrong place.
→ Sites area are much free.
→ NO walls around the building.
→ External privacy is not maintained in the building.
→ pattern is present but don't reflect the busty of the building.
→ Rhythm is not find in the building.
→ Direction didn't present in the building.

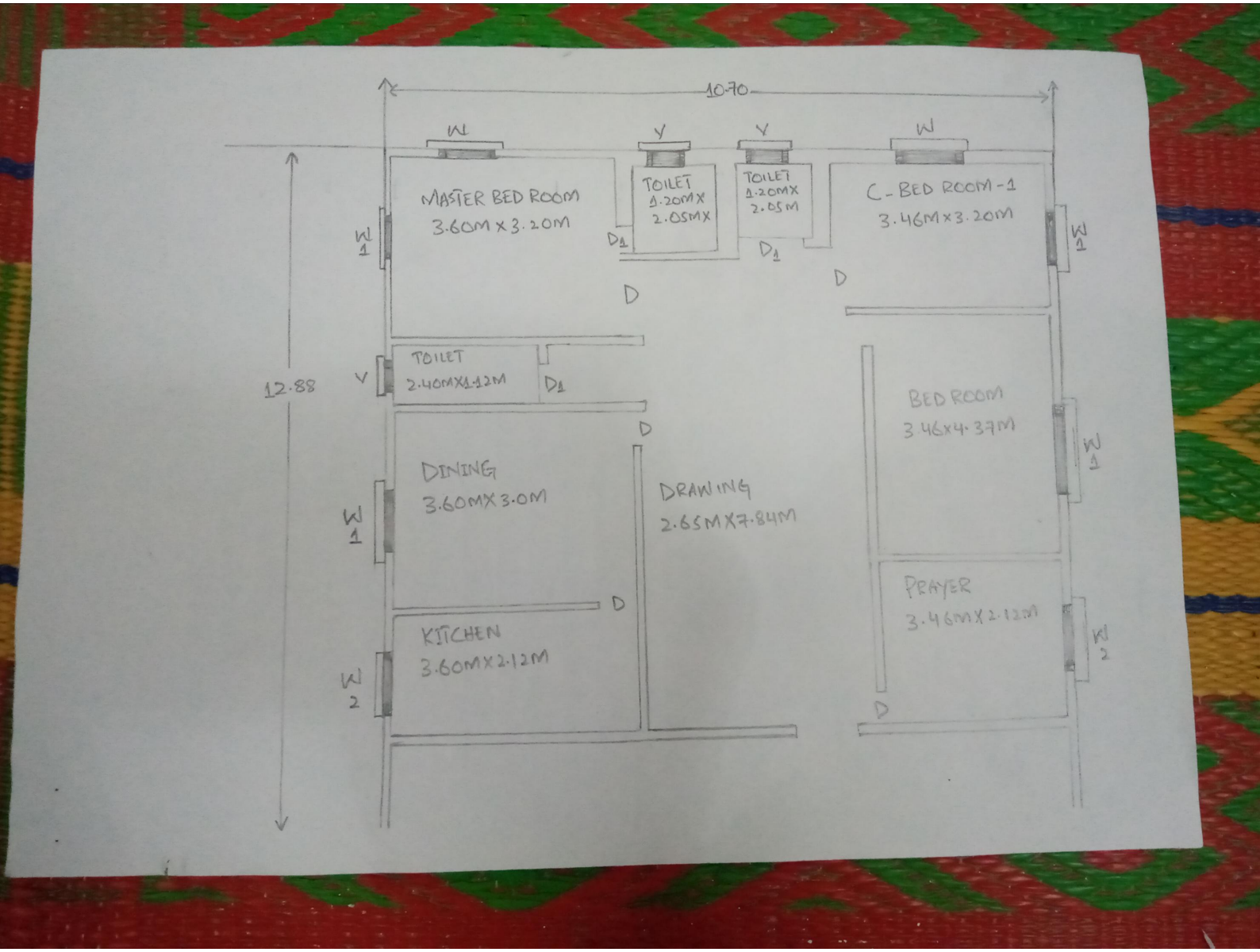
Own View To Make Building More Attractive:

→ Instead of single story building multiple storys can be made.
→ Sides space can also be utilize.
→ Swiming pool can be either on left or right side.
→ Instead of open kichen, close kichen will be larger and more attractive.
→ Proper varity of the colors can modify the beauty more.
→ Directions of the colors can make attraction.
→ Multiplies colors can be used in the building.
→ Lights colors much suits the building.
→ A small garden on either left or right side can make building more busityull.
→ Space between the rooms can be increase which makes internal privacy.
→ As area is large, medium guest hall/rooms can easly be constructed.
→ A small Logo can also attract the people.

