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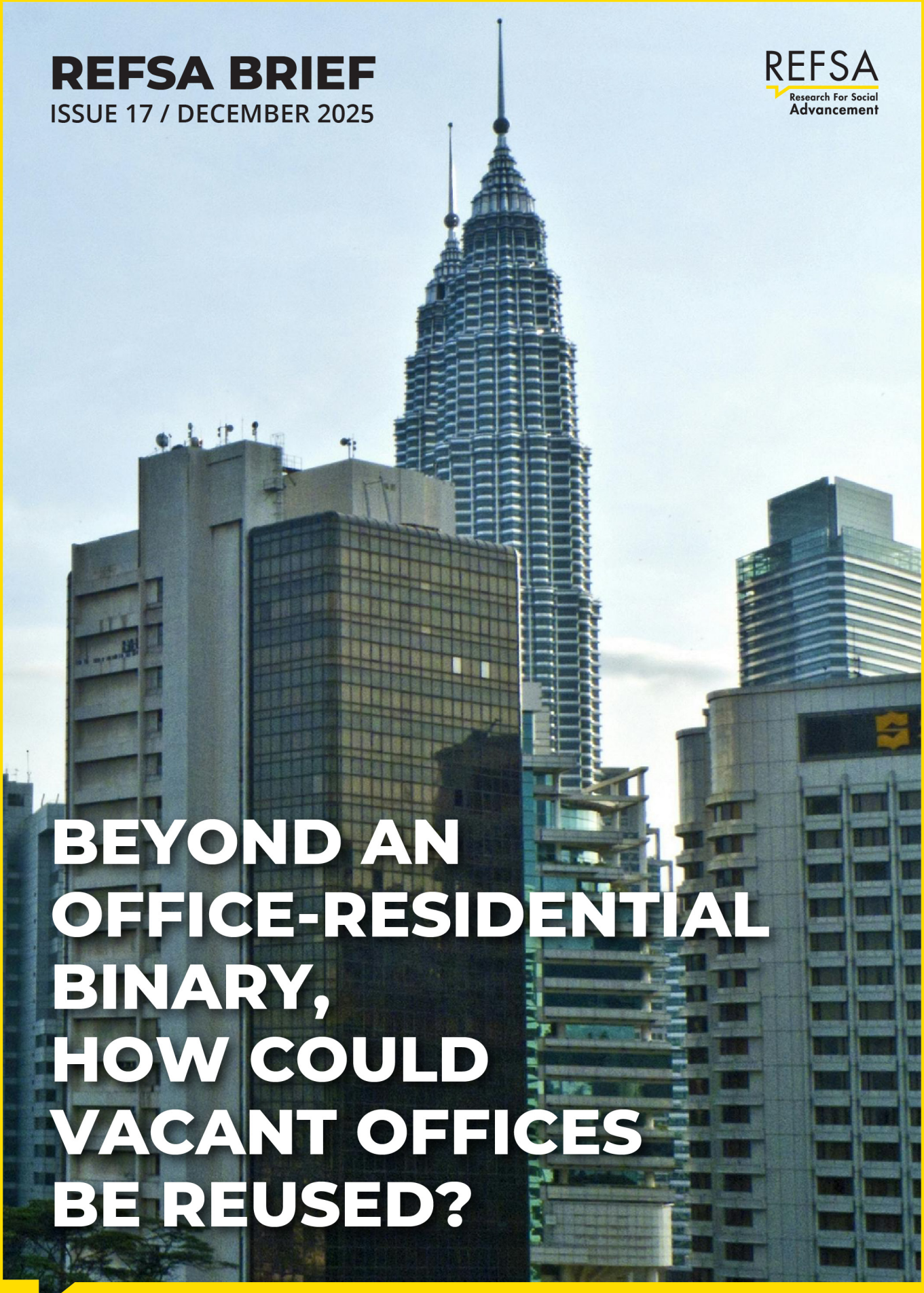

BEYOND AN OFFICE-RESIDENTIAL BINARY, HOW COULD VACANT OFFICES BE REUSED?

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CONTENTS

BEYOND OFFICE-RESIDENTIAL BINARY, HOW COULD VACANT OFFICES BE REUSED?

Converting Offices to Residential Units

Kuala Lumpur's old city centre has a ready stock of office buildings with high volumes of vacancy. This provides an opportunity to increase the housing stock in the centre which lacks a supply of affordable housing through office-to-residential conversions. The city centre has no shortage of work life and tourist life, but domestic life is lacking, limited to those on two extreme ends of the socioeconomic spectrum.

