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Recapturing Houston for People

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Abstract

This essay examines how Jan Gehl's 'human scale' principles can reimagine Houston's sprawling, car-centric environment into cohesive, pedestrian-friendly districts. First, it addresses the research problem of Houston's extensive urban sprawl, poor walkability, transit inequality, and urban heat island effect, looking to Copenhagen and Melbourne for lessons and how they might apply. Second, a comparative case-study methodology was employed, where Gehl's observational criteria, and mixed-use and 'human scale' design strategies were assessed alongside Copenhagen's pedestrian-area expansion. (1962–2005) and Melbourne's 1985/1993 inner-city renewal, with key metrics—walkability, livability, happiness, population growth, and gross domestic product (GDP) projection—serving evaluation benchmarks. Third, findings indicate that Copenhagen's pedestrian-dedicated space grew seven-fold and Melbourne's nighttime foot traffic doubled, while transit-oriented planning and green infrastructure yielded significant socio-economic and thermal-comfort benefits. Fourth, the main conclusion asserts that Houston can achieve similar gains by creating dense, 'lily pad' mixed-use hubs, expanding equitable public transit access, and deploying shade-providing vegetation and low-emissivity materials to mitigate idiosyncratic heat. Integrating these interventions should cultivate a more lively, vibrant, sustainable, and economically resilient Houston.

Keywords

Human-scale urban design; Mixed-use development; Urban sprawl; Walkability; Transit-oriented planning; Urban heat island effect

1. Introduction

"Cities now house more than half of the world's population, and the proportion is projected to intensifies, and space needs to be optimized to create enriching environments; Houston is an example of a city that requires adaptation to provide this support.

Jan Gehl's *Cities for People*, Copenhagen, and Melbourne are used as guides and case studies to support a reimagined Houston. This essay will analyze *Cities for People* which outlines attributes and methods for creating human-scale environments to provide lively and enjoyable spaces. Copenhagen and Melbourne will then be used as case studies that exemplify how a city designed for the human scale is planned, and how that affects walkability, happiness, livability, business, and economic growth. Houston's current context will then be explained before progressing to describe what Houston, guided by the principles of Jan Gehl and the urban planning of Copenhagen and Melbourne, can become. Cities designed at and prioritizing the human scale manifest liveliness, attract residents and businesses, and culminate in an enriching environment that improves individual, communal, and economic life.

2. Creating Cities for People

2.1. About Jan Gehl

Jan Gehl is a globally recognized expert who "is arguably one of the most influential thinkers in the world when it comes to city design – and specifically how people use the public spaces of cities" (The Environment Show, n.d.). Gehl's literature, such as *Cities for People*, expounds the complex process of creating lively and enjoyable environments for people to experience and live in. Over many decades, Gehl became renowned for his analytical approach to urban planning; he would send individuals worldwide and record the comings, goings, and actions of people relative to their environments (City of Melbourne & Gehl Architects, 2004). Through this process, he ascertained which features a city needs to incorporate to produce liveliness, comfort, and attraction.

2.2. 'Lively' Cities

He describes liveliness in cities as "the sense that city space is inviting and popular … where recreational and social activities are mixed with room for necessary pedestrian traffic as well as the opportunity to participate in urban life" (Gehl, 2010, pp. 118–119). Gehl expands on this by:

(1) Carefully locate the city's functions to ensure shorter distances between them and a critical mass of people and events.

(2) Integrate various functions in cities to ensure versatility, wealth of experience, social sustainability, and a feeling of security in individual city districts.

(3) Design city space so it is inviting and safe for pedestrian and bicycling traffic.

(4) Open up the edges between the city and buildings so that life inside buildings and outside in the city spaces can work together.

(5) Work to strengthen the invitation to stay longer in city space because a few people spending much time in a place provide the same sense of lively space as many people spending only a short time. Of all the principles and methods available for reinforcing life in cities, inviting people to spend more time is the simplest and most effective (Gehl, 2010, pp. 415–416).

Following Gehl's advice, cities like Copenhagen are creating mixed-use environments at the human scale, which invite people to enjoy spaces, resulting in livelier, safer, and more dynamic places that promote individual, communal, and economic life.