QUESTION-2

Design and sketch an idea single storey house on the site shown below. The design should be free hand and can be drown on graph paper. If a graph paper is not available then make a grid of 5'x5' on a separate white A4 size paper. The house should be naturaly ventilated and have naturally lighting. Also, it should be free of noise. The site is located in Peshawar. Label or explain the plain neatly.

ANSWER


10.70
12.88
MASTER BED ROOM
3.60M X 3.20M
TOILET
1.20MX
2.05MX
TOILET
1.20MX
2.05M
C-BED ROOM-1
3.46M X 3.20M
TOILET
2.40MX1.12M
BED ROOM
3.46X4.37M
DINING
3.60MX3.0M
DRAWING
2.65MX7.84M
PRAYER
3.46MX2.12M
KITCHEN
3.60MX2.12M
W
V
D
D1
W1
W2

QUESTION: 3

Select a site at the place where you live. DO micro site and make its sketch on another A4 paper and write about it in detail. you can take your own lawn as a diagram of your area on a separate piece of paper to find the exact sun angles for both winter and Summer. Use these sun angles to make a rough sketch of a room. show window neigld, type of fixed sun angles in mind. The purpose for the sketch is to show how winter sun is allowed and Summer sun is blocked.

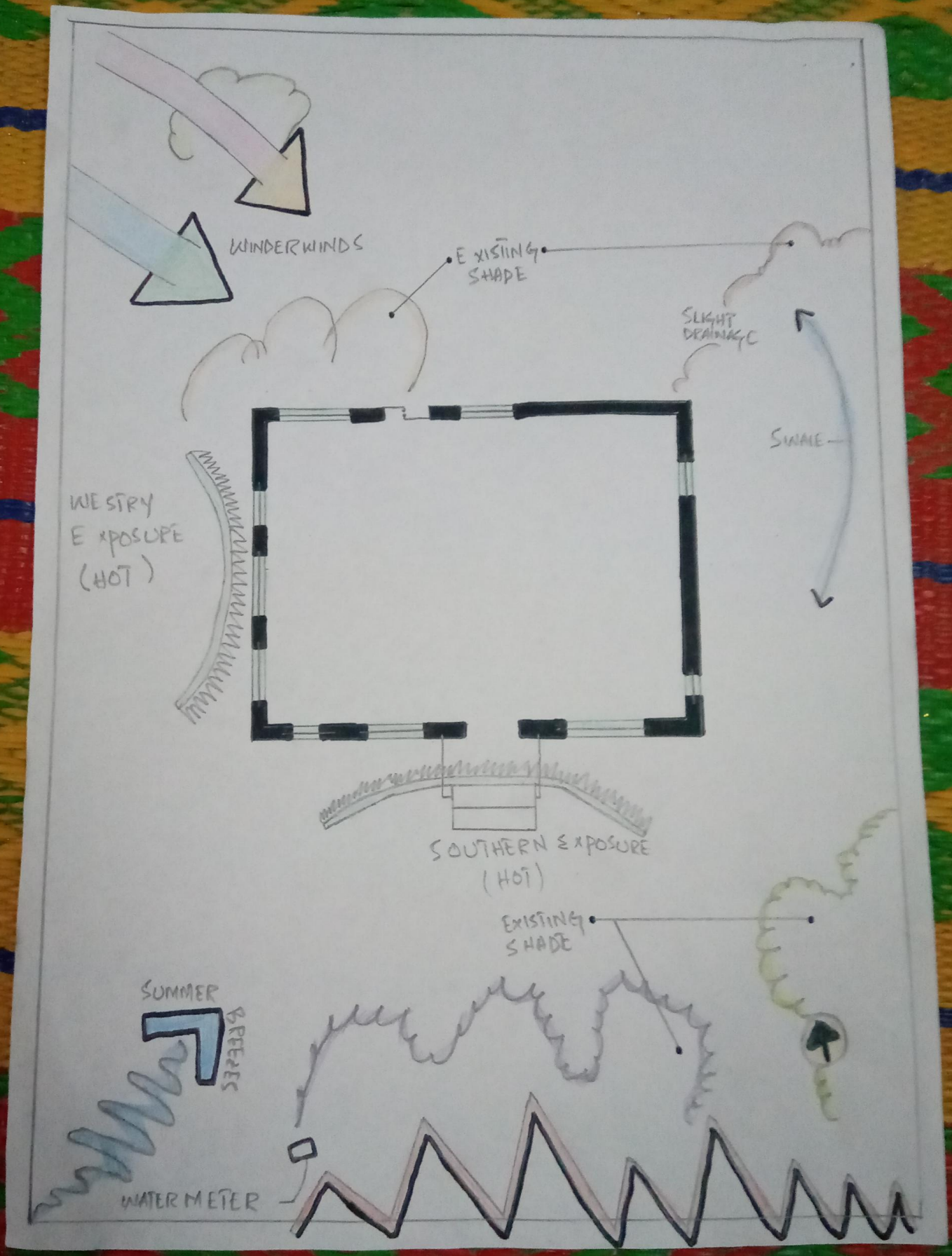
ANSWER:

MARCO SITE ANALYSIS:

The marco site includes the surrounding suburbs of the proposed site. Movement and context are aspects that will be studied with in this area. The micro site will be an in-depth study of the proposed project site and its immediate context.

Site Analysis:

- → Regulatory Environment
- → Macro climate
- → Micro climate
- → orientation
- → Topography
- → utilities
- → Soils
- → Context
- → Urban form
- → opportunities
- → Social Norms / Behavioral Expectations
- → Feasibility
- → Catchment
- → parking / Street Access


WINDER WINDS
EXISTING SHADE
SLIGHT DRAINAGE
SWALE
WESTRY EXPOSURE (HOT)
SOUTHERN EXPOSURE (HOT)
EXISTING SHADE
SUMMER BREEZES
WATER METER

Designing a beautiful landscape for the home can be a very enjoyable and self-satisfying experience. With a little homework, a landscape plan is within reach of most homeowners. Before great ideas can become a plan, you must determine the limitations and aspects of the site. The amount of site research determines the success of the project. Great landscape design can't compensate for poor growing conditions or improper plant selection.

The earliest way to conduct a site analysis to record observation on an existing plan or map of the site, so the first step is to draw a base map of the site. Make several copies of the base map for recording a variety of information. Most site characteristics are difficult and expensive to alter, so knowing where they exist can help the homeowner take advantage of positive aspects and develop creative solutions to overcome the problem areas.

LIGHT:

All plants require a certain amount of light to grow and flower properly, some more than others. It is common to have a mix of light conditions on a site. Full sun plants require at least

6 to 8 hours of full, direct sun. shade-loving plants requisite fewer than 4 hours of direct sun. partial sun/shade plants requisite 4 to 8 hours of direct sunlight. matching the light conditions of the site with the light requirements of plants assures healthy growth and reduces the need for supplemental water. For example, shade plants growth/grown in full sun requisite additional water and may experience leaf scorch. Full-sun plants grown in too much shade will not flower well and may grow spindly.

Establish which direction is north. The sun will always be in the southern half of the sky, even in the middle of summer. Track the movement of the sun throughout the day. Make notes on the base map as to how many hours of sunlight each area recives. If observations can't be made for a full year, imagine light availability with the sun closer to the horizon, as it would be in the winter. In the winter, even a small structure can cast a large shadow.

WATER MOVEMENT:

In the landscape, water either moves into the soil or across the soil surface. Soil water availability can be a problem or an asset in terms of plant survival and is critical to plant selection. For dry areas, redirected water from sidewalks, gutters or foundation drains may help, though drought tolerant plants may be the best solution.

If poor drainage is the problem, the solution may be to remedy the problem before planting, or select plants that tolerate "wet feet". conduct a soil drainage test in various locations on the site, since it is very possible drainage and soil moisture vary throughout the site. Make note of downspout locations and drains lines, if they exist. check to see if water from the roof is running away from the foundation. Observe the site during a downpour. Make notes of areas where water ponds or moves rapidly.