Whilst the increase of housing stock has to be the first step towards returning a residential purpose to the city centre, it is far from the only thing. The next step would be to ask if the area is well-equipped to support domestic life, and what can be done to better improve this aspect? This is particularly interesting given that despite the number of older highly vacant office buildings, it is highly unlikely that all or most of them would be financially or structurally fit for housing conversion. In such cases, it doesn't mean that those buildings would have to be left as they are, but that they could break away from the office-residential dichotomy.

Other than conversion to housing, there are several options to consider. The most passive would be to simply wait and see if office markets pick up and tenants start rolling back. Building owners could also decide to upgrade and renovate older offices to get up to speed with modern standards. Demolishment may be the most viable solution for buildings deemed too old and dilapidated to justify the high costs of renovation or conversion. However, choices don't have to be reduced down to office, housing, or demolishing, many possibilities remain that may support the return of domestic life.

Most likely obstacles

Deep Floor Plates
To simplify, a floor plate is the total enclosed, build-up area of a single floor of a building, measured from the exterior of the main walls and includes spaces like hallways, stairs, and the core of elevators. In some cases, they might be as deep as an entire city block. Some workers may be okay without having windows near them during office hours, but adequate natural light is essential for residential purposes (Abramson, 2023)[1]. For safety reasons such as fires and circulation, windows are important in bedrooms, and substantial floor plates may make it hard to yield many units per floor that adheres to this.

Plumbing and Heating, Ventilation, and Air Conditioning (HVAC)
Residential units would need to have at least one bathroom and kitchen every unit, but office layouts usually only have maybe a few bathrooms per floor and possibly one or two communal kitchens. The existing design of the original floor plates may not have been designed to accommodate additional bathrooms and kitchens (Waters, 2023)[2]. The difficulty of installing

extra plumbing fixtures and HVAC systems may be both a technical and cost issue, as an American non-profit organization reports that upwards of six-figures (in USD) may be needed just for due diligence before the building is even put under contract (Abramson, 2023)[1].

Window and Amenity Gaps

Going back to windows, even existing windows from the original office buildings may not be compatible with residential use. Many office buildings, especially newer ones have sealed windows, while most building codes would require residential units to have operable windows for safety and natural ventilation. Some building facades may also make it almost impossible to alter window types or to add new windows. Other than functional everyday spaces inside the home, residential buildings also need to provide certain amenities, such as a gym, communal spaces, swimming pools etc.

Potential Long Processes for Green light

There may be a need to rezone areas that were not originally zoned for residential purposes. Approvals may need to be acquired prior to any sort of work done. In addition, while it would probably not be hard to convince vacant building owners to allow conversion, some buildings would still have tenants and may have to wait for their leases to expire before a sale could be made to developers for any sort of renovation of conversion processes. In short, it may not be a quick solution to address housing problems.

THINKING OUTSIDE THE OFFICE-RESIDENTIAL BINARY

The city centre is one of the better connected areas in Kuala Lumpur but it would boost convenience to have more important services located in the vicinity. The plan to increase housing stocks in the centre should be complemented by enhanced facilities and services that create community. Primarily, it should look at facilities that would improve the lives of people who would be living there. The city centre does not lack in many services, but more could be done to enhance a sense of community to go alongside new residents.

Daycare/Nursery/Pre-school

As city centre living may be a more attractive proposition to younger individuals, couples or families, daycares and nurseries near the parents' workplaces may be highly appreciated. In fact, many offices abroad have daycare centres built in for employees. This is something that has yet to catch up in Malaysia, but it is a service that would help a lot of working parents, at least with commuting by cutting down time to send children to daycares further away. Larger buildings may perhaps be converted into full fledged pre-schools. They would be highly valuable additions to Kuala Lumpur, as the Khazanah Research Institute's (KRI) reports in 2024 that for many young working parents, the responsibility still lies with informal arrangements (Mukhriz et al., 2024)[3]. Many young children's care rely on the availability of family members, neighbours and friends, or unregistered services due to the high cost of childcare services.

Day shelters

Buildings that may not be viable for permanent residency may instead be converted into day shelters. Whilst it may not help young workers or provide long-term solutions, it provides the area's very visible homeless population with an extra safe space during the day to stay away from strong heat or rain, get a light meal, or just to use the bathroom and take a shower. In a small way, this helps keep people off the streets, and provide a small platform for the disadvantaged to get back on their feet. Publicly-run shelters are available, but the government put in place stringent rules that exclude a large group from seeking refuge, such as those with substance abuse issues and criminal records (Abu Bakar & Wahab, 2024)[4]. Day shelters would ease the pressure for the need of safe spaces for homeless individuals, at least during the day.

