health & the built environment

A fellowship by Josselyn Ivanov

Pedestrian-friendly downtown Reykjavik

Delft bike storage and bike ramps

Health is a vast and far-reaching topic, so for the purposes of my research, I focused on the emerging public health disaster of our time – the sedentary lifestyle that leads to obesity, heart disease, diabetes, and spans the gamut of so-called first-world diseases. Related to these is the growing body of research on lifestyle-related mental health problems, such as ADHD and depression.

My 2011 Patrick Curran Fellowship has led me through more than 20 books, to Montreal for the Eco-Cities World Conference, and to Iceland, the Netherlands, and Denmark. I have talked to city planners, trolled the internet for sources, and interviewed 84 European park users to learn about how they were using the spaces they were in, what they liked about them, and whether or not they thought these spaces helped keep them healthy.

What I've found, over and over, written in every book on the topic and in the minds of each person I spoke with, is that designing for health is a fairly straight-forward topic. Make it easier and more pleasant to walk, bike and take public transit, and make it harder to drive. That's it. That's the best rule of thumb. Almost every design that facilitates driving has negative implications for public health. Almost any design that makes walking, biking and taking transit easier has positive implications for public health.

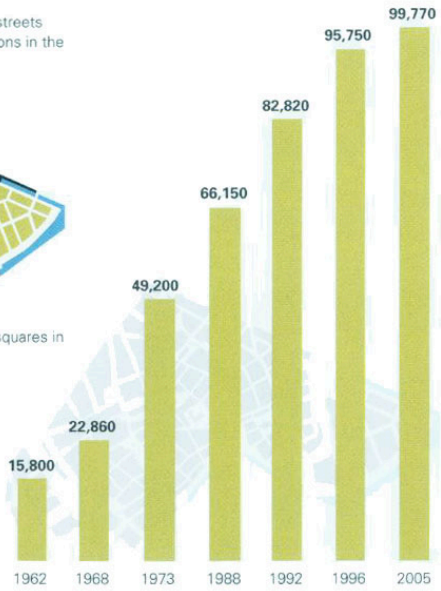
Some people will always exercise and spend time outdoors. Some people never will. But the vast swath of in-betweeners should be the focus of healthy design, and numerous studies show just how dramatically the habits of these swayable people can be changed with subtle changes to the world they live in.

The gradual development of pedestrian areas in the heart of Copenhagen from 1962-2005.

First pedestrian promenade in 1962: 15,800 m².

By 1973, the network of pedestrian streets connected the most important locations in the city centre: 49,200 m².

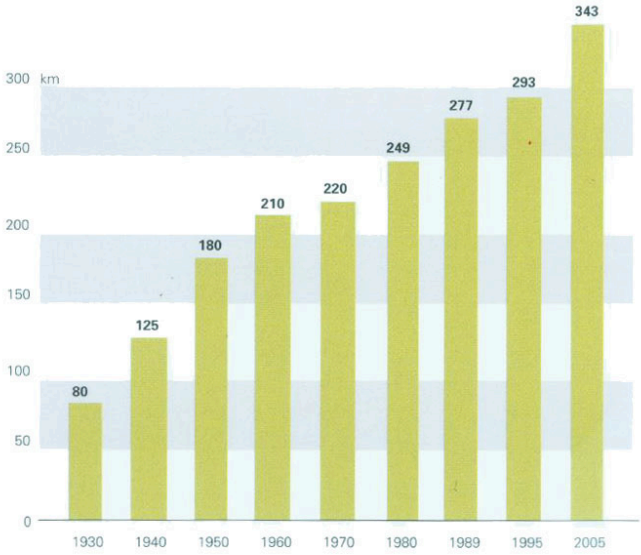
The network of car-free streets and squares in 2005: 99,770 m².



The graph shows the development of pedestrian areas in the parts of the inner city where studies have been conducted from 1962-2005. The numbers indicate m².

Source: Gehl, Gemzoe, Kirknaes, & Sondergaard. New City Life, 2006.

Growth of the cycle lane network in Copenhagen from 1930-2005 (in km)



Source: Gehl, Gemzoe, Kirknaes, & Sondergaard. New City Life, 2006.

