

bedok

anderton • angela • ryan • strahan

an introduction to bedok

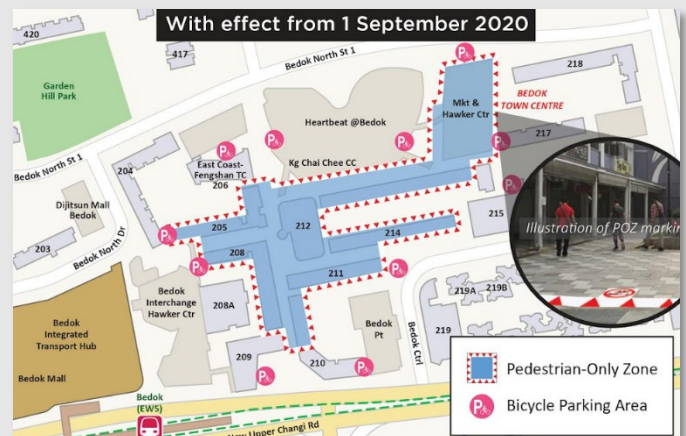
a (super brief) history

- The fifth town developed by the Housing Development Board (HDB).
- Originally built for 150,000 residents. As of 2015, 289,750 residents live in Bedok, of which close to 30% are over 55 years old.
- Bedok Town Centre was inadequate in meeting the needs of residents.
- Town amenities were scattered in buildings surrounded by car parks, which discouraged walking and attracted much vehicular traffic.
- Town used land inefficiently and lacked a sense of place and identity.
- Without a central public space, residents did not have opportunities to interact.



the “Remarking our Heartland 2” project

- Bedok was selected for the project in 2011.
- Aim:
 - To rejuvenate the town by creating attractive homes and improving the town while building on each estate's unique identity.
- Phase 1:
 - Boost commercial activity and improve public transport.
 - Bedok Mall and Bedok Residences were built and linked to a multi-modal transport hub (metro and bus). The hawker centre was relocated to be nearby as well.
- Phase 2:
 - Consolidation of non-commercial civic facilities into the Bedok Integrated Complex (Heartbeat@Bedok).
 - Creation of a 320m-long pedestrian mall.



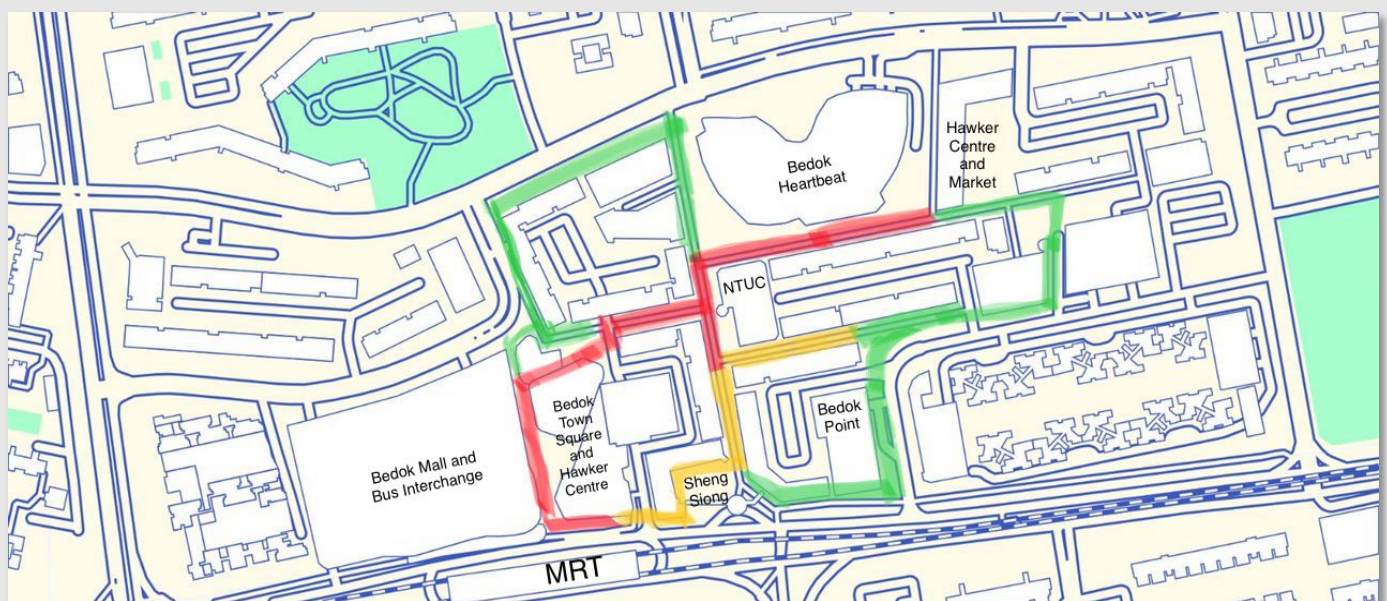
The pedestrian-only zone linking Heartbeat@Bedok with the new Bedok Town Square (co-located with the multi-modal transport hub and Bedok Mall).

an introduction to our project

initial thoughts and direction

We wanted to examine the uses of a neighbourhood heartland area, and Bedok was an area all of us were interested in. We knew the place and have experienced it in our day to day lives, so the opportunity to research it was too good to pass up.