Youth Community Centres

Youth centres provide space for young people to meet and perform various hobbies and activities. There are no strict rules as to what is needed in a youth centre as long as there is space for activities. Whilst it may be hard to create space for sports in an office building, most other indoor hobbies can be accounted for. For example, it can be used for arts and crafts, music, and dance among many other activities. It would create additional spaces for young people to spend time and meet people performing healthy activities. Youth community centres may sound generic and unimaginative, but play important roles in addressing some issues among young demographics. At the very least, youth programmes tackle loneliness and isolation, and have the potential to provide a sense of purpose and keep them away from trouble, instilling

social responsibility (Rakan & Ayman, 2020)[5]. They are also spaces where young people can develop skills and interests that could lead to career pathways in the future. Architecturally, not much would have to be done, all that is needed is space, along with equipment and furniture according to whatever programmes are planned.

Classrooms

Office spaces would also make great adult schools or vocational training spaces. Such spaces would allow opportunities for new residents to take up classes and lessons after work. In the case of vocational schools, it could both help create jobs and help students learn skills to obtain jobs. Classrooms would serve as venues for more formal lessons and workshops compared to community centres. The creation of spaces to learn a skill or trade not only gives new life to old buildings, but makes a small footprint in efforts to alleviate unemployment. The availability of adult education would encourage lifelong learning for those who may have been cut off in their youths, and allow working adults to learn new skills or gain new accreditations that may aid them in their careers. Schools located at commercial centres complemented by mid-density housing will more likely become part of mixed-use districts over time (Sharma, 2017)[6]. A number of university campuses in the area could also take advantage of some of the buildings and build a small intellectual or academic hub.

Laboratories

This is an idea that is a bit more out of the box, but vacant office spaces could also support the life sciences with the proper HVAC and safety implementations. Such conversions would be a boost to the scientific community and provide valuable facilities that could give the city centre an extra purpose for scientific development. The existence of a lab may also influence its immediate vicinity and see an increase in scientific and technologically-influenced spaces. In 2023, 125 office conversion projects in the United States were taking place, and half of them were being readapted to life science labs. In such projects, the amount of floor space usually converted to lab use is 50 percent or less of the entire project. Meanwhile, post conversion, the rents generated are comparable to laboratories built from the ground up (Kirk, 2023)[7]. Chicago-based construction firm Skender claims that office to lab conversions save 50 percent of the cost of building a new lab, but most office buildings already have high floor-to-ceiling heights and existing building envelopes.

Short-term office spaces and co-working spaces

This may seem a little lacking in imagination but it is actually a move that may help smaller companies and businesses set up in the city centre. Smaller businesses may not have the resources to commit to traditional office spaces but having a cluster of short-term or co-working spaces could set up a hub for emerging companies with smaller teams and office needs. This may also help improve vacancy rates as shorter deals may attract more tenants renting smaller spaces rather than holding out for bigger clients to take entire floors. This flexibility could help smaller businesses to prosper as they can adjust office needs according to changing requirements. The elimination of long-term commitments and high upfront costs would also allow companies to focus expenses elsewhere. A supply of co-working or serviced offices would also bring forward networking opportunities as young professionals share working spaces that create opportunities for collaboration. Well run and well maintained serviced offices and co-working spaces in a well connected area would be beneficial to the growth of small local companies.

Medical Facilities

Many office buildings already have lobbies and more obviously, offices available that would be necessary for medical centres or facilities. These buildings would also be located at highly accessible locations with public transport and road networks, giving patients good physical access (Matthews Real Estate Investment Services, 2022)[8]. Of course, medical facilities would have to meet healthcare codes, particularly in electrical systems such as emergency backup generators that ensure at no time would the building be without any source of electricity. It would also need a more robust sanitary system. More parking space may also be needed for medical facilities compared to traditional offices. That being said, it needs not be a full-blown hospital, but a neighbourhood health centre or a satellite campus of a hospital that allows nearby residents to conduct basic health checkups and treatments.

CASE STUDIES FROM ABROAD

HOK's 8 Canada Square Concept, London

The 45-story skyscraper in Canary Wharf has been the global headquarters for HSBC Bank since 2002, but will be moving away by 2027. While the redevelopment project will be given to another architectural firm via a competition, HOK architect David Weatherhead (Weatherhead, 2025)[9] came up with his reimagined version of the building as a "vertical neighbourhood" that maximises the concept of multi-used architecture. His idea divides the building into 4 main zones, that being the lab zone, office zone, residential zone, and hotel zone, going from the lower to higher floors. This alludes to how larger buildings don't need a single or even dual use, but their potential should be maximised to create a community.

