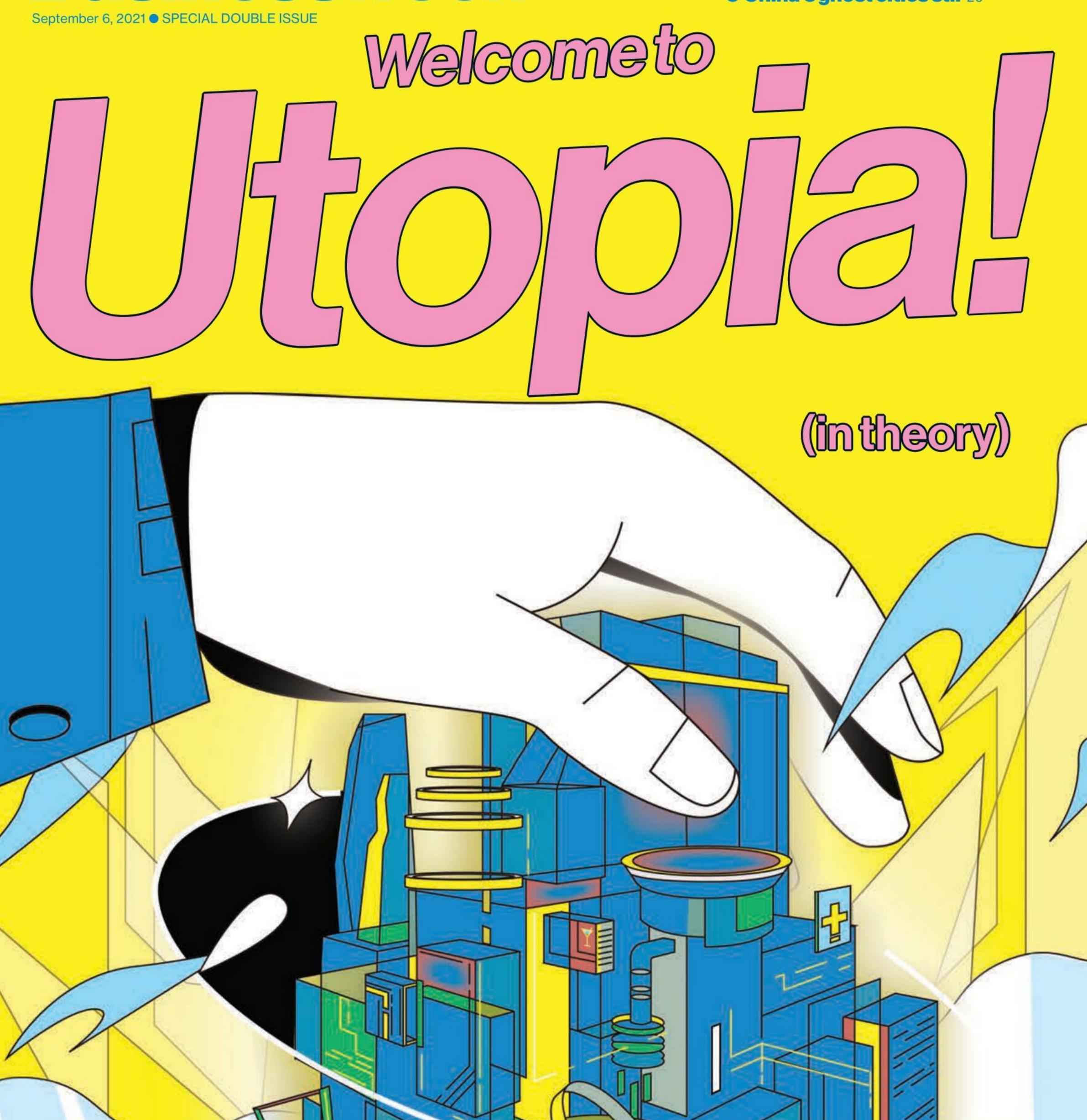
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The Cities Issue

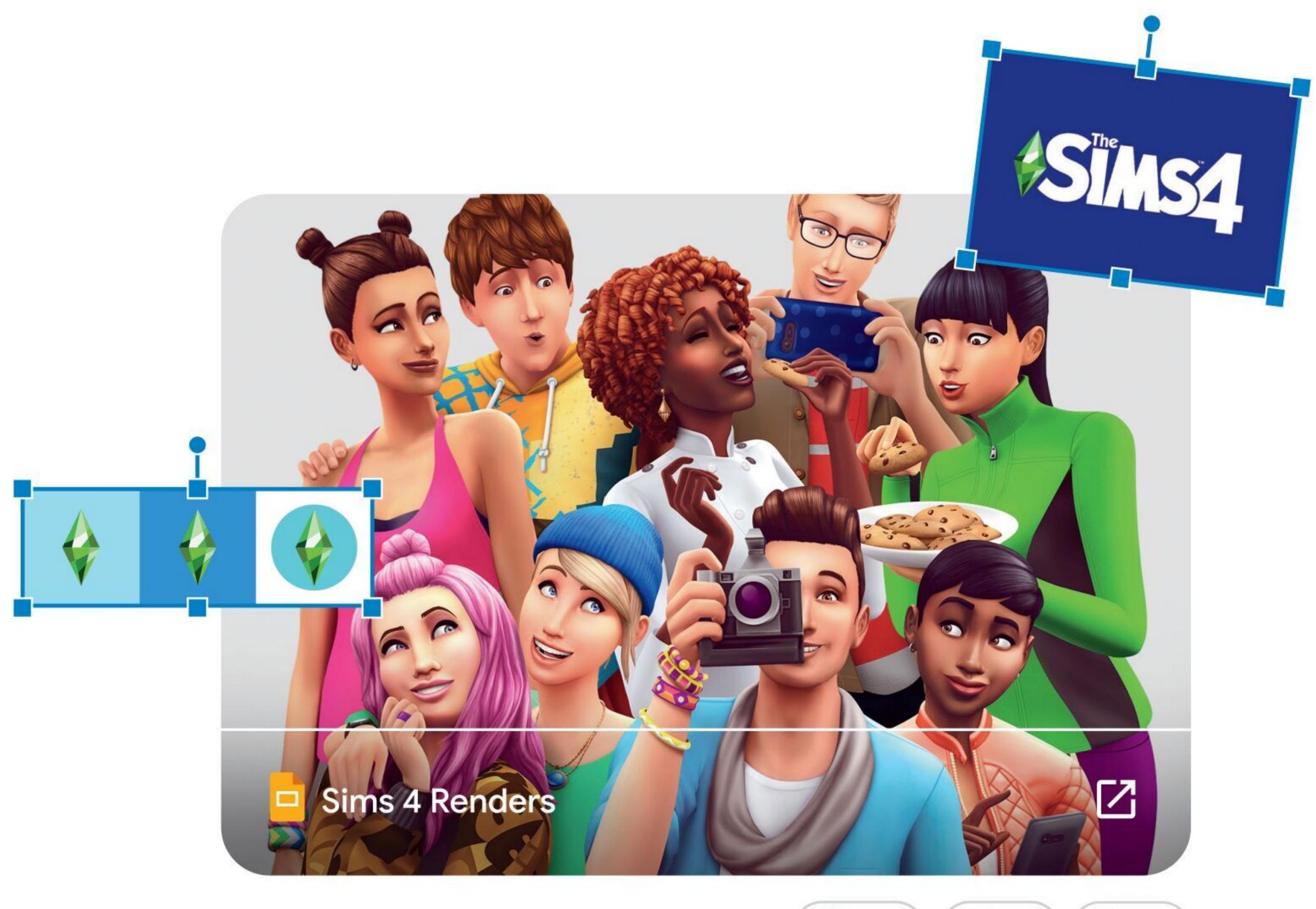
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E-commerce legend Marc Lore says he has a plan for the perfect city. Now he just needs to build it 42



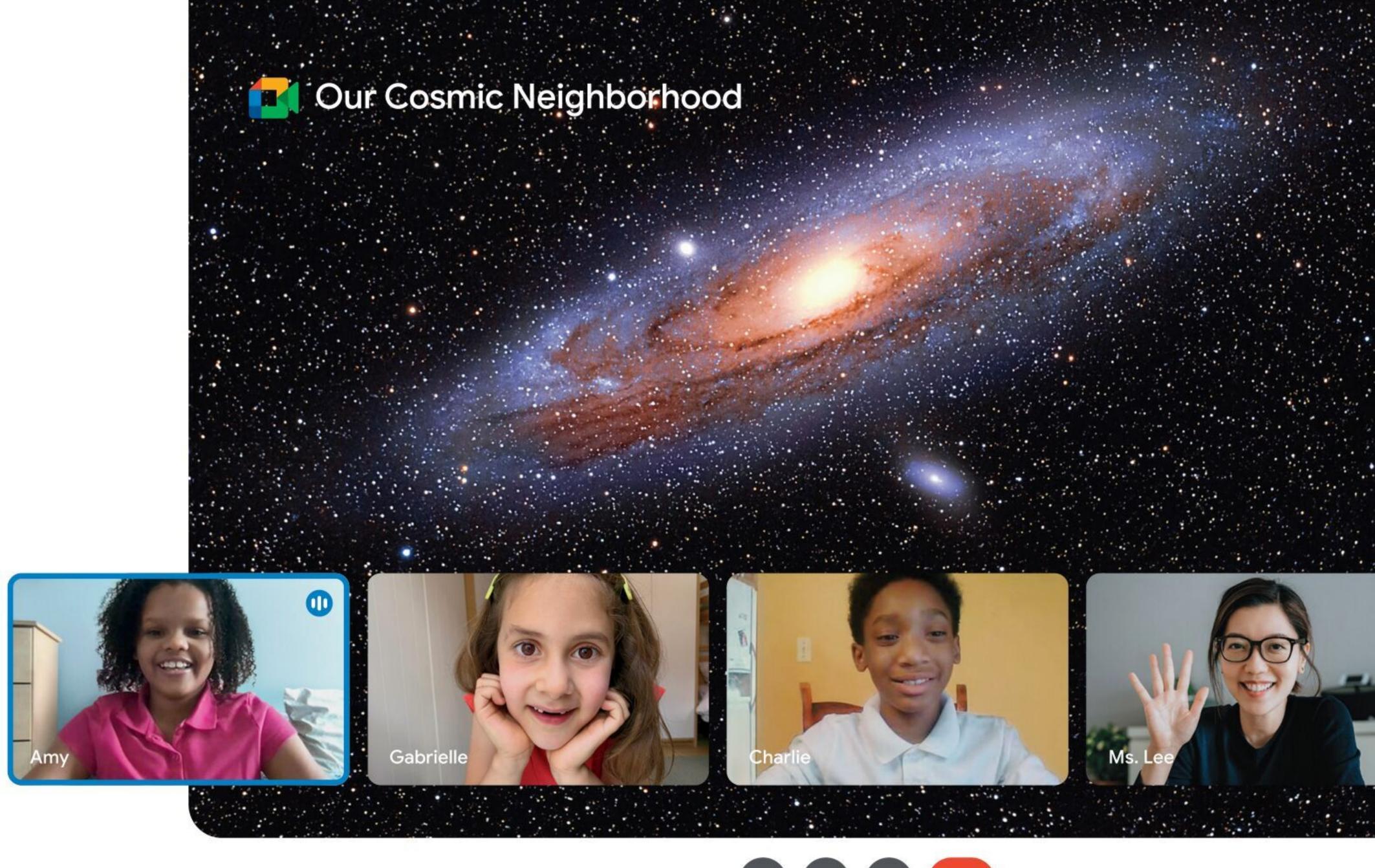
How Electronic Arts builds 38 immersive worlds













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Tech Goes Green

Out of the TV Box

Every year, some 220 million televisions are sold globally, along with millions of tons of cardboard boxes. While some are recycled, most are not. Then there's the plastic used in the TV and remote control, and the batteries used in the remotes, which similarly pose recycling challenges.

To reduce waste, Samsung designs its TVs with the environment in mind. Samsung has developed ecopackaging so consumers can transform their boxes into small tables, shelves and other useful household items. The

company is also incorporating solar cell batteries into its TV remotes and recycled plastic into various products.

"Going green is a critical response to the environmental issues our planet faces," says JH Han, President of Visual Display Business at Samsung Electronics. "To that end, we are reducing waste by extending the use and lifespan of resources and including more recycled materials across our entire TV lineup."



SAMSUNG

From Cardboard Box to Side Table

The cardboard that protects TVs is sturdy and could be used more than once. But, more often than not, it's just thrown away. Developers at Samsung's in-house incubation lab, C-Lab, were pondering how to upcycle packaging when they realized that consumers often put their TV connection box, remotes and other electrical devices under the TV.

The designers saw an opportunity to create some storage for the devices and found a way to turn cardboard packaging into small shelves. They also dreamed up other items such as a magazine rack, end table, even a little house for a cat.

TV packaging is often emblazoned with colorful graphics, making it hard to reuse-or at least less aesthetically pleasing. Samsung solved this problem by reducing the text and graphic imagery on its boxes and eschewing traditional oil-based ink. Instead, the reimagined boxes feature a matrix of dots that is both decorative and practical; the dots act as guides for consumers when cutting out reuse project patterns.

To get started, consumers
look up patterns and building
instructions by scanning QR
codes printed on the outside
of the boxes. The QR codes
lead consumers to a website
with various projects, ranked
by level of difficulty. To cut down
on paper use, the QR code also leads
to the instruction manuals for the TV.

"The QR codes enable you to access building manuals swiftly without the need to install an app," says Sungdo Son, one of the project designers. "The electronic format also makes it easier to add and modify plans."

The company estimates that eco-packaging can upcycle up to 200,000 tons of corrugated boxes every year. Samsung is now using eco-packaging for all TVs.

Using Recycled Plastic and Solar Cell Batteries

Samsung is also finding ways to reduce waste and decrease its overall carbon footprint by reducing power consumption and using more recycled materials. Earlier this year, the company said that all of its

QLED 4K and 8K TVs would come with a remote control made of

with a remote control made of recycled plastic and powered by solar cell batteries.

Powering a remote with solar cells required some reengineering, and Samsung engineers reduced the remote control's power consumption by 86%. To achieve this, they observed viewers' TV watching patterns, and tracked the number of times they pressed remote buttons.

Using self-charging solar cell batteries in the Samsung remotes, which can be recharged by indoor or outdoor light or by USB, could keep 99 million AA batteries out of landfills and cut 6,000 tons of greenhouse gas emissions over a period of seven years.

Nearly a quarter of the plastic content in Samsung's remotes are recycled post-consumer plastic, which can include upcycled plastic bottles. Samsung also uses recycled plastics for other products, including computer monitors and signage stands.

"In the future, the use of recycled materials will be expanded to include more Samsung TV products," says Seungsan Han, an engineer at Samsung. "We will keep increasing our use of recycled plastics each year."



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—Julie Sweeney Roth

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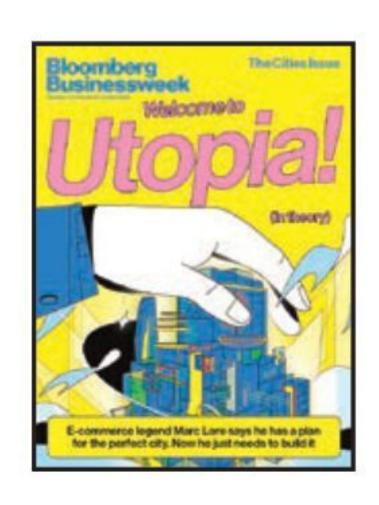


Illustration by Gongyu Hu

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Signs of Life

Eighteen months into the pandemic, cities are battered but surviving

□ By Amanda Kolson Hurley

The novel coronavirus has infected more than 200 million people around the world and killed 4.5 million since it emerged in late 2019 in Wuhan, China. At the same time, SARS-CoV-2 has been playing havoc with a different kind of complex organism: the city.

In this special issue, *Bloomberg Businessweek* examines the seismic changes to urban life as cities sought to survive the virus. In March 2020, after outbreaks of Covid-19 in China, Italy, and Iran, cases mounted rapidly elsewhere. With 95 cases confirmed in New York City by March 12, Mayor Bill de Blasio declared a state of emergency but said he would "fight tooth and nail" to keep schools open. Three days later, confirmed cases in the city had jumped to 329, and New York City public schools—the largest system in the nation—sent home its 1 million pupils for remote instruction.

Meanwhile, in cities across much of the world, offices hastily closed, tourism evaporated, and downtowns emptied out. In locked-down Paris, the Louvre stood silent. In Washington, the National Mall was deserted. Ridership on public transportation nose-dived; the London Underground reduced service and temporarily shuttered 40 stations. "People should not be traveling, by any means, unless they really, really have to," London Mayor Sadiq Khan said on March 18.

With their customers housebound, stores, restaurants, and other businesses struggled, and many collapsed. Joblessness soared—6.6 million people in the U.S. filed for unemployment benefits in the last week of March alone. City leaders feared budgetary catastrophe.

"Pandemic normal" set in, at least for those fortunate enough not to be sick or grieving a loved one. Parents juggled remote work with supervising their children's online learning. Businesses tried to adapt on the fly. Thanks to large infusions of government relief, many countries climbed out of the economic abyss, and in the U.S., a city budget apocalypse was averted.

This pandemic is far from over. The highly infectious delta variant has quashed hopes of a roaring comeback. In the 28 days leading up to Aug. 31, there were more than 18 million new cases of Covid-19 globally, according to data from Johns Hopkins University. But effective vaccines point to an ending, at least, and in many parts of the world, the rhythms of pre-pandemic life have started to resume.

Reporting from 11 cities on four continents, *Bloomberg Businessweek* looks at urban life during this singular period of change and uncertainty. We survey cities as they grapple not only with the fallout of Covid but also with deep-seated challenges such as wealth inequality, racism, and political dysfunction.

Noah Buhayar takes us to the Pike/ Pine corridor of Seattle, telling the story of the past year and a half in microcosm through fine-grained data and the stories of small-business owners. Seattle's Capitol Hill was the site of protests in the summer of 2020, reminding us that Covid hasn't been the only force reshaping cities. The movement that arose in communities across the U.S. and beyond following George Floyd's murder by a Minneapolis police officer made clear that, for many, a return to the earlier status quo isn't good enough. Fola Akinnibi reports on Cincinnati's long struggle to reform its police force, which suggests the inertia of institutions even in the face of sustained efforts at change.

Early predictions of the death of the city from Covid haven't come to pass: Cities have survived worse, including the Black Death, sieges, and bombardments. Rents and house prices have continued to rise in many urban areas. Earth's population has been steadily urbanizing for decades, a trend that is especially

pronounced in the world's most populous country, China. Bloomberg reporters visited huge urban districts in Ordos City, Tianjin, and Zhengzhou that have been described as "ghost cities" to see if that moniker is deserved. They found signs of life.

Nor has Covid defeated a tradition almost as old as the city itself: utopian dreaming. Tech entrepreneur Marc Lore is planning to build a city for 5 million from scratch in the American West, Joshua Brustein reports. If that's not ambitious enough, Lore also sees the city as saving capitalism from itself.

With inequality rampant, there's much that needs changing in existing cities, but there's also a great deal worth cherishing. Reporting from Beirut, Lin Noueihed introduces us to citizen volunteers who, amid government paralysis, have rallied to repair the city after a massive port explosion in August 2020. Working house by house and square by square, they have maintained the city's architectural heritage and residents' deep emotional roots in their neighborhoods.