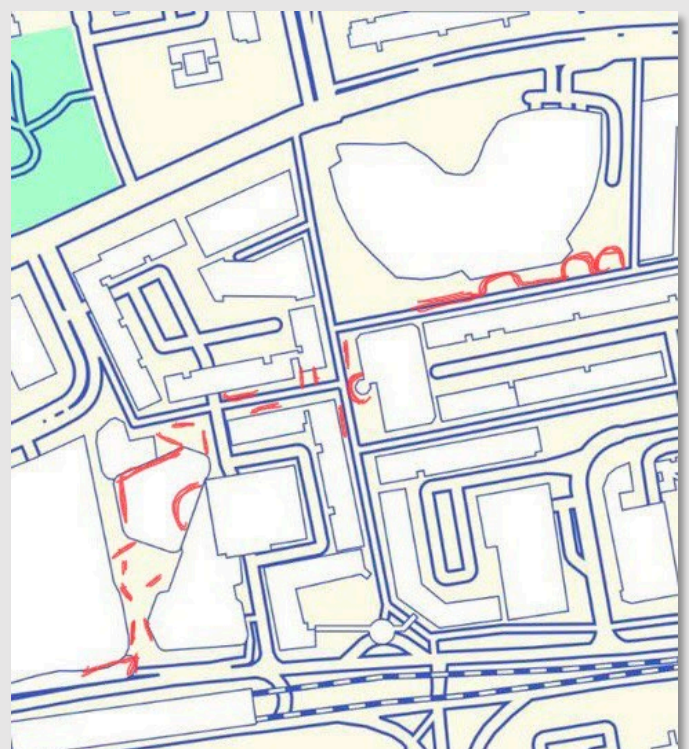
On our first field visit, we wanted to examine the people-flow in the area. Below is one of the first maps we made, demarcating crowd intensity (**red** being most used, **yellow** for intermediate intensity, and **green** for areas that were not populated). We later focused on the red areas and conducted our research there.



seatability

After class discussions, there was a consensus on the value of researching sitting spaces. Homing in on the red areas (map on the right), we paid another visit to the Bedok area and marked out its seat typology.

This would be the bedrock that supported our observations, spanning close to 40 hours, and led to the creation of the maps for this project.



our method

stage 1

- Conduct exploratory visits (Weekday and Weekend, Day and Night) to Bedok Town Centre to take note of what to observe in the subsequent visits.
- Conduct subsequent observations based on different timings and days for areas along the primary pedestrian flow.
- Mark activity for each hour with field notes taken throughout the hour.

Day	Morning (6am-9am)	Early afternoon (10-1pm)	Late afternoon (2pm-5pm)	Evening (6pm-9pm)
Weekday	Andy (28 Oct)	Ryan (30 Oct)	Angela (28 Oct)	Angela (28 Oct)
Weekend	Andy (1 Nov)	Ryan (31 Oct)	Strahan (25 Oct)	Strahan (25 Oct)

stage 2

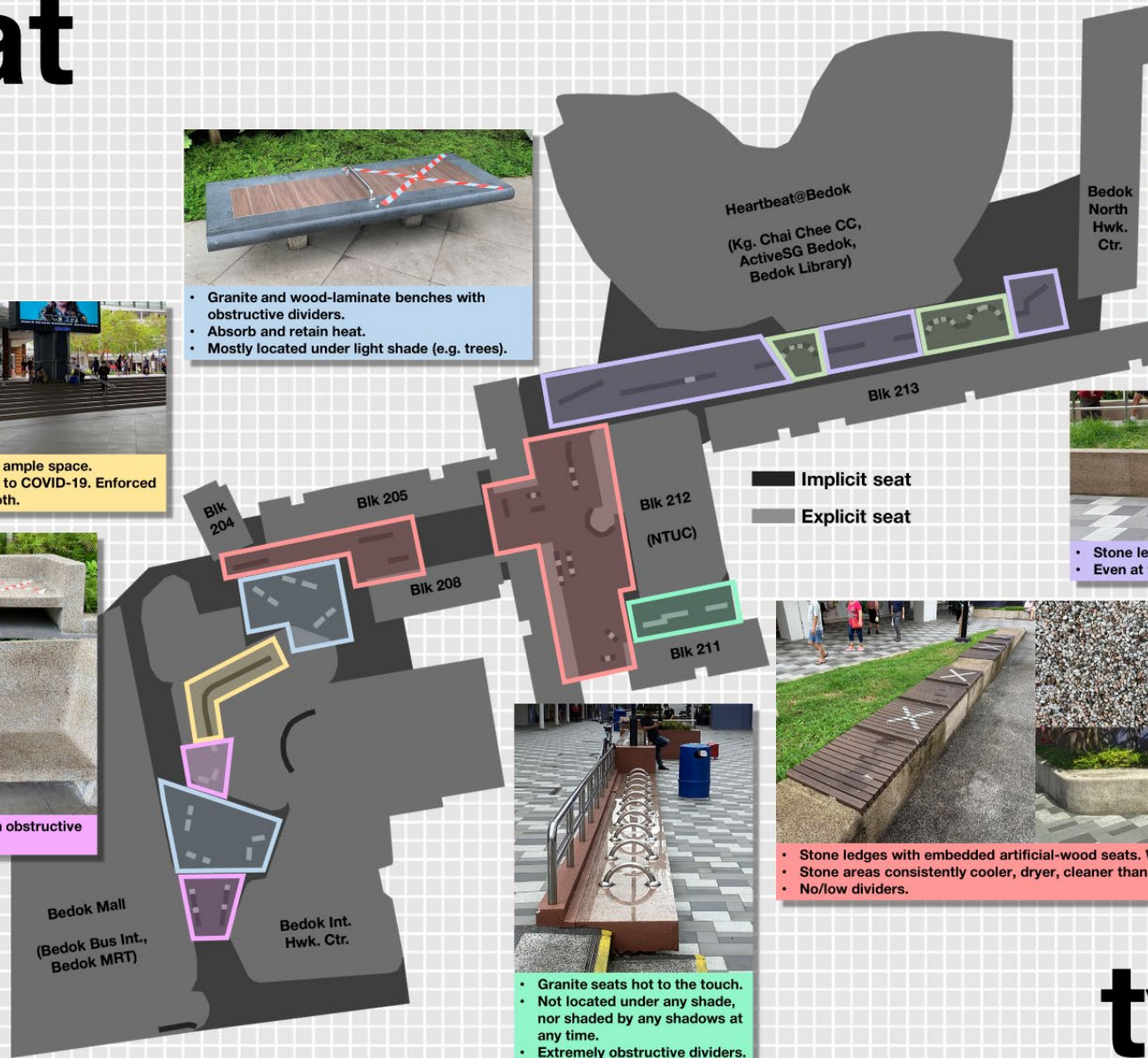
- Aggregate the data we have and discuss what and how we want to represent it.
- Create the respective maps.

stage 3

- Analyse the data in relation to COVID-19, Gehl (2013, table on the right) and Whyte (2001).