3. Copenhagen Case Study

3.1. Copenhagen's Redevelopment

Copenhagen dynamically integrates many of Jan Gehl's principles from *Cities for People* into its existing city plan to create a vibrant and lively city that attracts residents and visitors globally. In the early 1960s, Copenhagen performed a significant replanning of its city, producing strong results: between 1962 and 2005, Copenhagen increased pedestrian-dedicated area by a factor of seven, increasing human staying activities by a factor of four. Researchers from the School of Architecture, Royal Danish Academy of Fine Arts, determined that this expansion of human space created invitations to walk, stand, and sit in the city's common space, resulting in a livelier urban fabric (Gehl, 2010, pp. 30, 32–33).

An example of Copenhagen's redevelopment successfully creating liveliness is Strøget Street. Strøget Street is a mixed-use, 1.1 km long pedestrian street which offers a wealth of experiences at a short distance, has places for people to stop and stay, and blends its retail with city life on the street. The result is a highly active and enjoyable space that people frequent. Copenhagen validates Gehl's assertion that creating more space for people increases liveliness. The effects of and happiness.

3.2. Copenhagen's Global Recognition

The increased liveliness of Copenhagen due to its redevelopment has resulted in an impressive global ranking among walkability, livability, and happiness indexes. Copenhagen ranks as the 9th most walkable (Compare the Market, 2025), the 2nd most livable (The Economic Times, 2024), and the happiest city (The Economic Times, 2025) globally. These facts contribute to Copenhagen's reputation as a desirable destination for individuals, increasing economic vitality.

Exemplifying this is Copenhagen's 7.69% population growth since 2015 (WorldPopulationReview, 2025) and its projected 2.5% annual GDP growth over the next four years (Oxford Economics, 2024). The effects of Copenhagen creating a human-centered city are compounding, adding robustly to individual, communal, and economic life.

4. Melbourne Case Study

4.1. Melbourne's Redevelopment

Melbourne is a large Australian city designed in a classical style of wide streets and consistent block sizes. In the early 1980s, Melbourne was "nicknamed 'the doughnut' because it was empty in the center," but active on the edges (Gehl, 2010, p. 35). Then, in 1985 and again in 1993, two urban renewal plans began "to transform the city center into a lively and attractive hub" (Gehl, 2010, p. 35) by "expanding sidewalks, adding street furniture and trees for sitting and shade" (Gehl, 2010, p. 36), and beautifying the city blocks' inner lanes with art. "Surveys conducted in 1994 and 2004 show that … pedestrian traffic during the week in Melbourne's inner city has increased by 39% during the day, while pedestrian use of the city at night has doubled" (Gehl, 2010, p. 36). Unique to Melbourne is the aforementioned inner lanes. During this urban revival of Melbourne's inner city, "the length of the network of lanes, arcades and alleys has increased from 300 meters (984 feet) to 3.4 kilometers (2.1 miles), and the quality of the urban environment along this network has improved markedly as well" (City of Melbourne & Gehl Architects, 2004). These inner streets are lined with various kinds of retail, sitting areas, and create connective path networks through Melbourne's traditional, large city blocks. This network As a result of Melbourne's redevelopment, it has gained global recognition as a lively, livable, happy, growing, and economically prosperous city.

4.2. Melbourne's Global Recognition

The increased liveliness of Melbourne due to its redevelopment has resulted in an impressive global ranking among walkability, livability, and happiness indexes. Melbourne ranks as the 17th most walkable (Compare the Market, 2025), the 4th most livable (The Economic Times, 2024), and the 67th happiest city (Helliwell et al., 2020) globally. These facts contribute to Melbourne's reputation as a desirable destination for individuals, increasing economic vitality. Exemplifying this is Melbourne's 2.25% population growth since 2015 (WorldPopulationReview, 2025), its projected 2.5% annual GDP growth in the last year (City of Melbourne, 2025), and its new business growth of 3.72% (economy.id, 2025; Herald Sun, 2025). The effects of Melbourne creating a human-centered city are compounding, adding robustly to individual, communal, and economic life.

