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Erasmus+ Programme  
of the European Union

## **Urban Resilience and Adaptation for India and Mongolia**

Curricula, capacity, ICT and stakeholder collaboration to support green & blue  
infrastructure and nature-based solution

Report on:

**Lecture Material**



***Partner number: P12***

**Nirma University, Gujarat, India**

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## **Presentation Titles:**

1. Introduction of Landscape
2. Landscape Terminologies
3. Planting Design
4. Planting Design Considerations

**Semester iii, IAPNU**



# **LANDSCAPE**

## **DESIGN & Ecology ... an Introduction**

# What is Landscape?

“ A picture representing a **section of natural, inland scenery**, as of prairie, woodland, mountains.. and expanse of natural scenery seen by the eye in one view.”

-Webster's New Universal Unabridged Dictionary



A faded background image of a park. On the left, there is a playground with a wooden structure and a child sitting on a bench. On the right, there is a garden with various plants and flowers. The text is overlaid on the center of the image.

**Landscape** is the result of the **action and interaction of natural** and/or **human** factors.

## landscape

### **noun:**

- all the visible features of an area of land, often considered in terms of their aesthetic appeal.
- a picture representing an area of countryside.
- the genre of landscape painting.
- the distinctive features of a sphere of activity.
- denoting a format of printed matter which is wider than it is high.

### **"landscape format"**

### **Verb**

make (a garden or other area of ground) more attractive by altering the existing design, adding ornamental features, and planting trees and shrubs.



## Origin

The modern form of the word, with its connotations of scenery, appeared in the late 16<sup>th</sup> century when the term *landschap* was introduced by Dutch painters who used it to refer to paintings of inland natural or rural scenery.

The popular conception of the *landscape* that is reflected in dictionaries conveys the particular meaning referring to an area of the Earth's surface & the general meaning being that which can be seen by an observer.

An example of this second usage can be found as early as 1662 in the [Book of Common Prayer](#):

**Could we but climb where Moses stood,  
And view the landscape over.  
(General Hymns, verse 536).**

There are several words that are frequently associated with the word landscape:

Scenery	Seascape	Setting	Cityscape	topography
Picturesque	Wilderness	view	countryside	
Terrain	environment	view	panorama	perspective



*Landscape is more than just scenery.*

**LAND** - is one of the basic commodities of the world, its planning for use & conservation is a central political & social issue.

“**LAND**” means both a place and the people living there.

“**SCAPE**” means “to shape”, & also mean association, partnership.

**Land** becomes “**Landscape**” when it is described or seen in terms of its physiographic & environmental characteristics. / varying according to the historical impact of man on it.

**Landscape is a reflection of dynamic, natural, & social systems.**

A landscape is the visible features of an area of land, its landforms, and how they integrate with natural or man-made features.

**P**hysical elements of land form  
Geophysically defined landforms such as (ice-capped) mountains, hills, water bodies such as rivers, lakes, ponds and the sea

**L**iving elements of land cover  
indigenous vegetation

**H**uman elements  
different forms of land use, buildings, and structures

**T**ransitory elements  
lighting and weather conditions



Combining both their physical origins and the cultural overlay of human presence, landscapes reflect a living synthesis of people and place that is vital to local and national identity.

# Character of a Landscape

helps define the **self-image of the people** who inhabit it & **a sense of place** that differentiates one region from other regions.

It is the dynamic backdrop to people's lives.

It is as varied as:      a farmland  
   a landscape park or wilderness.

## The Earth has a vast range of landscapes:

icy landscapes of polar regions	mountainous landscapes
vast arid desert landscapes,	islands
coastal landscapes,	densely forested or wooded landscapes
tropical rainforests,	agricultural landscapes

## Why landscape?

- Aesthetics – Looks Nice
- Privacy
- Reduce erosion
- Wind or noise block
- Create recreation areas
- Increase property value

## Importance of Landscape

- Support our health and wellbeing by encouraging physical outdoor activity and an antidote to stress
- Offers aesthetic enjoyment, escapism, tranquility, and a sense of belonging to an area with a **distinct natural and cultural identity**.