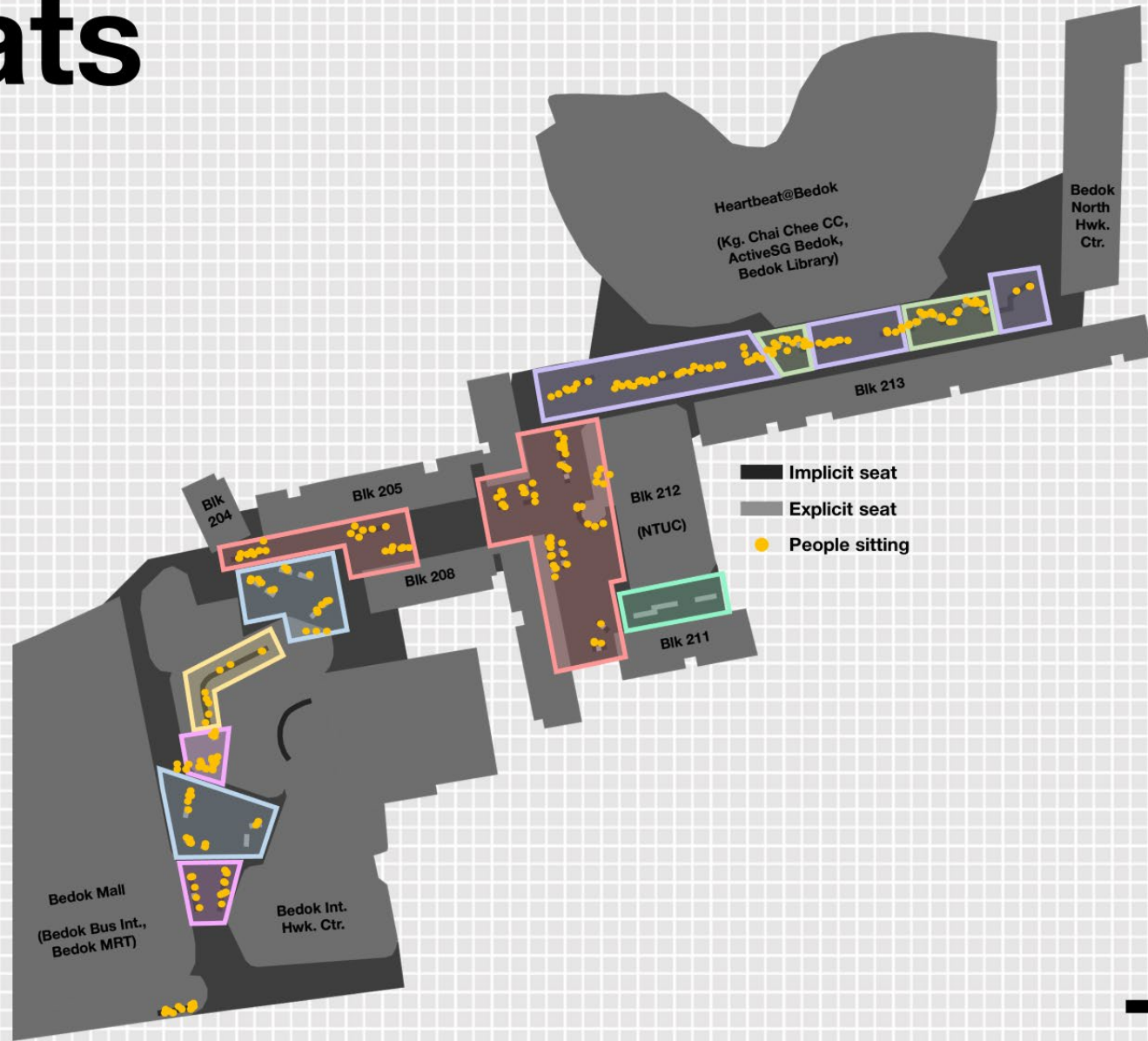
Protection	PROTECTION AGAINST TRAFFIC AND ACCIDENTS — FEELING SAFE  • Protection for pedestrians • Eliminating fear of traffic	PROTECTION AGAINST CRIME AND VIOLENCE — FEELING SECURE  • Lively public realm • Eyes on the street • Overlapping functions day and night • Good lighting	PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES  • Wind • Rain/snow • Cold/heat • Pollution • Dust, noise, glare
Comfort	OPPORTUNITIES TO WALK  • Room for walking • No obstacles • Good surfaces • Accessibility for everyone • Interesting façades	OPPORTUNITIES TO STAND/STAY  • Edge effect/ attractive zones for standing/staying • Supports for standing	OPPORTUNITIES TO SIT  • Zones for sitting • Utilizing advantages: view, sun, people • Good places to sit • Benches for resting
	OPPORTUNITIES TO SEE  • Reasonable viewing distances • Unhindered sightlines • Interesting views • Lighting (when dark)	OPPORTUNITIES TO TALK AND LISTEN  • Low noise levels • Street furniture that provides "talkscapes"	OPPORTUNITIES FOR PLAY AND EXERCISE  • Invitations for creativity, physical activity, exercise and play • By day and night • In summer and winter
Delight	SCALE  • Buildings and spaces designed to human scale	OPPORTUNITIES TO ENJOY THE POSITIVE ASPECTS OF CLIMATE  • Sun/shade • Heat/coolness • Breeze	POSITIVE SENSORY EXPERIENCES  • Good design and detailing • Good materials • Fine views • Trees, plants, water

seat



typology

seats



+ sitting

informal



- Plastic stools kept at a pillar and chained up until needed.
- Deployed by elderly men when they decide to chit chat and hang out.



- Planter box, significantly below "sitting height" or the height of other ledges or seats, is used as a seat nonetheless.
- Also used despite the narrow area provided for one's bum to occupy.