CLIMATE & MICROCLIMATE:

climate include rainfall and the temperature highs and low of an area. plants grown in their preferred temperature zone will survive cold winters and will requisite less water in the summer. Though nothing can change the climate, this information is usefull when selecting plants for the landscape. The cold hardiness zone can be determined by consulting the USDA cold Hardiness zone map available in most plant reference books. much of Georgia is in cold hardiness zone 7 or zone 8. plants are typically sold with a label that provides their cold hardiness zone.

. Microclimate is a term that relates to a small area affected by the sorroundings. A small pocket area may have a microclimate that permits a plant to survive in an otherwise harsh environment Examples are a courtyard that stays warmer than nearby areas, or a wet area near a downspout. Make notes on the base map about any microclimate observed.

WIND:

In open areas, a strong wind can knock over newly planted trees or dry out plants that are not well established. Constant winds can cause plants to grow crooked. In coastal areas, off-shore winds bring salt spray, which can injure intolerant plants. Because wind direction naturally shifts with the seasons, it is difficult to determine wind direction and speed. If wind problems are suspected, make observations throughout the year or ask neighbors for a history of wind direction and speed.

UTILITIES:

Identify utility locations during a site analysis. Digging near underground gas or electric lines is dangerous. Phone and cable lines are typically buried very shallowly and are best moved before landscaping begings. Where a well or septic system is used, locate the lines prior to digging. There lines are seldom easy to locate the lines prior to digging. These lines are seldom easy to locate unless they have

been recently installed. In Georgia, all major utility companies belong to the Georgia utility location prior to major landscape work. contact this service while conducting a site analysis, and mark the locations of all identified utilities on the plan.

EXISTING PLANTS:

The site analysis should include an inventory of existing plants. If already established, existing plants are likely adapted to the site. Existing trees can provide shade and protection until the new plants become established.

A large established shade trees is worth thousands of douars and should be protected during construction or landscape work. Note hazardous trees or those in poor health, whether from construction damage, insects or disease. These will need professional care. Evaluate turf grass areas, if any, for overall vigor. All of this information will help when it comes time to make important decisions about which plants to keep and which ones to remove to make way for the new landscape.

WILDLIFE:

Wild animals can be enjoyable visitors, or they can be a serious problem. None are more bothersome than deer. Bambi might look cute in the front yard, but he is there to feed on landscape plants. The presence of deer various with neighborhoods and seasons, but they have became a major problem in many parts of Georgia. If you have no personal experience with the site, ask neighbors to determine if deer are a problem. If unsure, introduce plants slowly until the extend of the problem can be determined.