5. Houston Today

5.1. Houston's 'Urban Sprawl'

Houston is a city notoriously built for cars, not humans, and is known for its extensive 'urban sprawl.' Houston is the '4th largest city in the U.S., spans 9,444 square miles, and if only considering Harris County, one of nine included in Houston's MSA, it can fit the cities of Austin, Boston, Chicago, Dallas, New York City, and Seattle' (Understanding Houston, 2024b). A common saying is that "Houston is an hour away from Houston" (Understanding Houston, 2024b), and it has continued to grow. "The urban footprint of the Houston metropolitan area increased by 63% from 1997 to 2017. In other words, Houston's impervious surfaces, like pavement and buildings, grew by about 1,000 km² in 20 years" (Kinder Institute, 2023). The implication of the urban sprawl is that experiences are far from each other and that the city is not at the human scale, validated by it having a walkability ranking of '4th worst in the world' (Compare the Market, 2025).

5.2. Houston Is a 'Car City' and long driving times to get to experiences. Houston currently ranks '4th worst among U.S. cities for average commute time' (CultureMap Houston, 2024); compounding this issue is a poor public transit system. Statistics show that "only 5% of households in Fort Bend and Montgomery counties are located within a quarter-mile of a public transit stop, while Harris County sits at 38%," resulting in "80% of Houstonians driv[ing] to work alone in a personal

vehicle" (Understanding Houston, 2024a). Houston is trying to address this issue by expanding its bike network, as where there were once "no protected bike lanes in the city of Houston, there are now 345 miles of high-comfort bike lanes, with plans for 1,800 more miles currently in progress" (Understanding Houston, 2024a). The consequence of poor public transit, the need for a car, and long commute times is that it's difficult to draw individuals to activate and liven up environments.

5.3. Houston as an 'Urban Heat Island'

Texas, in general, is a hot place, but Houston's heat island effect exacerbates the issue, deterring individuals from going outside. Currently, Houston's lack of public transport, need for cars, and long commute time make motivating individuals to go somewhere in the city difficult, but even for individuals within walking distance the city is unwelcoming as a place to sit outside as "Houston ranks fourth in the nation in urban heat island intensity" (Understanding Houston, 2023) and can be overwhelmingly hot. Houston's 62nd global livability ranking (Economist Intelligence Unit, 2024b), 1.90% decline in new businesses (Greater Houston Partnership, 2024), and 1.21% population growth (WorldPopulationReview, 2025) over the last decade reflect this.

People want to live in environments they can enjoy, and where people go new businesses grow. Without becoming a city that provides shade and inviting outdoor spaces, city and economic liveliness will struggle to blossom.

5.4. Houston Case Study: CityCenter

In 2009, Midway Companies developed a successful mixed-use district, CityCenter, that offers shopping, eating, working, hospitality, greenery, and health experiences in an easily walkable, shaded, and public-transport-accessible environment. CityCenter, spanning 2 million square feet, is "lauded as one of the nation's most successful live-work-play districts" (Midway, n.d.) for its business expansion in Houston. Tenants include Amazon Web Services, Warby Parker, and Lifetime Work. During the day, shoppers flock from around Houston to pass time and go shopping; at lunch, office workers come down to enjoy lunch; in the evening, the bars are filled up; and on the weekends Midway Companies activates the space with concerts and local supporting events (CityCentre Houston, n.d.). The site plan of CityCenter offers a main laneway, interweaving alleys lined with shops in five-story buildings, sitting areas, outdoor patios, and a center green space for gatherings and events. These shaded and green areas reduce the urban heat island effect and provide places to sit and stay. CityCenter is an example of how to create a lively, welcoming, and enjoyable Houston environment through a dynamic mix of uses, places to loiter, short walking distances, and accessibility via multiple forms of transportation.

6. Houston Reimagined

6.1. Reduced 'Urban Sprawl'

Houston is the 4th largest city in the United States, its urban sprawl is tremendous, and it offers few built areas to enjoy the outdoor environment. Reimagining the city's footprint is not necessary to creating lively environments; rather, rethinking pockets of Houston for density, accessibility, and outdoor enjoyability is. Furthermore, forming these pockets in short distances from one another will create a connective 'lily pad' network for people to hop from one lively place to another. These pockets should include a mix of uses—densifying the area—be at the human scale and easily walkable, provide shade and sitting areas, and have spaces for larger public activation available at different times of the day. By densifying pockets of Houston, it will bring human activity. By designing for the human experience it will make it attractive for visitors to come. Providing shade and sitting areas will invite people to stay for longer periods.