That resilience is a model, and not only in countries with political and economic problems as big as Lebanon's. This summer saw drought grip Brazil, wildfires rip through Greece, and Hurricane Ida pummel the U.S. Gulf Coast. The recent report from the United Nations' Intergovernmental Panel on Climate Change is grim reading: Global temperatures increased faster from 1970 to 2020 than in any other 50-year period over at least the last 2,000 years, and human-induced climate change "is already affecting many weather and climate extremes in every region across the globe," the panel wrote. Climate change is here, and no city will be left untouched, as Dorothy Gambrell makes clear in her graphic feature. But the IPCC's report has another conclusion as well: It's not too late to save much of what we cherish. **B**

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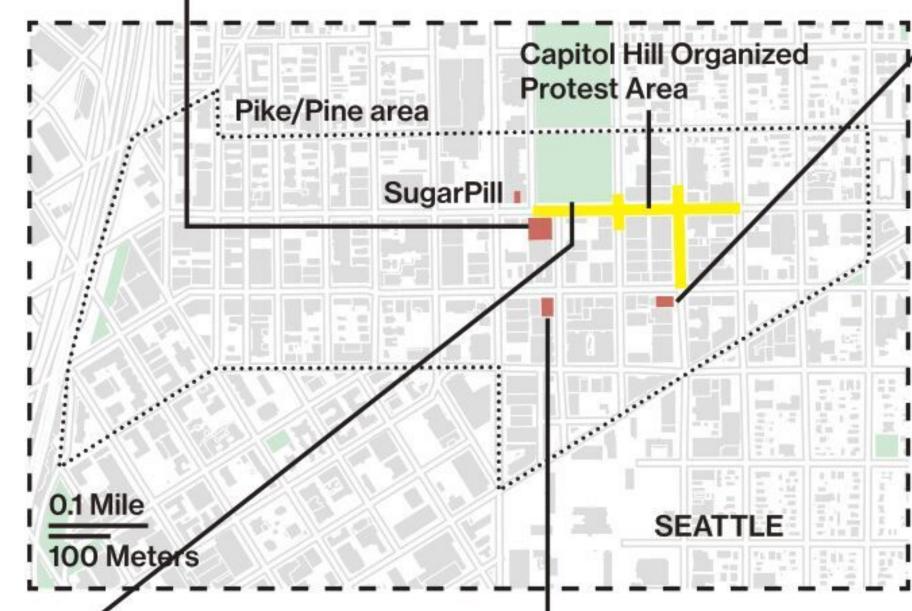
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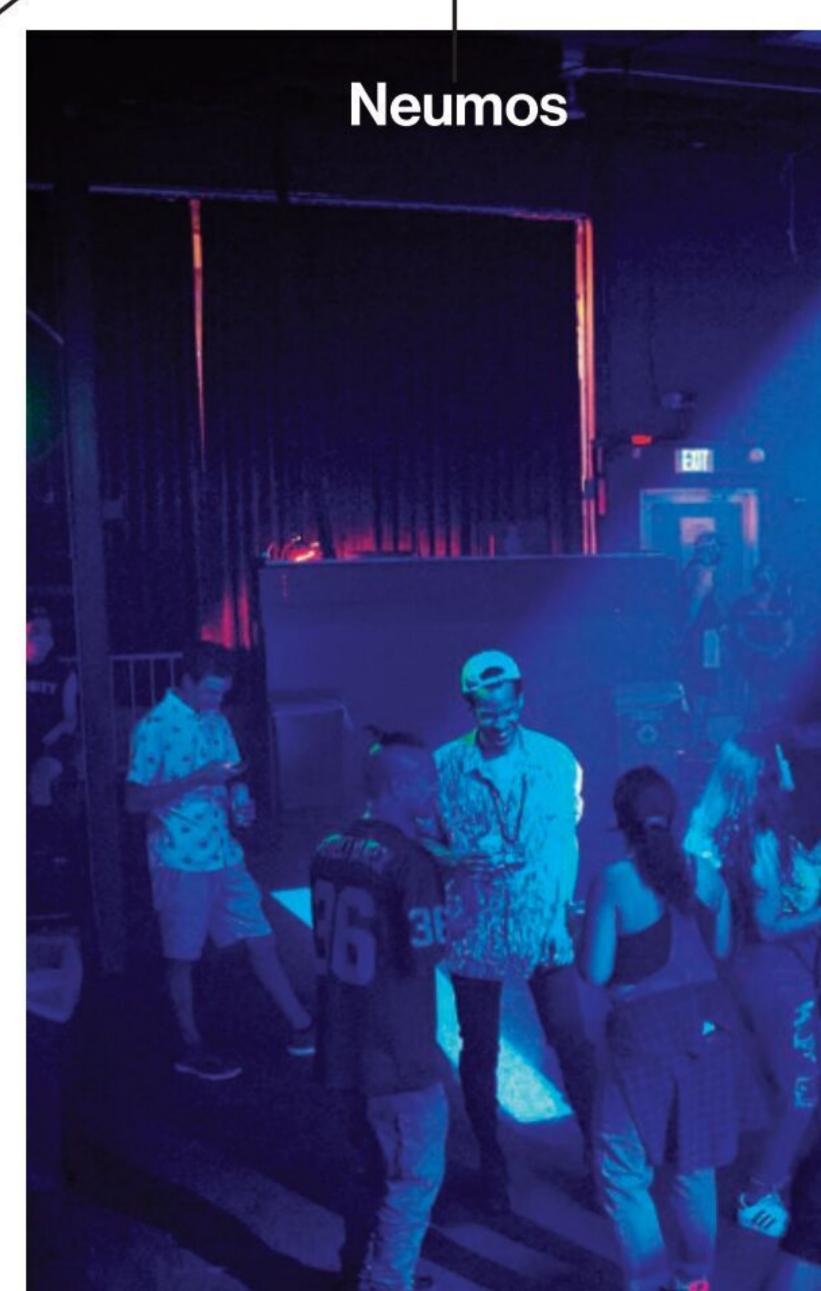












We spent a year and a half tracking a group of businesses in Seattle's Capitol Hill neighborhood

- □ By Noah Buhayar
- ☐ Photographs by Meron Menghistab



ALIMANAC



he pandemic changed the heartbeat of urban areas across the U.S.—few more so than the Pike/Pine corridor of Seattle's Capitol Hill neighborhood. The vibrant-at-all-hours commercial district seemed headed for disaster as the economy shut down in March 2020. People holed up in their apartments, logging on to corporate office jobs at Amazon.com Inc. and other employers that had suddenly gone remote. Restaurants and bars went to takeout. Brick-and-mortar shops tried to make a go of it online. Music venues fell silent.

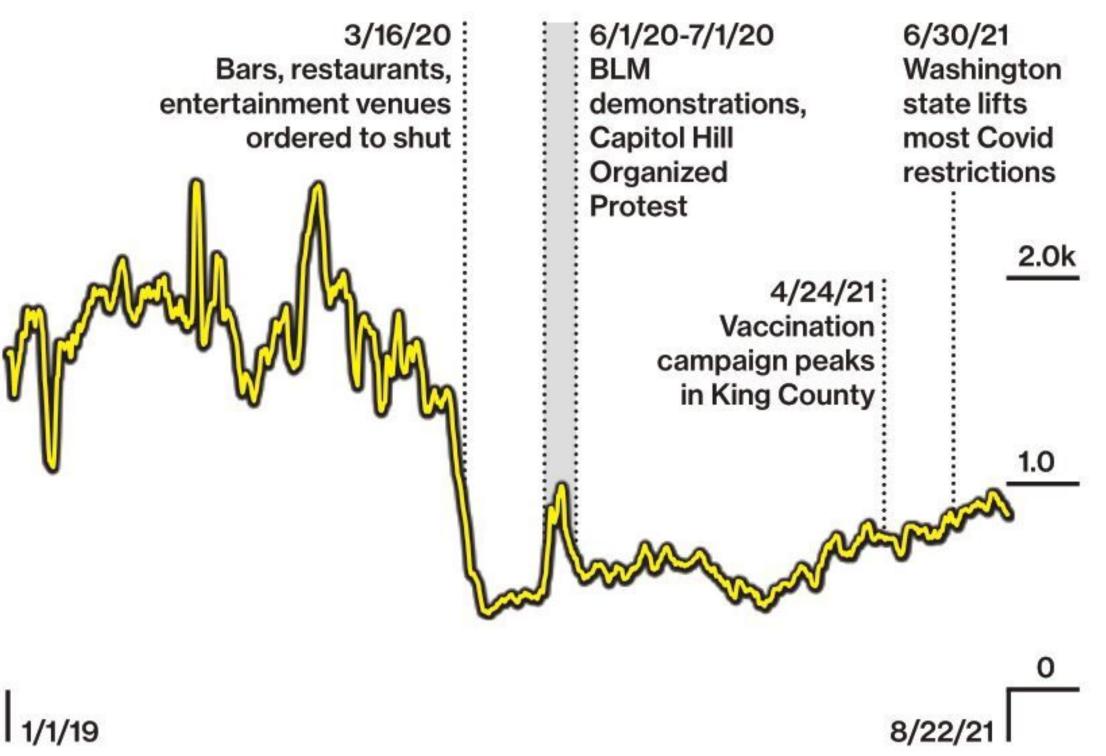
Then, as protests erupted across the country in June 2020 after the killing of George Floyd in Minneapolis, the neighborhood suddenly came alive again as thousands showed up to demand racial justice. Demonstrators briefly established a cop-free zone called the Capitol Hill Organized Protest (CHOP) across several blocks and in Cal Anderson Park that drew international attention. The city cleared the area a few weeks later after multiple shootings.

The heartbeat changed again in the fall, when a spike in Covid cases triggered new public-health restrictions. As vaccines became available, life slowly started to return to the neighborhood. But the broad reopening this July has been tempered by new fears about the delta variant of the virus. Were new shutdowns imminent?

Through all this, a surprising number of small businesses in the neighborhood managed to survive. *Bloomberg Businessweek* spent the past year and a half talking with some proprietors to find out how. Much like fighting the virus, it wasn't a steady progression. Gains were made only to be reversed weeks later. Hundreds of millions of dollars in government assistance, as well as the generosity of customers in a city where the median household income, as of 2019, was \$102,500–56% higher than the national average—were key. So was a population ready and willing to get jabs. Now, with more than three-quarters of Seattle residents 12 and up fully vaccinated, street life is returning to Pike/Pine. But, as these four businesses and data about the neighborhood show, things aren't anywhere near back to normal—and may never be.

How the Pulse of a Neighborhood Changed

Daily visits to locations around Pike/Pine, based on mobile device location data



ELDERBERRY WITH A DOSE OF COMMUNITY

The significance of "buy local" finally sank in, says Karyn Schwartz, owner of apothecary SugarPill



hen we first shut down, and the neighborhood started to be like the *Night of the Living Dead*, I actually emptied the store out. I wasn't really sure what was going to happen. My partner also had to shut her business, and we left the city for her house on Whidbey Island. I took all my inventory up there and set up a little fulfillment center. I was coming into the city on Wednesdays and Thursdays to do deliveries and curbside pickup.

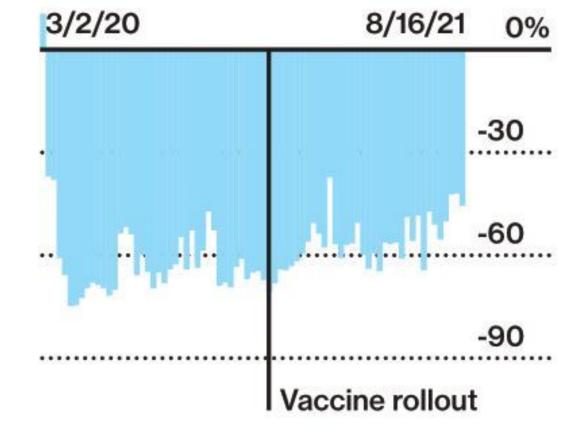
Toward the end of April, beginning of May, I started to have a concept of what it could look like to reopen. I wanted to make sure my staff was safe, so that's why you see two counters. One of them is in the back, and the other is half-way through the store. Because it's so tiny in here, there was no way to be 6 feet apart without doing that.

I was prepared to reopen right when the protests began. We just stayed completely shut for about six weeks. We never boarded up. I just left the butcher paper on the windows and hoped for the best. I remember having this conversation with my landlord at the time, who is like, "Why aren't you open? There are people everywhere." And I'm like, "They're not really here to shop." I didn't want to try to run a business in the middle of that.

That was when one of my employees convinced me to do a GoFundMe. I wasn't going to, because it was super

Pike/Pine Retail

Change in weekly visits from 2019



uncomfortable, but she was like, "I think people would show up for it." So she set it up, and we raised just shy of \$20,000. I was able to pay my employees and my rent and

my personal bills for a couple of months. And that carried us through until I got the PPP [Paycheck Protection Program] loan and got the doors open again.

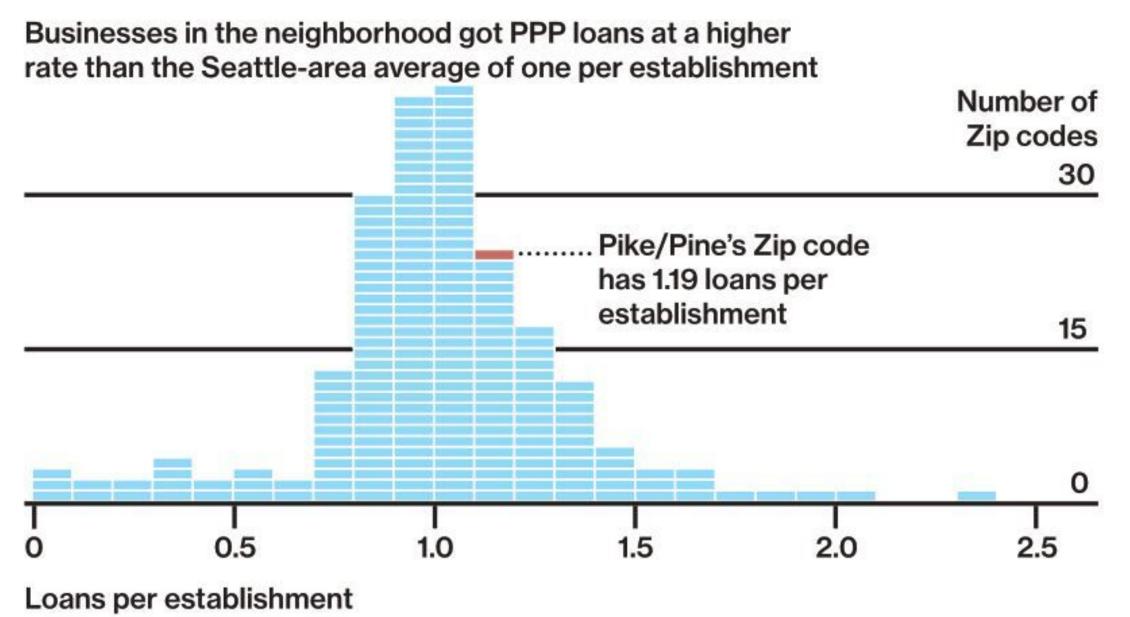
The whole time I've been in retail, especially in Seattle, which is like 32 years now, I've been one of those people that's like, "You have to shop local or you won't have a community." And then "shop local" became this catchphrase that was super sexy, but people still didn't really do it. People this year really got it. We had far fewer customers, but they spent more money per sale, so in the end our holiday season was right on target. We're still probably at like half the number of people, but they spend a little bit more money.

At the beginning of the pandemic, people were—I'm not going to say hoarding, but you know—energetically stocking up on medicines that they thought they might need. I was having to tell people, "You don't need seven bottles of elderberry syrup." Like, we don't even know if that's going to help you.

For anyone who didn't live right in the neighborhood, it seemed like the specter of CHOP lasted a lot longer than CHOP did. I mean, I was still getting calls in the fall from people who are like, "Is it safe to be there?" And I'm like, "Oh my God, don't you read the news?" There was no rhythm of the day, and that persists. It's just starting to change. My weekend mornings are busy—not pre-Covid busy, but the fact that there are people at all is remarkable.

It's still really unclear what this neighborhood is going to be. There's a lot of empty space, and it's unclear who is going to occupy it. But I will say that it feels like life came back to this neighborhood faster than a lot of other parts of town, and that feels really good. It still feels like a neighborhood.

Government to the Rescue



The Cities Issue Bloomberg Businessweek

OVERHAULING A MENU, A DINING ROOM, AND A BUSINESS

Pike/Pine Restaurants Change in weekly visits from 2019

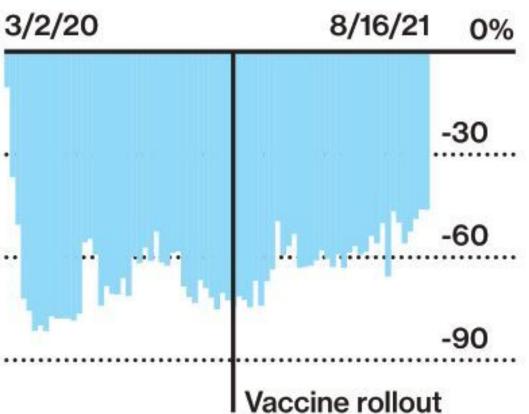
Makini Howell, the owner of Plum Bistro, has spent a lot of time thinking about what's dispensable

t the beginning of this, when I had to lay off about 30 folks, I also had about \$25,000 to \$35,000 outstanding in payroll that I had not cleared. I had this massive outstanding amount of money that was about to come crashing, because you send people home and you give them their last check, they're going to cash that—as well they should. Fortunately, I had personal savings. But there was sheer panic for a minute there.

PPP was definitely the bridge. That made it a little bit better. And then my landlady tied our rent to our income, so it was a percentage of income, so we weren't tied to the normal high rent and not making any money. And all utilities were put on hold by the city, and that was really helpful.

We never actually closed, and I think that was a good

gutted the restaurant and rebuilt it. We redid the back cooking area. We redid the bar. Redid the dish area. There's an office on top of the dish area now.



Also, during that time, we had to board up because CHOP happened. Seattle really supported Black-owned businesses. There were all these calls that were going out for Black Lives Matter, and everybody was getting tagged all over Instagram. People really showed up, sometimes more than we were expecting. It sort of started all at once. Literally, the day before getting tagged on social, we made maybe \$80, \$90. The day after, like \$3,000, \$4,000. The day after that, \$5,000,

> \$6,000. The blind spot in that was, if you know that we've been here all of this time, like, please support us every day. It can be detrimental if you're not prepared to go from zero to 60. I have a strong team of people. We were fine. But you don't want it to turn from "support Black businesses" to "oh, that Black business is incompetent."

After CHOP, people started to come back to the neighborhood. My general manager found these greenhouses that we put outside. People are now starting to come back into the restaurant, but we've had to retrofit it a lot. There's plexiglass everywhere. There's cleaning and sanitation and super-restrictive numbers.

And to-go is still going. At one point we were able to hire a couple more people back. But a lot of the folks we knew from before, the gap was too long, so they moved away.

I don't know if we're ever going to get back to where we used to be. The heyday of restaurants might be over. The pandemic really, really changed things. Customers don't come out as much as they used to. The food can't get as creative as it used to. There aren't as many employees available as there used to be. We're still not making enough money. Yes, we were given money. But that's different than being able to

make enough money.



thing, because it's really hard to get back open now if you shut down. We kept the core of the staff and went to takeout. Oh my gosh, we did so many backflips. I used to have a brunch menu, a lunch menu, a happy hour menu, and a dinner menu. All of those are gone. It's all designed into one menu that takes into account what people didn't seem to be interested in. I couldn't sell tofu. I couldn't sell tempeh. It was hard to sell things that people weren't sure were good. It was an exercise in letting your ego go as a chef, because you're doing more approachable things.

To keep busy at the start of the pandemic, we nearly

The Cities Issue

ROCK 'N' ROLL AND MASKS DON'T JIBE

Steven Severin and his partners brought live music back to Neumos—but for how long?

just reread an article that I was interviewed for six weeks after Covid started. And it was like, "We've got another six weeks, maybe 12." We're now 476 days in. Nobody thought it would go this long. I was the one among my partners who was the most pessimistic, and I was like, "I bet we're back Sept. 1."

A couple of months in, I was starting to come to peace with the idea that, you know, maybe I'm done. You know, 17 years, that's a great run. Maybe this is my time to write the next chapter. Letting it go would not have been easy. This is what I've done my entire life—I started going to shows when I was 13. But it was definitely a strong consideration and might have been inevitable. How are we going to get all this money in order to pay our rent, our insurance, taxes, and everything else? We owe a ton of money for the remodel we did a couple of years ago and the giant sound system we bought.

We tried livestreaming shows, but it just didn't get enough eyeballs. We talked about making shirts. We had a couple of photo shoots. We tried turning the venue into a place where you could get vaccinated. We were also looking at the club as a spillover space for actual Covid cases, when the hospitals were filling up. That never came to fruition.

It was hard to pivot because I was spending all of my time on

NIVA [National Independent Venue Association] and WANMA [Washington Nightlife Music Association]. We and other independent venues ended up fighting for each other. It made it so I felt like I couldn't step away, because it would've sent the wrong signal.

The longer I worked at it, the more progress we started making. It started with getting \$750,000 for venues from King County. PPP made it so we knew we'd be able to get further down the road. By the time we got it, we were already working on federal legislation that eventually created the Shuttered Venue Operators Grants.

After the first show back in Neumos this July, I got so many texts thanking me for sticking it through and giving people an outlet again.

Last week, I would have said sometime next year, things will be back. But this week, it's not looking good. I

3/2/20 8/16/21 0%
-30
-60
Vaccine rollout

Pike/Pine Music Venues

Change in weekly visits from 2019

just know too many people who have gotten Covid who are vaccinated. There are people who are still not comfortable coming to shows.

And if masking is required again, the vibe is going to drastically change. You don't see the smiles. You go to take a drink, you've got to pull your mask down. It cuts down on the fun.

We're rock 'n' roll. We are your outlet. We are the hedonism you embrace because you work at Amazon 12 hours a day, writing code or whatever you do, and you need to get out. You need to stop staring at your computer. You go, there's bright lights and your friends, and a couple gin drinks, and it's all fun. And when you throw a mask on, you've got that reminder that there's Covid.

It's getting back to that unknown, and that is going to mean that shows are going to cancel, and I am not mentally prepared for that to happen.

Editor's Note: Four weeks after this interview, Washington state reinstated a mask mandate in most public indoor settings.



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GETTING BY ON GLAMPING BASKETS AND ADRENALINE

Hallie Kuperman, owner of the Tin Table and Century Ballroom, reflects on pandemic pivots



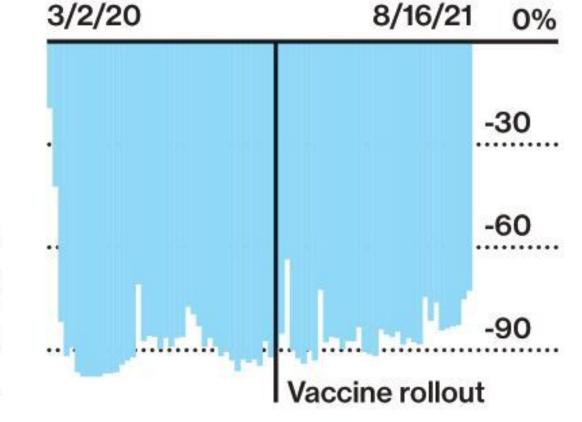
his was a breakeven business. So when the pandemic started, we just didn't have any money. We applied for the PPP loan. We were one of the first people to get it, which was unfortunate and fortunate. We really just paid a bunch of people never to come to work. It was just a waste of the government's money, in my opinion, because it didn't help the business survive. After that, I had to just focus on what we could do, like takeout.