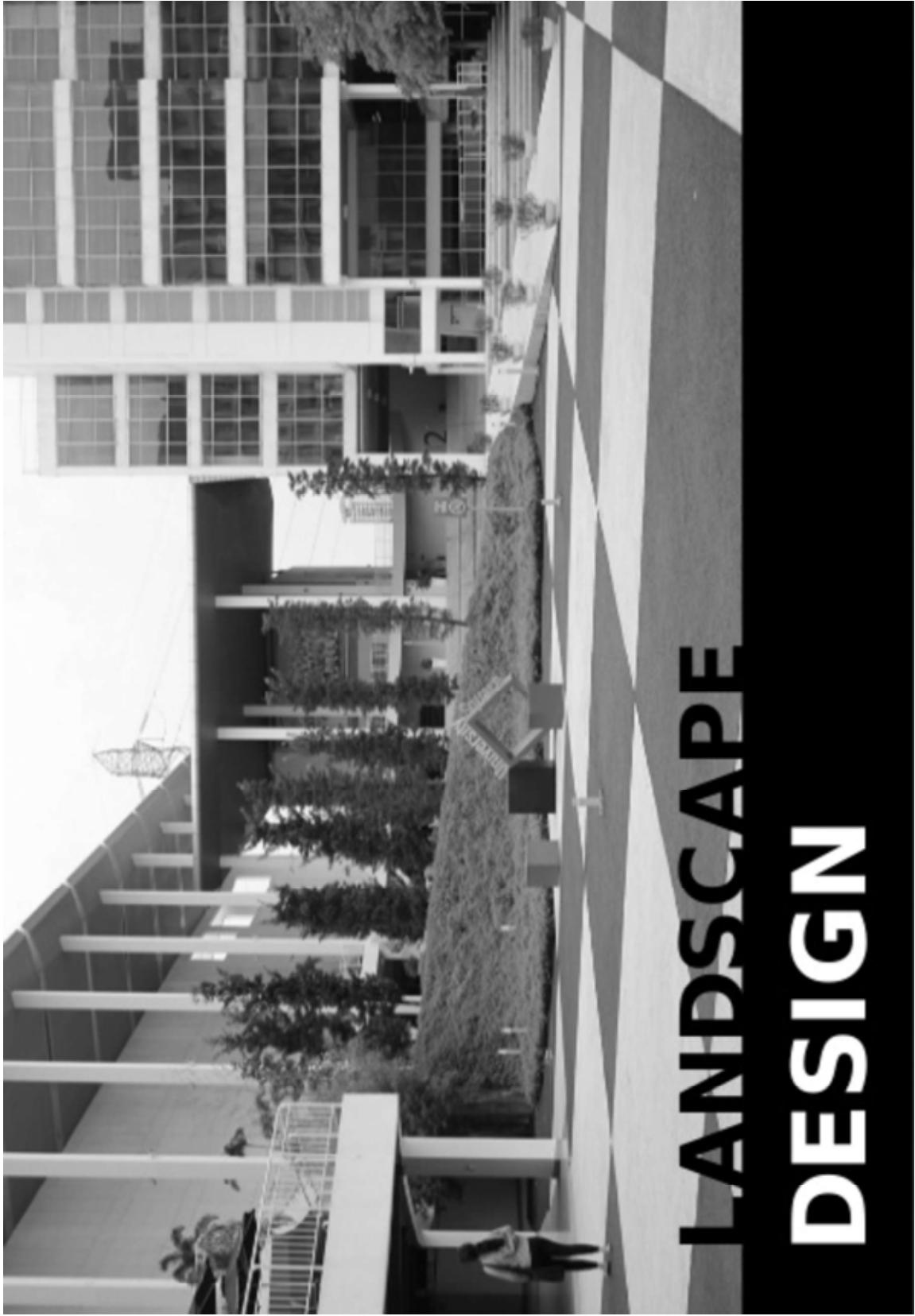
## **Planning**

- Implies a futuristic approach to land.
- Land is regarded as a resource to be viewed in relation to the demands & predicted needs of society & its values.
- Planning Techniques involve political & economic procedure.

## **Design**

Refers to the qualitative & functional arrangement of parcels of land set aside in the planning process for some specific purpose such as housing, education, or recreation.

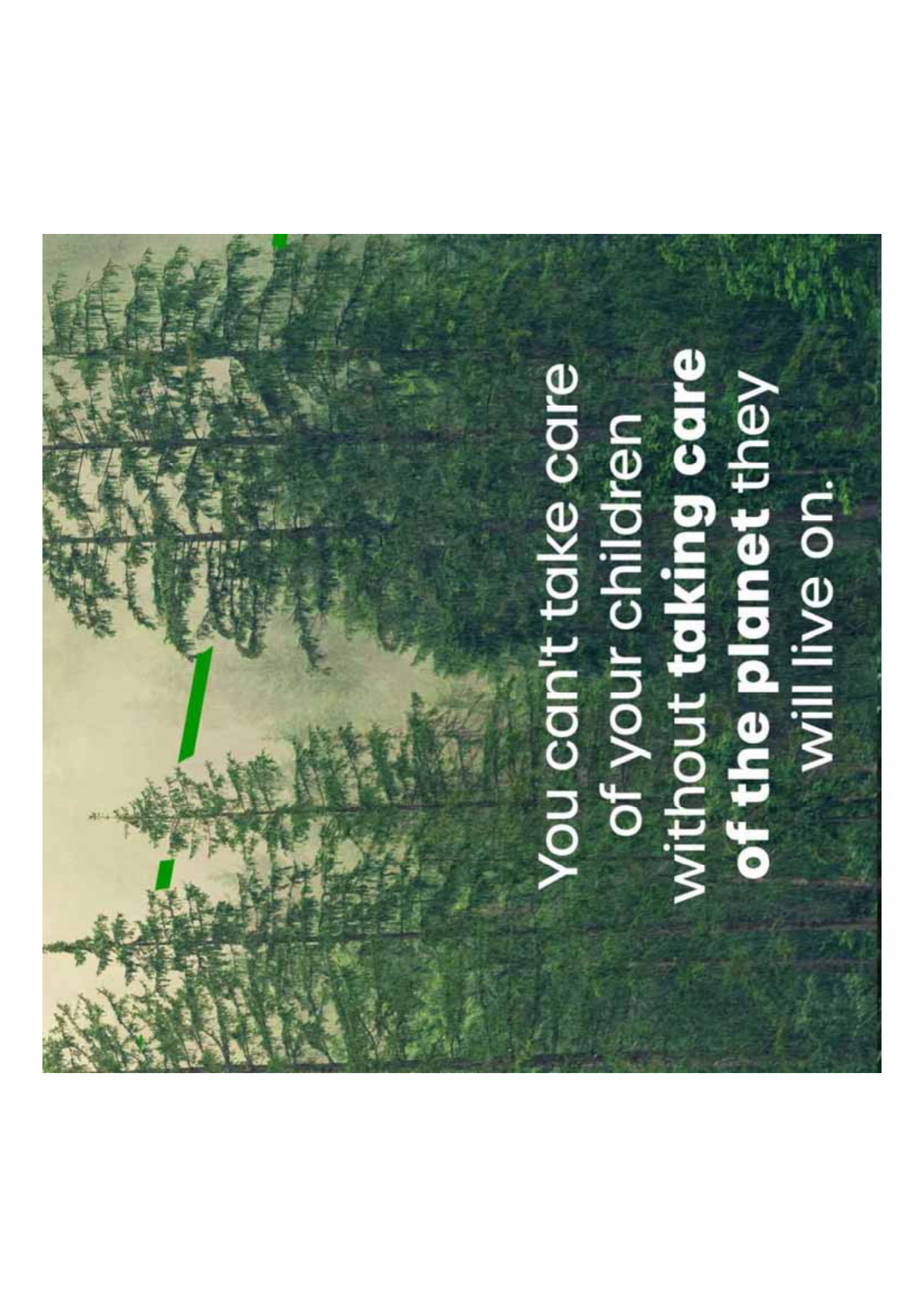
Design involves construction, planting & maintenances.