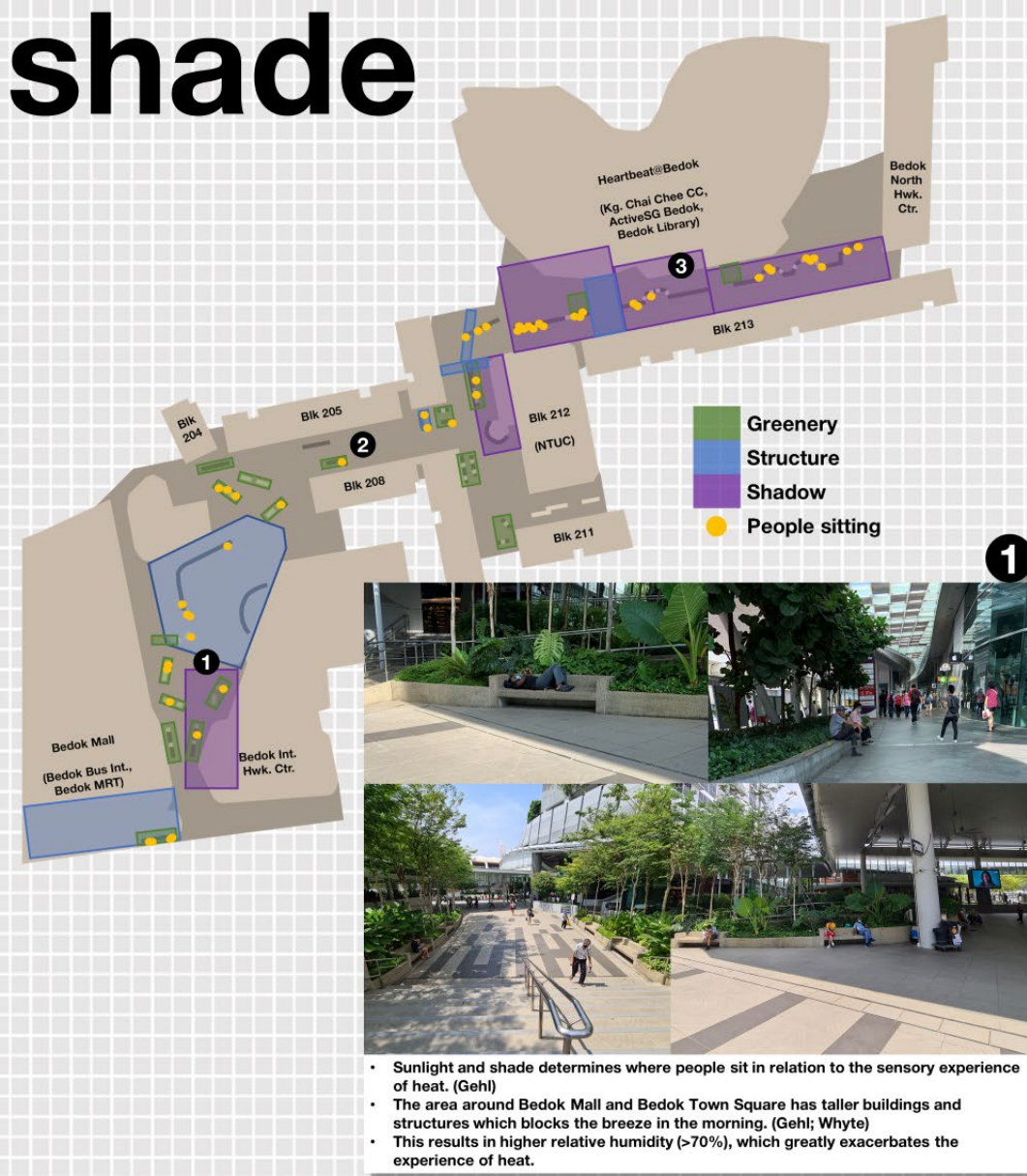
- Curb at the top of a slope is used as a seat by having the user face "downslope", so that their legs can be at a more comfortable height.



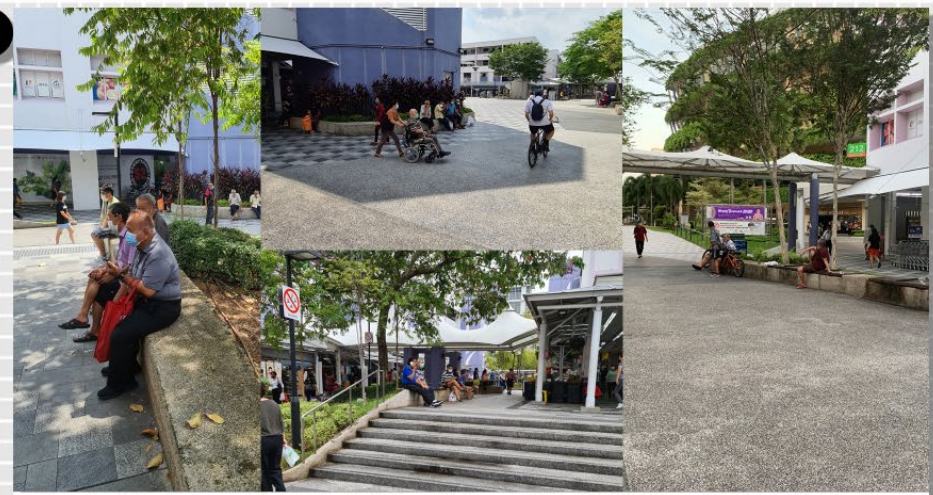
- Small parapet flanking a wheelchair ramp is used as a seat.
- Railings for the ramp also used as supports, to help the sitter maintain balance on the small parapet.

sitting

shade



2

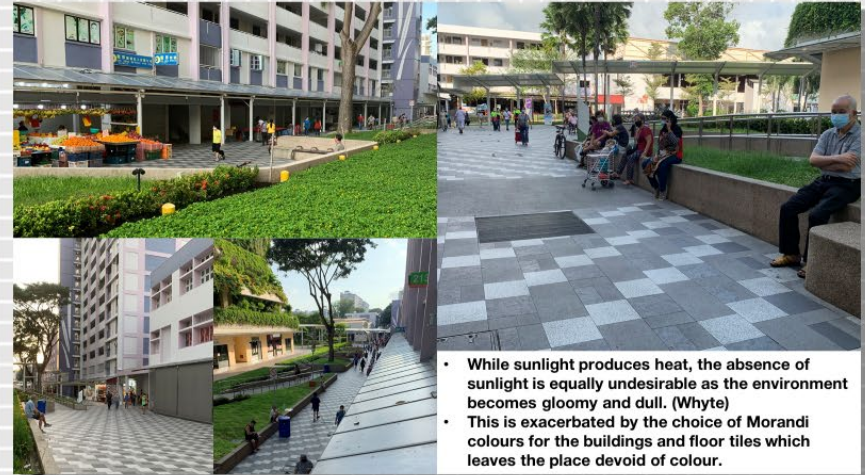


- In contrast, the design and placement of buildings with lower heights (Blk 205, 208, and 212) facilitates the flow of breeze, and contributes to a more comfortable environment despite the rising sun and heat.

