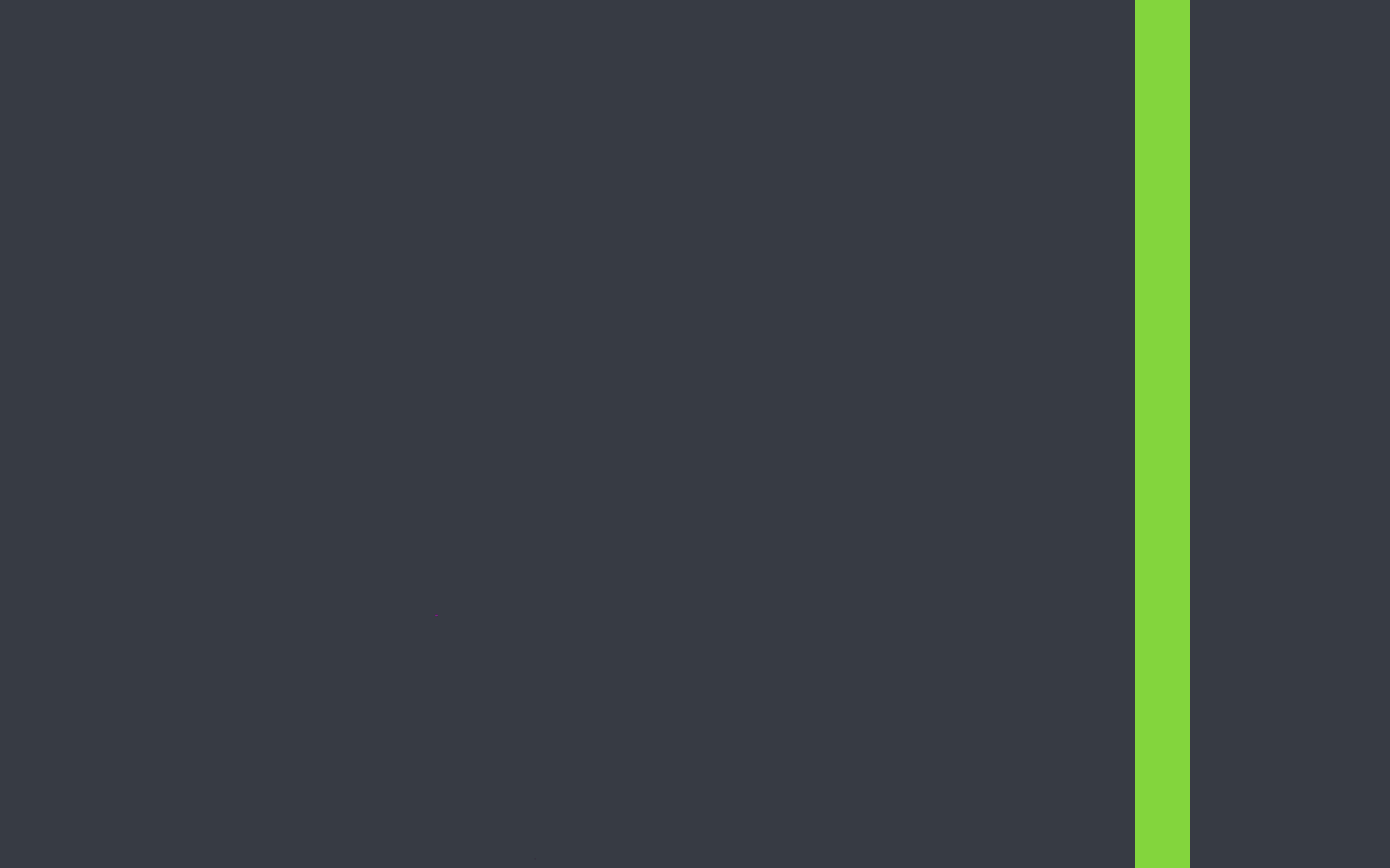




1.1

Nature benefit people

i) lowering air temperature:

- Trees provide shade
- water vapour lost through transpiration

ii) Removing pollutant/improving air quality:

- release of oxygen, take in CO_2 through photosynthesis
- leaves intercept small air pollutants. $\rightarrow$ wash to ground with rain
- wet land plants remove excess nutrients and trap suspended pollutants
 $\uparrow$ water quality

iii) Provision of recreational spaces:

- improve mental health
- opportunity for outdoor activities and hobbies

People benefit nature

- organisation of cleanup drives by local communities → remove pollutants restoring environment
- Programmes to raise awareness in local communities about nature conservation
 - ↓
 - encourage positive behaviour

PPI disadvantage nature

- Trampling on vegetation → Damage and affect growth of plants
- Walking of from designated path → Soil compaction → ↑ surface water run off, → wash of soil erosion ← soil top layer
✓ water cannot infiltrate soil
- Worsening pollution and endangering wildlife
 - Littering worsen pollution.
 - Wildlife mistake litter for food. get hurt, suffer and die
 - Entangled by plastic bags and cut from metal cans
 - Feeding of wildlife makes them dependent on human for food

Nature disadvantage People

- limits urban development and expansion
ex: cross island line

~ Human Wildlife conflicts:

- Attacks when provoked unknowingly by people
- Animals attack when feared as they venture into new urban areas

Reasons for ↑ human - Wildlife conflict:

i) urban expansion → destruction of natural habitats → reduction in natural habitats

↑ human wildlife conflict ← venture into urban areas in search of shelter and food.

ii) ↑ interest in outdoor recreational activities

iii) greening efforts by the government aim to bring back nature to cities.

1.2

Sense of place

How is it acquired?

- When people associate locations with meanings
- Repeated encounter with locations, people or objects.
- Significant events that occur at gathering places or landmarks
- meaningful experiences forged at the spot
- Memorable location highly visible and easy to remember
- Shared experiences

1.3

Regions

Areas with similar physical and human characteristics

Region could also be sphere of influence of objects, services or events.

can be classified by;

- Environmental characteristics - natural areas or built up areas
- Geographical characteristics - East or West
- Human characteristics - Residential or industrial areas.

spacial patterns

- Non random arrangements

- shapes & Geometry - ex: circle line
- Regular intervals - bus stops every 400m
- ★ • Clusters - Industries clustered to west of SG

HOB flanked by roads on both sides
for sufficient entry & exit points preventing
congestion

Spatial Associations

Tendency of a pair of services, objects or events to be paired together.

Examples

i) MRT stations located close to bus interchanges $\rightarrow$ $\downarrow$ travel time
 $\uparrow$ convenience

ii) stairway & lifts $\rightarrow$ 'emergency'??
 $\star \checkmark$ HDB blocks for elderly

iii) Fitness corners near ~~studio~~ HDB blocks $\rightarrow$ elderly don't need to travel far.

spacial scales

i) 20+ towns in SG

ii) Each town has town centre. → concentration of activities.

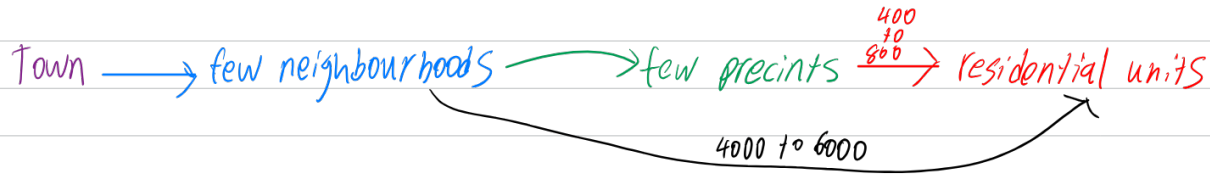
↓
commercial & social hub

← businesses attracted to
setup shops here to
lower transport
costs and time

↪ large gathering spots
↓
our tampines hub

↓
more visitors in town centre
↑ profit for shops.

Spatial Hierarchy



Precinct:

- some facilities in a precinct are located in close proximity for convenience.
ex: Fitness centers, children playground, community garden
- some are spread throughout precinct to meet residents' needs.
ex: Bus stop near every apartment block for convenience.

Neighbourhoods/Towns:

- Neighbourhoods surround town centre for easy access to all residents.
- Each town has a wide range of facilities to enhance convenience.
ex: - Shop & schools
- Cycling and pedestrian networks to commute between neighbourhood and town centre