In the summer we did "glamping baskets." Picnicking is my favorite thing to do, so we bought insulated bags and we would give people a bottle of Champagne and a deck of cards and a CD of bands that had played here—who uses CDs anymore?—and then filled it with food. Our space is on the second floor, so I would sit on the fire escape and lower food down on a little pulley system.

The Tin Table, our restaurant, is small, and the Ballroom

Pike/Pine Educational Services

Change in weekly visits from 2019



is huge. So when indoor dining was allowed, we ended up moving the restaurant

into the Ballroom. We did Friday and Saturday dinner. We tried Wednesday through Saturday and weekend brunch, but we couldn't get the momentum. You can't make a living on a restaurant being open two nights a week, but at least it was better than being open four nights a week, where we wasted two of those. So financially, it was a good choice. A fundraiser that started in November kept us going. People were extremely generous.

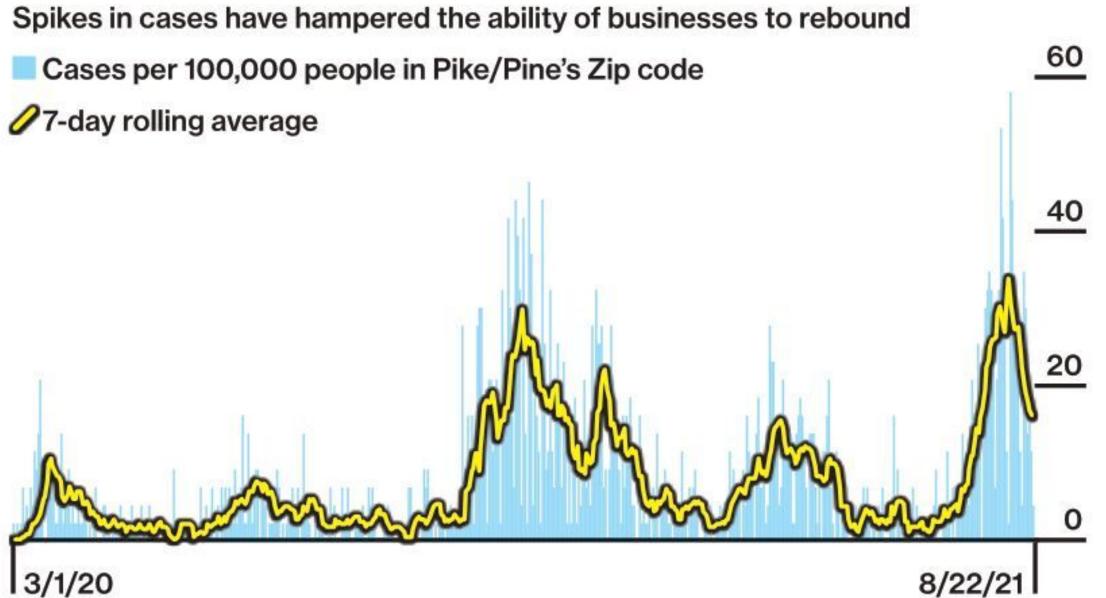
When we restarted dance classes in October, we taught a few days a week. But our normal schedule is usually like three to five classes a night, six days a week. Now we teach two classes a night five days a week, with a 15-minute break in between. That started because we sanitized everything to within an inch of its life, and we let the room air out.

We're going to start with classes in two rooms a couple of days. That's lovely. We can use the Ballroom for classes now because the Tin Table is back in the Tin Table space. Even though it feels so great and we have a handful of dances happening, we are so far away from being back to quoteunquote normal.

We stayed open to stay present and connected to our community. But I wouldn't make that choice again. I would just be like, "OK, I'm on vacation." Because it's not like staying open we made enough money to stay open. It's not worth that kind of

energy anymore. We did it really well for a while—adrenaline is a great thing—but I wouldn't do it again.

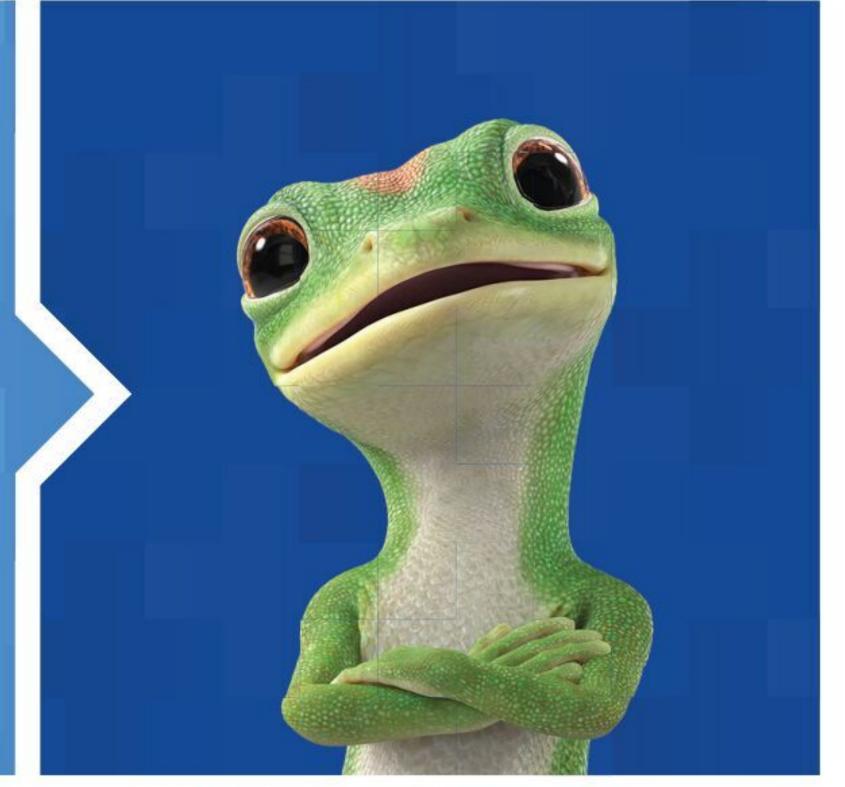
Riding Covid's Waves



The Cities Issue Bloomberg Businessweek

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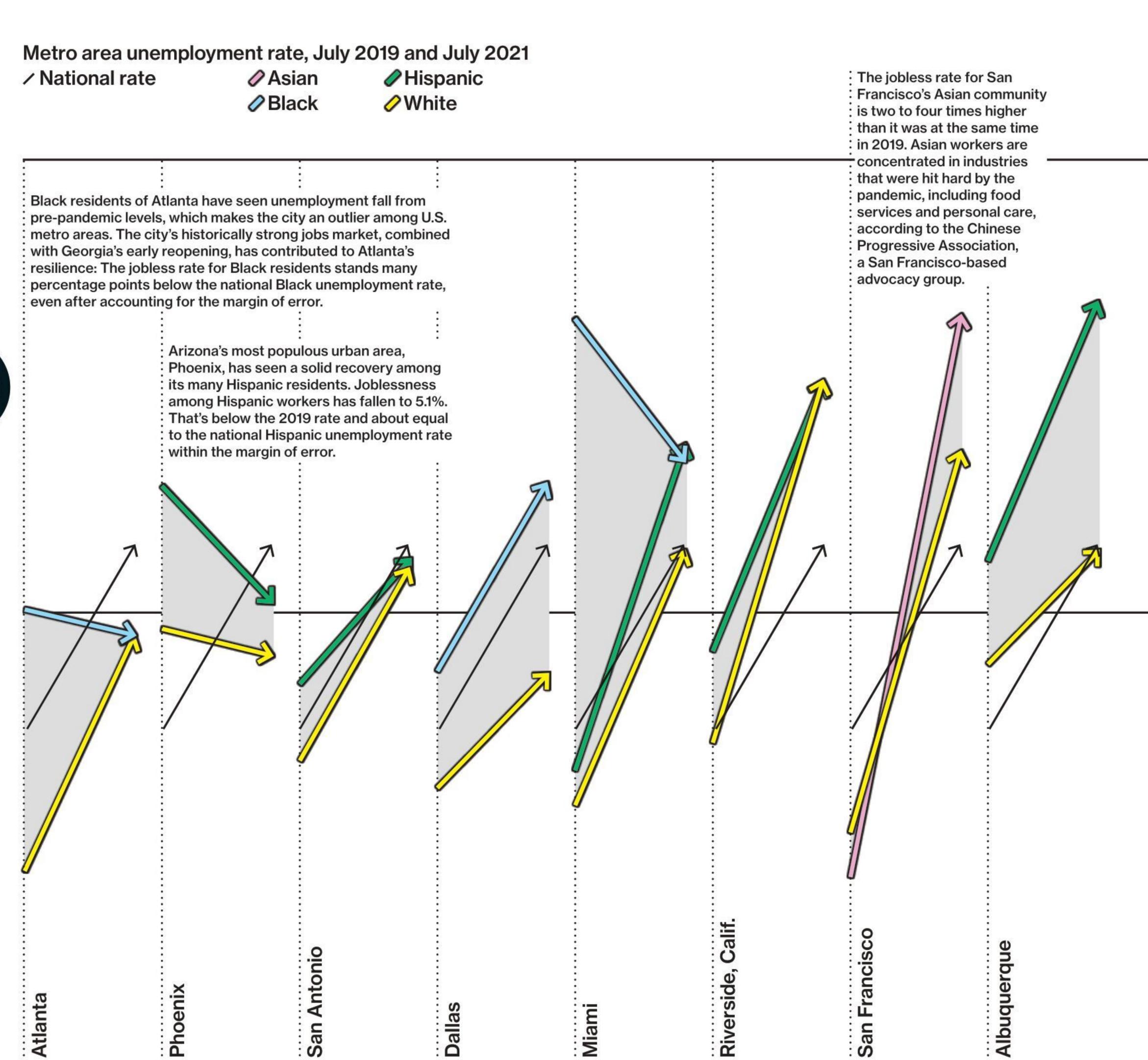
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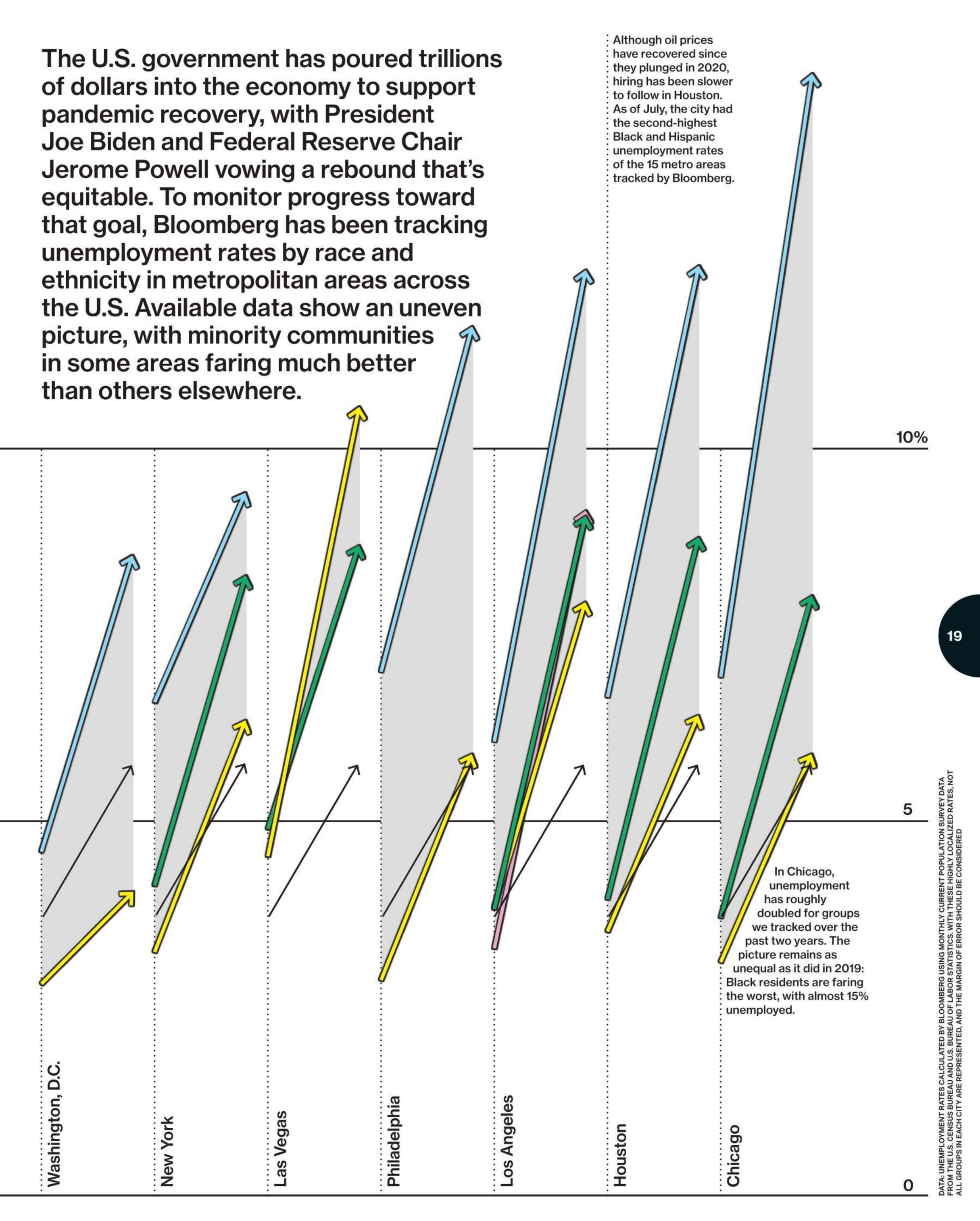
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America's Unequal Jobs Recovery

☐ By Minh-Anh Nguyen, Jill R. Shah, and Andre Tartar



The Cities Issue



The Cities Issue September 6, 2021





Conjured out of nothing and lived in by seemingly no one, China's so-called ghost cities became the subject of Western media fascination a decade ago. Photos of these huge urban developments went viral online, presenting scenes of compelling weirdness: empty apartment towers stranded in a sea of mud; broad boulevards devoid of cars or people; over-thetop architectural showpieces with no apparent function.

"In places called ghost cities you find massive, ambitious urbanizing projects that spark investment but don't draw population all at once," says Max Woodworth, an associate professor of geography at Ohio State University who's written extensively on the topic. "The result is a landscape that appears very citylike but without much action in it." China was underurbanized for many years, Woodworth says, and has raced to correct that. But the pace of building often outstrips the rate at which newcomers move in, even with investors snapping up apartments as Chinese home prices rise.

As the economy continues its long shift away from agriculture, urbanization and construction have become twin catalysts of China's unparalleled growth. In 1978 just 18% of its population lived in cities; by last year that figure had reached 64%. The country now has at least 10 megacities with more than 10 million residents each, and more than one-

tenth of the world's population resides in Chinese cities.

To accommodate this massive influx, the country embarked on a vast scheme of building-and at times, overbuilding. All the construction juices economic growth. It can also boost local government finances through land sales to developers and when everything goes to plan-with new tax-paying businesses. The power of the state in China gives the cities an initial push toward vitality. Typically, government offices and state-owned enterprises are the first to move in. Public buildings such as conference

centers, sports stadiums, and museums follow, sometimes in tandem with speculative residential development, as well as schools and perhaps a high-speed rail station. After that, these districts are meant to attract private investment.

Some former ghost cities, such as Shanghai's Pudong District, are wildly successful. But kick-starting these projects means taking on debt. The property-fueled construction boom that underpinned China's pandemic recovery last year was financed by a record 3.75 trillion yuan (about \$580 billion) of local government borrowing.

The Chinese government wants the trend of urban migration to continue, and with good reason: Higherincome urban dwellers lift domestic consumption,

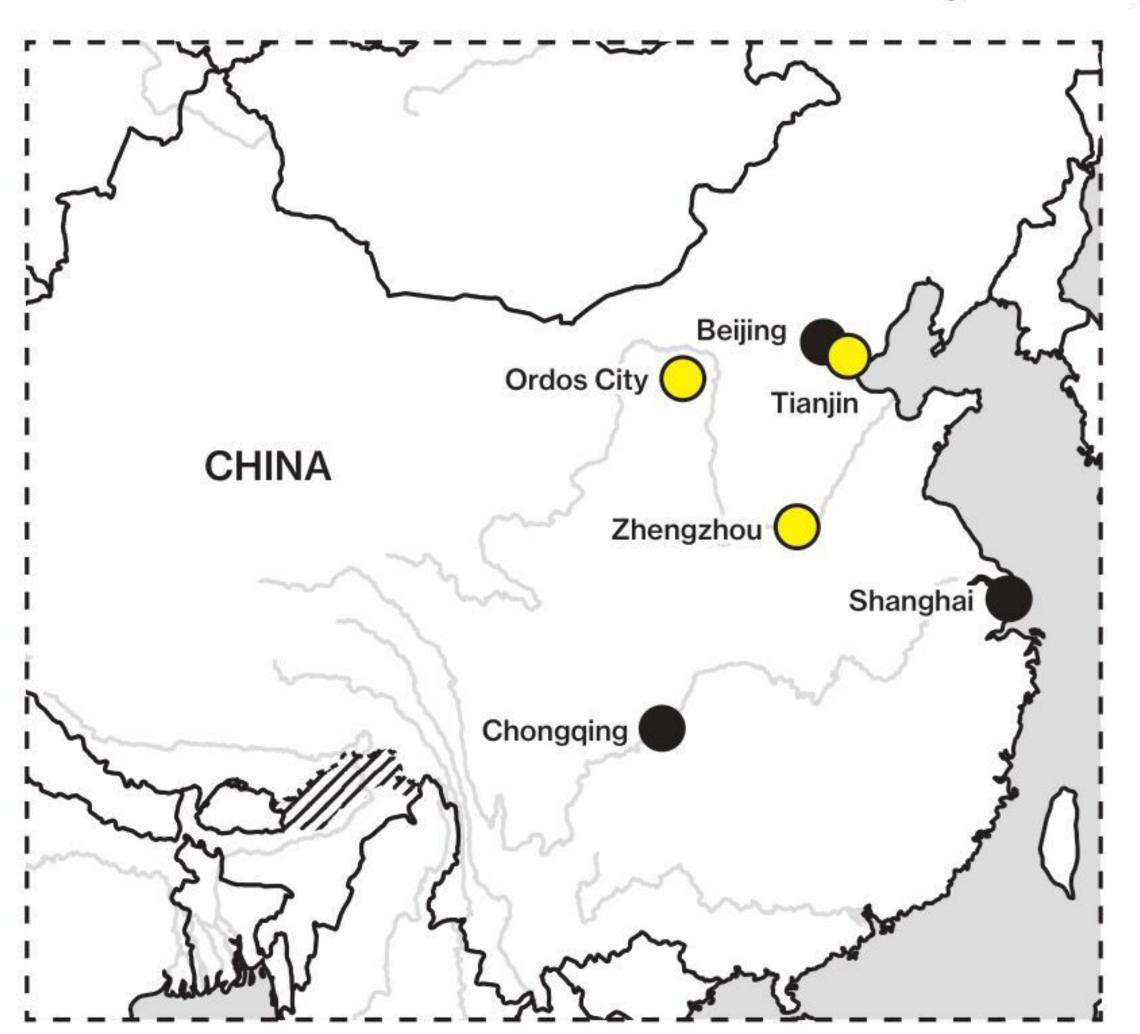
reducing the economy's reliance on external trade. And since Beijing and Shanghai strictly limit the number of fresh arrivals they'll accept under China's *hukou* (residency permit) system, new population centers have become all the more important.

The risk is that these new cities don't eventually fill up with people and businesses and can't generate enough revenue to pay back the money they were built with. Of course, a pile of debt is just one of the challenges in starting a city from scratch. A living, breathing community requires people,

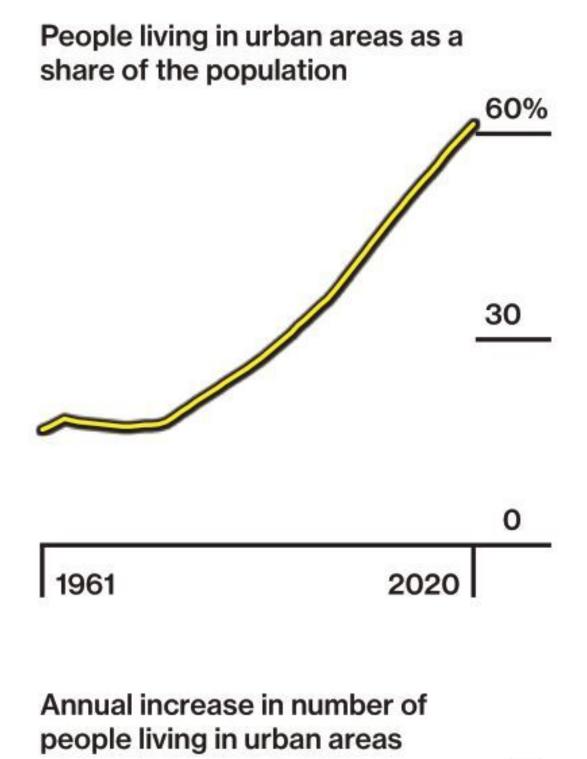
> jobs, schools, and hospitalsat a bare minimum-to survive and grow.