1



- Sunlight and shade determines where people sit in relation to the sensory experience of heat. (Gehl)
- The area around Bedok Mall and Bedok Town Square has taller buildings and structures which blocks the breeze in the morning. (Gehl; Whyte)
- This results in higher relative humidity (>70%), which greatly exacerbates the experience of heat.



- While sunlight produces heat, the absence of sunlight is equally undesirable as the environment becomes gloomy and dull. (Whyte)
- This is exacerbated by the choice of Morandi colours for the buildings and floor tiles which leaves the place devoid of colour.

3

morning

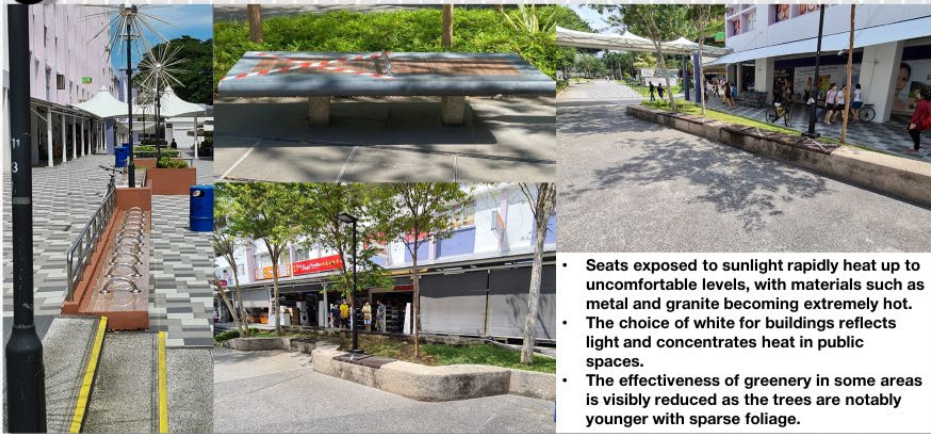
shade

1



- At noon, the sun's culmination washes the area with intense sunlight and heat.
- Greenery produces microclimates through localized shade and is integral in enabling the continued use of space despite rising heat levels. (Gehi; Whyte)

2

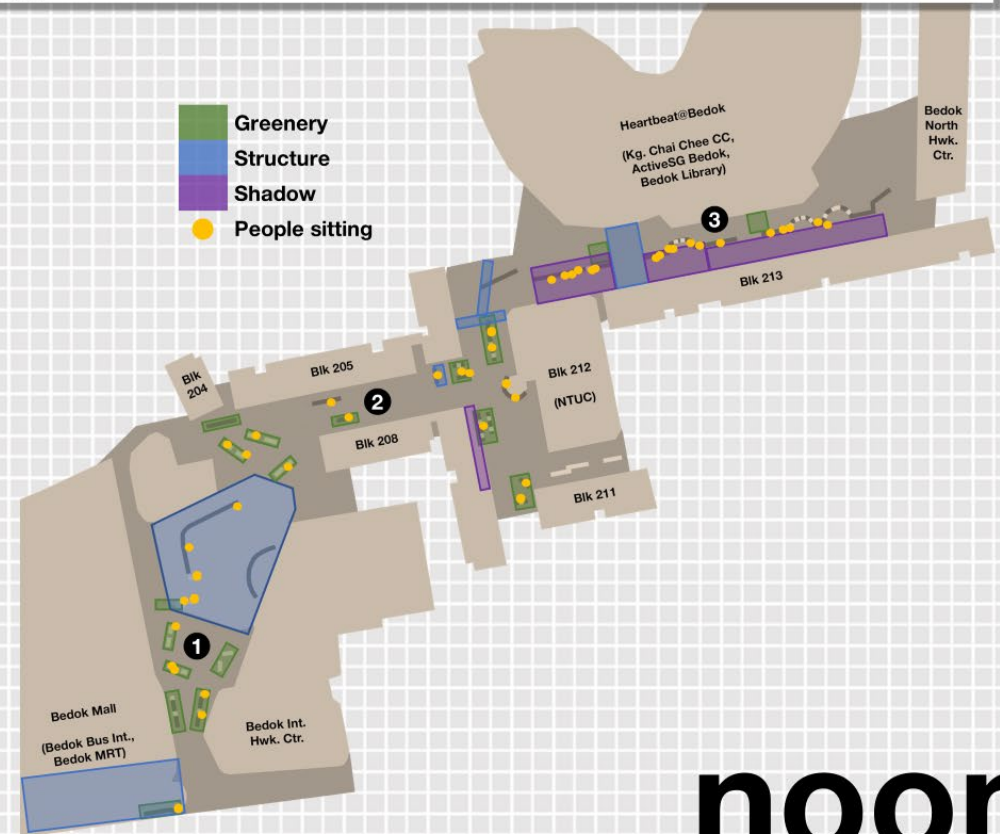


- Seats exposed to sunlight rapidly heat up to uncomfortable levels, with materials such as metal and granite becoming extremely hot.
- The choice of white for buildings reflects light and concentrates heat in public spaces.
- The effectiveness of greenery in some areas is visibly reduced as the trees are notably younger with sparse foliage.