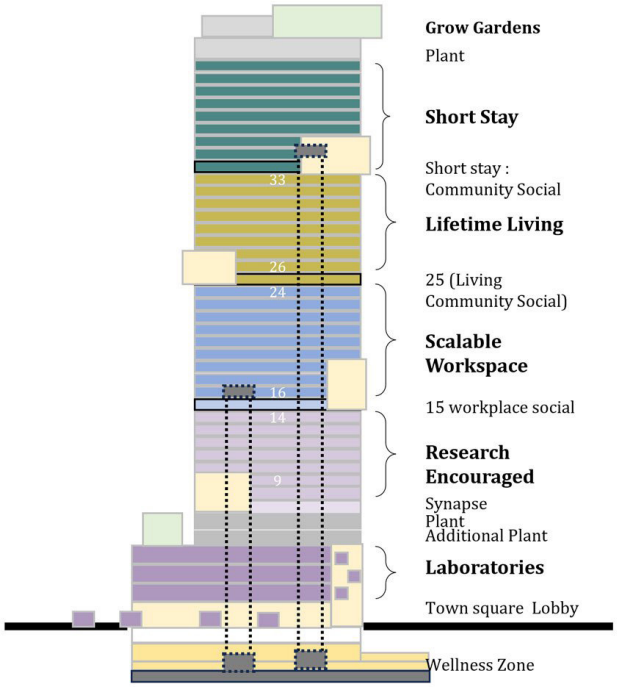

Image 1 (L): The multifunctional aspects of the building, HOK
Image 2 (R): Rendering of the building before and after conversion, HOK

451 D Street Building, Boston

This was a 1900s era office block that was transformed into life-science lab space in 2018. Currently, it also holds a conference centre, fitness centre, as part of Boston's growing life science cluster in the Seaport district (451 D Street)[10]. Renovation rendered half of the building suitable for lab space, including central lab exhaust installation. Current tenants include pharmaceutical and biotechnical labs. Some office spaces remain, as well as spaces for telecommunications services. The building is now one of the core of Boston's proposed innovation district.

Image 3: Exterior of the building, LoopNet

Image 4: Rendering of a lab in the building, BALA Consulting Engineers.

Fairfax County Public Schools, Herndon, Virginia

Herndon has an oversupply of office spaces at around 27% and Fairfax County Public Schools (FCPS) took advantage of this to convert 40,000 sqft of offices into educational spaces targeting adult learning programmes (Steele, 2023)[11]. The buildings were incorporated into FCPS's Adult and Community Education (ACE) work that provides lifelong literacy and educational programmes for all, including Adult and Community Education English for Speakers of Other Languages (ACE-ESOL), which teaches adult students practical English language skills to navigate everyday lives, Fairfax County Adult High School (FCAHS), that allows adults the opportunity to earn a high school credential and the Transition Support Resource Center (TSRC), a short-term intervention program. The converted buildings do have the benefit of being low-rise office park offices that physically resemble school buildings externally.

Image 5: In 2018, FCPS already converted an empty, five-story, suburban office building into Baileys Upper Elementary School, the first "high-rise" school in Fairfax County, Fairfax County.

Digipolis II, Antwerp

Digipolis, Antwerp city's IT partner is expected to move their operations to a municipal building, leaving its current home available for retrofitting. In its place, the Paleisstraat fire station will move in as its current location is becoming antiquated. The same building will also be housing a section of the city's homeless shelter, but both entities will be separated, using separate entrances and exits, as well as being interiorly divided. The fire department will utilize 2 floors on the west side of the building, underneath the tower. In addition, there will still be some offices, a warehouse, a workshop, and recreational spaces. The eastern side will be taken by the homeless shelter, which emphasises on smaller, more manageable and private units instead of maximizing bed capacity. Renovation is expected to start in 2026 and finish in 2029 (Basem, 2025)[12].

Image 6: AG Digipolis in its current form. AG Vespa

Image 7: Concept art of the Digipolis building after the renovation. AgwA

Image 8: Concept art of the training ground and the new vehicle hall for the fire brigade. AgwA

Health and Childcare Centre in an Office Building, Kitakami, Japan
Japanese studios Unemori Architects and Teco Architects turned the first two floors of an eight-floor office building into a health and childcare centre. The 4,000 sqm space also acts as a public meeting space for the city of Kitakami. The building is fronted by a glass facade that leads into a reception area and a cafe that also serve as waiting areas. Visitors can then access the surrounding rooms for medical checkups, in addition to an exhibition hall, cooking area, and child support centre. Going one floor up, there is a community space, temporary nursing room, a playground, and a conference room to complete the two-floor overhaul. The architects intended for the complex space to act like a park for the citizens of Kitakami (Carlson, 2022)[13].

Image 9: The exterior of the building has been decorated with an undulating eave. Dezeen.