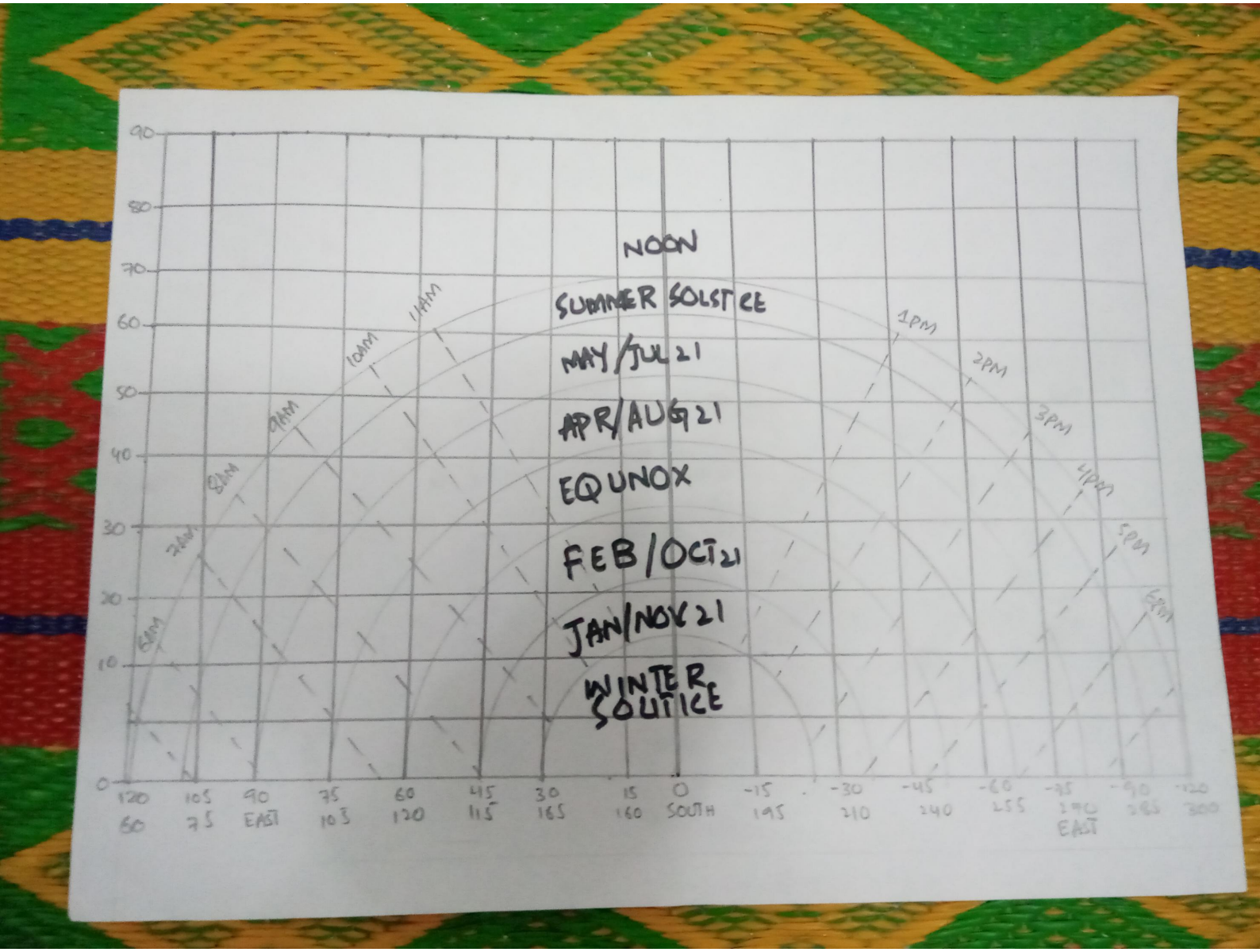
OTHER LANDSCAPE FEATURES:

Every site offers different features and opportunities. Walk the entir property, looking for features such as a rock outcropping, an old farm terrace, a small stream, a clearing or a path through a wooded area. These features could be incorporated into the design.

SUN PATH DIAGRAM:

As the name suggests is something that is used to determine the location, in the sky, of the sun at any point of time during the day, throughout the year.

Solar Path Diagram:

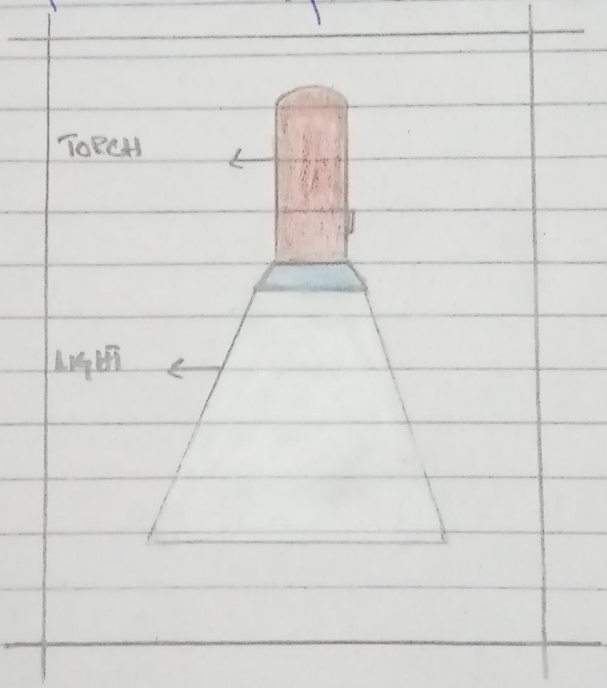

NOON
SUMMER SOLSTICE
MAY/JUL 21
APR/AUG 21
EQUNOX
FEB/OCT 21
JAN/NOV 21
WINTER SOLTICE
90
80
70
60
50
40
30
20
10
0
6AM
7AM
8AM
9AM
10AM
11AM
1PM
2PM
3PM
4PM
5PM
6PM
120 60
105 75
90 EAST
75 103
60 120
45 115
30 165
15 160
0 SOUTH
-15 195
-30 210
-45 240
-60 255
-75 270 EAST
-90 285
-120 300