Activating the space with events will draw individuals from farther away and raise site 'familiarity, recognition, and increase the chances of revisiting' (Helio, n.d.). As a whole, the effect should lead to new businesses to meet growing demand for goods and services, increasing economic prosperity for locals and Houston. Additionally, creating these pockets in reasonable proximity from one another will adjust the psychological impression of Houston's urban scale. Much like setting 'short term

goals in order to reach a greater long term goal, creating shorter changing the perception of distance needed to be traveled to reach a further point (MarketGit, n.d.). The effect will invite Houstonians and visitors to penetrate into different areas of Houston previously considered onerous to reach, enhancing city vitality on a larger scale, boosting economic prosperity and equity between and among neighborhoods. Creating dynamic mixed-use environments designed for people to sit, stay, work, and enjoy, in close proximity to one another, will form a lively network that will add vibrancy to Houston and enrich individual, communal, and economic life.

6.2. Transit-Oriented City

Houston's automobile infrastructure is strong. Designed in concentric interconnected rings, one is able to reach many destinations in different ways; however, the public transport network is insufficient. Houston has a 'bus and metro rail system, in which the former has larger connectivity with big gaps and the latter is isolated to central Harris County' (Metropolitan Transit Authority of Harris County, n.d.). "In Harris County, 38% of homes are within a quarter- mile of public transport, with that percentage dropping as low as 5% in other Houston MSA counties," prompting 80% of Houston's population to own personal vehicles to get around (Understanding Houston, 2024a). This leads to inherent inequality between those who can afford a vehicle and those who cannot. Consequently, on the one hand, there are many people who could be adding economically and socially to lively environments by visiting and working there, but cannot because it's simply too arduous to reach, and on the other hand the lack of transport options means that many neighborhoods are undesirable and lag in economic progress. To create a lively and economically progressing city, Houston needs to enhance its public transport network so individuals can access new and different places, enhance social and economic equality, and will in turn attract new residents, businesses, and produce a livelier and more vibrant city.

6.3. Mitigating the 'Urban Heat Island Effect'

Integral to creating lively places is designing environments that welcome people to come and stay; unfortunately for Houston, as the '7th warmest city' (AccuWeather, n.d.) and '4th worst in urban heat island effect in the United States' (Understanding Houston, 2023), weather greatly Houston needs to manage its idiosyncratic heat resulting from the urban heat island effect. There are many strategies to accomplish this, including "increasing vegetation on streets, in parks, and on roofs to provide shade and prevent material heating and utilizing low-emissivity rating building materials" (Neumann Monson Architects, n.d.). One study showed that "the surface temperature of green roofs can be 56°F lower than those of conventional roofs; and can reduce nearby air temperatures by up to 20°F" (United States Environmental Protection Agency, n.d.), a significant impact on outdoor air temperature which if done on the ground could encourage more human activity in urban developments. The use of urban heat island effect mitigating actions could alleviate Houston's warm temperature, enhance outdoor human activity, remove obstacles stopping people from sitting outside, and result in a livelier city which attracts new residents, businesses, and tourists.

7. Conclusion

Cities designed at and prioritizing the human scale manifest liveliness, attract residents, and businesses, culminating in an enriching environment that improves individual, communal, and economic life. Houston's path to becoming a livelier city involves reducing the psychological impression of its large footprint by creating knitted pockets of mixed-use, human-scale environments to invite visitors to come and stay, improving its public transport network to increase urban accessibility and reduce social and economic inequality, and mitigating its urban heat island effect by adding more vegetation to provide shade and using less emissive materials to reduce building heat output to lower Houston's overall temperature and create a more inviting outdoor environment.

Conflict of Interests and Ethics

The author(s) declare no conflict of interests. The author(s) also declare full adherence to all journal research ethics policies, namely involving the participation of human subjects, anonymity and/ or consent to publish.

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References

AccuWeather. (n.d.). *10 of the hottest cities in the US*. Retrieved from https://www.accuweather.com/en/weather-news/10-of-the-hottest-cities-in-the-us/432421

Anselin, L., Varga, A., & Acs, Z. (1997). Local geographic spillovers between university and high-technology innovations. *Journal of Urban Economics*, *42*, 442–448.