# LANDSCAPE DESIGN

# Why Landscape?



A photograph of a dense forest of tall evergreen trees, likely spruce or fir, stretching into the distance. The sky is a pale, hazy grey, suggesting an overcast day. The trees are dark green and their branches are visible against the lighter sky. The overall mood is serene and natural.

You can't take care  
of your children  
without **taking care**  
of **the planet** they  
will live on.











# WITHOUT TREES



# WITH TREES





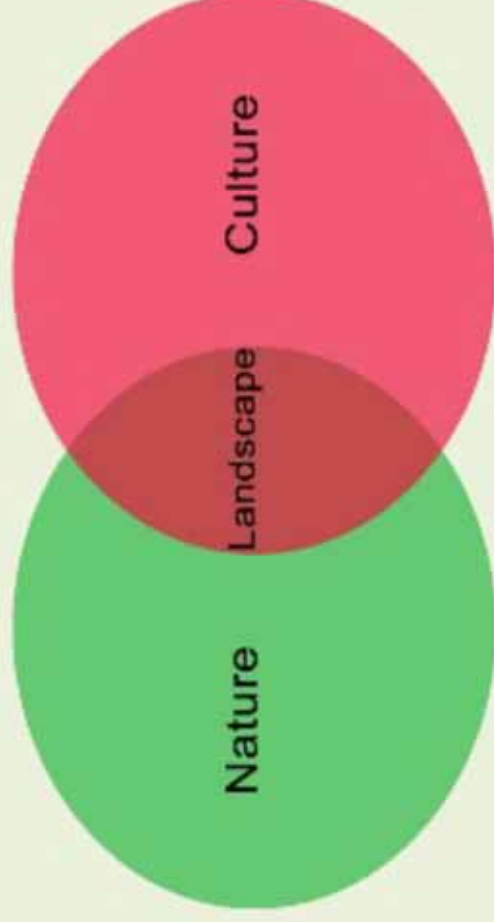






# What Is Landscape Design?

Landscape design is an independent profession and a design and art tradition.



Landscape Designing is the art and science of planning and design of outdoor open spaces, to meet the physical, economic and socio-behavioral needs of the users, respecting and in harmony with the existing contextual natural and man made environments.

# Landscaping

- Activity that modifies the visible features of an area of land
- Improve the aesthetic appearance of the area
- changing its contours, adding ornamental features, or planting trees and shrubs.





## Landscape Architect

- Apply creative and technical skill, scientific, cultural and political knowledge in the planned arrangement of natural and constructed elements on the land integrating **ecological sustainability**.
- Resulting environments shall serve **useful, aesthetic, safe and enjoyable** purposes



**Frederick Law Olmsted** – designer of New York City's Central Park, coined the term Landscape Architect in 1858.





Description

English: Detail from the [Taylor Map of New York](#) showing [Central Park](#).

