A BRAVE NEW WORLD: DESIGNING THE PEOPLE-/ FIRST CITY

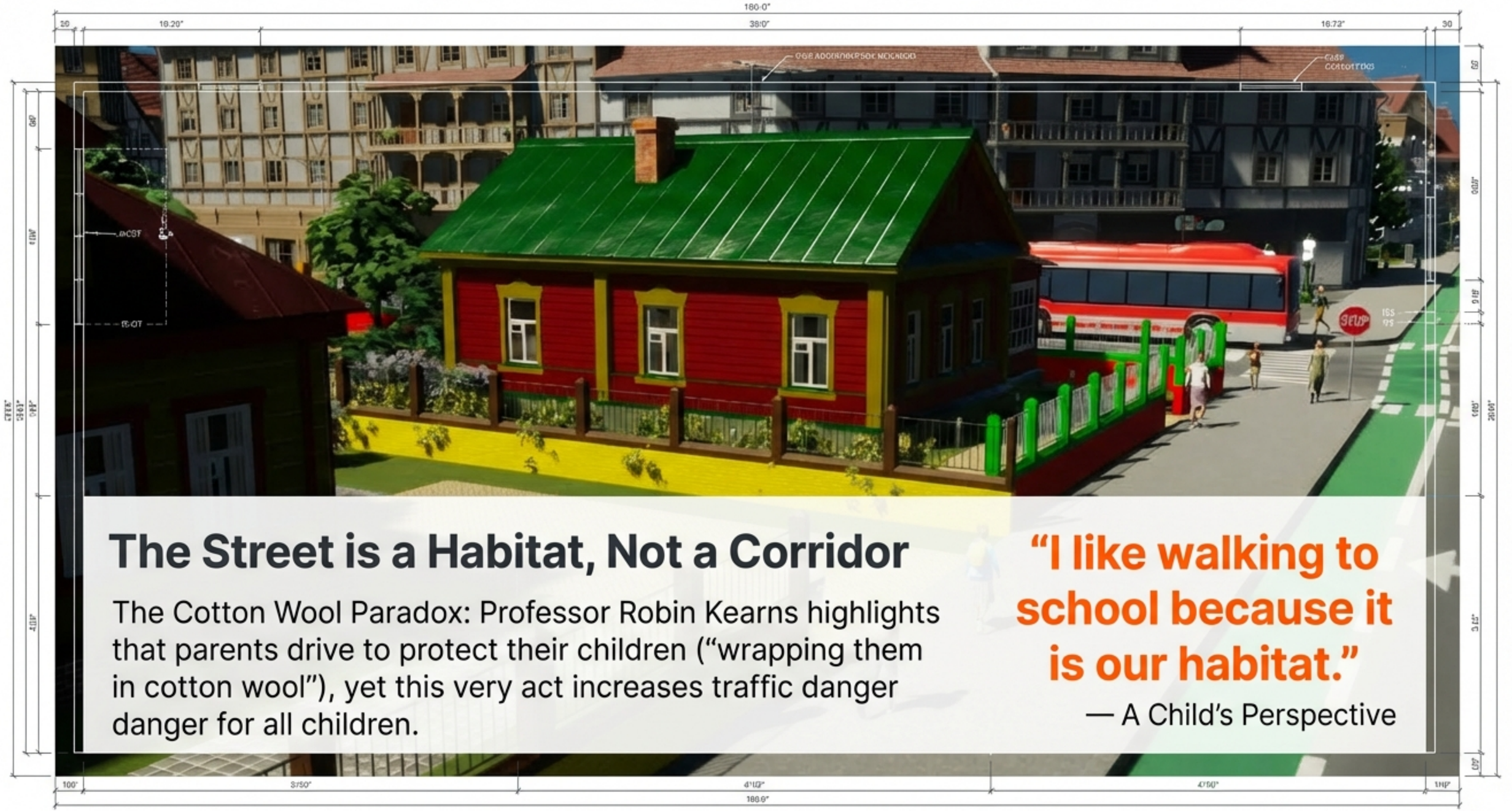
From Academic Theory to Digital Simulation—A Blueprint for Equitable Urbanism.