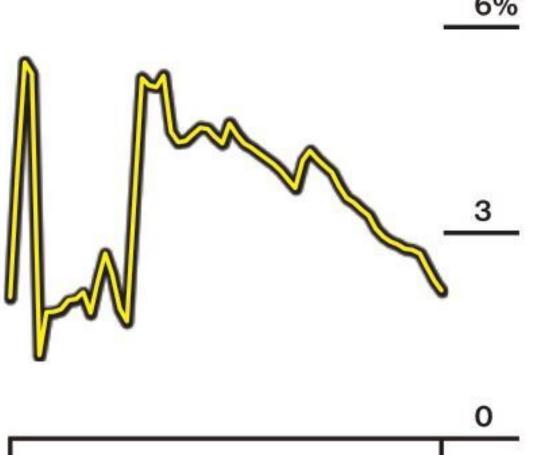
It's hard to say how China's reputed ghost cities are faring collectively: Government data aren't publicly available, and independent research is spotty. What is clear is that local governments can throw money at these projects for many years.

In the short term, not all of the cities are meeting the same fate, Bloomberg Businessweek discovered on recent visits to three of them. When it comes to urbanization, though, China is playing a very long game.



Urban Population in China





1961 2020



○ Kangbashi, Ordos City Started ⇒ 2004 Population ⇒ 119,000

Ordos City (population 2.2 million), Kangbashi was the archetypal ghost city 10 years ago, with barren boulevards and empty buildings standing forlornly in the desert. Local officials are adamant that things have changed. They say 91% of homes in the district are occupied. In fact, after a yearslong construction freeze, the government approved six housing projects in 2020 and expects 3,000 homes to be built by the end of this year.

Apartments in a new development are selling for 9,500 yuan per square meter, and downtown they go for 15,000 to 16,000 yuan, according to Liu Yueyue, 28, a salesman at a new residential development in the district's northeast. "Would houses in a ghost town sell at such high prices?" asks Liu. Half of his customers come from outside Kangbashi, and most are parents who want to send their children to the well-regarded local schools, he says.

There are certainly more people around than there used to be. In 2012 a viral video of the city showed skateboarders doing kickflips and grinding across the deserted main square. Behind them a metallic, bean-shaped museum building and a library designed to look like an enormous shelf of books loomed awkwardly.

Today almost 120,000 people live here, and about 18,500 new students are enrolled in local schools, according to the recent national census and local government data. At lunchtime, streets are filled with the sounds of kids and parents; in Genghis Khan Square, people stroll and play basketball.

When the original plan was approved in 2004, the local economy was booming thanks to coal and gas mining around Ordos, and the provincial government wanted a fancy new capital with plenty of water, unlike the old city center, the Dongsheng District, nearby. It moved many of its offices and jobs to Kangbashi. A university campus opened in 2008, and in 2010, Ordos City's best high school was transplanted to the area.

"It was empty and deserted everywhere when I first moved here" in 2012, says Li Ning, 35, a local employee at the Bank of China. "Now there are a lot more public facilities like buses, hospitals, and schools." The district government hopes to reach a population of 200,000 by the end of 2025. Yet long-abandoned pits for building foundations and unfinished commercial developments serve as reminders of failed investments. Although government jobs and schools have attracted residents from other parts of the province, Kangbashi has been less successful at attracting private ▶

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■ businesses or spurring broader growth. Huge infrastructure investments have added to the city's debt. Inner Mongolia's shrinking population—it was almost 3% less in 2020 than a decade earlier, according to the latest census—is likely to limit demand for housing and undercut growth forecasts.

"It takes time for a city to develop, and Kangbashi's situation has improved gradually," says Sun Bindong, an urban planning professor at East China Normal University in Shanghai, who advised the Ordos City government on urban planning and development in 2007 and 2008.

City leaders in China rarely occupy their posts for more than five years, so the bureaucrat who initiates construction is usually no longer in charge when the time comes to turn buildings, roads, and rail lines into a fully functional city. Local Communist Party Secretary Xing Zheng has been in charge of Kangbashi for only a few months. Over beers at a local karaoke bar, the University of Oxford- and London School of Economics-educated lawyer says that the original plans were overly ambitious but that the area offers "a lot of potential" for sectors including education, tourism, health care, and digital industries.

"The plans for the city were ahead of their time, but now you can see they were right," he says. "In the future, Kangbashi

will be small but fine." He intends to promote the racetrack on its outskirts and to plant more roses so couples will choose Kangbashi for social-media-worthy marriage proposals.

It remains to be seen whether Kangbashi can attract more full-time residents. Even so, the same model is being used to build another district across the Wulan Mulun River in Ordos City. In the Ejin Horo Banner area, apartment buildings are a few years old and starting to fill up, but the "financial district" is still almost empty.

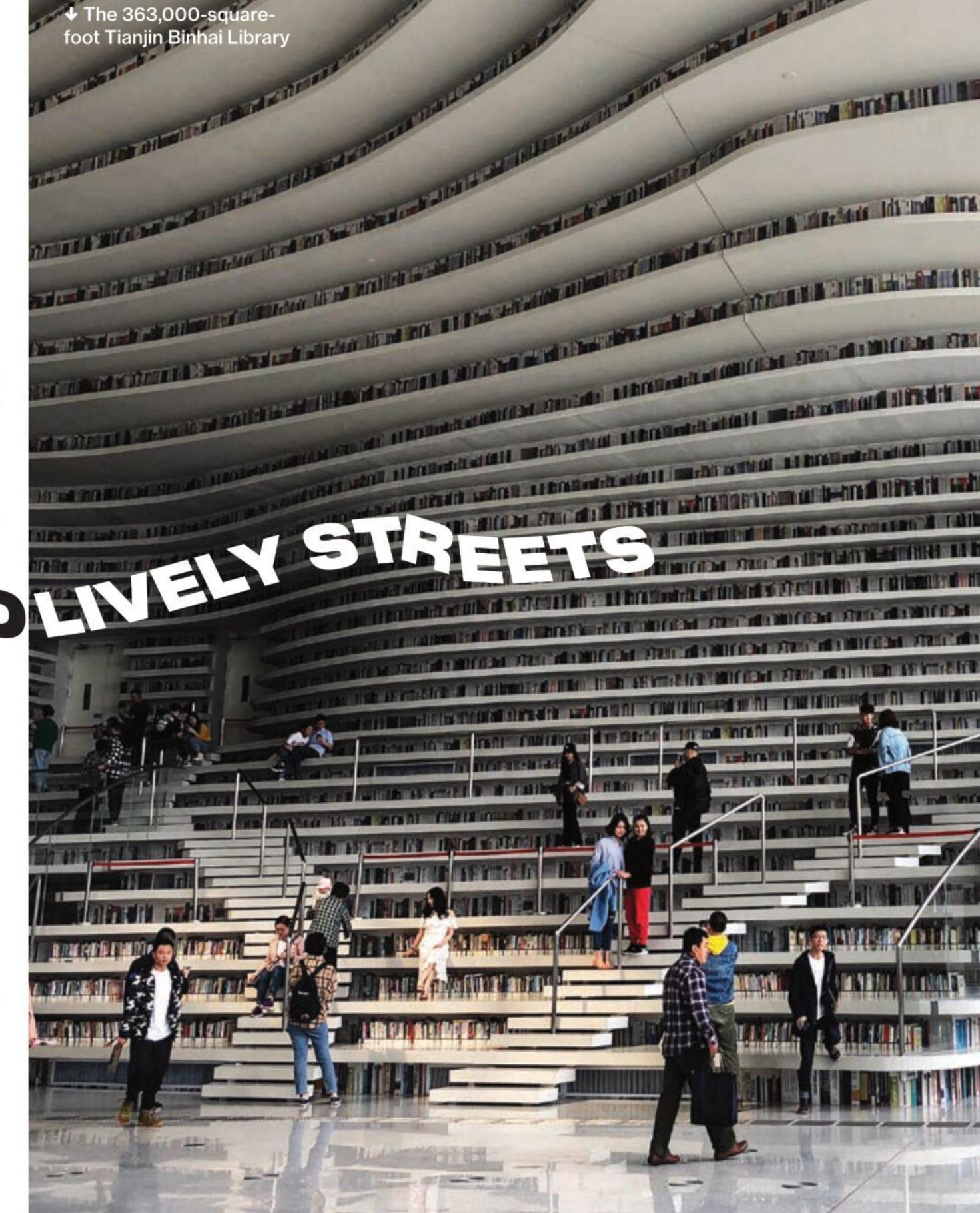
"They should have never built such a large business district at that kind of place. It just doesn't have the potential to develop into a city that can support such a large CBD [central business district]," Sun says. is undoubtedly Tianjin Binhai Library, completed in 2017.

Part of a cultural compound near the Yujiapu Financial District, the library is strikingly photogenic with its futuristic curves and floor-to-ceiling white shelving. On closer inspection, many of the shelves contain not books but aluminum plates printed with book jackets.

The library is not the only place in Binhai where there's a gap between expectation and reality. At one point, Yujiapu billed itself as the "Manhattan of northern China," but 10 years after the government pledged billions of yuan in investment, many office buildings remain empty.

Although Binhai overall has attracted a substantial resident population, Yujiapu is a different story. A weekday visit in May found empty streets, long-unfinished office buildings, and a shopping mall and IMAX cinema that both seemed permanently shut. The situation was better than when Bloomberg reporters visited its completely deserted streets in 2015, but not dramatically so.

"You won't see many people hanging around here after work or on weekends," says Vincent Wang, a customer service manager at an internet company who's worked in Yujiapu for five years. More people are coming in but not at the volume that can fill all the offices in the neighborhood,



○ Binhai New Area, Tianjin Started ⇒ 2006 Population ⇒ 2.1 million

LONG SLOG

ew York's famed Juilliard School has opened a second campus in the Binhai New Area, a large urban swath east of the megacity of Tianjin. But the area's centerpiece

he says. "It's difficult for the service sector to thrive in the area."

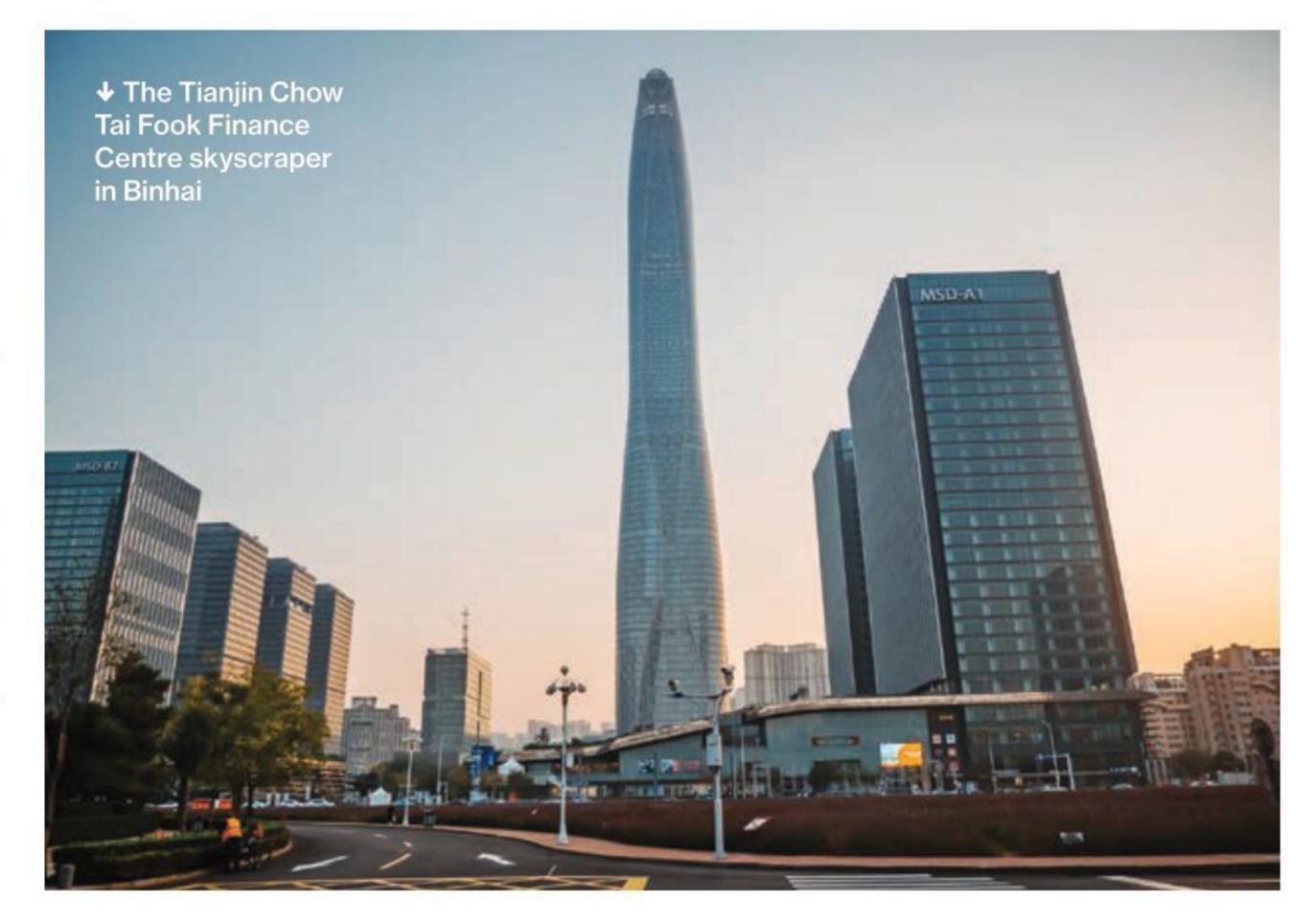
The tallest building in northern China, the 103-story Tianjin Chow Tai Fook Finance Centre, has just opened, adding to the glut of office space. The tower's lobby was open in late May, but it was unclear how many people were working in the building or at whom the tower's planned 60 floors of luxury apartments and yet-to-open hotel are aimed. The conglomerate Chow Tai Fook Enterprises Ltd., owner of the Tianjin tower, didn't immediately respond to a request for comment.

Tianjin and the Binhai area are still primarily manufacturing areas, with a massive port, a free-trade zone, and Boeing Co. and Airbus SE factories, among others. The Binhai development was an attempt to catalyze the service sector, accord-

ing to Michael Hart, managing director of Griffin Business Management, who's worked in real estate in the city for more than a decade.

State-owned enterprises and the government were behind the earliest projects, Hart says. Now private developers such





as Chow Tai Fook have arrived to build offices and homes, which he says is a good sign, though filling them is "going to be a long slog."

One problem is that Binhai, stretching along the coast of the Bohai Sea, is about an hour by car from Tianjin proper, and there aren't transportation links that would make it convenient. New subway lines being built by the Tianjin government will makes stops in Binhai.

Tianjin is also building a convention center with the help of bonds. But the provincial economy is growing at a slower rate than China overall, and public finances were worsening even before the pandemic hit. The municipality and local financing entities have 748 billion yuan of outstanding bonds, according to data compiled by Bloomberg, which doesn't include off-balance-sheet borrowings from banks and other financial institutions.

FROM GHOST TOWN 800MTOWN

○ Zhengdong New District,
 Zhengzhou
 Started ⇒ 2002
 Population ⇒ 945,000

or an example of how well things can go for a ghost city, look to Zhengzhou, the capital of Henan province. In 2003 work started on the fan-shaped Zhengzhou International Convention and Exhibition Center, and an area of more than 150 square miles became a giant construction site for the apartments and office buildings of Zhengdong New District.



DTOGRAPHS BY YUFAN LU FOR BLOOMBERG BUSINESSWE

■ It took a while for people to show up. A 2013 news report by 60 Minutes described the place as a ghost town: "new towers with no residents, desolate condos, and vacant subdivisions uninhabited for miles and miles and miles."

But today, Zhengdong New District is bustling with life. Waiters eagerly wave passersby into their restaurants, food delivery workers weave in and out of crowds, and professionals congregate outside office buildings for cigarette breaks. On summer evenings, families sit beside a human-made lake to watch light shows on "Big Corn Tower" or Greenland Plaza, which houses the city's JW Marriott hotel. The area was spared most of the damage from July's heavy flooding in Zhengzhou, which killed almost 300 people.

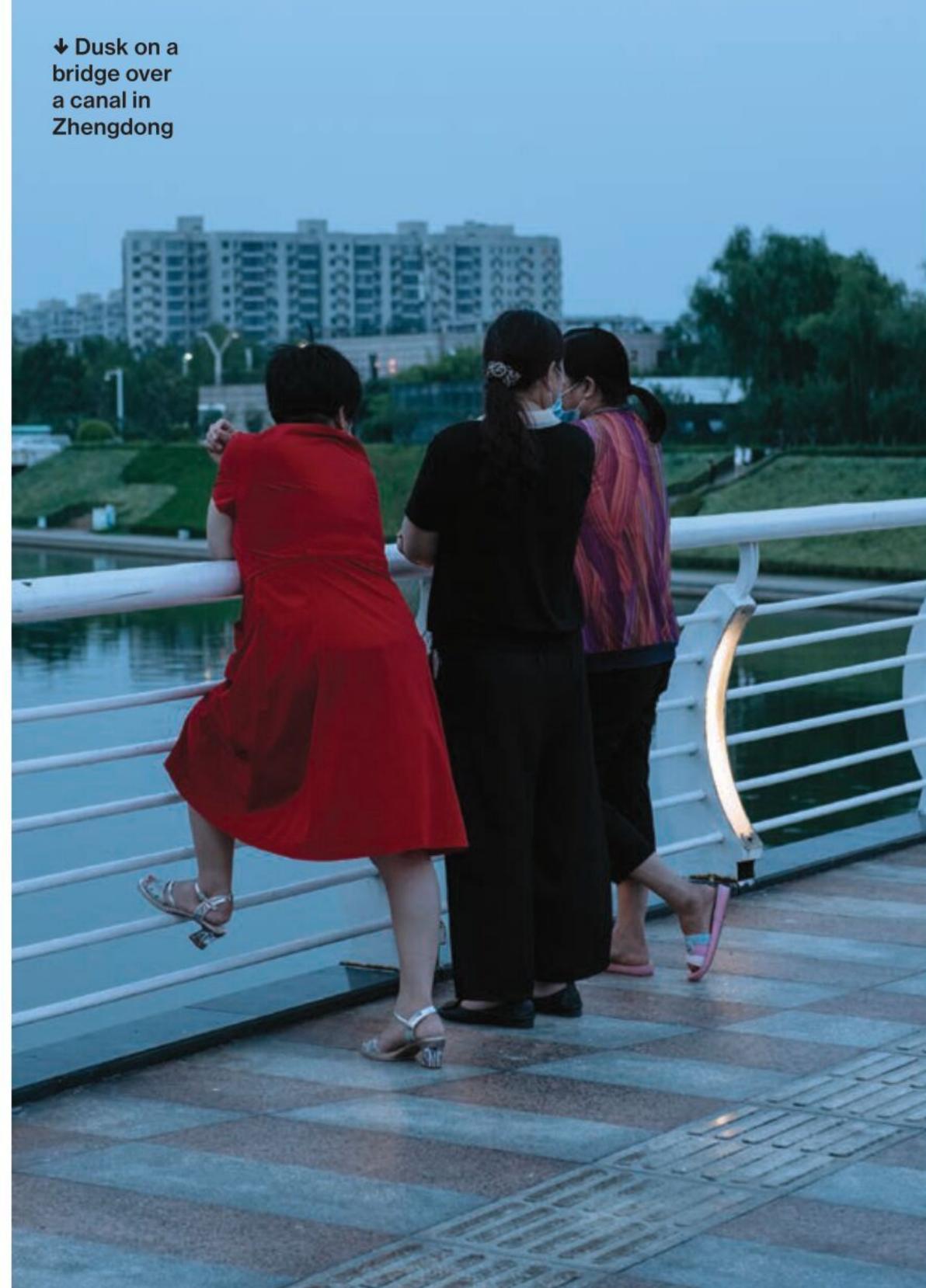
About half of the world's iPhones are manufactured at the 11-year-old Zhengzhou factory of Hon Hai Precision Industry Co., better known as Foxconn. Favorable government policies for businesses also attracted large pharmaceutical and auto plants to the region, and Zhengdong New District's economy grew at an annualized rate of 25% in the five years through 2015, according to the most recent data. The population of the district grew 27.5% from 2019 to 2020, and property prices there are up tenfold over the past decade.

Zhang Shengqi opened his first noodle shop near Big Corn Tower in 2010. He decided to move to the area after reading a newspaper article about the government's plans for the new district.

"The business was in the red in the first year," Zhang says. "There were really no people in this area. The streetlights were off, and the shopping malls were empty." On its worst night, his restaurant brought in 38 yuan. Business started to pick up in the second half of 2011, and Zhang now averages around 600 bowls of noodles a day, more than 10 times what he sold a decade ago.