Australian Bureau of Statistics. (2015). *Regional population growth, Victoria 2015* (Catalogue No. 3235.0). Retrieved from https://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/3235.0Main%20Features202015

United States Environmental Protection Agency. (n.d.). *Using green roofs to reduce heat islands*. Retrieved from https://www.epa.gov/heatislands/using-green-roofs-reduce-heat-islands

Beatley, T. *Regional population growth, Victoria 2015* (Catalogue No. 3235.0). Retrieved from https://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/3235.0Main%20Features202015

Beatley, T. (2016). *Handbook of biophilic city planning & design*. Washington, DC: Island Press. Bratman, G., Daily, G., Levy, B., & Gross, J. (2019). The benefits of nature experience: Improved affect and cognition. *Land Economics*, *95*, 411–426.

City of Copenhagen. (2023). *Climate action plan 2023*. Copenhagen, Denmark: Author.

City of Melbourne, & Gehl Architects. (2004). *Places for people – Melbourne 2004: Public spaces and public life*. Melbourne, Australia: City of Melbourne. Retrieved from https://placesjournal.org/assets/legacy/pdfs/places-for-people-2004.pdf

CityCentre Houston. (n.d.). *Events*. Retrieved from https://www.citycentrehouston.com/events

City of Melbourne. (2025). *Melbourne economy snapshot: March 2025*. Melbourne, Australia: City of Melbourne. Retrieved from https://mvga-prod-files.s3.ap-southeast-4.amazonaws.com/public/2025-03/melbourne-economy-snapshot-march-2025.pdf. *Melbourne economy snapshot: March 2025*. Melbourne, Australia: City of Melbourne. Retrieved from https://mvga-prod-files.s3.ap-southeast-4.amazonaws.com/public/2025-03/melbourne-economy-snapshot-march-2025.pdf

Compare the Market. (2025). *The world's most walkable cities*. Retrieved from https://www.comparethemarket.com.au/news/walkable-cities

CultureMap Houston. (2024, May 27). *Houston drivers have the 4th worst commute in America, study finds*. Retrieved from https://houston.culturemap.com/news/city-life/houston-drivers-have-the-4th-worst-commute-in-america-study-finds/. *The world's most walkable cities*. Retrieved from https://www.comparethemarket.com.au/news/walkable-cities

The Economic Times. (2024, June 14). *World's top 10 most liveable cities & what makes them special*. Retrieved from https://economictimes.indiatimes.com

The Economic Times. (2025, May 8). *Copenhagen is the happiest city in the world; this Indian city also on the global list*. Retrieved from https://economictimes.indiatimes.com/nri/latest-updates/copenhagen-is-the-happiest-city-in-the-world-this-indian-city-also-on-the-global- list/articleshow/120991120.cms

Economist Intelligence Unit. (2024a). *Global liveability index 2024: Summary report*. London, England: Author.
Economist Intelligence Unit. (2024b). *Liveability ranking and overview: Sample*. London, England: Author.

economy.id. (2025). *Gross regional product: Melbourne*. Retrieved from https://economy.id.com.au/melbourne/gross-regional-product

The Environment Show. (n.d.). *Jan Gehl*. Retrieved from https://www.environmentshow.com/jan-gehl/

Gehl, J. (2010). *Cities for people*. Washington, DC: Island Press. Glaeser, E. L. (2011). *Triumph of the city*. New York, NY: Penguin.

Greater Houston Partnership. (2024). *New business announcements – 2024 annual*. Retrieved from https://www.houston.org/houston-data/new-business-announcements-2024-annual Helliwell, J. F., Layard, R., Sachs, J., & De Neve, J.-E. (2020). *World happiness report 2020* (Chap. 3). New York, NY: Sustainable Development Solutions Network. Retrieved from https://happiness-report.s3.amazonaws.com/2020/WHR20.pdf

Helliwell, J. F., Layard, R., Sachs, J., & De Neve, J.-E. (2024). *World happiness report 2024*. New York, NY: Sustainable Development Solutions Network.