Have you ever looked at your city—the traffic, the noise—and wondered why it is built for cars rather than people? This deck explores a different vision: redesigning our environment to put human beings back at the

our environment to put human beings back at the center. We combine rigorous academic research with the Cities: Skylines 2 simulation engine to visualize a future where the street is a habitat, not just a

The Hidden Cost of the Auto-Industrial Complex

- **Right vs. Privilege**
  The current system treats driving as a right, prioritizing individual speed over communal safety. A people-first city views driving as a privilege within a shared space.
- **The Dialysis Center Paradox**
  Dr. Alex Macmillan notes that a major dialysis center represents a **failure of** urban planning. **By designing cities that inhibit walking, we create the health crises we spend billions treating.**
- **Funding Models**
  Current funding is trapped by outdated neoliberal playbooks (Adam Smith, 1776), where "user pays" road charges force investment back into more roads, ignoring well-being.



The Street is a Habitat, Not a Corridor

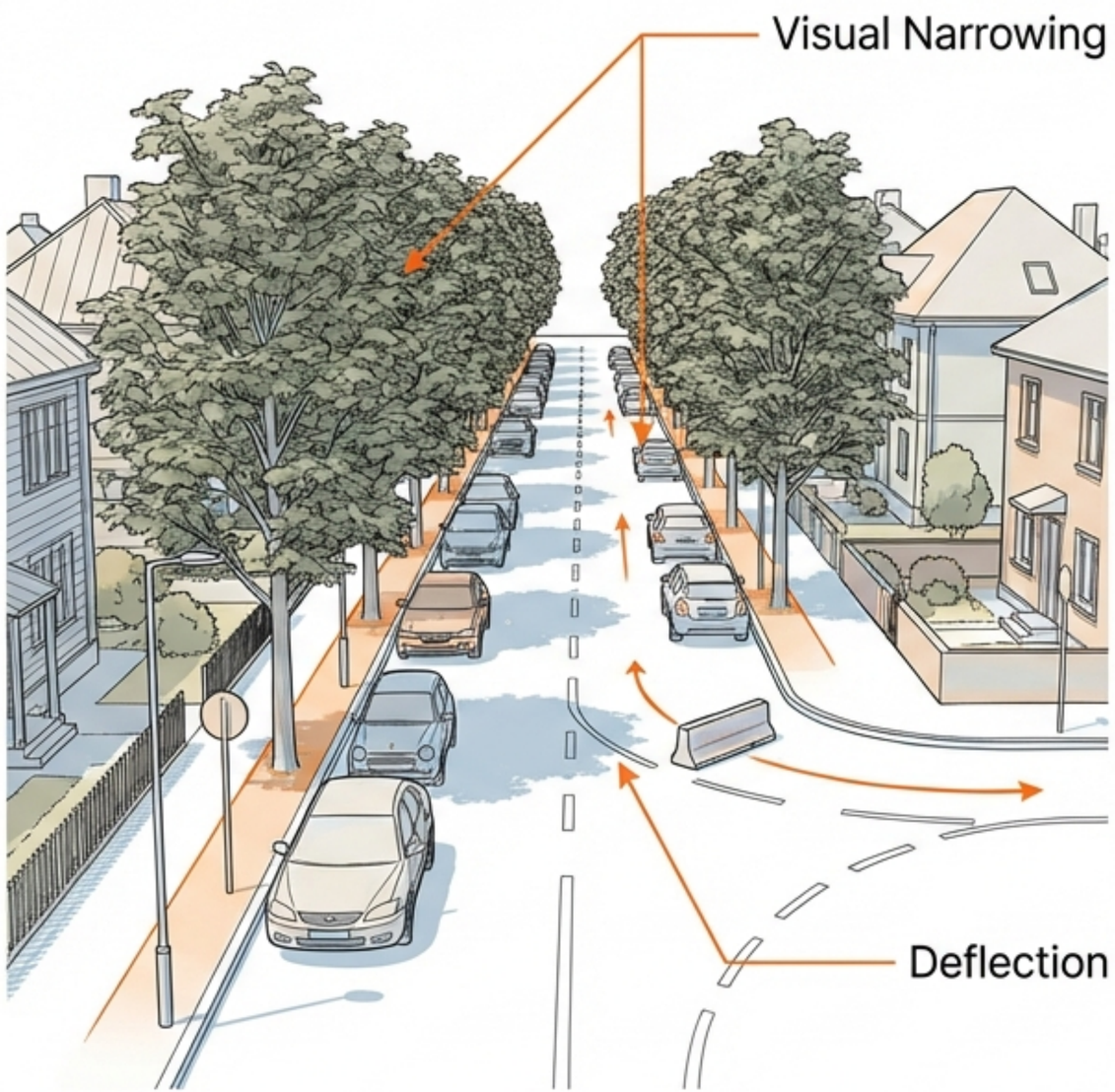
The Cotton Wool Paradox: Professor Robin Kearns highlights that parents drive to protect their children ("wrapping them in cotton wool"), yet this very act increases traffic danger danger for all children.