Date

1879

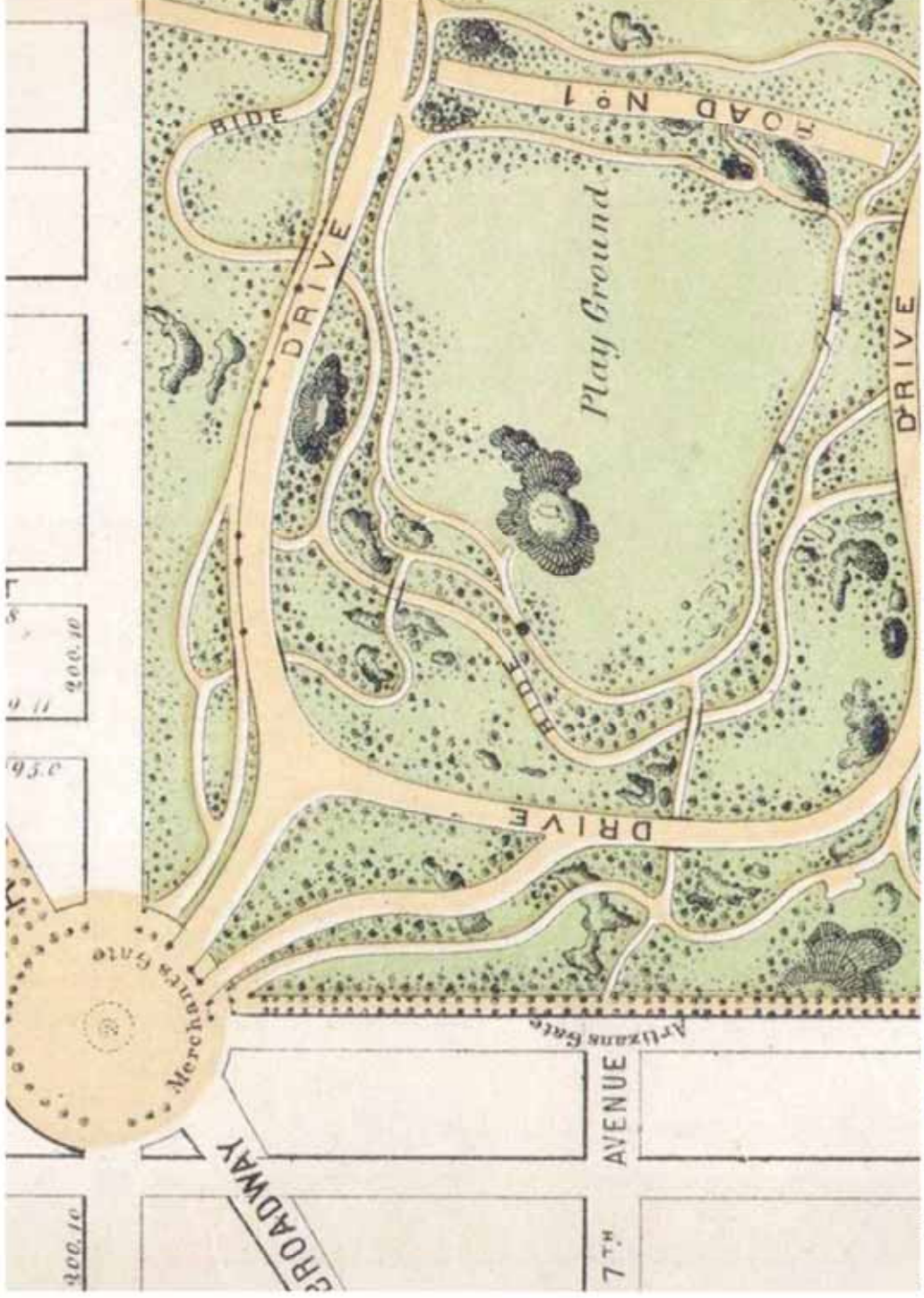
Source

<http://hdl.loc.gov/loc.gmd/g3804n.pm005990>

Author

Will L Taylor





Description An 1868 Map of Central Park taken from Wikipedia Commons, cropped and rotated to illustrate the Boys Playground.

Source Wikipedia Commons.

Date 1868

Author Calvert Vaux and Frederick Law Olmsted



PLAN of the CENTRAL PARK, CITY of NEW YORK, 1860.





New York City's Central Park spans 843 acres.  
That's 6% of the island of Manhattan