Zhengzhou has an even newer "new district," which is expected to be completed before mid-2022. Financial Island





will have 36 financial office buildings, four five-star hotels, four apartment buildings, and two skyscrapers, with total investment of about 50 billion yuan.

"When some foreign media reported that Zhengzhou was a ghost city, the city was at the early stage of development," says Yu Zhengwei, a sales manager for a high-end real

estate developer.

Sun, the urban planning professor, says that the Chinese government takes the problem of underoccupied cities seriously and that economic development is the ultimate solution. But there need to be internal growth drivers, and the location can't be too remote, he says.

In his 2015 book, *Ghost Cities of China*, author Wade Shepard argued that industry, schools, health services, and entertainment that are "in place and functioning" help draw occupants to these new cities in large numbers and that their ghost status is often a temporary condition. In other words, if you build it, the people will—eventually—come. Residents of Zhengdong and Kangbashi, at least, would no doubt agree. —*With James Mayger*, *Lucille Liu*, *Yujing Liu*, *Lin Zhu*, *and Yinan Zhao*

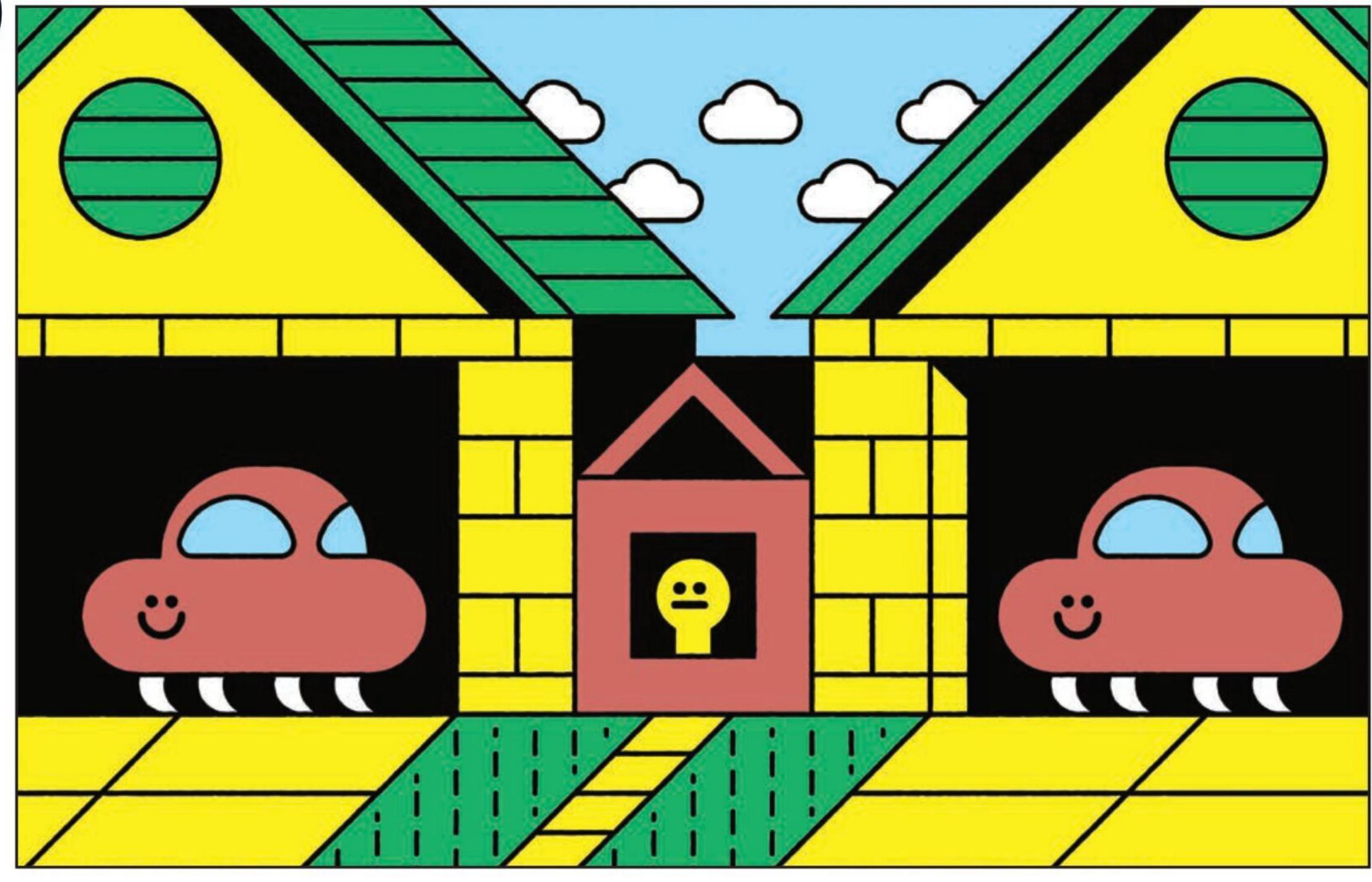
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There Is No Free Parking

The pandemic has reshaped cities' ideas about the best uses for public space. A longtime parking-reform advocate and a growing number of city halls say it's about time

□ By Dayna Evans

☐ Illustration by Joel Plosz



28

Over a Zoom call from sunny Los Angeles, Donald Shoup—sporting a big white beard, a brown cardigan sweater, and a marketer's telephone headset—was yelling at me. "Oh, how terrible, you have to move your car, so they can sweep the road. I think that's just awful," he said, with audible italics. "To overcome the base desires of people like you"—people like me?—"you have to give the money back to the neighborhood."

I'd made the mistake of griping to the bona fide king of parking reform that owning a car in New York City was annoying. Twice-weekly street sweeping forces a large group of people to fight for a small number of free curbside spots that they must then vacate frequently. It's the rare game of musical chairs that requires insurance. And for most people, exorbitantly priced garages aren't really an option. The free spaces are the only way to make owning a car in New York feel sustainable.

Shoup wasn't having it. "People have to ask—do they want free Wi-Fi, or do they want free curb parking for *her*?"

He didn't say as much, but by his definition, I was a person suffering from paid parking derangement syndrome. In his writing he describes this condition as "the acute onset of extreme paranoia in reaction to the prospect of paying for parking, leading the afflicted to speak in hyperbolic language and to lose touch with reality." Guilty as charged.

This wry octogenarian is a distinguished research professor in the department of urban planning at the University of California at Los Angeles. He wrote a 765-page book on this subject, The High Cost of Free Parking, which came out in 2005 and outlines his case against America's decision to hand over an astonishing amount of free land to cars. Among urban planners, academics, economists, civil servants, and even some regular old city dwellers, the book stands as the most salient argument for renegotiating our toxic relationships with our vehicles. Shoup pitches parking as the most obvious, least-discussed way to make progress on a host of issues too often dismissed as intractable, including

affordable housing, global warming, gender equity, and systemic racism. "All parking is political," he writes in the book, especially because we refuse to pay for it. He says he debated calling the treatise *Aparkalypse Now*.

America's 250 million cars have an estimated 2 billion parking spots and spend 95% of their time parked. To make cities more equitable, affordable, and environmentally conscious, Shoup makes the case for three simple reforms:

- 1. Stop requiring off-street parking for new developments.
- 2. Price street parking according to market value, based on the desirability of the space, the time of day, and the number of open spots.
- 3. Spend that revenue on initiatives to better the surrounding neighborhoods.

If people had to pay for street parking, he argues, it would bring in money to pay for local repairs, infrastructure (like that free Wi-Fi he was talking about), and beautification. It would also make public transit more attractive and force many curbside cruisers to head straight for parking garages and other paid spots—a win for neighborhood air quality, global greenhouse gas levels, and those still playing those two-ton games of musical chairs.

As anyone who lives in a city knows, the pandemic blew up most of what we understood about parking in America. Oh, it was possible this whole time to hand over parking spaces to restaurants? To turn whole streets into semipermanent pedestrian thoroughfares? To cut traffic enough to yield noticeable improvements in air quality? All it took was a once-in-a-century public-health catastrophe.

I asked Shoup if he saw all this coming. No, he said. For a long time, there was just nobody else talking about it. "The first article I wrote that had the word 'parking' in it was in 1970," he told me. These days he's the most frequently referenced figure in all contemporary conversations on civic parking reform, one whose ideas are only now starting to be put into practice in a handful of cities around the country.

For 50 years, Shoup has been trying

to get people to admit that there's no such thing as free parking. If the subject is finally up for debate, are the sufferers of paid parking derangement syndrome ready to listen?

"Nobody wants to grow up to go into parking," Shoup says. He grew up in Long Beach, Calif., assuming he'd go into economics, which he kind of did. He chose land economics for his doctoral dissertation, so he sort of backed himself into it. According to his research, U.S. cities dedicate more land to parking than any other single use, including housing and commercial space. No academics had paid much attention to why or whether that was the right call. In 1968, with his Yale Ph.D. in hand, Shoup decided to keep looking. "It seemed kooky," he says, but important and undercovered. Such subjects require stubbornness, he says: "Often you have to stick to it for a while, even if it's discouraging."

In that department, arguing against parking subsidies definitely qualifies. In many cities decades-old ordinances require real estate developers to set aside a certain amount of space for parking-usually, a shocking amount. America has an average of 1,000 square feet of parking for each car, vs. 800 square feet of housing per person. Shoup attributes this upsidedown status quo to city planning that amounted to back-of-the-envelope math. "People used to think that parking requirements were equivalent to natural numbers, like the boiling point of water or the speed of light," he says. "They were guesses."

Shoup met few government officials, real estate developers, or city dwellers eager to make parking tougher and pricier. His ideas didn't start to gain something resembling traction until the late 1990s, when he'd begun teaching at UCLA and working on his book in earnest. As he brought on a series of grad students as editors, many of those who saw economics as a way to solve other city problems began to share his view that charging for parking would help. One of those editors, Douglas Kolozsvari, met Shoup 20 years ago, when he went to pick >

■ up an application for UCLA's urban planning department and saw the professor sitting at the secretarial desk. "He asked what I was interested in," recalls Kolozsvari, whose answer was air quality. Along with the application, Shoup handed the young man a chapter of his manuscript and told him to read it.

Kolozsvari says Shoup encouraged brutal feedback. "He wanted people to be as critical as they could be so he could make the book better," he says. "He also liked his jokes in there." Some of his peers were put off by Shoup's style and zealotry, but the professor's fans often became superfans, then acolytes who took his ideas to urban centers across the U.S. and elsewhere. Some appreciated his no-BS affect; others, that his research specialty didn't have much competition. "Making your name studying traffic congestion is tough because so much has been done at it, but parking is just wide open," says Michael Manville, another former Shoup grad student. Caveat: There are downsides to the field's low profile, he says. "It's not that I wrote an article about parking and now I'm the Rock."

It's the rare urban planning expert with a fan base in the thousands, but Shoup is one of them. There are more than 5,000 members in a Facebook group called the Shoupistas: UCLA alums, academics, consultants, and public officials from around the world

who praise the professor as, variously, a legend, passionate, hilarious, and even easygoing.

Perhaps surprisingly, Shoup and most Shoupistas I spoke with say they own cars and only oppose underpriced parking. ("I don't like paying for parking as much as the next person," says Kevin Holliday, who created the Facebook group in 2008. "I don't like paying for gas, either.") We aren't going to eliminate cars any time soon, they say, so we need to make parking beneficial to the communities around the spaces. And though there's a big difference between having fans with urban planning degrees and fans who can sign bills into law, the work Shoup started a half-century ago is starting to change policy, too.

So far, Shoup's ideas have found purchase mainly in liberal enclaves. To put his reforms into practice, officials need to start from the position that cars are a necessary evil, says Leah Bojo, a Shoupista who works as a land use consultant in Austin and has focused on green initiatives. "It's not great to have lots of cars in cities, contributing to air pollution and circling around looking for a spot," she says. "There are certain instances when they are the best choice, and that's all fine."

In 2011, Bojo helped set up the first of Austin's Parking Benefit Districts. The city put meters on formerly free

spaces in an area near the University of Texas' west campus—where there was an influx of students and not enough housing-with the proceeds earmarked to fund bike lanes, pedestrian lanes, and other improvements. Neighborhood residents got to pick some of the projects, and the rest of the revenue went to similar efforts in other parts of the city, she says. The reviews are positive, and today Austin has four such districts. Revenue from parking meters recently approved near a popular lakeside running trail will go partly to fund trail landscaping and repairs.

Most American restaurants have at least three times the square footage devoted to parking as they do to the restaurant itself. During the pandemic, Austin, like many cities, passed legislation permitting restaurateurs to turn lots and curbs into extra dining space. "There were all these restaurants that people wanted to keep around," Bojo says. "It hasn't been the crisis that people thought it would be." Covid germs notwithstanding, most days, Austin's air quality is markedly better than it was before the pandemic, she notes.

In Berkeley, Calif., city councilmember and Shoupista Lori Droste has looked to parking as a way to subsidize housing affordability. This is, in some ways, a corrective. In a research paper from a few years ago, Shoup estimated that construction costs for parking structures in a dozen U.S. cities averaged \$24,000 per space aboveground and \$34,000 per space underneathor roughly two to three times the net worth of the average Black or Hispanic family at the time. These costs tend to get passed along to renters. "As council members, we write a lot of policies, but the one area that we can have the biggest impact in people's day-to-day lives is in land use," Droste says.

In 2014, when she was elected, Berkeley required one off-street parking spot for every unit of housing and was considering adding even more spots to a downtown area where they were already plentiful. Droste saw that proposition as an unneeded giveaway likely to jack up housing costs. "For the first however many years I was



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■ a councilperson, I was intolerable at any sort of cocktail party because I would just talk to people about parking," she says. "I knew that the only way I'd be able to get some movement on this is if I have a really ridiculoussounding proposal to pass, so I called it the Green Affordable Housing Package. How could you vote against that?"

During a Berkeley City Council meeting earlier this year, officials said that 60% of the city's greenhouse gases come from transportation, and Berkeley has grown by 10,000 people in 10 years. Not requiring developers to spend tens of thousands of dollars on a parking spot would free up funds to build more affordable housing and incentivize more public transportation use. Droste's bill aimed to lower housing costs and emissions, principally by repealing Berkeley's requirement that each home have a dedicated parking space. "Do we want housing for cars or housing for people?" was her mantra. Even in Berkeley, the bill sat in planning commission purgatory from 2015 until earlier this year, when it was brought up for a vote and passed unanimously.

It's not an especially sexy measure by most people's standards, but to the Shoupistas, ending residential parking requirements is a big deal. Now, Droste says, Berkeley developers will have to ask for approval to add more parking, which she says will probably mitigate rising costs.

Droste stresses that Berkeley parking hasn't suddenly become a pain like New York's. For one thing, many of today's driving-age Berkeleyites, including Mayor Jesse Arreguín, don't have licenses and don't seem interested in getting them. For another, the Berkeley City Council is mindful of concerns about knock-on effects from her law. The city still has plenty of parking, Droste says, and she'll keep an eye on the supply. "Nobody is saying if you choose to drive, you should be circling around the block."

Droste and Bojo are among the handful of Shoupistas who've managed to translate the professor's ideas into policy. They're betting that more civic leaders will soon join them. "I'm

sort of a parking and zoning evangelist," Droste says. "Because parking really does touch everything."

Some other parking reform efforts are trying to take cars more fully out of the equation. In car-heavy Phoenix, real estate developers are building a 17-acre neighborhood called Culdesac Tempe that won't have any parking, period. (Residents and visitors will have to bike or take public transit.) Many time zones east, in Paris, Mayor Anne Hidalgo said last year that she intends to remove roughly half of the city's 140,000 parking spaces in favor of wider sidewalks and bike lanes and more room for car-sharing and bike lots. Hidalgo has said her aim is to make the city feel more like a group of neighborhoods in which people can walk to any of their major needs within 15 minutes.

"They'll say, 'Well, gee, these curbside cafes are pretty great.' It was unthinkable before"

In U.S. cities where parking spots have become open-air restaurants or, in many cases, enclosed wooden longhouses, things don't feel so settled. All the more reason, the Shoupistas say, for more permanent decisions.

As people return to work, start traveling again, and begin relying on their cars to run errands, meet friends, or go out to eat, it seems inevitable that they'll, you know, want those parking spots back. Shoup, whose undergrad degree was in electrical engineering, says he's confident there will be a longterm hysteresis effect. "If you have a magnet and you expose it to the coil of electricity, it changes the magnetismit makes it go back and forth," he says, explaining the concept slowly. "The electrical current has changed the magnetism, so when you remove the current, it doesn't go back to what it had been. It doesn't snap back like a rubber

band." He pauses to see if I understand. "It has changed forever."

Shoup says he hopes this theory will hold true even in places where finding free parking is a competitive sport. "In the densest areas like Manhattan or Brooklyn, they'll see that curb parking is not the highest-value use of the land," he says. "They'll say, 'Well, gee, these curbside cafes are pretty great.' It was unthinkable before." Immediate local benefits are the key, he says. In a place such as New York, the hiking of parking rates based on demand and peak hours should be a winning issue if the money goes to fund cleaner streets, bigger sidewalks, and other perks.

Skeptics can be forgiven an eye roll. New York is a great example of a city where residents tend to distrust, with good reason, that added levies will actually find their way to the promised public works projects. (Its subways, for example, have grown steadily less reliable over a decade of reckless underinvestment by ex-Governor Andrew Cuomo.) And in any city there are some commuters who don't care about sidewalk cafes, or people for whom paying surge pricing in busy central areas will represent a real financial hardship. To that, the Shoupistas can say only that if you own a car, you can afford to park it. Otherwise, someone else is paying the price.

Shoup says he has faith that the moral arc of the universe bends toward less parking. He doesn't expect to live to see all his reformist dreams fulfilled, but, he says, the Shoupistas will. Together, they've already surpassed the low bar set for the relative few in his chosen field. "The subjects that we study in academia are hierarchical," he says. "National affairs and international affairs seem really important, then the state government is a step down. Local government? That's parochial. And what is the lowest class that you could study in local government? That would be parking." Besides the potential community value, he was drawn to parking research all those decades ago because there seemed to be so much to learn. "I've been a bottom feeder for all these years," he says. "But there's a lot of food down there." **B**

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O Cincinnati

What

Happened

Police Reform



to That Success Story?



he chaos in Cincinnati started, in earnest, at a budget hearing three weeks after the murder of George Floyd. The topic was a million-dollar bump for the Cincinnati Police Department, a hugely controversial proposition amid nationwide calls for drastically cutting police budgets.

Residents filed into the Duke Energy Convention Center on a Thursday night in June 2020. One by one, people took the floor, using their two minutes of allotted time to shout down the increase. "To know as a taxpayer that CPD is receiving my hard-earned money to continue and consistently oppress my brothers and sisters is sickening," said a woman named Mecca, joining via Zoom. "At this point we are paying slave masters with badges." Cincinnati police had killed nine people, most of them Black, in the past five years. In 2018, a video of an officer using a Taser on an 11-year-old Black girl in a Kroger supermarket went viral. Applause periodically swelled into "No Justice, No Peace" chants.

Almost three hours in, a middle-aged White man in a plaid button-down short-sleeved shirt walked up to the microphone. He introduced himself as Carl Beckman, thanked the committee, and began reading a prepared speech. "You should give priority to the funding of the police department...." As soon as his allegiances became clear, an unrelenting two minutes of booing began. He soldiered on as "Black Lives Matter" chants started to drown him out.

After his time was up, the room didn't settle. David Mann, the council member running the meeting, explained that this was a forum for all sides of the debate. That didn't calm things down much. Mann grabbed his gavel, slammed it down, and adjourned the forum five hours earlier than planned. Protesters poured into the streets. They burned an American flag and painted graffiti on the convention center. "This went from an emotionally charged evening to close to a mob," Mann told a local Fox TV affiliate that night.

Until recently, the Queen City had been heralded as a model for community policing. After the 2014 shooting of Michael Brown, a Black teenager, in Ferguson, Mo., news outlets across the country lauded the CPD as a case study in how police departments could work with and better serve Black residents. *Bloomberg Businessweek* ran a profile of the department called "Building a Better Police Department."

Cincinnati hadn't gotten to this place voluntarily. In April 2001, a CPD officer shot and killed 19-year-old Timothy Thomas—the sixth such violent act in almost as many months. His death was the last straw for Black Cincinnatians, who make up more than 40% of the city's residents. They ran into the streets and barely left for days. There was a reported \$3.6 million in property damage. Hundreds were arrested.

Already facing an economic boycott from local activists and a class-action racial discrimination lawsuit, then-Mayor Charlie Luken asked the U.S. Department of Justice to investigate the police department's use of force. Ultimately, a federal judge settled the lawsuit and the inquiry by imposing what would become known as the Collaborative Agreement, or simply "the Collaborative." It mandated a series of reforms to the CPD, the most important of which was an order for

officers to move away from arresting petty thieves and lowlevel drug dealers in favor of "community problem-oriented policing" (CPOP). That meant addressing issues that cause people to commit crimes in the first place.

The reforms didn't come without resistance and took years to be fully implemented, but for a time the arrangement worked. From 2008 to 2014, felony arrests declined 41.9%, according to a University of Cincinnati study. From 2000 to 2014, the department's use of force fell 70%, according to city data. Perhaps the biggest improvement, though, was residents' relationship with police. In 2015, amid a tour of police departments across the U.S., then-Attorney General Loretta Lynch praised "the determination from residents and law enforcement officers to improve their city together."