"I like walking to school because it is our habitat."

— A Child's Perspective

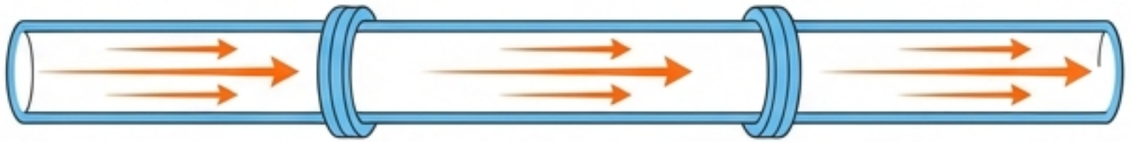
When police label unaccompanied children as "unacceptable," they prioritize motorist convenience over a child's right to independent environmental lea

The Physiology of Speed & Self-Enforcing Design



Water Pipe Analogy

Car-Centric



High Pressure | High Speed | Maximum Volume

People-Centric

Natural Flow | Life Support | Regulated Current

The 30km/h Threshold: The human body cannot withstand impacts above 30km/h. Streets must be designed to keep speeds within this survivable limit.

The Urban Island Strategy

Goal: The Superblock

Separating high-speed transit from low-speed living.

Through-traffic goes around; local traffic moves slowly within.

“Filtered Permeability” prevents rat-running by physically blocking cars while allowing pedestrians and cyclists through.

Rightsizing & The Economic Case

£1 INVESTED IN ACTIVE ENVIRONMENTS = £18 SOCIAL RETURN

Rightsizing: Narrowing travel lanes increases driver attentiveness and frees up space for high-value active mobility. Replacing dead asphalt with “Flexible Zones” creates economically vibrant destinations.

The Digital Laboratory: Testing Without Risk

Simulation as a Proving Ground

Case Study A: Manukau Ranges

The Retrofit Challenge
Testing the complexity of inserting cycle lanes and 30km/h zones into an existing, dense urban fabric.

Case Study B: Marsden Point

The Greenfield Opportunity.
A ‘clean slate’ to test ‘First and Last Mile’ connectivity concepts before city-wide application.

Cities: Skylines 2 allows us to prove that investing in people-first infrastructure leads to flow and high land value, while road expansion leads to gridlock.

The Mechanics of Cycling Flow

Congestion is localized: Converting trips under 6km to cycling is the most effective decongestion strategy.

The Three Modes of Simulation:

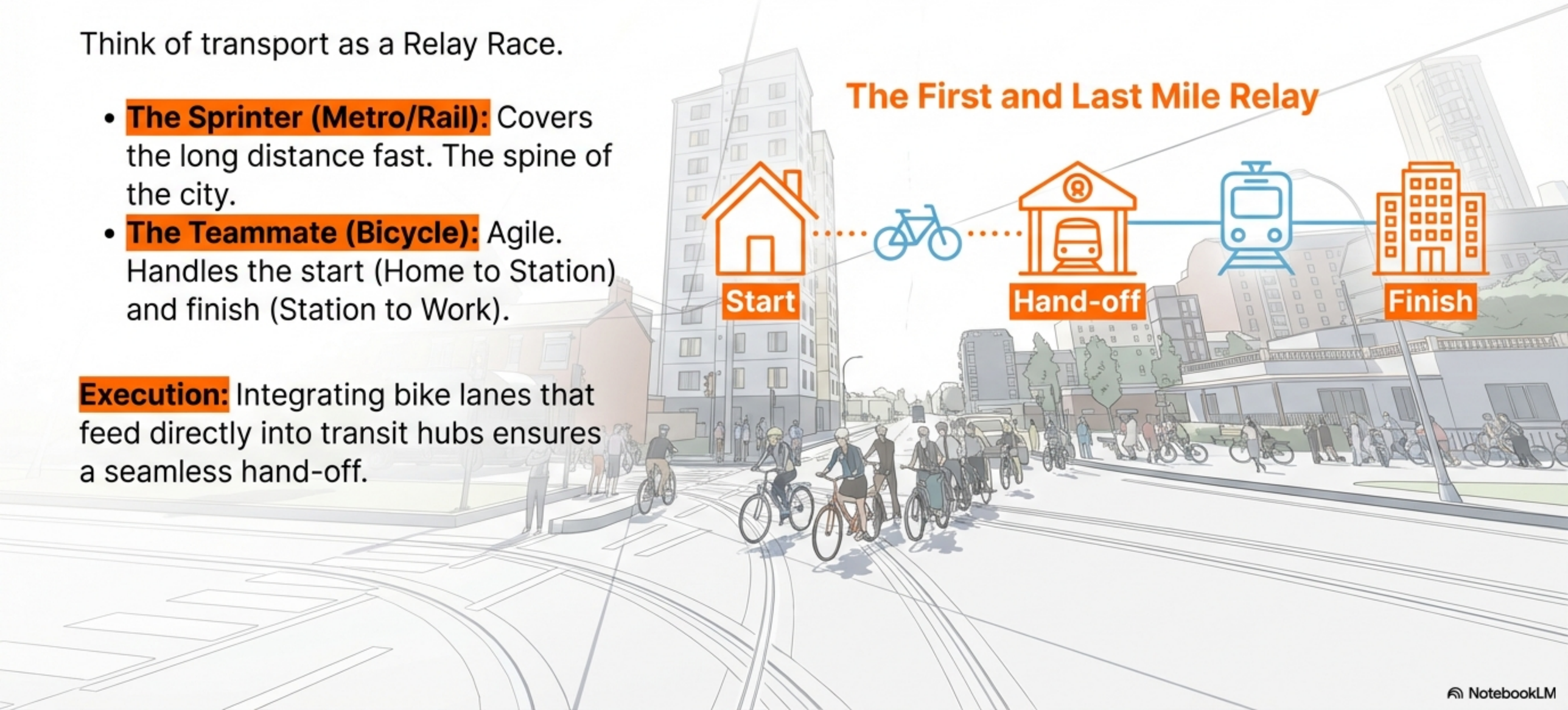
- **General Traffic (High Friction)**
  Cyclists share the road. Dangerous. Causes congestion.
- **Dedicated Lanes (Efficient)**
  On-street but separated. Reduces conflict. High throughput.
- **Off-Street Pathways (Safest)**
  Grade-separated. Ideal for children and ‘feral walking school buses’.

Multi-Modal Synergy: The Relay Race

Think of transport as a Relay Race.

- **The Sprinter (Metro/Rail):** Covers the long distance fast. The spine of the city.
- **The Teammate (Bicycle):** Agile. Handles the start (Home to Station) and finish (Station to Work).

Execution: Integrating bike lanes that feed directly into transit hubs ensures a seamless hand-off.