SUN ANGLES:

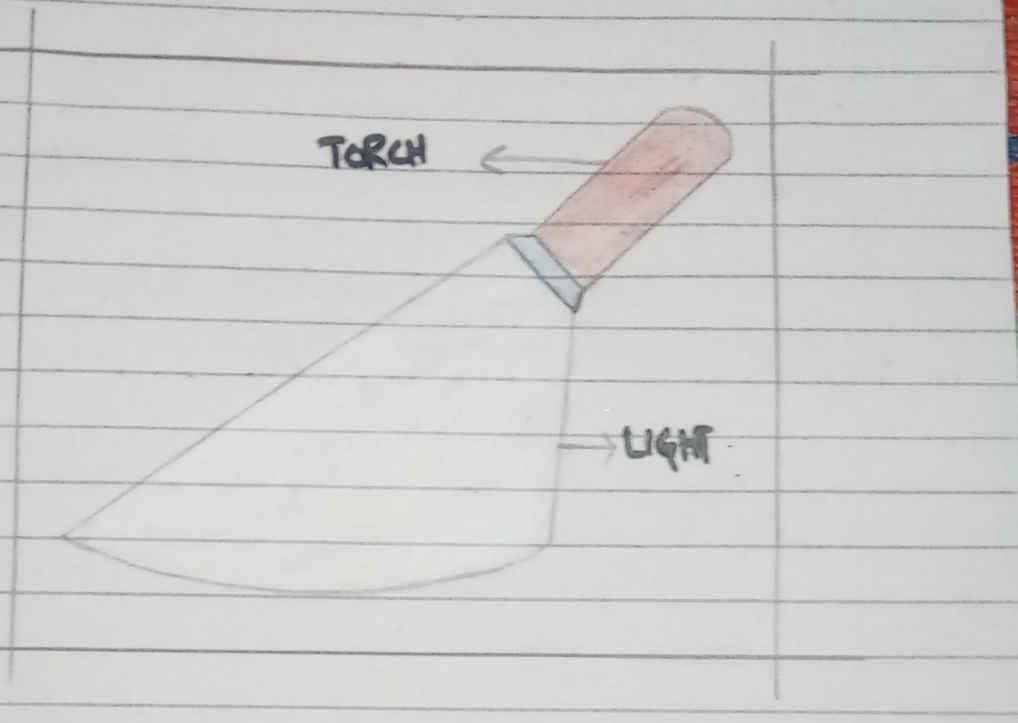
FOR LAWN SKETCH:

→ Summer sun is higher in the sky.
→ summer days are longer.
→ summer sunlight is more intense.