In recent years, however, city officials seem to have become complacent, and the police department, according to critics, has fallen into old habits. A 2017 report commissioned by the city found that the CPD had essentially walked away from the Collaborative Agreement. Now, many local activists would rather focus on defunding the department instead. After last June's contentious city council meeting, the committee nixed the extra million for the CPD, leaving its budget at \$151 million for fiscal 2021.

The rise and fall of the Collaborative in Cincinnati shows how easily local leaders and police departments can abandon reforms—even when they're working. Still, President Joe Biden, who has said he doesn't support the defund movement, is betting on the Cincinnati model. In April, Attorney General Merrick Garland announced an investigation into the Minneapolis and Louisville police departments—much like the one Mayor Luken had requested. Their findings may lead to reforms that are similar or even identical to those that were imposed on Cincinnati two decades ago.

The city's experience should be instructive for reformers. The conditions that led to its success were remarkable—but ultimately temporary. What made it work required vigilance, and once that went away, the will to comply among police and the city government did, too. "People celebrated the Cincinnati collaborative for 10 years," says Saul Green, a federal monitor who for years oversaw the reforms. "Nobody in those celebrations pulled back the layers and really checked to see what was going on."

ris Roley was driving to work on a spring morning in 2001 when she heard that police had killed another Black man. She walked into the General Electric Co. office, where she worked in consumer finance, to tell her boss she had to go, and rushed down to the alley where Timothy Thomas had a bullet put through his chest. Roley was there to gather information. Officials had said there were no witnesses to Thomas's death; she didn't believe that. A few weeks earlier, Roley, along with lawyers at the American Civil Liberties Union, had filed a class-action lawsuit against Cincinnati and its police department alleging more than 30 years of racial profiling. "We were devastated and even

more disappointed in the police department," Roley, 57, says.

Cincinnati-bred, Roley was raised by activists. The way she tells it, she grew up on the front lawn of a community space known as the "Black House," an old synagogue given to civil rights advocates in the 1960s. She spent her childhood going to protests with her grandmother, Vivian Kinebrew, a nurse

the Cincinnati Music Festival. The annual three-day event draws tens of thousands of people downtown, many of them Black. Roley says the establishments didn't want to serve this influx of out-of-towners and offered up various racist excuses for why not, such as ugly stereotypes about tipping and rowdiness.

A few months later, when police killed two Black men in 24 hours—an event that became known locally as "two in 24"—Roley's group turned its attention to police brutality. She helped organize demonstrations and investigated what happened. The group also asked locals what they wanted. Almost universally, people said accountability. Roley and her fellow activists thought they could get that only via the courts, which is when they decided to file their suit. "That was the hammer," Roley says.

Roley says the activism after two in 24

Roley says the activism after two in 24 laid the groundwork for the Collaborative. By the time another Black man, Thomas, was killed several months later, the lawsuit was already making its way through federal court. And the city, still reeling from the earlier shootings, could no longer contain its grief and anger. "Folks just weren't taking it anymore," Roley says.

Then came the August 2002 settlement. The Collaborative's main goal was to get the city, its police department, and its residents to work together. It also included some specific reforms. It created the Citizen Complaint Authority (CCA), an independent oversight body that would investigate questionable officer behavior. The police department would have to put together a foot pursuit policy for when and how to approach suspects and a mental health response team, limit the use of chokeholds, and more clearly spell out when and how force could be used. But the most innovative directive was the requirement to use problem-solving policing strategies.

The document was remarkable, says Green, a former federal prosecutor and the agreement's court-appointed monitor, in that "it said arrests will not be the primary

way in which police respond to problems." Roley was overjoyed. "It was amazing because we had fought so hard," she says. "You're grateful for that particular moment because of the blood that had been spilled on the street at the hands of the police." Then reality hit. Federal monitors estimated ▶

by trade who Roley says was arrested on multiple occasions during the course of her activism. "I know my particular role in this life," Roley says. "When I walk into a room, I'm walking in for Black people."

Roley got her first taste of large-scale organizing in 2000, when she helped form the Cincinnati Black United Front to boycott a group of restaurants that decided to close during

↑ Roley

particular this When role life. know in my walking I'm for B1ack into walk in people" room, a

◀ it would take a decade to see any measurable improvements or changes.

At issue was resistance from the city and the police department. The terms of the agreement allowed Green's team access to police reports, facilities, and personnel so he could diagnose problems and ensure the new policies were enacted. Police Chief Tom Streicher, a career officer who spent decades rising through the ranks, took the reforms as a personal indictment of his life's work. He limited access to the department and slow-walked information, according to court documents.

On one occasion, according to Green and court documents, Streicher kicked a federal monitor out of a police station. Another time, a lieutenant colonel spent the better part of a meeting stonewalling a federal monitor's questions, before calling another question "the stupidest," according to court documents. Rank-and-file officers took their cue from the top and acted as if nothing had changed. "I was a hard-charging cop. I really thought arresting people and putting them in jail was the way to go," says Maris Herold, who worked in the department for more than 20 years.

Mayor Luken, who'd called in the Justice Department in the first place, tried to back out of the agreement. Months after signing it, he complained to the press and city council that the feds were overbilling the city. (Luken didn't respond to emails and calls from *Bloomberg Businessweek*.) Things got so bad that in 2005, three years into the effort, the federal judge overseeing the agreement dragged Streicher to court and threatened the city with daily fines until it stopped obstructing Green's team.

Luken's successor was Mark Mallory, the city's first Black mayor elected by popular vote, who'd won after running an outsider campaign. Unlike Luken, he embraced the Collaborative as a way to unite his racially polarized constituents and pressured Streicher to implement the reforms.

To almost everyone's surprise, the new regime worked. "If you follow the process you can reduce disorder, violence, crime," says Herold, who's now chief of police in Boulder, Colo., where she's still carrying the torch for problem-oriented policing. "I've never looked back from those days."

Even Streicher came around once he saw the methods were actually effective. He remembers one particularly troublesome apartment complex that sent an unending stream of domestic disturbance calls to police. "We had been, for 20 or 30 years, making thousands of radio runs to this same apartment complex for the same people," Streicher says. In the spirit of the Collaborative, the department started calling in social services groups to help with substance and spousal abuse. The CPD made fewer trips to the complex; community relations improved. "That was an eye opener for us," says Streicher, who now consults for police departments on collaborative models.

By 2008, Green called the model "one of the most successful police reform efforts ever undertaken in this country." Not only were felony arrests and violent crime down, a 2009 study of 3,000 residents by the Rand Corp. found that Black Cincinnatians rated police professionalism higher than they

did in 2005, and their perception of racial bias had diminished over the same period.

Roley spent those years as the community's advocate, reporting back to Green and his group while attempting to create a framework that could endure. "I was strategizing on how we, as the parties to the Collaborative Agreement, could stay together to do the work," she says. "I felt like: 'Can we do this without the federal oversight?'"

he success of the agreement was part of its undoing. By August 2007, police brass, city officials, and Green's crew thought they'd met most of their goals and decided to formally wind things down the following year. To assuage concerns like Roley's that things would quickly fall apart, a Manager's Advisory Group, comprising members of the community, police union, department, and city government, would meet once a quarter to ensure the reforms continued to stick.

Green went on to become deputy mayor of Detroit. Streicher retired in 2011. Two years later, Mayor Mallory reached the end of his final term. Roley started noticing little things. The city stopped collecting statistics on traffic stops. Police employee behavioral tracking was abandoned. Then, in 2010, Roley's cousin Kelly Brinson was tased to death by a University of Cincinnati police officer, whose department was never covered by the Collaborative.

The 2015 shooting of Quandavier Hicks, a 22-year-old Black man, was a low point. Just a month after Attorney General Lynch's visit to Cincinnati, police responding to a disturbance complaint entered Hicks's home without announcing themselves, according to interviews with officers submitted to the city firearms review board and the county prosecutor. When Hicks opened his bedroom door while holding an unloaded rifle, an officer shot him in the chest, killing him.

The city and county investigated the shooting and cleared the officers involved of wrongdoing. When the CCA looked into the case, it failed to follow through with key parts of an independent inquiry, says Rob Linneman, a civil rights lawyer who is representing Hicks's family in a lawsuit against the city. It didn't look into whether the officers were justified in entering the building or talk to anyone outside of the police investigation, according to Linneman.

The CCA, at that point, had lost much of its funding. An investigation by the *Cincinnati Enquirer* found that by 2016 the \$499,000 CCA budget was less than half, in inflation-adjusted terms, what it had been in its first year of operation. By 2018 it had ticked back up to almost \$650,000, but that wasn't enough to fully staff the group.

Meanwhile, allegations of abuse piled up. The investigatory body was blowing through its 90-day deadline to look into cases—that 2016 *Enquirer* investigation uncovered 21 files from the year before that still hadn't been touched.

"The Citizen Complaint Authority was thought to be a groundbreaking thing at the time, and it was thought of as something that could give civilians real power in terms of how they ▶



◄ are policed," Linneman says. "That has turned out to be a disappointment."

Gabe Davis, who currently runs the CCA, says the organization does "a quite thorough job of independently gathering the evidence." Davis, who wasn't in charge during the Hicks investigation, adds, "Certainly folks don't have to like the conclusions we come to."

A month after Hicks was killed, University of Cincinnati police officers killed another Black man. A campus patrolman shot Samuel DuBose in the face during a traffic stop for a missing front license plate. "It was another blow," says Roley. "It's more pain. But you keep fighting to change."

In 2017, almost 10 years after the court monitoring ended, Green was invited by the city to review the Collaborative Agreement. When he arrived, he saw old

signs of resistance. The police union president, Dan Hils, didn't show up to the meetings or otherwise engage in the process.

Green's report was brutal. He found the department not only had moved away from the model that had worked so well, but also had "abandoned the principles of" and "unilaterally withdrawn from the Collaborative Agreement." "Cincinnati is an example that change can occur, and it can occur with important and significant community involvement," says Green. "But it is hard to sustain."

Hils, who still runs the union, did not respond to repeated requests for comment from *Bloomberg Businessweek*. The city's mayor, John Cranley, appreciates Green's input but disagrees with his assessment. "We do more today in the spirit of the Collaborative and spend more in the spirit of the Collaborative than we did in any given year when we were actually under court order," he says, pointing to the millions of dollars the city has spent on body cameras and training officers on unconscious bias and de-escalation. "We're not perfect," he adds. "We're working to improve every day."

espite having lost so much, Roley remains as committed as ever to her cause. Last year she successfully lobbied for changes to the police union contract, including extending how long bad behavior stays in officers' records. She's also training a new generation of activists, whom she calls the Leaders of the Free World, to take up her decades-long fight. She says she's always known it would be a long-term project.

But after George Floyd, Breonna Taylor, and too many others, there's a growing feeling among activists that these kinds of reforms won't be enough. Even if the Justice Department managed to implement something like the Collaborative Agreement in Minneapolis or Louisville, it couldn't oversee that reform forever. And what about the 12,000 other local police departments in the U.S.?

Police killings have continued unabated since 2013.



↑Anti-police brutality protests in Cincinnati, April 2001

In 2020 alone, police killed 1,126 people across the country. They're on track to kill just as many in 2021, according to Mapping Police Violence, a research collaborative that compiles the data. And that's just one bleak stat. In Cincinnati alone, Black people make up a disproportionate number of the homeless population and own a tiny proportion of property, despite accounting for nearly half of the city's residents.

"That tells me that we have not made the progress that we need to," says Mona Jenkins, a community activist who helped lead last summer's protests. "At what point throughout this insane process do you realize this is not working and say we need to try a different approach?"

Jenkins, who works as a director at the Greater Cincinnati Homeless Coalition, respects Roley's contributions, but disagrees with her on the way forward. She's focused on lobbying to move funds away from police to other services that address the underlying causes of crime. That effort has had some recent victories. In addition to defeating this year's police budget increase, pressure from activists won the CCA an extra \$200,000, fully funding it for the first time in years. The group hired a new executive director and new investigators to chip away at its 130-case backlog.

Roley understands the spirit behind the defund movement. But, she notes, there's no political will at the federal or local level to send money to Black neighborhoods for better schools, housing, grocery stores, or parks.

So she's staying the course. "I think some days people want me to be critical, but I'm optimistic. I want to see the opportunity," Roley says. Just because the police department and city haven't held up their end of the bargain doesn't mean she has to give up working to improve people's lives. "The strength of the community has been what kept this thing alive in the city of Cincinnati," she says. "We'll be at this thing continuously improving it until communities can stand up and say, 'Yes, we've got a good framework here.'"

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Greetings From Telosa (Population 0, for Now)

Tech entrepreneur Marc Lore is planning to build a utopian megalopolis somewhere in the U.S. "Let the land be owned by the people!" he says. "But in a capitalistic sort of way"

□ By Joshua Brustein

☐ Illustration by Gongyu Hu



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Bloomberg Businessweek

In an American economy of winners and losers, it's clear where Marc Lore falls. He founded two e-commerce startups and sold them for \$550 million and \$3.3 billion before spending the last five years running Walmart Inc.'s online shopping division. Since announcing his departure from Walmart in January, Lore is on a victory lap that seems to include doing everything short of climbing into a rocket and shooting himself into space. Yet somehow, even as he's bought a stake in a basketball team, begun learning the basics of his new Steinway grand piano, and planned a reality show (it'll be like Shark Tank, but with bigger checks), Lore has found time to ponder what he sees as the biggest challenge facing the U.S.the country's massive wealth gap. "Most civilizations in history at some point fall, right?" he says. "This is going to bring down America."

Lore laid out his plan to solve things during repeated phone and in-person interviews over the past six months. In early May he invited me to his apartment in Manhattan's Tribeca neighborhood for lunch. Covid-19's winter wave had waned, and vaccinations were becoming more widely available, but interacting with humans still felt weird, so Lore had arranged to have the walls on the top floor of his \$43.8 million penthouse retracted, allowing the breezes coming in from the Hudson River to ventilate one of his living rooms.

Lore sat facing out onto one balcony whose main feature was a life-size bronze statue of Benjamin Franklin. Wearing an all-beige outfit that matched, with unsettling precision, his beige couch, Lore explained how everything changed for him several years ago when he read Progress and Poverty, the 1879 manifesto by the economist and journalist Henry George. The book's core argument is that private land ownership is to blame for rising inequality. Land in unoccupied areas is often worthless, George wrote, but gains value when people move nearby. It's society that's creating this wealth, but the benefits accrue only to whoever happened to own the land in the first place, giving them the ability to get rich without providing anything worthwhile.

George argued that heavily taxing the value of land would increase both economic efficiency and social justice. His book was a 19th century blockbuster and has maintained a steady fan base ever since. His adherents argue that a land value tax could enable the elimination of most other taxes, including traditional property taxes, which assess improvements on the land in addition to the land itself. This idea has never been put into practice on a large scale, but it's gone through something of a resurgence in the past decade, gaining praise from economists such as Joseph Stiglitz and inspiring arguments that similar thinking should be applied to other large pools of capital.

The idea of a philosophy that the *Atlantic* magazine referred to in 1913 as "Government Without Taxation" has obvious appeal to Lore, who's on the hook for about \$270,000 annually for New York City taxes on his apartment alone. He isn't shy about expressing his skepticism that the government will spend it well, suggesting that taxpayers should be empowered to vote on which specific government projects their taxes are applied to, so the proposals have to "fight one another" to move forward.

Lore is particularly attracted to the strain of Georgism that involves creating a trust that holds the land in a community and uses the income it generates to fund social services. From that idea, he's come up with the modest proposal to start a private foundation, buy 200,000 acres or so of land, probably somewhere in the American West, and build a 5 million-person city from the ground up—a Georgist utopia that will serve as a demonstration project for a new, fairer phase of capitalism.

"If you went into the desert where the land was worth nothing, or very little, and you created a foundation that owned the land, and people moved there and tax dollars built infrastructure and we built one of the greatest cities in the world, the foundation could be worth a trillion dollars," Lore says. "And if the foundation's mission was to take the appreciation of the land and give it back to the citizens in the form of medicine, education, affordable housing, social services: Wow, that's it!"

The wealth-sharing that would come from the foundation, Lore says, mimics the way employees at startups are paid partially in stock. He says he's planning the city much in the way he'd launch a business. For the past several months, Lore and a handful of colleagues have painstakingly brainstormed the new municipality's official values and developed its logo; Lore conducted a survey of his LinkedIn followers to help him pick a name. They settled on Telosa, which derives from an ancient Greek word meaning "highest purpose." He's hired a team that includes a transportation planner, an engineer, and an urban historian. His real estate consulting firm has narrowed the search for a site down to about six states and has even identified some specific 50,000-plus-acre parcels in Nevada—whose governor has proposed rules to encourage new cities—as potential sites. In June, Lore commissioned Bjarke Ingels, one of the world's most famous architects, to be Telosa's chief architectural designer.

Lore acknowledges this is all a bit preposterous. He's rich but not rich enough to fund such a large development project by himself, and he can't say with any specificity how he'd get the money. He hasn't acquired land or water rights, precursors to undertaking the daunting task of persuading people to leave real cities for his hypothetical one. Nor has Lore figured out how the foundation would operate or persuaded local officials to grant it the power it'd likely need to function. Clearing those hurdles would get Telosa to the point where Lore could see whether his unproven economic model would actually succeed.

Telosa taps into a long-running—and mostly unsuccessful—tradition of trying to improve urban life by starting new cities from scratch. Sarah Moser, an associate professor of geography at Montreal's McGill University who studies planned cities, has identified about 150 greenfield city-building projects being planned around the world, backed either by governments or private interests.

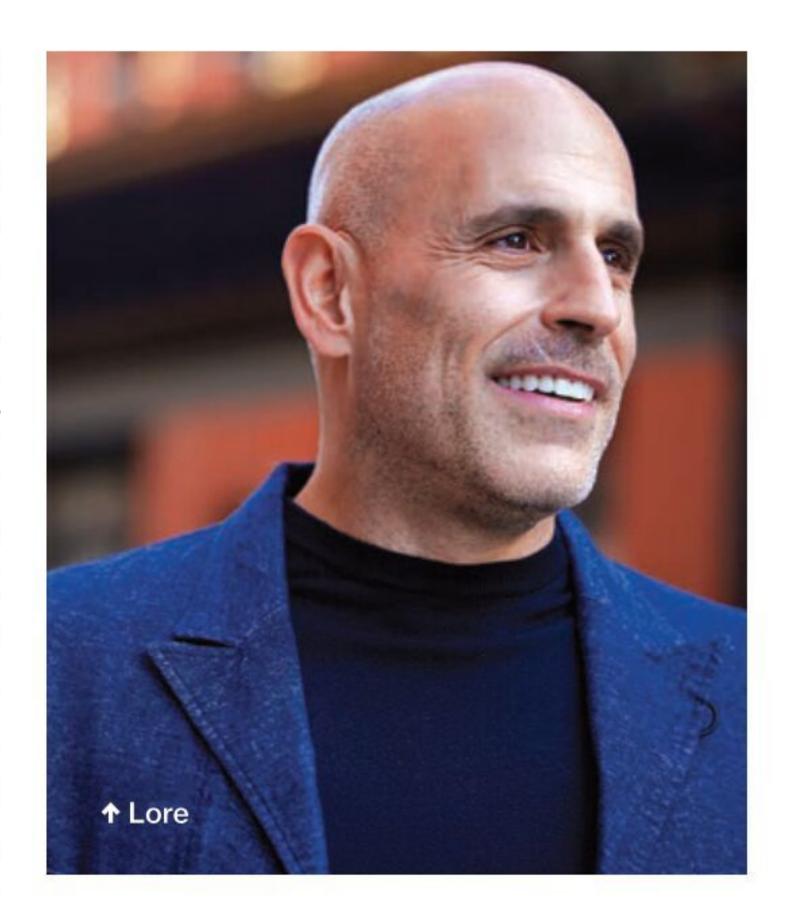
Until recently, the real action was in authoritarian countries whose governments have granted themselves wide ▶

◄ latitude for such experiments. But there's been increasing activity in the U.S. and Canada. The push is coming largely from people associated with the tech industry, Moser says. Their motivations vary from the desire to create test beds for technologies such as autonomous vehicles and citywide networks of sensors, to the Silicon Valley-esque conviction that privately owned startups are the solution to every problem. But Moser views these projects as largely cynical. "It's so seductive to say, 'I'll start over,' rather than just pay my taxes. Then they present themselves as this beacon of hope for humanity," she says. In a 2020 paper, Moser and several colleagues gave this city-building philosophy a name, riffing off the billion-dollar startups that inspired it: "Unicorn Planning." It's the kind of framing Lore would agree with, even if Moser doesn't mean it as a compliment.

Lore developed his taste for risk as a kid growing up in Staten Island, N.Y., and then in New Jersey, where his family moved when he was 10 years old. His mother was a bodybuilder and personal trainer. His dad was always looking for business ideas to hit it big. "He would take moonshots on a micro basis," says Lore, affectionately suggesting his dad's best ideas were more audacious than successful.

Still, he inherited his dad's hustling spirit and gambling nature. Lore was following the stock market by the time his voice dropped. He speculated on baseball cards as a teenager and ran a hedge fund in college; his clients were the parents of his rich classmates. Lore was in his late 20s and making a half-million dollars a year in banking when he decided to strike out on his own. His first big success was Diapers.com, which he sold to Amazon.com Inc. in 2010. He quit Amazon after two years, started a competitor, Jet.com, and sold it to Walmart in 2016.