The ‘Save Button’ of the Commute

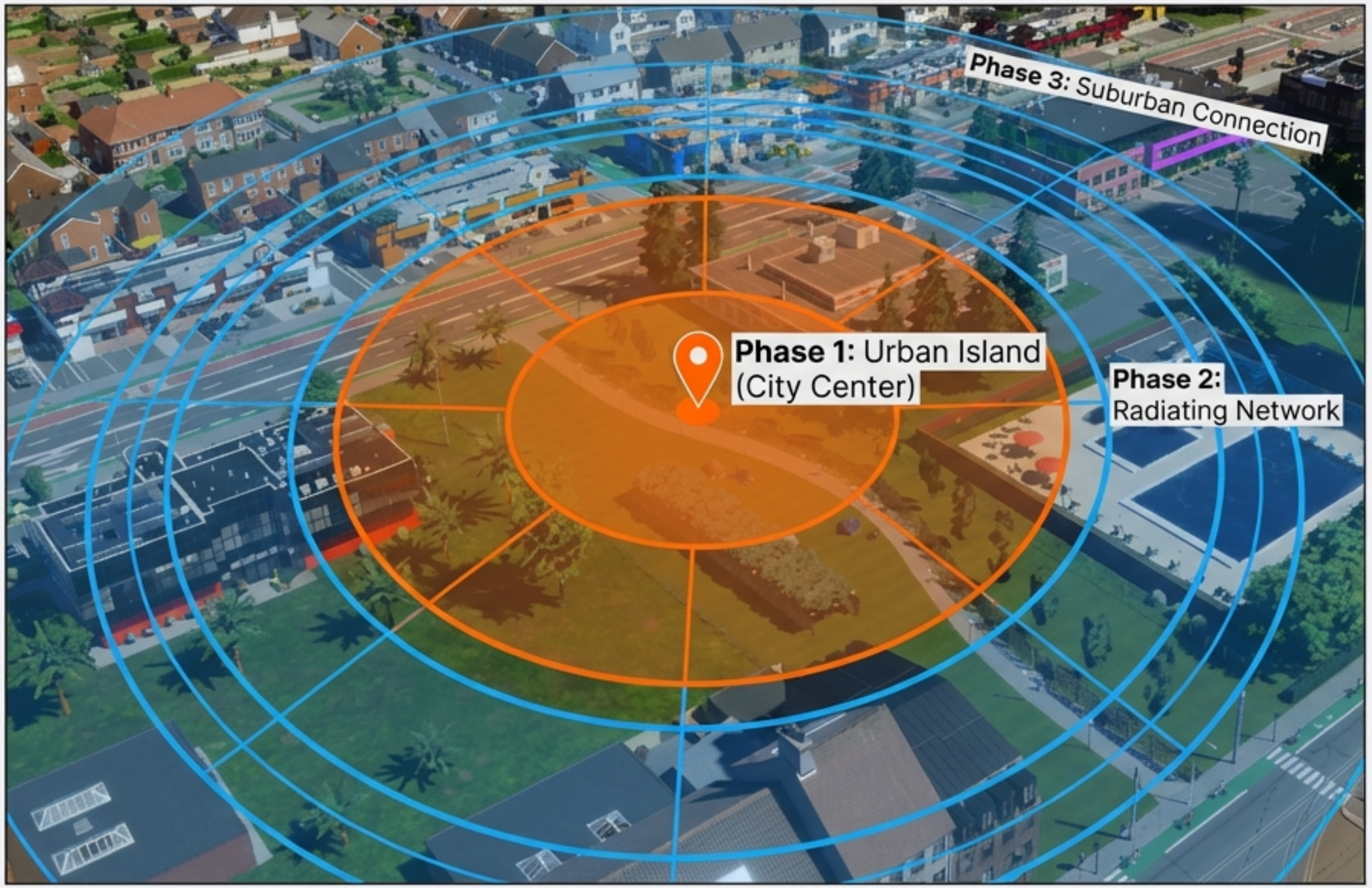
If you cannot park it, you will not ride it.

In the simulation, agents (Sims) abandon cycling if there is no parking at the destination. The rule is absolute: **There is no such thing as tying it to a tree.**

Requirements:

- **Integration**: Racks physically attached to subway/bus stops.
- **Volume**: Underground halls and shelters for high-density workplaces.
- **Visibility**: Infrastructure must be explicit to induce demand.