Public Space Survey

SWA
Vancouver
Dallas
Houston
Laguna Beach
Los Angeles
San Francisco
Shanghai
landscape architecture / planning / urban design

1. Why did you come here?

On the way back from work

2. How long did it take you to get here?

a. 0-5 minutes b. 5-10 minutes c. 10-20 minutes d. More than 20 minutes

3. How did you get here?

a. Walk b. Bike c. Public transit d. Car e. Other _____

4. Are you here...

a. With friends b. With a dog c. With family d. Alone e. Other _____

5. What do you like best about this place?

Open space, no cars

6. Is this place fun? Yes / No

(Why or why not?) Relaxing, more than fun

7. Do you think that this place helps you stay healthy? Yes / No

(How?) Clean air, relaxes me after work

8. How much time do you spend outdoors on an average...

weekday?

a. 0-15 minutes b.15-30 minutes c. 30-60 minutes d. 1-2 hours e. More than 2 hours

weekend day?

a. 0-15 minutes b.15-30 minutes c. 30-60 minutes d. 1-2 hours e. More than 2 hours

9. Compared to other people, do you think you spend

a. More time outdoors b. about the same amount of time outdoors c. less time outdoors

10. How old are you?

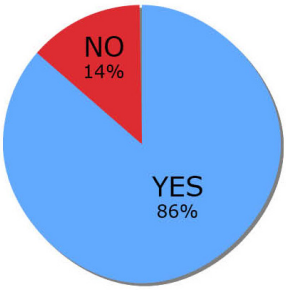
a. 0-10 years old b. 11-19 years old c. 20-35 years old d. 36-59 years old e. 60+

11. How far away do you live?

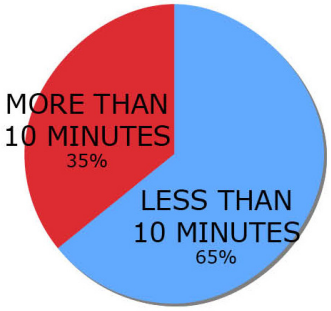
a. Less than 0.5 km b. 0.5 -1 km c. 1- 2 km d. 2 - 10 km e. more than 10 km

Thank you!
This survey is part of a research project looking at the relationship between health and the built environment.

Do you think that this place helps you stay healthy?



How long did it take you to get here?



Sample survey and preliminary research

Amsterdam street configuration

Montreal bike share program

One of the key concepts of this field is utilitarian versus recreational exercise. Utilitarian exercise refers to activity done in the course of doing something else, such as walking to the grocery store, climbing a staircase, or biking to work. Recreational exercise refers to activity for the sake of itself, be it biking, running, going to the gym, or taking a walk. Health-positive design can positively impact both of these areas. In a small sampling of some of the data I collected over the course of this fellowship, one can see how design decisions could easily be extrapolated. For instance, the U.S. Women's Determinants Study of 2000 showed that having enjoyable scenery was a predictor of recreational physical activity, as was "frequently seeing others exercise." Other studies have measured high-walkability versus low-walkability neighborhoods, and have found that people in highly walkable neighborhoods walk more than others, sometimes by factors of four and five, and mainly for utilitarian trips. Preliminary results of my own research indicate that 65% of the park users interviewed traveled less than 10 minutes to arrive at the park they were in, reflecting existing research conducted in Georgia showing that among people who reported a place to walk within 10 minutes of home, 41.5% were getting their daily recommended physical activity, while only 27.4 percent without that amenity were getting that activity.

Copenhagen is perhaps the best example of a city that has turned itself around from a car-clogged, low-movement city into a metropolis of activity. Over the past 30 years, they have systematically made it easier to walk and bike and more difficult to drive, resulting in dramatic activity gains: 36% of traffic to workplaces in Copenhagen is bicyclists, and 60% of residents cycle daily. This has been paired with a gradual reduction in city center parking spaces at a rate of 2-3% every year. Copenhagen is an excellent model of what can be accomplished with far-reaching planning vision.

This is merely a brief introduction to the relationship between health and the built environment: for more on this topic, please see my completed fellowship work or contact me directly!