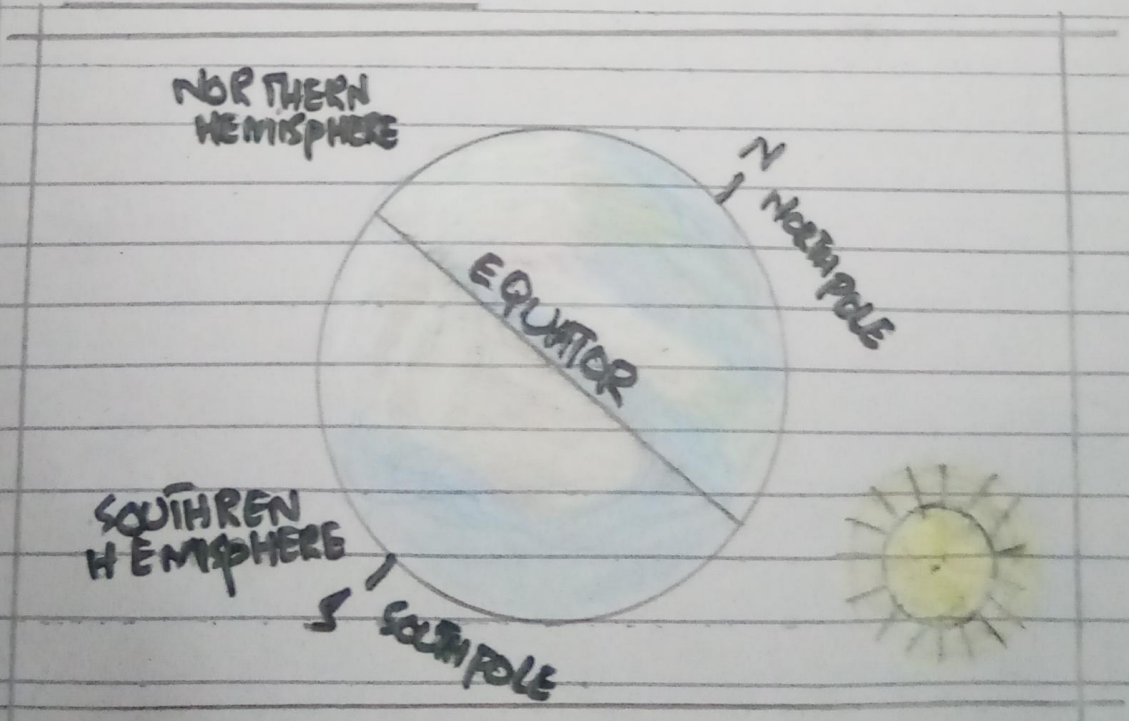
➡ 90 degree angles give more light & heat per unit of Area.

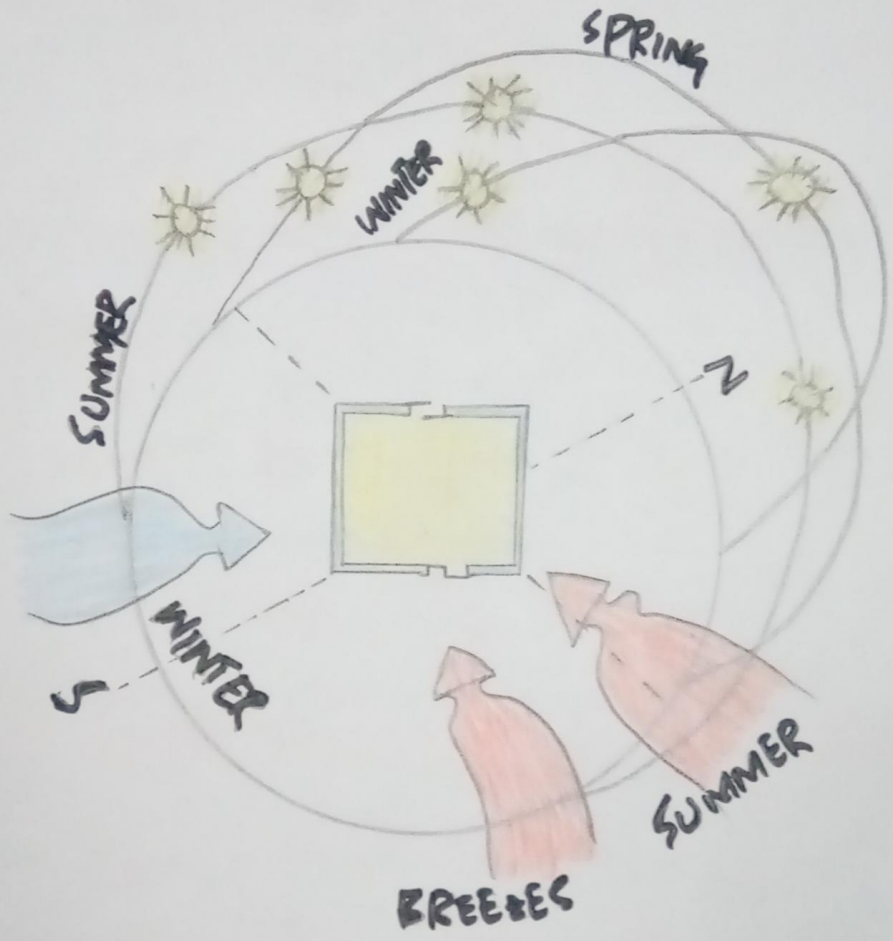


➡ Oblique angles give less light & heat per unit of Area.

