GEOG TOPIC 1

1.1 PEOPLE & NATURE IN NEIGHBOURHOODS

Key Points:

- Local communities & nature = dependent on each other
- Nature → benefits people: recreation, space, ↓ temp
- People → benefits nature: env. protection, community activities
- Nature → disadvantages people: wildlife harm, env. protection limits development
- People → disadvantages nature: soil erosion, damaged vegetation

What is the relationship between people and nature?

1. **Local communities & nearby nature = dependent on each other**

- Nature → air & water for survival
- Nature → recreation/leisure spaces → bond w/ family/friends → physical + mental well-being
- Bees pollinate crops → continuous food supply
- Eg: **NParks Therapeutic Gardens** — ↓ stress, ↑ well-being
- Eg: **NParks Green Wave campaign** (May, biodiversity day for schools)

*Concepts: **Community** = group w/ sense of belonging to place. **Nature area** = untouched/barely affected by humans*

How do people & nature bring benefits to each other?

1. **Nature → people:** ↓ temp / removes pollutants / recreation space

↓ Air temp	Remove pollutants	Recreation space
Vegetation → evapotranspiration + shade	Leaves intercept particles → washed down by rain	Outdoor activity opportunities
Wetland plants trap materials, absorb nutrients → ↑ water quality	Absorbs CO_2, releases O_2	Direct contact w/ nature → ↓ illness severity

2. **People → nature:** community protection efforts
- Eg: **NParks Dragonfly Watch —** train volunteers to ID species
- Eg: **Waterways Watch Society —** clean-up @ Marina Reservoir

What are the disadvantages people & nature bring to each other?

1. **People → nature:** soil erosion, damaged vegetation, pollution, disturbed wildlife
- Trampling → soil compaction → ↑ runoff → ↓ infiltration → erosion
- Littering → wildlife entangled/eats litter
- Eg: **2014 Bukit Timah Nature Reserve —** severe erosion → closed **2 yrs**
2. **Nature → people:** wildlife harm; env. protection limits development
- Eg: **Cross Island MRT Line —** built under (not through) Central Catchment Nature Reserve → protects rainforest BUT residents fear home damage

Reasons for ↑ human-wildlife encounters

Urban expansion	↑ interest in outdoor recreation	State greening efforts
Habitat shrinks → wildlife venture out for food/shelter	More time in nature areas	SG deliberately brings nature back into city

- Feeding wildlife illegal → fine up to **$5,000**
- Wildlife confused/fearful in urban spaces → ↑ attacks when provoked/venture into unfamiliar spaces

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1.2 SENSE OF PLACE IN NEIGHBOURHOODS

Key Points:

- Sense of place = importance/meanings/memories assoc. w/ locations
- Acquired via experiences w/ natural & built environments + interactions
- Can be enhanced or contradicted by representations

What is a sense of place?

- Developed when people associate **meanings & memories** w/ locations
- Reflects relationship w/ places → helps understand self & others
- Derived from experiences + interactions w/ natural/built environments

- **Highly personal & subjective**
- Same location = different meanings for different people (needs/lifestyle)
- Eg: Homemakers → hawker centres (convenience/variety)
- Eg: Retirees → hawker centres (leisure, meet friends)

Gathering places = spaces where people congregate/interact **Media** = entertainment→news; traditional (TV) → new (social media)

*Concepts: **Meanings** = ideas assoc. w/ location. **Memories** = experiences remembered. **Built environment** = design/config of roads, structures, spaces. **Landmarks** = structures w/ distinguishing features, easily recognised*

How do people acquire a sense of place?

1. **Repeated encounters w/ objects & people** → vivid memories
- Eg: **East Coast Parkway** — scenic route home from airport
2. **Significant/memorable events @ landmarks & gathering places**
- Landmarks = public symbols of community response to tragedy / symbolic-historical purpose
- Eg: **Truss Bridges, Bukit Timah** (built 1932, railway) → memories/photos
- Gathering places → events create sense of place
- Eg: **Anfield memorial** — Liverpool FC, Hillsborough disaster (1989)

How is sense of place represented?

- Represented through different forms/types of **media**
- Reflects personal/collective sense of place
- Shared via print & internet-based media
- Eg: **#sgmemory** hashtag — Instagram users share photos → collective SG sense of place

How may representations enhance or contradict sense of place?

Enhance:

- **Add new layers of meaning** by revealing interesting info
- Eg: website on **Beaulieu House** history (Sembawang)
- Train stations/interchanges near each other → convenience switching transport

Contradict:

- Respond defensively to distortions/untruths
- Eg: negative portrayal of **Yishun** (rats/crime) → **Nee Soon Town Council** shares stats to show Yishun = like any town
- Eg: **Jurong Lake Gardens** → music arena (**NParks Rockestra®**) → memorable place

1.3 RELATIONSHIP BETWEEN LOCATIONS IN A NEIGHBOURHOOD

Key Points:

- Regions classified by environmental/human characteristics
- Relationship between locations shown via spatial patterns & associations

What are regions?

= area w/ similar physical and/or human characteristics; vary in size Classified by: **environmental** / **human characteristics** / **geographical location**

Environmental	Human characteristics	Geographical location
Eg: **Little Guilin** (nature region)	Eg: **Jurong Town** — commercial (W/S) vs residential (E/N)	Eg: **Bukit Batok** — West (public housing) vs East (private/condo)

What are spatial patterns?