3



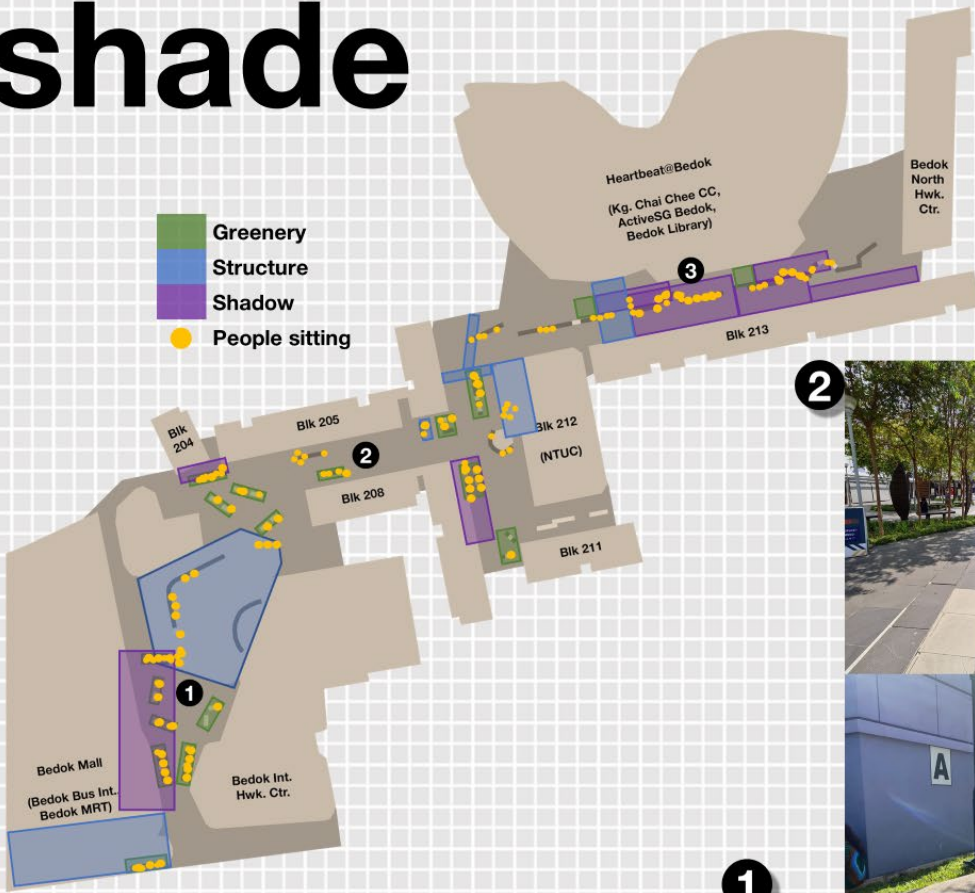
- The role of sunlight and shade in determining where people sit becomes evident at noon, where people prioritize the cooling shade over the comfort of seats.



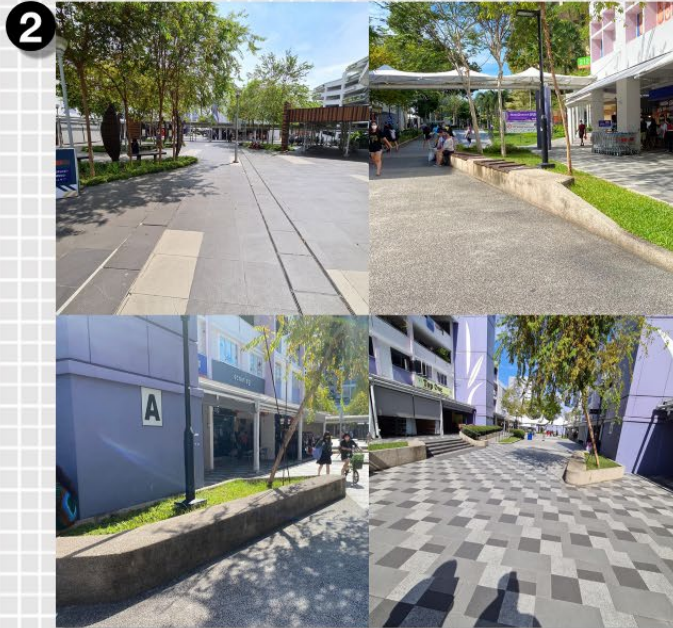
noon

shade

- Greenery
- Structure
- Shadow
- People sitting



- In contrast to the morning, the presence of tall buildings and structures in the Bedok Mall and Bedok Town Square area becomes invaluable in blocking the afternoon sun.



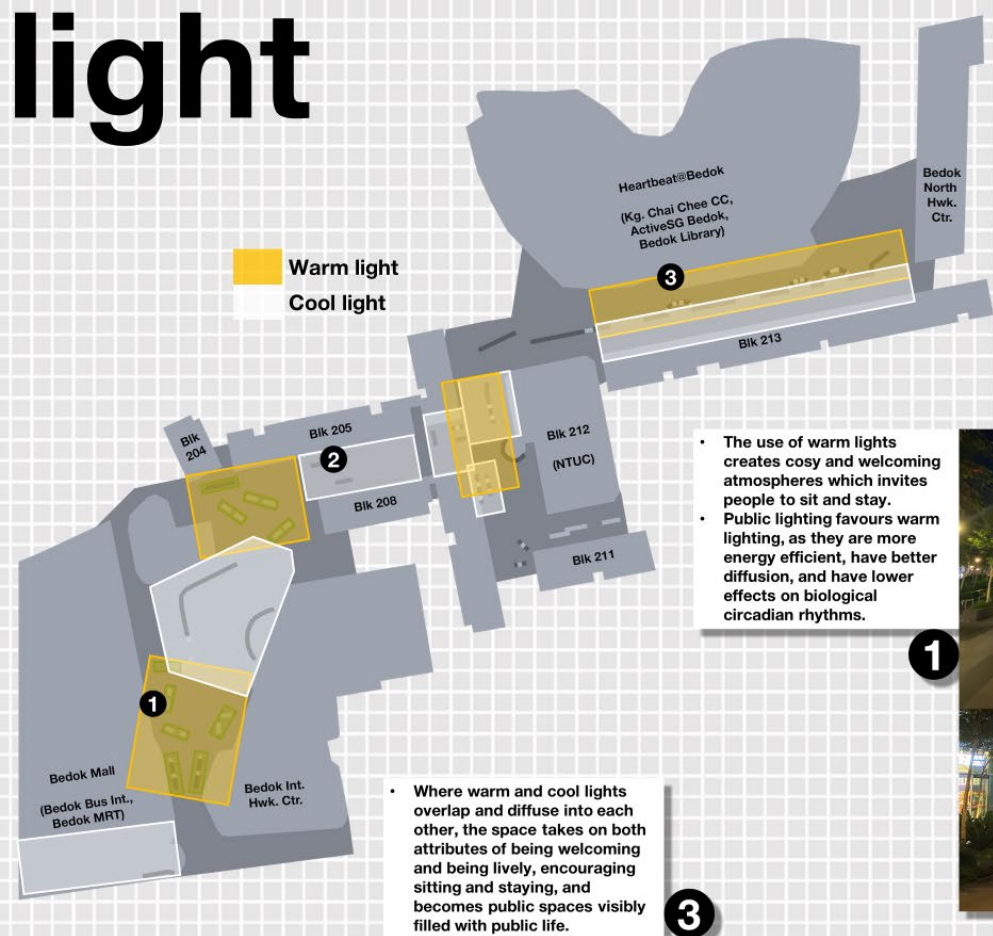
- Unlike the morning, these areas with lower building heights are washed with intense sunlight and viable seating space is greatly reduced.