The lesson Lore came away with from his entrepreneurial career was that the best ideas are those with low chances of success but high reward—the kind he saw B-school overachievers shying away from. "You get someone who's used to



getting straight A's, and they just don't want to be associated with failure," he says. "It's not logical to not take a shot at doing something with a 20% chance of changing the world. But people don't do it. That's the city: The size of the prize is to change the world."

Lore started working on the idea of creating his own city almost as soon as he joined Walmart. Katie Finnegan, Jet's head of corporate development at the time, says he brought it up to her during a plane ride on a cross-country business trip. "The thing I remember thinking is, 'Where do you even begin?'" she says. Even so, Finnegan played along, quizzing her boss on land acquisition and other challenges, before the two settled into a debate about improving package delivery in a city built from scratch, a topic that allowed her to segue back to their actual jobs.

It was around this time that Lore stumbled onto George. He also took an online course on cities at the Massachusetts Institute of Technology with Kent Larson, a prominent urban futurist. Early in 2020, Lore became the largest investor in Archer, a flying-car company; its founders remember him vaguely telling them he was planning something big that their work might fit into.

Lots of people with outsize ambition and resources have set their hopes on building new cities. Sometimes the plans have come from governments the national capitals of both the U.S. and Brazil were planned and built

from scratch, and the single most ambitious project under way now may be Saudi Crown Prince Mohammed bin Salman's plans for Neom, a smart city in Saudi Arabia. Others served private businesses, like the company towns that once housed 3% of the U.S. population. Fascinating but failed projects have often started with individual dreamers and were rife in the 1960s and '70s. Among them: Athelstan Spilhaus's Minnesota Experimental City, whose plans consisted of a town partially enclosed in a geodesic dome; Floyd McKissick's Soul City, which the civil rights leader planned to develop on a former slave plantation in North Carolina; and Rose Island, a platform in the Adriatic Sea whose founder declared it an independent state before the Italian government dynamited it to the seafloor.

The endless twists on the idea fall into three broad categories, according to Alain Bertaud, an influential urban thinker who once served as principal planner at the World Bank: libertarian attempts to escape government regulation; technocratic areas established to foster and showcase innovations; and projects seeking some novel model of collective welfare.

Most ideas from the U.S. tech industry have fit into the first two buckets. The first to rise to fame was the seasteading movement, which envisioned sovereign city-states floating in parts of the ocean outside the reach of U.S. tax laws. This movement was personified by investor Peter Thiel. But seasteading played poorly outside of Ayn Randian circles, and even aspiring city builders whose plans have obvious libertarian elements now tend to play down any ideological motivation.

Technocratic city plans often stem from those who see overhauling urban life as necessary and technologically feasible but politically impossible. Ryan Rzepecki, founder of the bike-sharing company Jump Bikes, which he sold to Uber Technologies Inc. for more than \$100 million in 2018, says it's just too difficult to make the drastic changes that would modernize transportation in major U.S. cities. "I endured a lot of ▶





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■ pain just to launch a couple hundred bikes on the streets," he says. "It made me a bit more skeptical about seeing the large changes we'd need just by pushing incremental changes in existing cities." Rzepecki, who left Uber at the end of 2019 and moved to Puerto Rico, is now working on creating a virtualreality-based simulation of a car-free city, which he hopes to use as the foundation for building one in real life. He acknowledges there are reasons to be wary of the chances of success for projects like this. Despite some big talk, the tech industry's track record for building cities isn't great.

Perhaps the most prominent attempt was Quayside, a plan by Alphabet Incaffiliated Sidewalk Labs to turn a 12-acre plot in Toronto into a demonstration project for the future of urban life. Sidewalk, run by Dan Doctoroff, the former chief executive officer of *Bloomberg Businessweek* publisher Bloomberg LP, inspired widespread opposition, largely centered on privacy concerns. The company abandoned the idea last year and is now focused on building software products for urban planners.

Another prominent failure came from Y Combinator, the tech accelerator program. In 2016, YC said it was

planning to build a city as a way to test novel technologies and ideas for urban governance. It hired Ben Huh, an entrepreneur whose claim to fame was the meme website I Can Has Cheezburger, to run the project. Huh says he began scouting sites, including a Jordanian refugee camp, before focusing on a stretch of Mexican desert. YC had some discussions with Mexican officials and explored the idea of flying in supplies from the U.S. on drones. The discussions collapsed when Donald Trump was elected president, but by then Huh had also realized that not everyone was waiting for technologists to build the city of the future. "No one was starving to go start a new city," he says. "What they wanted was a better city they already lived in."

YC quietly shuttered the project in 2017. One of its first investments had been Huh's own startup, Social Construct, which developed software for the construction industry. Huh tweeted this August that the company had shut down and asked his followers what he should do next.

Planning for Telosa began on a muggy day in early July at the Brooklyn, N.Y., headquarters of Ingels's firm, Bjarke Ingels Group (BIG). The office seemed typecast for the task at hand. Architects pecked quietly away on Macs with expansive screens, their desks surrounded by scale models of BIG's projects, Legos, and rows of architecture books. There was free beer and espresso. New York's skyline presided over everything through the panoramic windows.

Shortly before noon, Lore bounded off the elevator and through the door, wearing blindingly white jeans and sneakers, a shiny blue shirt, and dark sunglasses. About two dozen people had already gathered at a long table in a conference room under a chandelier made out of desk lamps. The group included architects from BIG, as well as Jon Mallon, a college friend of Lore's who's helping lead the project, and his staff. There was also a sizable video crew training multiple cameras on the participants-Lore says a documentary of the creation process will be a useful tool for recruiting business partners and, eventually, new residents.

The last person to enter the room was Ingels, who showed up once people had finally begun to pick at the sandwiches in the corner. He shook Lore's hand and took the chair across from him, producing a small ball of green clay he'd shape and reshape over the next several hours.

The meeting began with a recitation of the project's core values of being transparent, fair, and connected. (These values continued to evolve over the summer and have settled on open, fair, and inclusive.) "We're not just building a city, we're creating a new model for society," Mallon said. From there, BIG's architects started with the Garden City movement, a tradition of urban planning drawing heavily on the ideas of George. The father of the Garden City was Ebenezer Howard, an English urban planner who envisioned self-sufficient communities with concentric rings of development surrounded by greenbelts. The land for Howard's first garden city, Letchworth, was held in trust, with the income from leases reinvested into public improvements. Letchworth, located



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near London, still exists and has about 34,000 residents.

Lore's plans for Telosa are far more expansive. BIG's staff explained how the city will be built in several stages over the next 40 years. The first phase, targeted for completion in 2030, consists of 50,000 people living in a circular neighborhood of about 1,500 acres—an area that would be easily traversable on foot. Once this zone is populated, the city will expand by encircling it with subsequent layers of 1,500-acre neighborhoods.

BIG's presentation showed Telosa housing precisely 34 residents per square acre, a density similar to Singapore, though it'd be less dense in its earlier stages. The city, of course, will start out with zero residents per acre, and Lore wanted to talk about the first generation of Telosans. One way to attract people, he suggested in the meeting, would be to start a venture capital firm and only invest in companies willing to move to the city. He also described a move-in day-maybe more like a move-in month?—where all 50,000 initial residents would show up at once and go through an orientation, the sort of bonding experience that's proved effective with first-year college students.

"The class of 2030!" yelled Ingels, laughing. City-building-as-freshman-orientation is just the kind of zaniness he can get behind. Throughout his career, Ingels has described his philosophy in terms of seemingly oxymoronic terms like "pragmatic utopianism" and "hedonistic sustainability" that focus on ways to have one's cake and eat it, too. A prime example is BIG's 2019 project CopenHill, a facility in Copenhagen that burns garbage to make electricity—and doubles as an artificial ski slope.

Ingels's faith in avoiding uncomfortable trade-offs through design is unlimited. During a break from the bigger meeting, he and Lore retired to a smaller glass room to praise the idea of thinking big. "Sometimes, at a larger scale, you can do things that would be economically or environmentally unsustainable," said Ingels, as Lore nodded along.

Still, as Lore talked out the details of

Telosa, he kept running up against the tensions in his vision. He told Ingels's staff that he wants its initial residents to be socioeconomically and racially diverse, but he also knows that you can't just hire the population of a city the way you staff your startup. "It's not a controlled city, it's not a private city," he said in the larger meeting before musing that there must be some trick of planning to get what he's after. If there is some diversity-enhancing secret, the crowd in the room—overwhelmingly White and predominantly male—hadn't heard of it.

The inherent unplannability of real cities always catches up to the dreamers, says Bertaud, the former World Bank principal planner. He argues that greenfield cities stand a chance

"It's not logical to not take a shot at doing something with a 20% chance of changing the world. But people don't do it. That's the city: The size of the prize is to change the world"

if they're established on the edge of existing population centers, where they can piggyback off a labor market, but creating a self-sufficient city from scratch requires the ability to coerce people to move there. "Only the government can do that," he says.

This hits at what might be the biggest contradiction with Telosa. Lore's foundation, which would manage public resources to provide social services, sounds a lot like a government. Lore regularly refers to the foundation as a way to provide "checks and balances" to the city's actual government. Its board, he says, would even be elected by city residents. But he objects to any suggestion that he's either talking about establishing a government or a private alternative to one. Instead, Lore

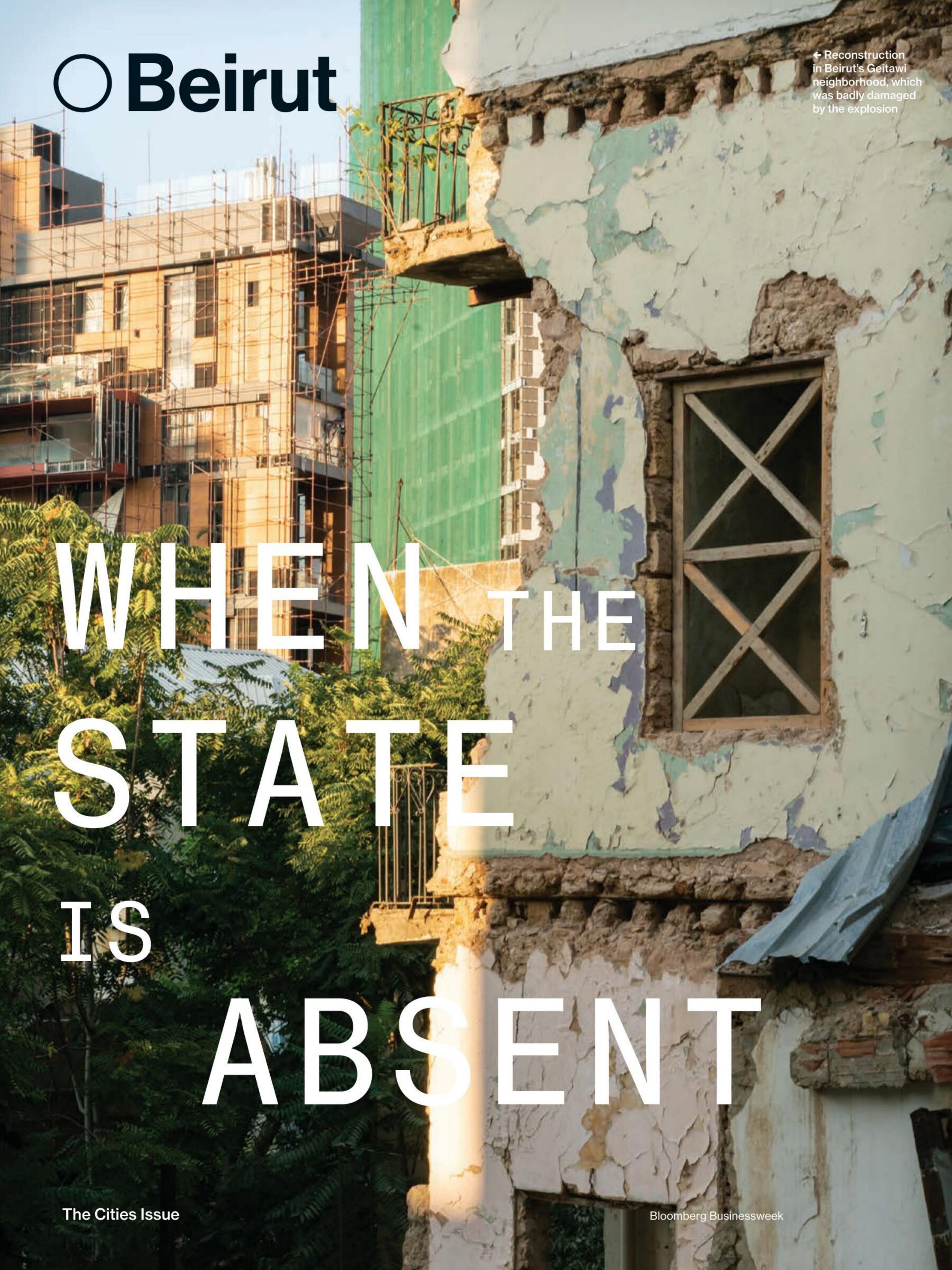
says, he just wants to supplement the existing system at a time when people have lost faith in public institutions. "The answer is not higher taxes. That's socialism," he says. "Let the land be owned by the people! But in a capitalistic sort of way."

When I spoke to people about Lore's chances for success, the spectrum of responses could not have been any wider. "He will create a new economic model and a city that is better for the common good—100%," says Finnegan, his former colleague at Jet, who's now an executive at Rite Aid Corp. "I will bet my life on that."

Moser of McGill University puts his chances more or less at zero, but she does give him "kudos for originality." Not a single one of the 150 cities she's tracking has hit its population goals, and those that did attract people usually ended up significantly pared down. She points out that Telosa hasn't taken a single tangible step forward. To her, projects like Lore's are at best a distraction from the boring work of building functional cities—a particular shame at a time when places that already exist are struggling with the pandemic and the growing challenges of climate change. At worst, they end up being vehicles for private interests to extract concessions from local governments desperate for capital that could lead to economic development.

Lore comes down somewhere in the middle about his chances. He says that philosophically he can't say out loud that they're any less than 100%, before he concedes that they're probably about 20%, then saying it depends on one's definition of success. He understands that people who know more than him about urban development have plenty of convincing reasons why he'll fail. Expertise leads to caution—it's the same reason why he'd never start another e-commerce business.

"You get jaded when you know too much," Lore says. "You don't have that clean slate, thinking about it in that fresh way. That's how startups can build, right? It's that naivete you need to have." **B**



A year after Beirut's devastating port blast, the government is AWOL— so the people have stepped in to rebuild By Lin Noueihed Photographs by Manu Ferneini

A fter the Aug. 4, 2020, explosion at Beirut's port, Mariana Wehbe found her city in ruins. The streets were covered in thick gray ash. Broken glass from shattered windows crunched underfoot. Doors were blown out. Cars were crushed. Dazed residents surveyed the devastation, wondering what had happened and how they might recover.

As news of the blast spread around the world, her Instagram account lit up, urgent WhatsApp messages poured in, and her phone started to ring nonstop. Friends and acquaintances were checking in, wanting news of Wehbe and her family and—more important—asking how they might help. "Initially I said, 'Call the Red Cross,' but they said, 'No, we want to help *you*,'" Wehbe recalls, nodding at the concrete hulk of the port's grain silos outside her window, still in ruins amid the twisted remains of warehouses. "I thought: What do people really need right now? Doors and windows."

The blast was triggered when hundreds of tons of ammonium nitrate stored in a waterfront warehouse caught fire and exploded. It killed more than 200 people, injured 6,000, damaged 80,000 homes, and displaced at least 300,000—wreaking what the World Bank estimates was \$4.6 billion in physical damage. As the shock wave ripped across Beirut, it destroyed myriad communities, both wealthy and impoverished, home to the elderly, the poor, migrants, and refugees. In a city already disfigured by civil war, greed, and a disregard for heritage, the explosion tore through some of the largest remaining clusters of early 20th century buildings with their signature high ceilings and triple-arched windows.

The crisis threatened to accelerate what's happened in the three decades since the end of Lebanon's 15-year civil war. Development here typically means that money changes hands and permission is granted to fell trees, demolish a building, or clear out archaeological ruins. There's little public discussion, no hearings, and scant accountability—just an endless cycle of razing and building.

Within days, Wehbe and a friend had founded a group called Bebw'shebbek, Arabic for Door and Window. Their goal was to heal the city by keeping people in their homes to preserve the social fabric of neighborhoods. Initially relying on some 200 volunteers, Bebw'shebbek has evolved from the chaos of those early days into a focused group that employs about 50 people full time. It's repaired some 900 homes, using authentic materials in an effort to do minimal damage to a capital where red-roofed Ottoman-era jewels are frequently demolished to make way for luxury towers with little connection to their surroundings.

Through the entire effort, one organization has been conspicuous by its near-absence: the Lebanese government. "Lots of NGOs say we're not political, but of course we're political," Wehbe says. "We've been running the country."

B and community initiatives that have stepped in to fill the vacuum left by the state. After the blast, there was virtually no official emergency response, no message to the nation about the catastrophe that had ripped through the heart of the capital, no effort to rescue survivors from the rubble, clear streets, shelter the homeless, or reinforce collapsing buildings.

In the race to seal roofs and reglaze windows before winter set in, grassroots initiatives joined forces with international donors and United Nations agencies reluctant to transfer funds to a kleptocratic government that's squandered billions of dollars in aid and can no longer dispose safely of garbage or sewage. Independent organizations set up Base Camp and Nation Station, groups that coordinate volunteers eager to sweep up the glass, deliver aid, and get people back in their homes. A local restaurant created Matbakh El Kell, or Everyone's Kitchen, to feed relief workers, the newly homeless, and others in need. And the Beirut Heritage Initiative identified and worked to salvage 650 historic buildings damaged in the blast, with teams of architects and engineers donning fluorescent vests and working pro bono to assess damage and plan repairs.

More than a year on, many buildings around the cobbled alleyways and steep stairways that wind through the residential areas abutting the port have been stabilized, mom and pop shops have been refurbished, and flats repainted, their shutters replaced and furniture restored. In Gemmayze and Mar Mikhail, the center of Beirut's nightlife, bars and restaurants are again overflowing. They have new glass fronts, freshly painted woodwork, and crisp signage, some paid for by crowdfunding and donations from regulars.

The state is still nowhere in sight, the explosion laying bare the extent of its dysfunction. No one has been held accountable, and questions remain about how such dangerous substances could have been allowed to sit—for years—in the heart of the capital. As a result, initiatives conceived as an emergency response to the catastrophe have become permanent. These programs have turned their focus to feeding and supporting people who already were struggling through a financial and economic collapse before the explosion blew the capital apart.

A banking crisis that began in 2019 has wiped out the life savings of millions, and the economy contracted more than 20% last year; at least half the population of what had long been categorized a middle-income country is now considered poor. The currency has weakened by more than 90% on the black market, triggering triple-digit inflation and compounding the woe that the Lebanese have suffered from the pandemic and lockdowns aimed at keeping Covid-19 in check. The bankrupt government can no longer provide electricity, leaving much of the capital on little more than an hour of power a day. It's not





◀ uncommon to see citizens sleeping on balconies, kept awake
by suffocating humidity as food rots in warm refrigerators.

At the port itself, the country's main grain silo was blown open, spilling out golden heaps of grain. By late spring, the kernels, nourished by winter rains and Mediterranean sun, had sprouted into wheat, attracting rats and other pests. Today, the port operates at only a fraction of its capacity; most cranes don't work because there's no money to maintain them. Meanwhile, proposals to rebuild the facility are frozen. The government, which resigned after the explosion, has yet to be replaced. "When the blast happened, the state was absent," says Maya Ibrahimchah, a veteran campaigner for historic preservation who founded a group that's helped renovate more than 3,000 apartments and almost 400 shops. "The people did the work of the state. It's become clear the political class has nothing to offer."

With her tailored slacks, white blouse, and leather-lined SUV, Ibrahimchah doesn't look like a radical. But then she leans forward, pulls back her shoulder-length blond hair, and shows scars from the stitches she says she's gotten for head wounds inflicted by police at demonstrations, some aimed at protecting Beirut's architectural heritage.

Ibrahimchah remembers when the Rivoli, a 1950s movie palace on Martyrs' Square, was torn down, with the empty space now simply used for parking. She laments the loss of the labyrinthine souks downtown, where she bought her first pair of shoes, now replaced by an exclusive shopping and office district aimed at wealthy locals and foreigners. And in 2019, she awoke to the news that trees were being uprooted in a park near her grandmother's house to make way for an underground garage. "I grew up watching the city disappear before my eyes," Ibrahimchah says. "I spent 25 years fighting, fighting, fighting for heritage. And now all of a sudden, it's coming together."

Her group, called Beit el Baraka ("House of Blessing") is working on a top-to-bottom renovation of almost a dozen residential buildings surrounding the Jesuit Garden, a patch of green donated to the city in the 1960s by the Jesuit religious order. Beit el Baraka plans to refurbish the interiors, plaster and paint the facades, and ultimately install solar panels to provide a reliable source of electricity. "We're expanding into urban planning," she says, surveying one of the buildings covered in scaffolding and green webbing. The goal is to prove to residents that their neighborhood "can survive on its own, is viable on its own. Because the municipality and the government give them nothing."