Image 10 (L): A playground space on the first floor. Dezeen.
Image 11 (R): The building still consists of office spaces in upper floors. Dezeen.

Summit Health, Garden City, New York

There has been an increase in readaptive uses from offices to medical facilities, especially since the pandemic. In February 2023, LF Driscoll Healthcare (LFDH) completed the USD 18 million project to convert a 28,000 sqft, 3-story office building into a modern health facility serving Garden City in Long Island. The centre now houses cardiology, dermatology, ENT, orthopedic, podiatry, and primary care practices, as well as a pain management clinic. There is also a lower-floor radiology suite that includes five x-ray rooms, a CT scanner, and an MRI machine (STO Building Group, 2023)[14]. The existing mechanical, engineering and plumbing engineering systems had to almost be completely replaced to take on the load of new radiology equipment and elevators. Cost-savings came from early identification and purchase of long-lead requirements. The entire process took one year to complete.

Image 12 (L): Exterior of the medical facility. Google Maps.
Image 13 (R): Concept of a waiting room in the facility. FCArchitects.

COMPLEMENTARY PROJECTS TO BOOST LIVEABILITY

Converting vacant offices into homes and various facilities and services goes a long way to creating residential functions for an area, but its surrounding environments and non-built up spaces are important to everyday liveability. Various projects can be done to improve walkability and public spaces for the benefit of new potential residents. At its present state, while the city centre is considered more walkable and pedestrian-friendly compared to many other areas of the city, it is by no means perfect. In addition, the area sees a lot of car traffic that in itself, brings a host of problems for residents. The high density of buildings also make it more difficult to have big accessible public spaces for recreational activities usually found in more residential areas such as parks.

Improving walkability

While the KLCC and Bukit Bintang area is relatively walkable, thanks in part to networks of underground and overground walkways and bridges, people unfamiliar with the paths may find it difficult to navigate these networks as there are no clear signs of where to go. On street level, pathways are sometimes not uniform where certain parts are unconnected or broken. Short distance walks are generally fine, but longer distances are more challenging.

Since driving in the city centre would be a huge inconvenience due to traffic, and public transport does not necessarily take you to exactly where you need to be, walking would be a highly useful mode of mobility given the necessary comforts. In a survey, some users have reported concerns about the inconsistency in maintenance of roads in the city centre, in worse cases, poor linkages make walking more dangerous than it should be. Some sections are not friendly for people with special mobility needs, while some pathways are too narrow and pedestrians risk being too close to traffic. There is also dissatisfaction regarding a lack of alternative routes (Zakaria & Ujang, 2015)[15]. Bike lanes, like pedestrian paths, face a problem of ending abruptly and the additional problem of car owners not respecting rules and parking on them. Riders would also often have to cross busy and wide roads with cars moving at high speeds (The Straits Times, 2025)[16]

It is all fine to try and return a residential purpose to the city centre, but one of its selling points would and should be about short commutes and walkability. While we should prioritise housing stock first, there is also an element of urgency in improving walking and bike paths so the commutes are actually safe and comfortable. A basic but necessary step would be to make sure pedestrian paths are uniform, repaired, and actually connected. The same goes for bike lanes that would also require stronger traffic enforcement regarding illegal parking.

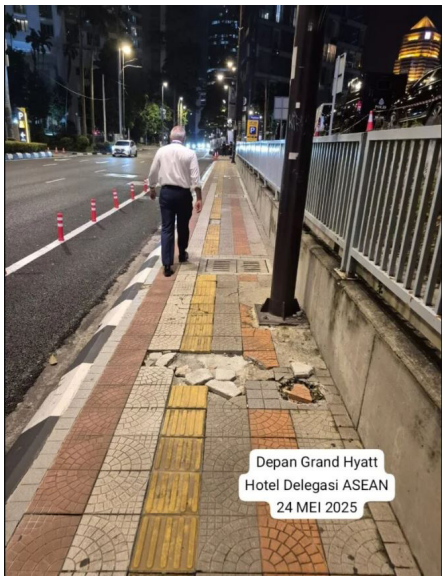

Image 14 (L): Bollards blocking a shared used path in KL. arckayden, Reddit.
Image 15 (R): Broken walkway tiles in the centre. Aduan Rakyat.

Image 16 (L): Kuala Lumpur City Hall (DBKL) enforcers approach motorcycles parked illegally on a pedestrian walkway in Brickfields. DBKL.
Image 17 (R): DBKL's blue cycling lanes are rarely used by cyclists and often end up being taken over by motorcyclists during traffic jams and by cars as parking spaces. Raymond Manuel.