- Comparatively taller buildings along the Heartbeat stretch cast shadows which enables the use of some seats.
- Mature trees with denser foliage are equally effective in casting shadows and contributes in providing shade and generating microclimates. (Gehly; Whyte)

afternoon

light



- Retail shops favour cool lights which turns night into day, enabling human traffic and public life to continue amidst the pedestrian mall.
- The extensive lighting at night generates an atmosphere of security, retains opportunities to see and enables the continued use of public space. (Gehl)

2



1

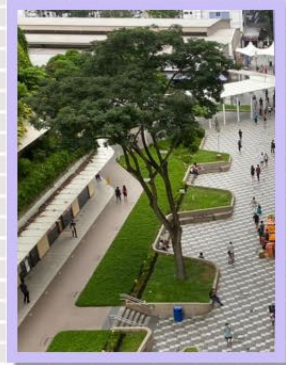


3



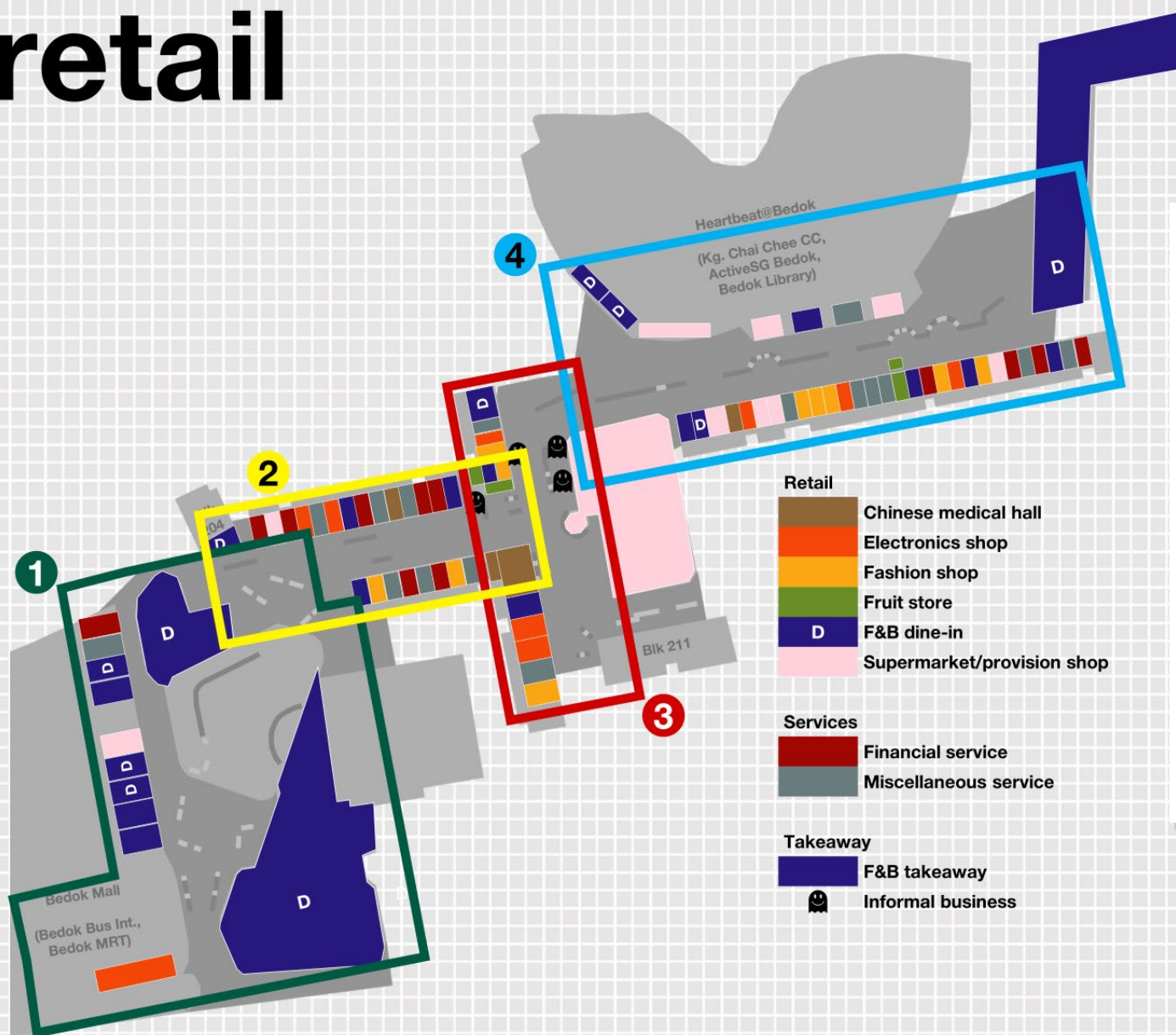
night

smoking

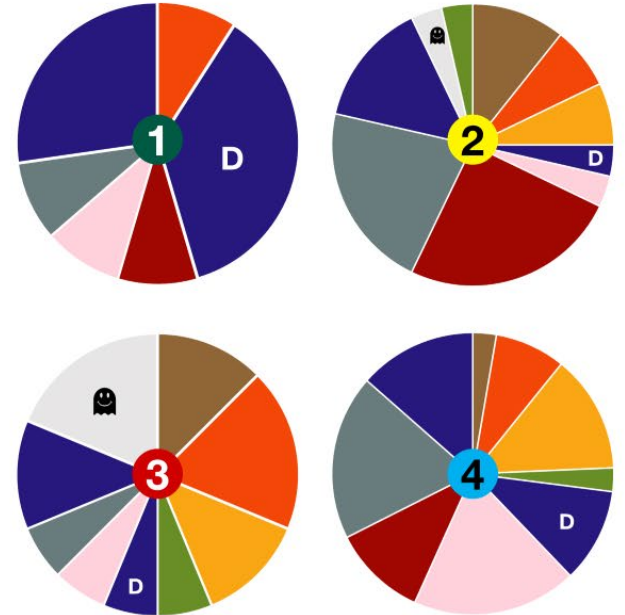


1. Despite the many smoking bins around, smoking is mainly concentrated at the seats along Heartbeat@Bedok.
2. Hypothesized code of the street? Because smoking is rampant there, the behavior and location where smoking takes place is normalised and subconsciously agreed upon by smokers.
3. Scale of buildings at lower height allow breeze to carry the smoke away.
4. The width of the area between seats where smoking takes place and people flows is wider, so the area seems more spacious.