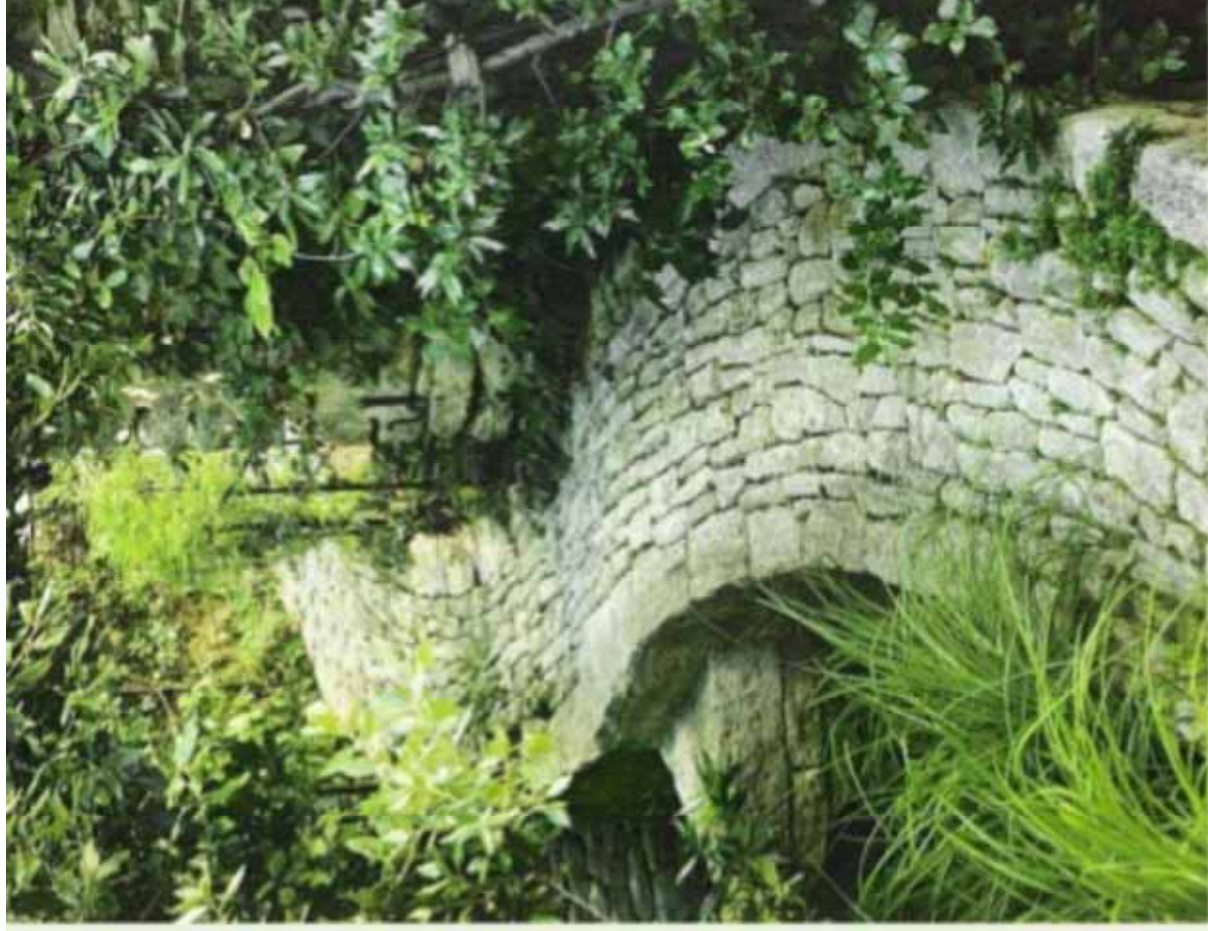




VIEW IN CENTRAL PARK  
Illustration by J. M. W. Turner



# **WHAT IS LANDSCAPE ARCHITECTURE ?**







**Concerned with the planning & design of land & water for use by society on the basis of understanding of this systems.**

- Design of **outdoor public areas**, landmarks, and structures to achieve environmental, social-behavioral and aesthetic outcomes.



## Field incorporating aspects of

- Botany
- Horticulture
- Fine arts
- Architecture
- Industrial design
- Geology
- Earth sciences
- Environmental psychology
- Geography
- Ecology

**Profession of LA:**

**It is a difficult title.**

**Word Landscape and Architecture contradict one another.**

**Landscape- Dynamic & Ever Changing**

**Architecture- Static and finite**





# Landscape Architect

- urban design and site planning
- storm water management
- parks and recreation planning
- green infrastructure planning and provision
- private estate and residence landscape master planning and design











## LA is: Art

- ... where experience of Visual and Spatial

Phenomena are conceptualized & realized

- Acoustic - (*science of sound*)
- Tactile – (*sense of touch*)
- Thermal and other sensory qualities..

As experienced through movement...

- ...Kinesthetics...( *sixth sense; extrasensory perception; the ability to sense things by means other than the known bodily senses*)
- ...Memories...

**Hubbard & Kimball** defines it as a fine art whose most important function is to create and preserve beauty in the surroundings of human habitations and in the broader natural scenery of the the country.

Also concerned with promoting the comfort, convenience and health of urban populations, which have scanty access to rural scenery, and urgently need to have their hurrying workaday lives refreshed and calmed by the beautiful and reposeful sights and sounds which nature, aided by the landscape art, can abundantly provide - (**this reflects Olmstead's belief that contact with natural landscape was essential for human morality, health & happiness**)



**Garrett Expo** defines landscape architecture as

Covering that portion of the landscape which is developed or shared by man, beyond buildings, roads or utilities and up to wild nature, designed primarily as space for human living (not including agriculture, forestry).

It is the establishment of relations between building, surfacing and other outdoor construction, earth, rock forms, bodies of water, plants and open space & the general form and character of the landscape; but with primary emphasis on the human content, the relationship between people and landscape, between human beings and three-dimensional outdoor space quantitatively and qualitatively.

**This definition is essentially concerned with site planning and the relations between people and design in that context.**

## The practice of landscape architecture

Over the years the realm of landscape architecture has diversified & classified its activities in response to the needs of a changing world.

There are now four related type of practice.

1. landscape evaluation and planning.
2. site planning
3. detailed landscape design
4. urban design.

There is an inter relationship among these four types.

The wider landscape urban or rural is the context for the site which in turn is the **framework** within which lies the **details**.

but just as it is reasonable to expect that small scale projects such as garden or Park should be influenced by and respond to the larger environment so it is true that criteria for certain large-scale and planning decisions for urban design depend on understanding of the details of design and technology in sitting buildings roads and facilities.

**We have to understand both scales to do the project with responsibility and sensitivity.**

## A Theory of Landscape Architecture

Five major components of a theory have been mentioned.

1. Natural Process
2. Human Factors
3. Methodology
4. Technology &
5. Values.

It must be based on set of values (*most difficult part of the theory to deal with*) natural and social science methodology and technique can be learnt

*values have to be lived and felt.*

experience and good sense tell us that we need to develop a set of priorities and subscribe to a land ethic related to our Belief in the “alternative for survival” in which short-term profit at the expense of long-term regeneration and conservation of resources would be unthinkable.

environmental impact must be seen in regional context.

quantity must be created with quality.

we must learn to make judgements in term of what is considered best for the common good and the future of mankind.



# Landscape Architecture Profession

- OLD Approach : Landscape Gardening
- New Approach : Design with Nature
- Contemporary Approaches :
  - i. Sustainability and Landscape
  - ii. Modification of micro-climate through energy efficient enviroscaping
  - iii. Resource efficient landscape : TERI GRIHA
  - iv. Ecology and Habitat creation



# Architects, Planners, Landscape & Urban Design

- Architects design interior and outdoor spaces (3D)
- Planners plan and design Neighborhood /city (2D)
- Landscape architects design Enclosures (4D)
- Urban Designers creates Place (3D)

## **The 4<sup>th</sup> dimension TIME**

### **an important aspect of Landscape Architecture**

The far reaching conception the designer must have in developing ‘a picture so great that nature shall be employed upon it for generations, before the work he has arranged for her shall realize his intentions’.