Public Spaces

Kuala Lumpur is often described as a concrete jungle, open public spaces for recreational activities are limited. A study by Khalid et al. (2018)[17] suggests Kuala Lumpur's urban core has a number of "lost spaces" described as "inadequate use of space in urban areas, isolated from the walking flow." They are "abandoned and leftover areas that have lost their functions." This includes parks that are not serving their desired functions. Some typologies of lost spaces include unstructured landscapes in high rise buildings, highway edges, abandoned waterfronts, deteriorated parks, off-street parking, and large parcel developments.

While some spaces are not difficult to revitalize, it may be beneficial to rethink what to do with some of the many open air parking spaces. Should more people be able to live in the city centre, car dependency may be reduced and the demand for parking may not be as high. Public parking spaces demand large enough spaces to have enough spots that justifies having a parking business. In some cases, some parking lots are operated informally by touts who illegally charge for spots they do not own (Bavani, 2025)[18].

Image 18: One of the many open air parking lots in Kuala Lumpur. Google Maps.

Parking lots can be considered a huge waste of limited spaces as they cannot serve any purposes other than housing stationary vehicles. In other words, pedestrians and human users have no use for them. Parking lots of varying sizes can be made into many things, but arguably none simpler than a public open space for human use filled with suitable street furniture and recreational facilities that serve residents. The conversion of parking lots would of course have to be done in conjunction with the will and determination to reduce car dependency and promote city centre living and public transportation usage. In 2018, Azmizam Abdul Rashid, director of Knowledge Management and Advisory Services at the Urban Wellbeing Centre of Excellence (Urbanice) Malaysia, said there will be no more open car parks in Kuala Lumpur in 20 years while speaking about the the green innovation plan, that aims to transform 30% of the city into green areas (Bernama, 2018)[19].

Adding more regarding green spaces, a study has shown the fragmentation of Kuala Lumpur's green spaces. The city centre features the lowest amount of green spaces by area (Rasli et al., 2019)[20] as Figure 1 depicts. Green spaces are essential for residential living as they encourage physical activities, as well as improve mental health, acting as psychological comforts just by simply existing. White et al's. (2019)[21] study suggests that people who spend at least 120 minutes in nature weekly report better health and wellbeing than those who do so less.

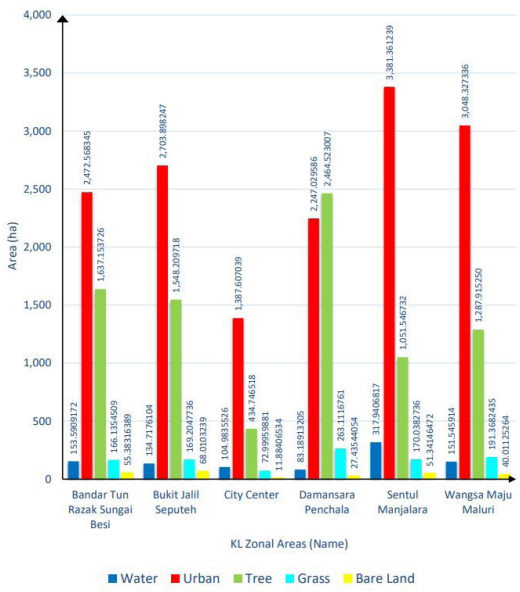

Figure 1: The city centre has the smallest amount of green spaces in the city, and among the largest urban to green spaces ratio. Rasli et al.

Environmental Improvements

Bouncing off the concept of greenery and green spaces. Green spaces can help alleviate the urban heat island effects brought forth by vehicular exhaust fumes trapped in the air. Tall concrete buildings flanking paved roads also play a part in trapping pollutants on street level and absorbing heat. The urban heat island (UHI) effect is most evident at night as the buildings then re-emit the heat back to the air, and Kuala Lumpur is among 5 cities recording increasingly higher temperatures in Malaysia (Think City, 2021)[22]. UHI effects can increase temperature between 3 to 6 degree celsius (Harun et al., 2020)[23]. Think City's (2025)[25] follow-up land surface temperature analysis in February 2025 showed the highest and lowest recorded temperatures in Kuala Lumpur's City Centre at 31.30 and 24.40 degree celsius. This highlighted a rise of 1.90 degree celsius between 1989 to 2025's highest recorded temperatures. As depicted in Figure 2, the hottest spots include the City Centre, Bukit Bintang, Pudu, North KL and areas surrounding Jalan Dato Onn' and Jalan Tun Ismail located southwest of Chow Kit. On the other hand, park reserve areas such as KL Forest Eco Park, public spaces and gardens in Mahameru, Perdana Botanical Garden and Tugu Negara recorded lower temperatures in the city.