= **non-random arrangements** — shapes, clusters, geometry, repeated occurrences

- Helps us understand world around us
- Shown on maps via points, lines, polygons
- Eg: **Circle Line** train stations → resemble oval (**geometry**)
- Eg: heavy industry clustered west SG — **Tuas & Pioneer** (**cluster**)
- Eg: bus stops **~400m** apart (**regular intervals**)

What are spatial associations?

= **[tendency]** of pair of services/events/objects to locate near each other → **connection between: service/event/object ↔ another service/event/object**

- Eg: lifts & staircases next to each other in HDB

- Eg: train stations & bus interchanges near each other → ↓ travel time
- Eg: fitness centres near elderly estates → easy access

Concepts: ***Influence*** *= effect causing sig. change.* ***Non-random*** *= unequal probability of occurrence.* ***Cluster*** *= similar objects close together.* ***Geometry*** *= shape/spatial config.* ***Tendency*** *= inclination towards outcome*

Spheres of influence

= effect of services/events/objects on OTHER locations in area (non-random; region boundaries largely absent)

- Eg: **Bishan bus interchange + train station** → convenient for visitors
- Eg: convenience → **attracts businesses** to locate offices nearby
- Eg: **Punggol Town Square, Festive Plaza @ Our Tampines Hub** → regular community activities

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1.4 ORGANISATION OF NEIGHBOURHOODS IN SINGAPORE

Key Points:

- Spatial scales = nested areas of diff. sizes, from residential unit
- How neighbourhoods organised in SG

What are spatial scales?

= extent of area where phenomenon/process takes place Hierarchies: **global** → **regional** → **local**

- Helps understand how larger areas affect smaller units

What are the spatial scales in Singapore?

- **20+ towns** spread across island
- Each town = town centre w/ **concentration of activities** (commercial + social hub)
- Some = **integrated transport hubs** (bus interchange + train station + mall)

- Convenience → **attracts businesses/visitors**
- Eg: **Bishan bus interchange + train station** — convenient
- Eg: **Punggol Town Square, Festive Plaza @ Our Tampines Hub**

*Concepts: **Nested Areas** = area within larger area. **Precincts** = 400–800 residential units (public housing concept). **Synergies** = improved results from 2+ working together*

What spatial hierarchies can we observe in Singapore?

Residential Unit → Precinct → Neighbourhood → Town

Precinct: 400–800 residential units

- Playgrounds, community gardens, covered linkways near each other
- Bus stops @ regular intervals (near every block)

Neighbourhood & Town:

- Neighbourhood: **4,000–6,000** residential units, few precincts
- Town: few neighbourhoods; centre surrounded by neighbourhoods → convenient travel

How is town planning done in Singapore?

- Pedestrian networks link precinct/neighbourhood/town
- Shops, schools serve residents
- Facilities @ neighbourhood + precinct complement each other
- Some = integrated facilities under one roof
- Eg: **Bukit Panjang Bus Interchange** — next to train station + community spaces, eldercare, childcare, food outlets, medical centre

1. Town planning serves residents + nature @ precinct/neighbourhood/town levels

- Land mostly for housing, industrial, commercial
- Remaining land = roads, schools, parks, essential facilities

- [Different land uses] [Infrastructure/complementary facilities] [Self-sufficient]

- Eg: **Tengah** — SG's first "forest town"; **5km forest corridor**; "At Home with Nature"; cycling network; community gardens @ neighbourhood level

2. Town planning creates connections & synergies across precincts/neighbourhoods/towns

- Achieves **sustainability**

- Long-term plans → **optimise scarce land** for current + future generations

- Eg: **URA (Urban Redevelopment Authority)** — coordinates long-term planning, multiple stakeholders

- Eg: **Long-Term Plan** — maps land use/infrastructure for next **50 yrs**, reviewed every **10 yrs**

- SG = city + sovereign state → needs uncommon land uses: military facilities, waste treatment plants, power stations, seaports, airports

- Eg: **Senoko Waste-to-Energy Plant** (near Woodlands & Sembawang) → manages pollution + job/education opportunities → **synergy** (nature + people)

🔑 KEY WORDS/PHRASES (memorise!)

- **Community** — group w/ sense of belonging to place
- **Nature area** — untouched/barely affected by humans
- **Meanings** — ideas assoc. w/ a location
- **Memories** — experiences individuals remember
- **Built environment** — design/config of roads, structures, spaces
- **Landmarks** — structures w/ distinguishing features, easily recognised
- **Region** — area w/ similar physical/human characteristics
- **Spatial pattern** — non-random arrangement (shape/cluster/geometry/repetition)
- **Spatial association** — tendency of pair to locate near each other
- **Sphere of influence** — effect of service/event/object on OTHER locations
- **Influence** — effect causing significant change
- **Non-random** — unequal probability of occurrence
- **Cluster** — similar objects close together
- **Geometry** — shape/spatial configuration

- **Tendency** — inclination towards a particular outcome
- **Nested area** — area within a larger area
- **Precinct** — 400–800 residential units
- **Neighbourhood** — 4,000–6,000 residential units
- **Town** — few neighbourhoods
- **Synergy** — improved results when 2+ work together