### **SPROUL PLAZA, University of California**



August 1964



June 1980



April 1984

# Why Landscape?

## Why Landscape?

Have we all been interested in landscape **since childhood?**

## Why Landscape?

Have we all been interested in landscape **since childhood?**





## Various interpretations of Landscape

A child's imagination



Sanjana Joshi (19bar010)

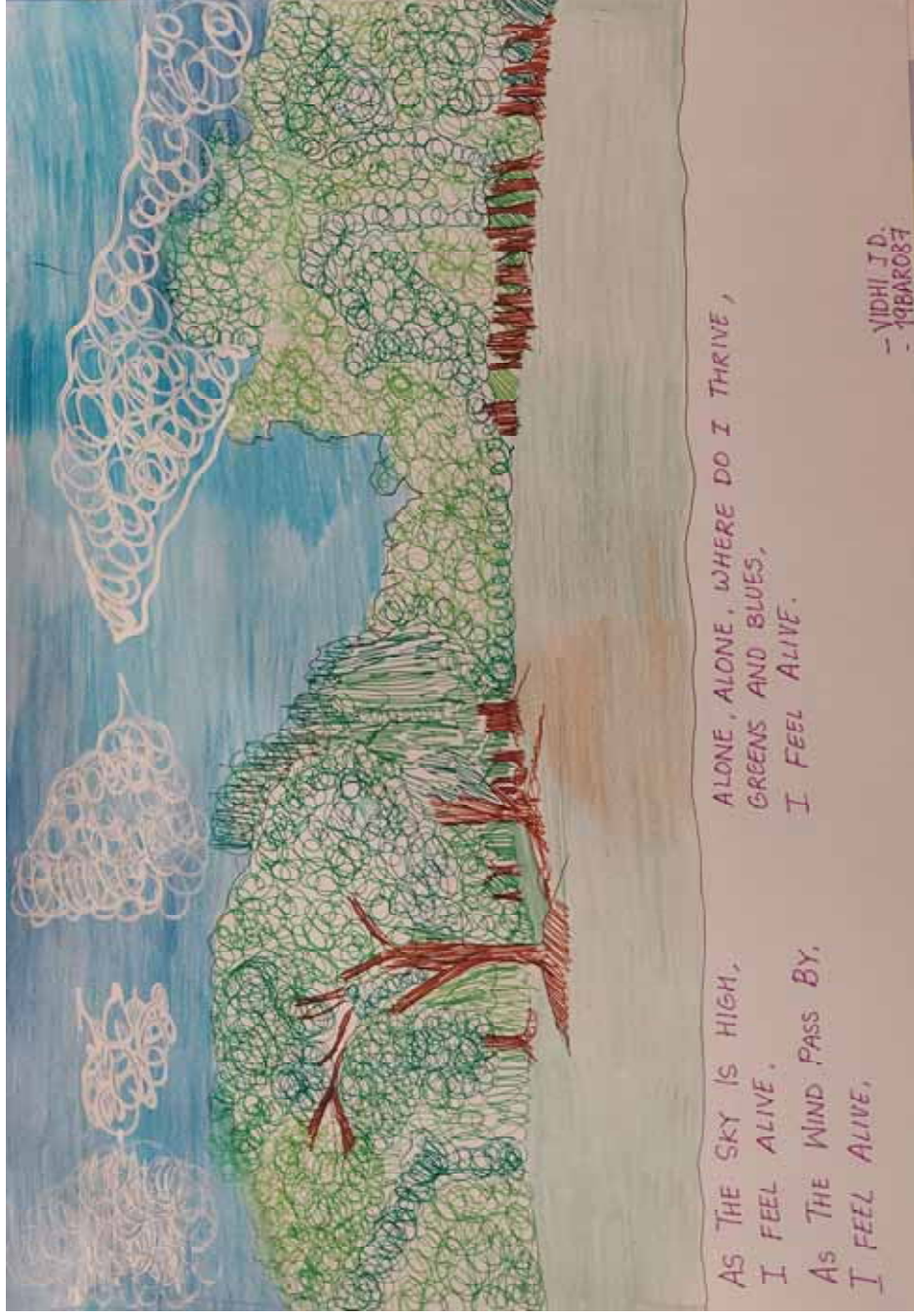
### EXERCISE- LANDSCAPE MEMORY

Swinging on the branches of banyan tree

I still remember that day, I was almost 10 years old and once went on outing with my family to a nearby place all surrounded with natural beauty. There was a huge banyan tree with all their branches coming down and at that time it fascinated me a lot then my dad taught me and my brother how to swing through those branches. It was so much fun and kind of adventure for me. This is most beautiful memory I have with nature. Whenever I see any banyan tree I remember this scene and it takes me back to that day.



Vidhi (19bar087)





Binisha (19bar050)



Come to the beach where the sea is blue and little white waves comes running at you .

We'll build a castle down by the sea and look for the shells if you'll come with me.

Leave your worries on the shore line and run bare feet through the sand, let the water be a soft bed when you can't bear to stand.

Let the water hold your sadness and wash it right out to sea, So like a message in a bottle all your worries are set free.

The perfect heaven for fun and pleasure, on a scale which has no measure.

Beautiful , calm , clear and clean ; The most glorious sight I have ever seen.

Prachi Mistry (19bar0564)



Pranjal Chaturvedi (19bar071)

# LANDSCAPE



If I could take a brush and paint the mountains and the moors,  
I would splash the hillsides yellow and cover them in gorse.  
I'd take the finest needle and the darkest thread of green  
And sew a line of bracken along the landscape, in-between.

I'd lay a purple carpet of wild heather in the dells  
And fringe the edge of all the woods with their pretty lilac bells.  
I'd merge the bracken with the heather, mix their colors like the sea,  
A green and purple ocean on my own rich tapestry.