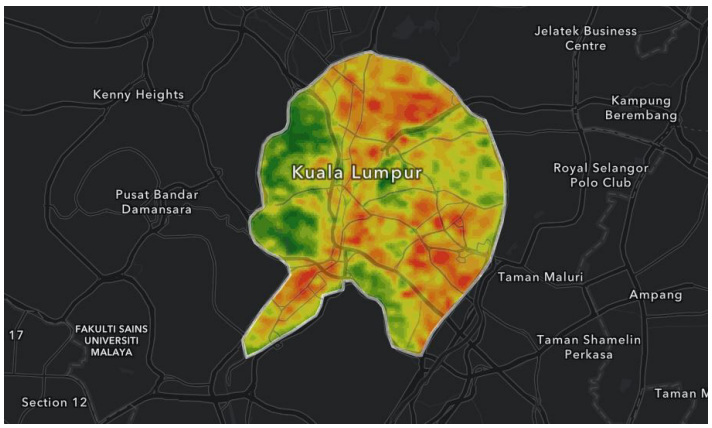

Figure 2: Areas in Kuala Lumpur most affected by high land surface temperatures. Think City.

Green elements are really helpful in cooling down cities. Trees provide shading that can block sunlight from directly hitting building and pavement surfaces during the day. Secondly, the process of evapotranspiration by vegetation emits water vapour into the air as trees serve as moisture reservoirs that could lower temperature (Lin & Li, 2025)[26]. The lowering of temperature in the centre is not simply a benefit for the microclimate, but may reduce air-conditioning consumption, therefore reducing greenhouse gases from energy use (Lin & Li, 2025)[26]. Green spaces mainly improve ventilation via circulating air and distributing heat in urban areas. Meanwhile, green open areas like parks create pathways for airflow that create cool air pockets that alleviate the effects of heat islands.

In addition, high vehicular traffic is also detrimental to air quality, as the number of vehicles is directly proportional to pollution, not just air pollution, but also noise and vibration pollution (Bernama, 2022)[27]. Professor Mohd Talib Latif at Universiti Kebangsaan Malaysia said that gases and fine particles released by vehicles that may have long-term health and environmental effects such as carbon monoxide, sulphur dioxide, nitrogen dioxide and 'Particulate Matter 2.5' are in high concentrations on congested roads. A study in Krakow, Poland suggests that in relative quantities, a 1% increase of urban forests comes with a decrease of pollution by 0.3%, compared to the average pollution in the city (Szwagrzyk, 2017)[28].

ENVIRONMENTAL AND PUBLIC SPACES REJUVENATION CASE STUDIES

Cheonggyecheon Restoration Project

This is a highly renowned case for public space rejuvenation. The Cheonggyecheon stream was covered up by concrete for an elevated highway during a period of post-war economic development. An urban renewal project in 2003 by the Seoul city government removed the highway and restored the stream to much success as it has since become a hugely popular public space in downtown Seoul. The number of businesses around the stream increased at a rate double that of the downtown. Biodiversity in the area also increased by 639% and temperatures along the stream became 3.3 to 5.9 degree celsius lower than that on a parallel road a few blocks away, as a result of a reduction in the urban heat island effect. The removal of the highway also prompted an increased use of buses by 15.1% and the subway by 3.3%. A study also shows reduced small-particle air pollution by 35% from 74 to 48 micrograms per cubic meter (Robinson & Hopton, 2011)[29].

Image 19 (L): Before the stream was restored. Global Design Cities Initiatives.
Image 20 (R): After the restoration project. Global Design Cities Initiatives.

Image 21: The stream is now a popular tourist attraction and an important landmark of Seoul. Seoul Metropolitan Government.

Superkilen, Norrebro, Copenhagen

Superkilen is a public park established in the Norrebro district in an attempt to uplift one of Denmark's most ethnically diverse but socially-troubled neighborhoods. The area is also isolated from the rest of the city by two major highways, becoming a high crime zone (Aga Khan Award for Architecture, 2016)[30]. The project itself is known more for its effects on community building and elements encouraging integration, the park is a reflection of the neighbourhood's diversity and history. The design was meant to be a platform to expose local inhabitants to the 60 represented nationalities in the area, and each community was able to contribute their own ideas and art to the project. Superkilen features 3 parts- the red square that encourages recreational activities, the centre, known as the "black market" is a square where people gather, hosting a fountain, barbecue grills, and palm trees from China representing one of the 60 nationalities (The Copenhagen Post, 2012)[31]. This is followed by the green park which is a long stretch of green area for various outdoor activities. Besides showcasing the diversity of cultures in the area and fostering cohesion, the park is also credited to connecting two residential areas previously divided by a fence, and the neighbourhood with the city of Copenhagen.