Strategy: Phased Implementation

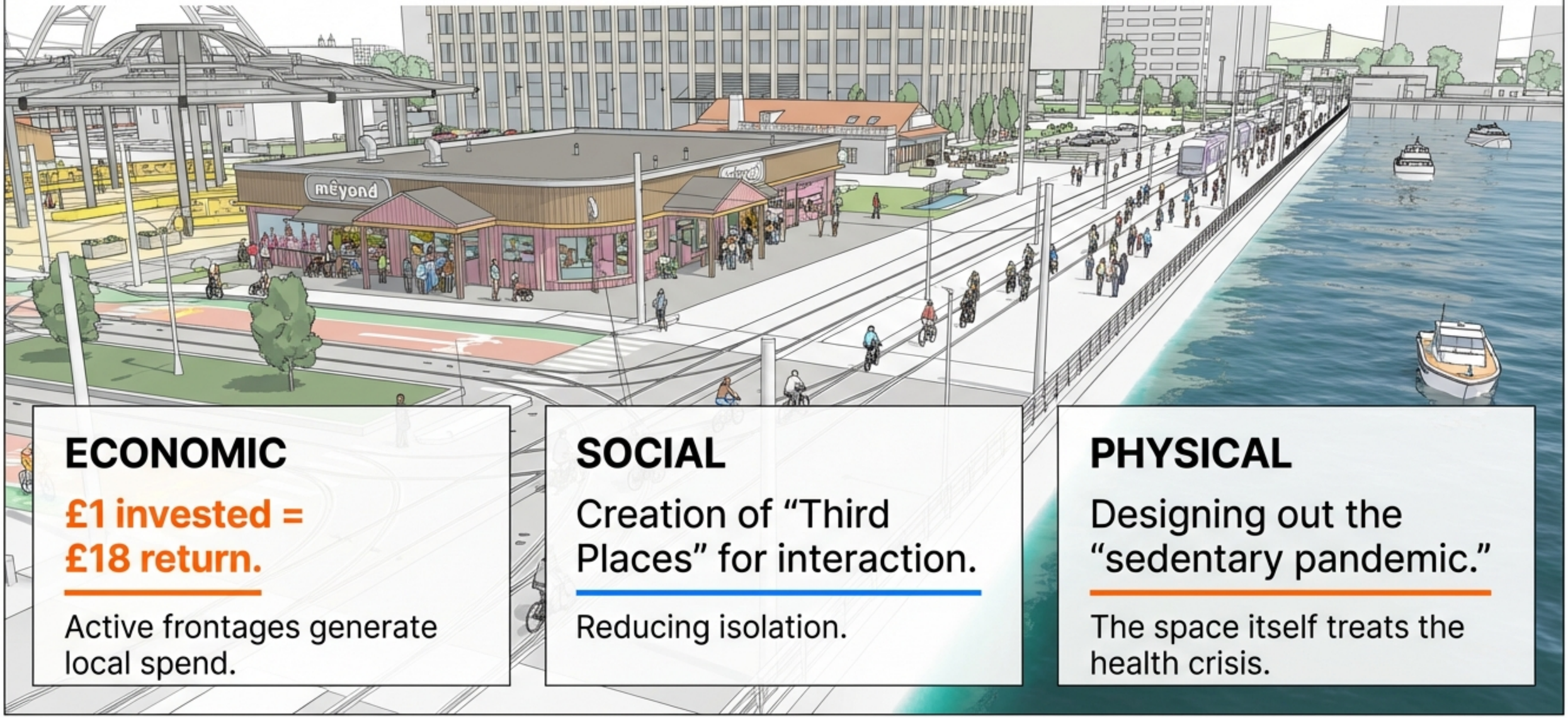


Evolution, Not Revolution.

1. **Pop-up to Permanent:** Use temporary materials to prove concepts before pouring concrete.

2. **The Radiating Strategy:** Start at the densest transit hubs. Establish a working "Urban Island," then expand the network stage-by-stage outwards. This builds a habit of usage immediately.

The Return on Investment: A City That Works



ECONOMIC

£1 invested = £18 return.

Active frontages generate local spend.

SOCIAL

Creation of “Third Places” for interaction.

Reducing isolation.

PHYSICAL

Designing out the “sedentary pandemic.”

The space itself treats the health crisis.


THE SPACES WE BUILD
END UP BUILDING US.
The choice is ours: Continue building for the Auto-Industrial Complex,
or decide that the street is a shared resource for human connection.
NotebookLM

Sources & Further Reading

Academic & Theory

Professor Robin Kearns, School of Environment, University of Auckland

Dr. Alex Macmillan, Preventive and Social Medicine, University of Otago

Active Design Guidelines & The Healthy Streets Approach

Digital Simulation & Commentary

Ben Ross / Talking Southern Auckland: ‘A City That Is Equitable to All our Citizens’

Palpatine001: ‘Cycling’s Brave New World’ Series

Cities: Skylines 2 Community