I'd mix orange, reds and yellows planting poppies wild and free  
Onto nature's colored canvas, my own rich tapestry.

Source: <http://www.familyfriendstoschool.com/poem/tapestry>

PRANJAL CHATURVEDI  
19BAR071



Ria Syal (19bar075)

## THE BEACH

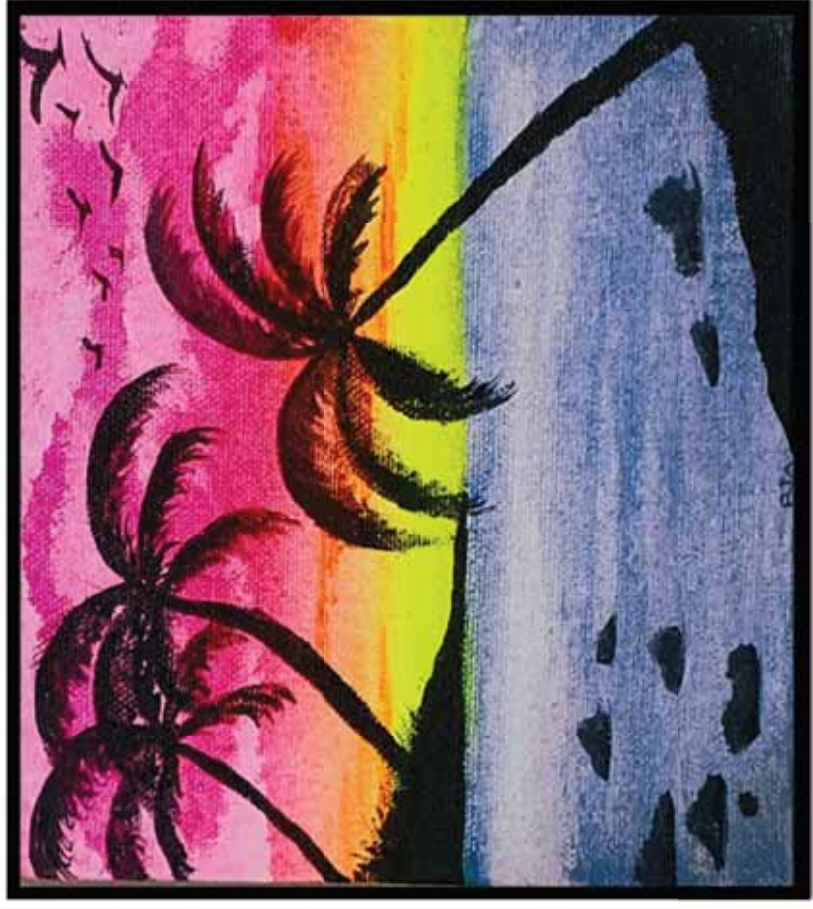
Feel the warmth from the heat  
Feel the sand on your feet  
Feel the cool of the breeze  
Feel the calm

Hear the peace  
Hear the waves hit the shore  
Hear the sounds  
Of boat motors roar

See the people in the sand  
See that kite in his hands  
See the way the seagulls fly

Taste the air as it passes by  
Taste the salt  
Taste the sea.

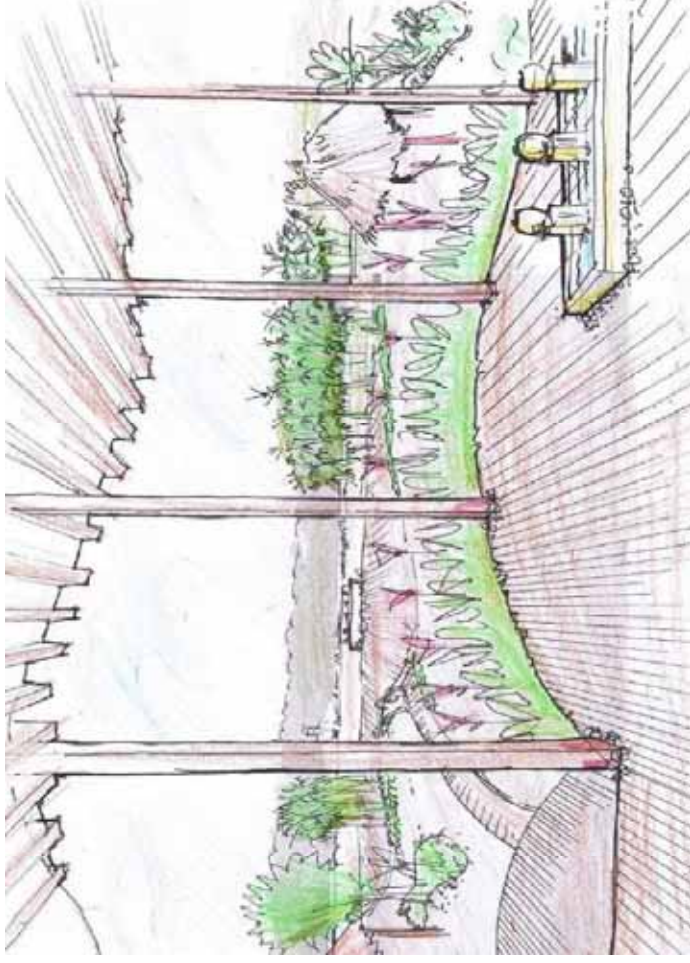
19BAR075  
RIA SHAILESH SYAL



Tej Shah (19bar085)

# THE PICNIC

Walk by alone,  
or have people by the side.  
The picnic bench is one that is relied.  
To be a go-to place no matter  
the situation.  
Put on a red and white table cloth,  
have a picnic,  
choose your recreation.  
Walk over and put your foot on the  
bench.  
Make a phone-call,  
or sing in the rain and get drenched.  
Have a date see how it goes,  
the people who come by change,  
but the picnic bench knows  
it has nowhere else to go.