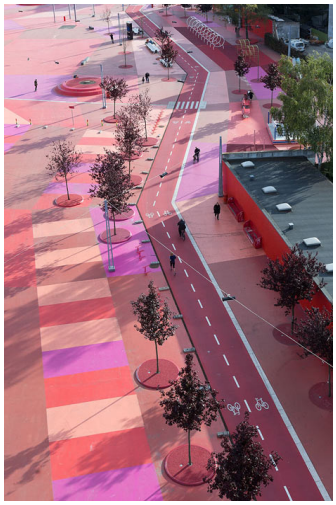

Image 22 (L): The red square of the park. Dezeen.
Image 23 (R): The black market. Bjarke Ingels Group.

Image 24 (BL): The green park. Orf3us.

San Francisco's Pavement to Parks Programme

San Francisco is widely credited with coming up with the first recognized parklet, introduced by San Francisco based REBAR interdisciplinary studio as a Park(ing) (Schneider, 2017)[32]. The concept of a parklet is to provide a public space in urban spaces that allow people to relax, sit, and rest in the absence of urban parks. They are usually done either through permanent street fixtures or temporary furniture on sidewalks, curbs, or parking lots. San Francisco's Pavement to Parks programme saw the city create more than 60 parklets as of 2015 through various merchants, neighbourhood groups, non-for profits, among other organizations. Parklets also need to meet several important criteria, they need to be removable, even for permanent fixtures, and they cannot impede drainage. They should also be open to the public and stewards may not use them solely for commercial purposes. Lastly, they have to be universally accessible, and are all raised to curb height to allow wheelchair access (Global Street Design Guide)[33].

Image 25 (L): A Freewheel Parklet. Mark Hogan.
Image 26 (R): Interstice Architects' Sunset Parklet. Cesar Rubio.

CONCLUSION

Office to housing conversions cannot be done as standalone projects, they must be complemented by other initiatives that could improve the residential elements of the city centre. Convenience is a major factor in its attractiveness, but there are still areas lacking. Contingent plans should be made for non-qualifying buildings to maximize building usage and reduce wastage or prevent the need for demolition. The thinking towards readapting office spaces would have to go beyond the office-residential dichotomy.

In general, **office buildings have a generic design that can be versatile in terms of function that does not include long-term residential purposes**. A focus can be placed on facilities that build community, whether for potential new residents, or for all users of the city. Some facilities like community or youth centres, classrooms, and day shelters have very similar requirements to offices but could play a part in alleviating social issues by providing a space for people to engage in healthy and interactive activities or encourage lifelong learning. Other ideas from outside the box would serve more specific functions. Daycares would help a lot more than residents in the area, commuting working parents could also benefit from having their kids cared for near the workplaces. Medical facilities serve all, while short-term offices and laboratories could increase the presence of scientific and small business communities here.

Increased walkability is also an important point that could drive home the city centre's image of convenience. Walking or cycling should be viable and preferable modes of mobility instead of simply possible choices, as such, the pedestrian and cyclist experiences need to be much improved. Lost amidst the talk of convenience and connectivity are also public spaces that are hard to come by in the centre, but possibilities are aplenty that could increase the health and environmental benefits that come from public and green spaces.

APPENDIX

Image 1: The multifunctional aspects of the building, HOK

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Image 14: Bollards blocking a shared used path in KL. arckayden, Reddit.

Image 15: Broken walkway tiles in the centre. Aduan Rakyat.

Image 16: Kuala Lumpur City Hall (DBKL) enforcers approach motorcycles parked illegally on a pedestrian walkway in Brickfields. DBKL.

Image 17: DBKL's blue cycling lanes are rarely used by cyclists and often end up being taken over by motorcyclists during traffic jams and by cars as parking spaces. Raymond Manuel.

Image 18: One of the many open air parking lots in Kuala Lumpur. Google Maps.

Image 19: Before the stream was restored. Global Design Cities Initiatives.

Image 20: After the restoration project. Global Design Cities Initiatives.

Image 21: The stream is now a popular tourist attraction and an important landmark of Seoul. Seoul Metropolitan Government.

Image 22: The red square of the park. Dezeen.

Image 23: The black market. Bjarke Ingels Group.

Image 24: The green park. Orf3us.

Image 25: A Freewheel Parklet. Mark Hogan.

Image 26: Interstice Architects' Sunset Parklet. Cesar Rubio.

Figure 1: The city centre has the smallest amount of green spaces in the city, and among the largest urban to green spaces ratio. Rasli et al.

Figure 2: Areas in Kuala Lumpur most affected by high land surface temperatures. Think City.

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