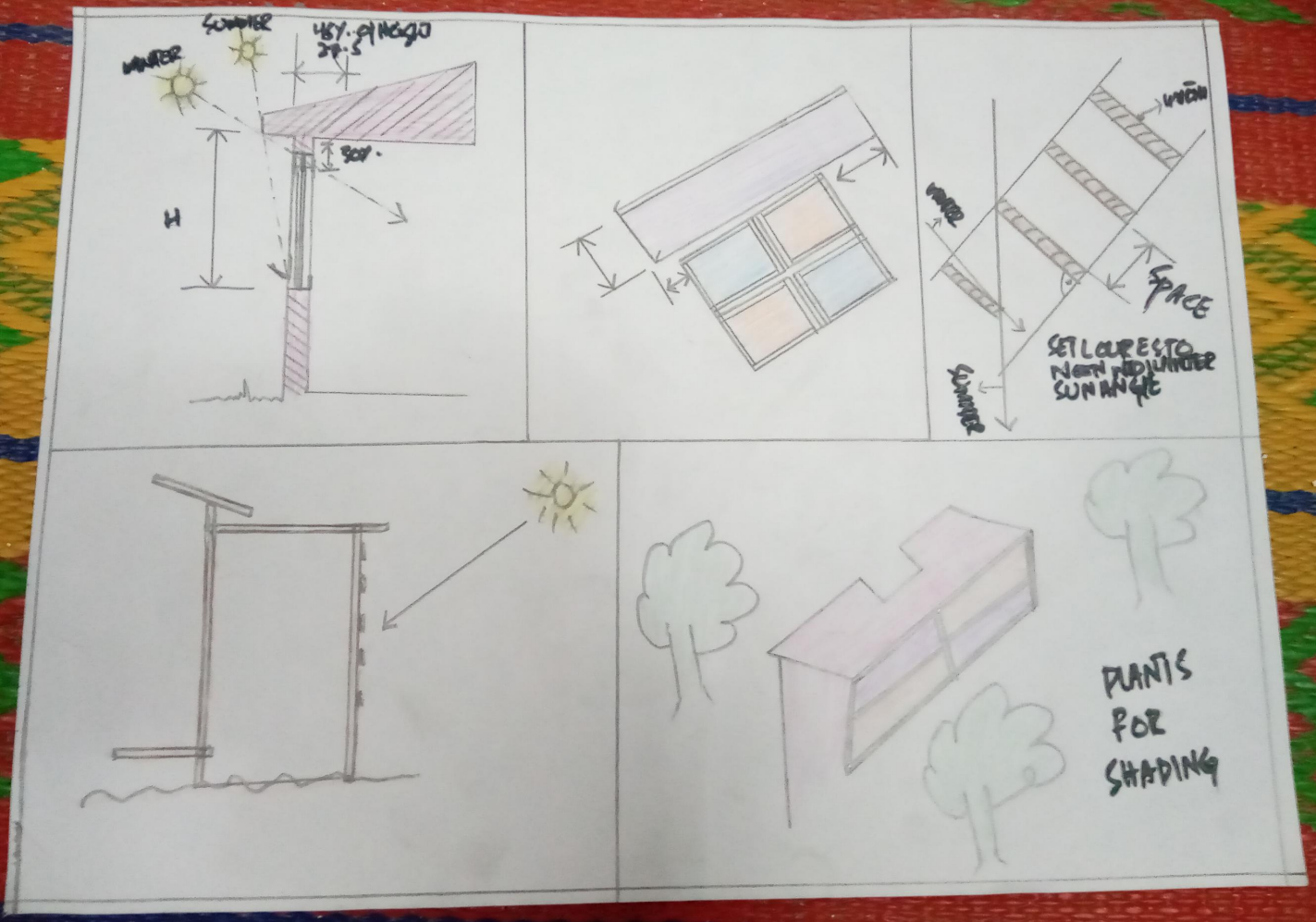


SUMMER SOLSTICE




SPRING
WINTER
SUMMER
N
S
WINTER
SUMMER
BREEZES

SOLAR PATH DIAGRAM OP ROOM:


SUMMER
WINTER
H
SPACE
SUMMER
PLANTS
FOR
SHADING