TEJ SHAH  
19BAR085

Rishita Jain (19bar076)

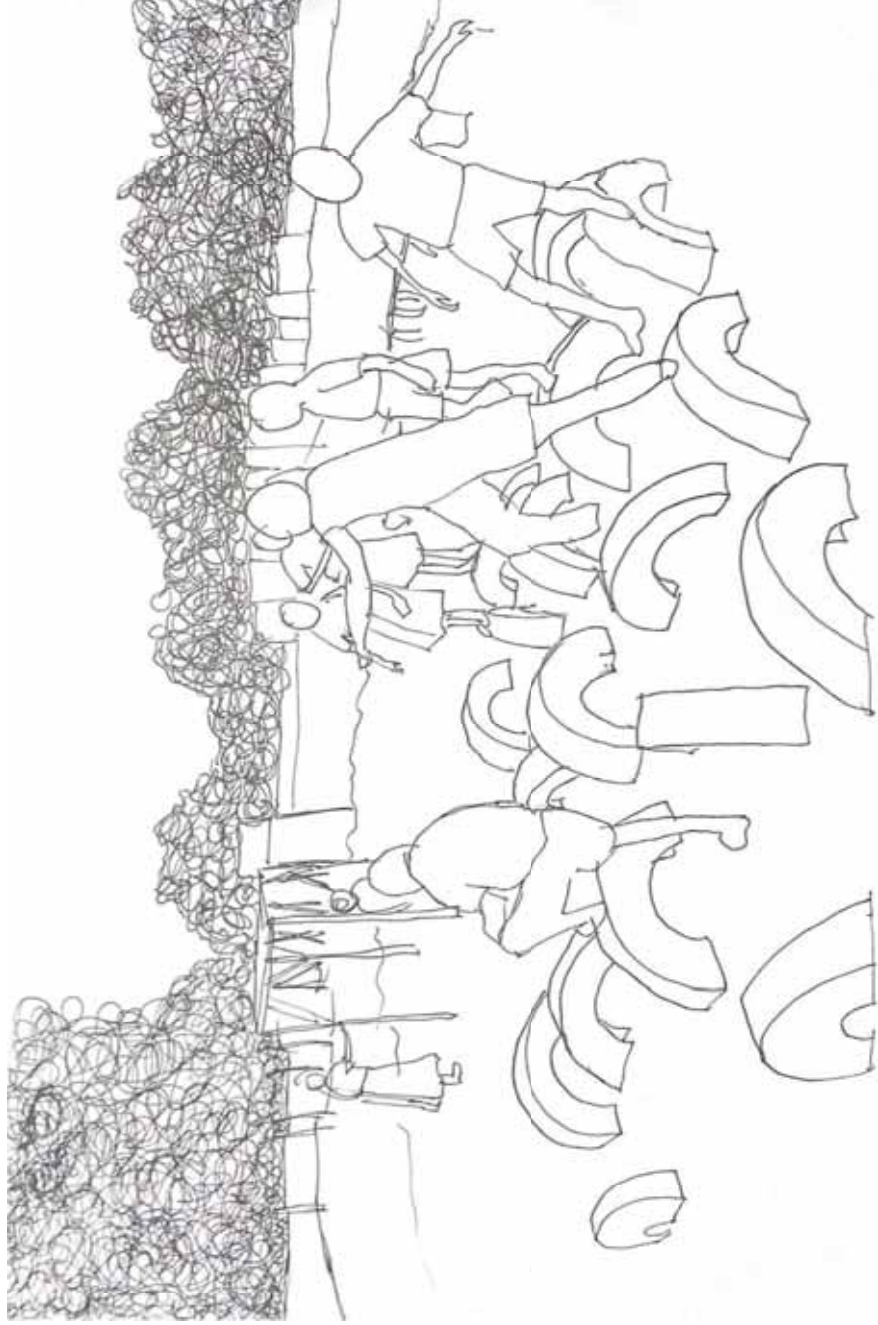


Entering the temple beautiful! The house not made with hands!  
Rain-washed and green, wind-swept and clean,  
Beneath the blue it stands,  
And no negativity anywhere  
Seemeth so holy or so fair.  
It has no heavy roof, no door with lock and key,  
No window-bars shut out the stars

RISHITA JAIN  
19BAR076



Pururva (19bar062)





# Why Landscape?

Have we all been interested in landscape since childhood?

## **Stimulator**

to rouse | spur on | incite  
encouraging the development of or increased activity in a state or process.

**Stimulator** - Inspiration, beauty



**Stimulator** – Life, abundance



## Why Landscape?

Have we all been interested in landscape since childhood?

How would you **describe** landscape?



Trees

Homely

Active

Water

dense

Mountains

Noisy

Brown

Open

cluttered

Sea

tranquil

Flowers

Blue

Cloudy

Subtle

Colorful

Trees  
Homely  
Active  
Water  
Green  
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Open  
dense  
Mountains  
cluttered  
Sea  
Flowers  
Blue  
Colorful  
Subtle  
Cloudy

Elements, Colors, Conditions, feelings and moods

# Why Landscape?

Have we all been interested in landscape since childhood?

How would you **describe** landscape?

What are the **elements** contributing to the landscape?

Trees  
Shrubs  
Water-body  
Sky  
Birds  
roads  
Buildings  
Parks  
Gardens  
Pavements