retail

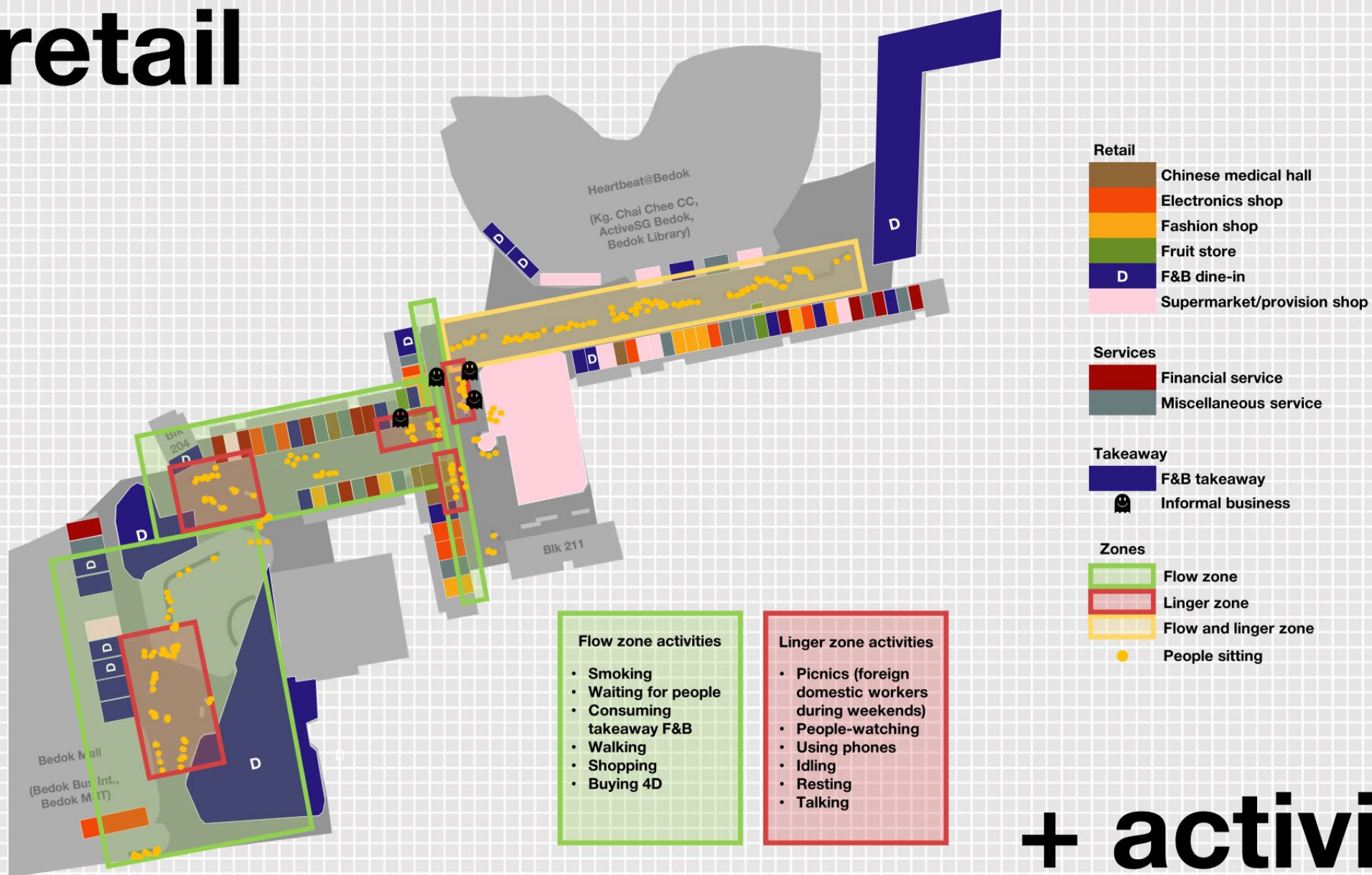


Retail mix by zone



mix

retail



+ activity

reflections on public life amid covid-19

Illuminated by our observations, we were surprised to see that the public spaces were very well-utilised by different social groups. As Whyte (2012) described, the street is the city's river of life, and a multiplier effect could be seen in people attracting people. Highlighting the allure of public space for humans as social creatures, we saw the same occurrence in Bedok where public life was flourishing amid COVID-19.

In the midst of a pandemic, there seemed to be an absence of fear in wanting to interact with people. Rather, the converse is true, and we saw people wanting to actively partake in the flow of public activities, at times even lingering in public spaces.

The connective spaces have been designed to be lined with both explicit (ones that are officially made to resemble seats) and implicit seats (design elements, such as ledges, that can be used as seats), providing ample opportunity for the public to use its spaces and engage in public life.

The resilience and display of public life in the town centre corroborate the idea that the public spaces we easily take for granted occupy an important place in the city. It was encouraging to observe how the town centre's public spaces provided a space for the diverse groups of society, especially those that are usually marginalised. This project has compelled us to think about how other public spaces can adapt to unforeseen circumstances, and how the design of public spaces can be made more inclusive.

references

Gehl, J. (2013). *Cities for people*. Island Press.

Whyte, W. H. (2001). *The social life of small urban spaces*. Project for Public Spaces.

Whyte, W. H. (2012). *City: Rediscovering the center*. University of Pennsylvania Press.