Houston Chronicle. (2024, May 8). Houston GDP growth for 2025 expected to be 2.2 %. Retrieved from https://www.houstonchronicle.com/business/article/houston-gdp-growth-2025- 20294498.php

Herald Sun. (2025, March 5). Melbourne economy posts 3.7 % rise in GRP. Retrieved from https://www.heraldsun.com.au

Helio. (n.d.). *Law of familiarity*. In *Laws of UX*. Retrieved from https://helio.app/ux- research/laws-of-ux/law-of-familiarity/

Iværksætteråret 2024. (2024). *Flere kvindelige founders og ApS'er*. Retrieved from https://www.virk.dk/ivaerksaetteraret-2024. (2024). *Flere kvindelige founders og ApS'er*. Retrieved from https://www.virk.dk/ivaerksaetteraret-2024

Jacobs, J. (1961). *The death and life of great American cities*. New York, NY: Random House.

Kinder Institute for Urban Research. (2023). *The rapid urbanization of Houston: How it happened and why it matters*. Houston, TX: Rice University. Retrieved from https://kinder.rice.edu

Kirk, L. (2015). *Houston vs zoning: A comparative thesis* (Master's thesis). Columbia University Graduate School of Architecture, Planning and Preservation, New York, NY.

Oxford Economics. (2024). *Europe: Copenhagen expected to lead the way in the Nordics*. Retrieved from https://www.oxfordeconomics.com/resource/europe-copenhagen-expected-to- lead-the-way-in-the-nordics

Pivo, G., & Fisher, J. (2011). The walkability premium in commercial real estate. *Journal of Real Estate Research*, *33*, 355–383.

Reduce Flooding. (2024). *Growth of impervious cover across political boundaries, watersheds complicates flooding*. Retrieved from https://reduceflooding.com/impervious-cover-houston Scherer, J. (2020, August 5). Car-centric Houston takes first steps toward becoming more walkable with new development rules. *Houston Chronicle*. Retrieved from https://www.houstonchronicle.com

Sevtsuk, A., Basu, R., & Torbaghan, M. (2020). Pedestrian networks and vibrancy: A global analysis. *Environment and Planning B: Urban Analytics and City Science*, *47*, 1459–1476.

Understanding Houston. (2023). *Houston is hot*. Retrieved from https://www.understandinghouston.org/environment/urban-heat-island

Understanding Houston. (2024a). *Examining Houston's reputation as a car city*. Retrieved from https://www.understandinghouston.org/transportation/car-city

Understanding Houston. (2024b). *Houston is big*. Retrieved from https://www.understandinghouston.org/demographics/houston-is-big*urbanization prospects 2024*. New York, NY: Author.

VisitCopenhagen. (n.d.). *Strøget – hjertet af Københavns shopping*. Retrieved from https://www.visitcopenhagen.dk/kobenhavn/activities/stroget-hjertet-af-kobenhavns-shopping

Walk Score. (2025). *Houston apartments for rent – Walk Score data*. Retrieved from https://www.walkscore.com/TX/Houston

Whyte, W. H. (1980). *The social life of small urban spaces*. Washington, DC: Project for Public Spaces.

WorldPopulationReview. (2025). *Copenhagen population 2025*. Retrieved from https://worldpopulationreview.com/cities/denmark/copenhagen

WorldPopulationReview. (2025). *Melbourne population 2025*. Retrieved from https://worldpopulationreview.com/cities/australia/melbourne

MarketGit. (n.d.). *Boosting motivation: Short-term vs long-term goals – Which fuels success?* Retrieved from https://marketgit.com/boosting-motivation-short-term-vs-long-term-goals-which- fuels-success

Metropolitan Transit Authority of Harris County. (n.d.). *METRORail system map*. Retrieved from https://map.ridemetro.org/#sRail

Neumann Monson Architects. (n.d.). *Mitigating urban heat islands through building site design*. Retrieved from https://neumannmonson.com/blog/mitigating-urban-heat-islands-through-building-site-design

Midway. (n.d.). *CityCentre*. Retrieved from https://www.midway.team/places/citycentre
WorldPopulationReview. (2025). *Houston population 2025*. Retrieved from https://worldpopulationreview.com/us-cities/houston