Next up is the park itself—its paths, benches, playground, and library building. Like so many of the city's green spaces, it's closed to the public, its gates chained and padlocked. Working with an architect who lives in the square and consulting with local residents, Beit El Baraka has secured funding to redevelop the park. The group reimagines it as a greener space with improved play areas, a running track, a revamped library with free Wi-Fi, and an open area to host community events and concerts. Most important, Beit el



Baraka plans to employ locals to rebuild and manage the whole operation. "This is a part of the revolution," says Elie Al-Arab, an architect who joined the group after the blast and now heads its reconstruction department. "We're building awareness among people that electricity, water, and public space are their rights, that the state should have been providing this for the past 30 years."

As word has spread of the group's project, the city has asked Beit el Baraka if it would also take on the Mufti Hassan Khaled Garden, the one near Ibrahimchah's grandmother's house that had its trees uprooted two years ago. The city had proposed building an underground garage and then reconstructing the park above it. Public outcry scuttled that plan.

Now Ibrahimchah is getting calls from people across Beirut asking for help sprucing up whatever modest patches of green remain in their neighborhoods. "We're trying to find tiny public spaces to create these small parks at every corner, and we'll get the residents involved so they start looking after them," she says. "Somewhere along the line you get a domino effect."

Ithough Beirut has clearly benefited from the work of independent groups, its experience highlights the perils of relying on nonprofits and volunteers to rebuild a city. Despite the success of Bebw'shebbek, Wehbe plans to move to Dubai, where her teenage daughter has lived with an aunt since the blast. "I need to work. I don't have the luxury of doing this forever," Wehbe says, her eyes welling with tears at the prospect of leaving. She says the initiative wasn't intended to be permanent and that it's done its work-repairing the physical city while forging community networks

and giving dozens of unemployed or underemployed recent university graduates work experience. "These young people can run a country now," she says, gesturing at the team gathered around a table in the Bebw'shebbek office overlooking the port. "It's up to them."

While some vow to stay to turn their efforts into political gains in next year's election, many others are planning to emigrate, making the same painful choice faced by previous generations who fled conflict and hardship to form a globe-spanning diaspora. They speak with bitterness about the dedication that's gone into rebuilding their capital and sheltering its bereft residents—and the minimal impact the calamity has had on the ruling class. The protesters who filled the streets in October 2019, demanding the removal of the corrupt leadership, are gone; they're instead working two jobs to make ends meet and standing in long lines for gasoline or cooking gas. "I crave normality," says Marwan Chahine, a twentysomething who oversees Bebw'shebbek's finances. "When you struggle with the basics of life, you don't think of something bigger. That's what's happening to all of us, and this is very dangerous."

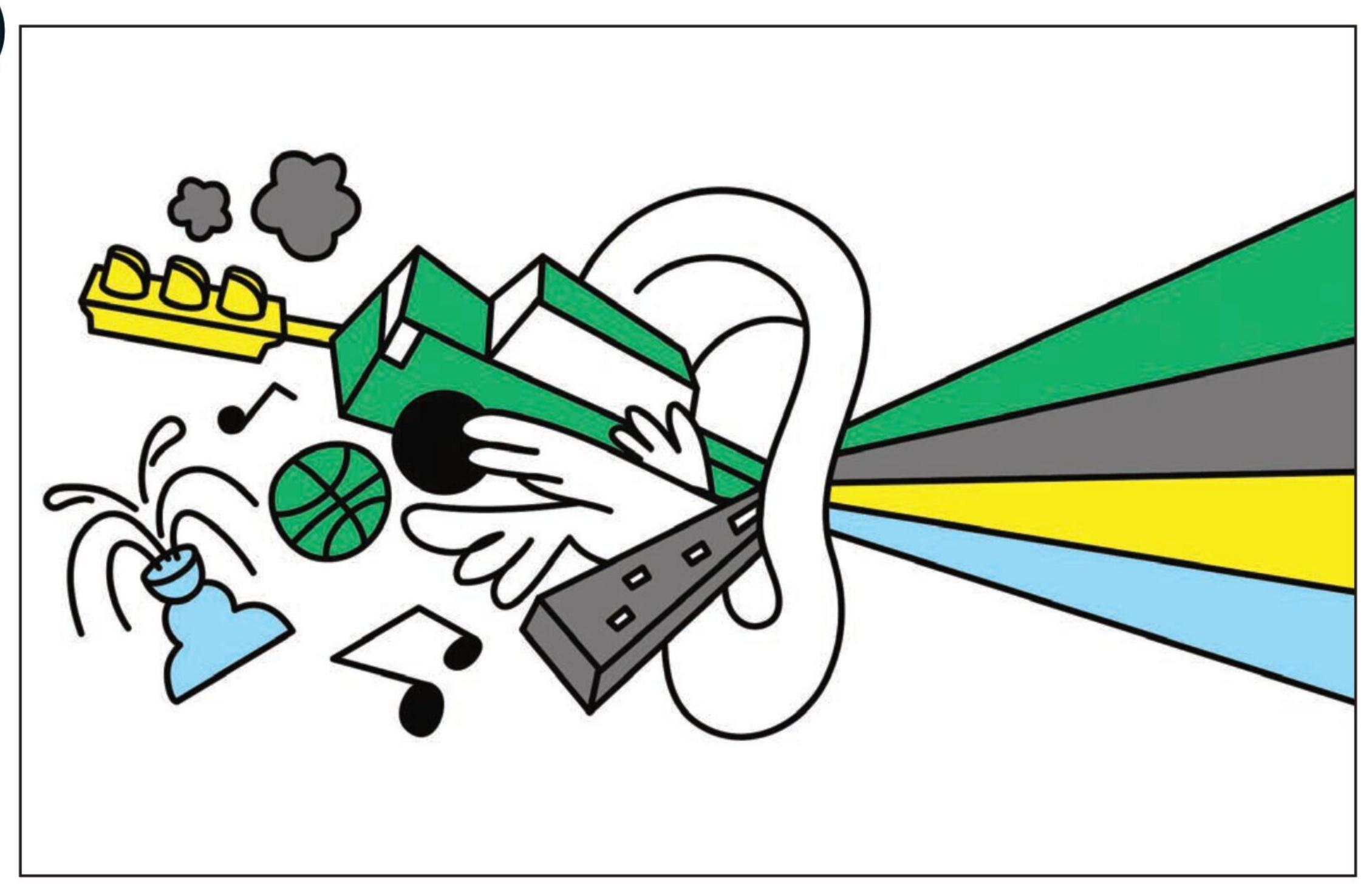
Wehbe, meanwhile, is haunted by the question of whether, by stepping up where the state failed, civil society blunted the popular anger that may otherwise have exploded. She frets that the volunteers inadvertently thwarted the revolution they dreamed of. As things have deteriorated dramatically, the exhausted populace has been largely quiet. "On the human level, there's no way you could have lived through the Aug. 4 explosion, seen what we saw that day, and not done anything," she says. "But I keep asking myself if it would have been better to do nothing." **3**

Tuning Into a Happier City

Noise is an irritant of urban life. But there are ways to make it easier on the ears—and the psyche

□ By Feargus O'Sullivan

☐ Illustrations by Igor Bastidas



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Before the pandemic, the London street where I live was a rare patch of calm in a noisy city. When the lockdowns of 2020 arrived, that situation flipped like a switch.

Riding into central London on my bike, I saw that many streets were deserted and quiet. My own road, by contrast, seemed to get much louder, even without the usual hum of cars and planes. It wasn't just the weekly "clap for carers" session—when people applauded on doorsteps to show support for the National Health Service-or the occasional ambulance siren. With most residents now always at home in their 1920s row houses, I couldn't help hearing a teenage boy screaming at his computer games beyond my living room wall, while our upstairs neighbors compensated for missed social opportunities by dancing drunkenly above our heads. Next door, two families grilled and played salsa music in their shared garden at what felt like eccentric hours.

Delivery drivers, busier with most stores closed, staged daily shout-offs as they struggled to pass on our narrow street, provoking its three new lockdown puppies (one of them mine) to bark and howl in chorus. The feral parakeets feasting on the cherry tree next door seemed to screech louder. Perhaps they were afraid of being upstaged.

With even backyard birdsong sounding newly abrasive, it dawned on me that mine might be a case of heightened sensitivity, as my ears tuned themselves to an acoustic environment newly stripped of the urban background hum.

If so, it wasn't just me. A University College London study confirms a distinct phenomenon: During last year's lockdowns, average noise levels did indeed drop across London. There was also a dramatic change in noise complaints—but not in the way you might expect. They went up more than 47%, according to an analysis by the same UCL researchers, and were overwhelmingly occasioned by neighborhood noise.

Nor was London or the U.K. an outlier. Increases in noise complaints were reported from New Zealand to Brazil. Traffic—by far the biggest culprit behind high urban noise volumes—may have

calmed, but around the world, shut-in city dwellers were clearly finding one another more grating than ever.

As normal city life slowly returns, the phenomenon is worth reflecting on. Lockdowns, though stressful, gave many urbanites a chance to attend to their immediate surroundings more closely, to discover (or rediscover) their local communities. Some got a reprieve from commuting and now plan to continue to work from home at least part of the week. That will please urban planners who, even before the pandemic, sought to integrate the disparate places where people lived, worked, shopped, and relaxed. (For example, Paris's "15-Minute City" planning model imagines city residents meeting all their immediate needs within a short walk.)

The result of all this may be fewer soul-sucking commutes, but also more friction—not just among neighbors, but among residents and businesses. While the imminent switch to electric vehicles will make cities somewhat quieter, it will also bring neighborhood noise—if the lockdowns are any guide—more to the front of people's consciousness.

So sound seems a key part of the post-pandemic urban rethink. Beyond certain thresholds, noise can cause real physical harm: Researchers have linked it to hearing loss, stress, high blood pressure, and other ills. But much of the time, simply reducing the volume of noise in a space, as the experience of lockdown suggests, doesn't in itself make people more at peace with their surroundings.

If we're going to promote an acoustic environment where citizens can coexist happily—and we have to believe they can—we should change our approach. In place of the tendency to fixate on the quantity of sound in our environment, we should think a lot more about its quality.

We'd be following a school of thought that's current among many acoustic researchers and theorists: the soundscape approach. It can help us think with more nuance about how cities should sound and how they can remain places where people want to linger. And it's starting to shift the way cities are managed in Europe, influencing planning in Berlin; Valencia, Spain; Limerick, Ireland; and London's financial district, the City.

Businesses as well as urban planners need to consider these niceties. (Some already do: Retailers pay attention to how music affects customer behavior, and some airports use piped birdsong-softer and less grating than Muzak-to provide an overlay to plane noise and encourage people to relax.) A more deliberate way of managing sound could help revitalize shopping streets bathed in traffic noise and placate residents near stadiums and other places where loud crowds congregate. Not to mention that employers who want to lure hesitant workers back to open-plan offices are likely to find their task easier if they think a little more carefully about aural surroundings people actually like.

According to Francesco Aletta, a researcher at UCL's Bartlett School of Architecture, assessing an acoustic environment solely as loud or quiet is like "judging a soup only by its temperature. Of course, if it's too hot, you need to know," he says. "But if you want to think about spices, flavor, you need a different approach."

That means wading deep into a pool of subjectivity, since attitudes to sound vary widely according to age, class, cultural background, and hearing ability. Many factors besides volume determine the degree of pleasure or distress a sound gives us.

The boom of a live orchestra can reach 100 decibels, roughly the same volume as some jackhammers. But it's a sound many love. It's intended to please, and the audience has actively chosen to hear it for an agreed duration of time. By contrast, a person might be tortured by the much fainter sound of a beeping smoke alarm in an empty apartment next door, excruciating because it's inescapable and endless.

Moving away from simple volume, soundscape researchers might ask whether an environment is "eventful" or "uneventful" and whether people in that space find it pleasant or not. These two axes−pleasant/unpleasant and eventful/ uneventful−more closely describe the ▶

■ actual lived experience of sound. A
quiet park on a sunny day is an "uneventful" soundscape that's almost universally
perceived as pleasant, while a deserted
nighttime street, equally uneventful,
may feel unpleasant because it seems
unsafe. Likewise, an "eventfully" busy
road backed up with throbbing traffic is
unpleasant to most ears, but a bustling
street market with a good street musician
might sound delightful.

The issue for urban planners is that not everyone agrees on what a pleasant sound environment is, in terms of either volume or sound profiles. People in a North American suburb might be bothered by volumes experienced as normal by city dwellers in China. Yet they might also balk at the high degree of calm prized in Switzerland, where a federal law discourages people from doing noisier chores such as vacuuming and laundry during evenings and lunchtimes and on Sundays and holidays.

There's no consensus about the *types* of sounds that are intrusive, either. Research comparing the U.K. with China and Taiwan has found marked differences. When residents of Sheffield, England, were asked which sounds they preferred coming into their living area from outside, 71.4% of respondents chose birdsong and no one chose music. When the same question was posed to residents of Beijing, 60% chose music first and only 17.5% chose birdsong.

It may not even be about the sounds

themselves, suggests a co-author of that 2013 study, Jian Kang, an acoustics professor at the University of Sheffield. Public music may connote community harmony in China, an association stemming from activities such as square dancing—which is especially popular among seniors. And whereas birds have positive associations with green space in the U.K., Kang says, in Beijing, high levels of pollution mean that urban birds aren't necessarily perceived as bucolic. "It's not about the sound of birdsong itself, it's about what the sources of birdsong are associated with," he says.

Class and age differences can also come to the fore. Another study Kang co-authored found that younger people in Sheffield valued quiet in their surroundings significantly less than older people. And the higher an area's property values in Sheffield were, the more likely residents were to consider quiet important. London, too, shows a clear correlation between an area's relative wealth and the number of noise complaints it generates: The greatest number per resident are lodged in its wealthiest borough, Kensington and Chelsea.

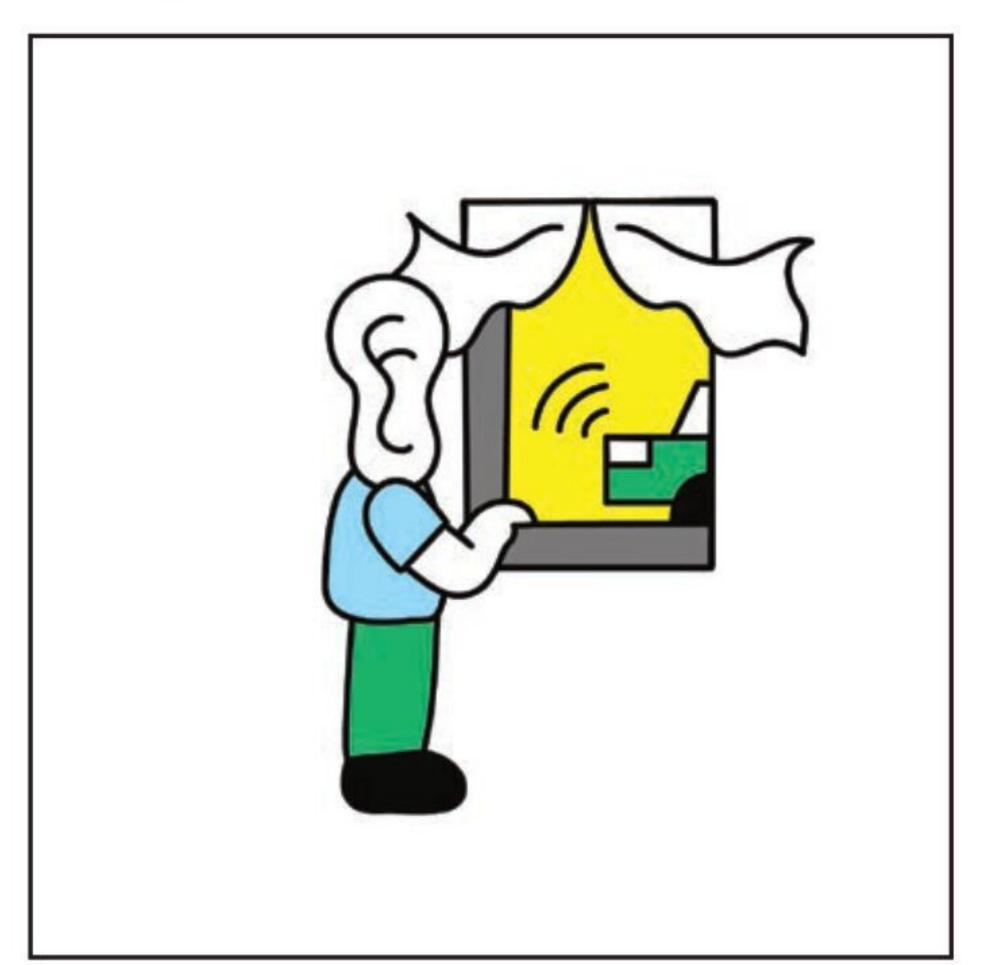
This isn't evidence that people on lower incomes mind noise less. The generational and social differences "pose questions about environmental justice," Aletta says. "Maybe if you live in a more degraded area that has other serious issues, noise isn't such a priority—but if you live in a slightly richer

area, then you might be more likely to [complain], because you see noise as a violation of your privacy." A planning culture driven by noise complaints may favor the tastes and wishes of those with closer access to power—the older and the better off—while disadvantaging the young, the poor, and people from ethnic and racial minorities.

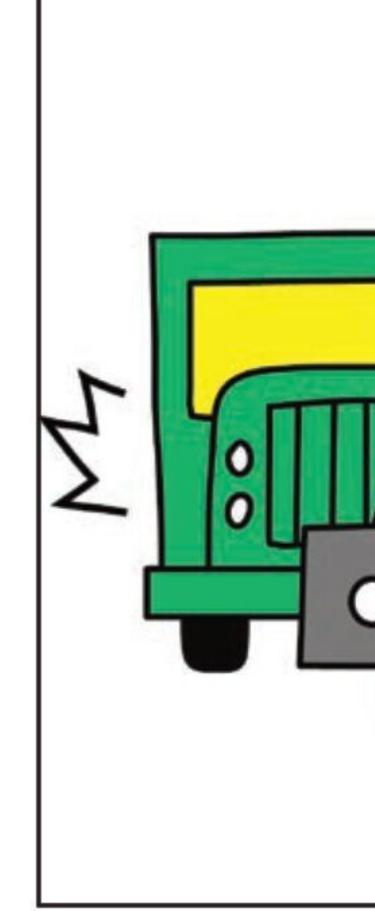
The idea of using one sound to mask another is not new. Designers and builders have been adding sounds to improve environments for millennia, planting songbird-attracting trees and installing fountains in public spaces to make them more restful. The use of fountains to mask the noise of motor traffic dates at least to the 1960s, when Manhattan's pocket-size Paley Park was designed with a crashing waterfall to soften noise coming from 53rd Street.

Simply embracing some noises as desirable can boost business. This is the thinking behind the strategy of the City of London that protects and encourages church-bell ringing as a key marker of the area's historic identity and encourages local workers to take "sound walks" to assess their surroundings. The district has become more lively in recent years, with pubs and venues open later in an area previously shunned after nightfall.

Recently, cities have experimented with adding or transforming sounds electronically. In 2016, Australia's Royal







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Melbourne Institute of Technology tried to make two parks in Sydney and Melbourne, both flanking highways, more appealing by running the traffic noise through processing software. Sounds collected from microphones in noise barriers were converted into more obviously pleasant noises, hinting abstractly at the sound of rushing waves or the rim of a glass being rubbed. These were then transmitted at low volume via speakers. The site-specific overlay to the sound of vehicles shifted local habits: Nearby residents suddenly found it possible to leave their windows open, and the principal of an elementary school near one of the parks said her pupils could use it as a recess space for the first time.

The main tool of the soundscape approach is very simple. Invented in the late 1960s, when composer R. Murray Schafer launched the World Soundscape Project (WSP) at Vancouver's Simon Fraser University, the sound walk invites participants to listen attentively as they go through a space, then discuss their impressions. Initially a form of activism to highlight noise pollution, according to WSP pioneer and composer Hildegard Westerkamp, the objective is not just sharper awareness of one's surroundings but also "an opportunity to examine our relationship as listener to the environment."

A sound walk in my neighborhood post-lockdown provided me with a

different picture from the one I'd formed when everyone was working from home. Most striking was the background hum of traffic—because it wasn't a hum at all when I listened closely.

The traffic noise I heard was a brash ensemble of ill-harmonized instruments: groaning double-decker buses, the high-pitched rattle of scooters, the thunder roll of trucks. Even a single car, I noticed afresh, makes many noises. The wheels whoosh, the axles squeak, and the engine growls, with a different tone for each maneuver. (When EVs become the norm, engine noise will drop sharply, but other road noises will remain.) That we perceive traffic noise as a background drone seems less a reflection of its actual monotony than of our ability to screen out annoyance.

The best example to date of a realized soundscape plan is Berlin's Nauener Platz, an unprepossessing plaza at a busy intersection, redesigned in a collaboration between local residents and Berlin's Technical University in 2012. Registering their impressions through sound walks, locals requested more natural sounds and noise reduction that didn't block views with high walls, so parents could still monitor children using the playground. As a solution, the redesign lined roadways with chesthigh barriers that provided shelter for seating areas but could still be seen over. These areas became quiet islands where ambient noise was overlaid with

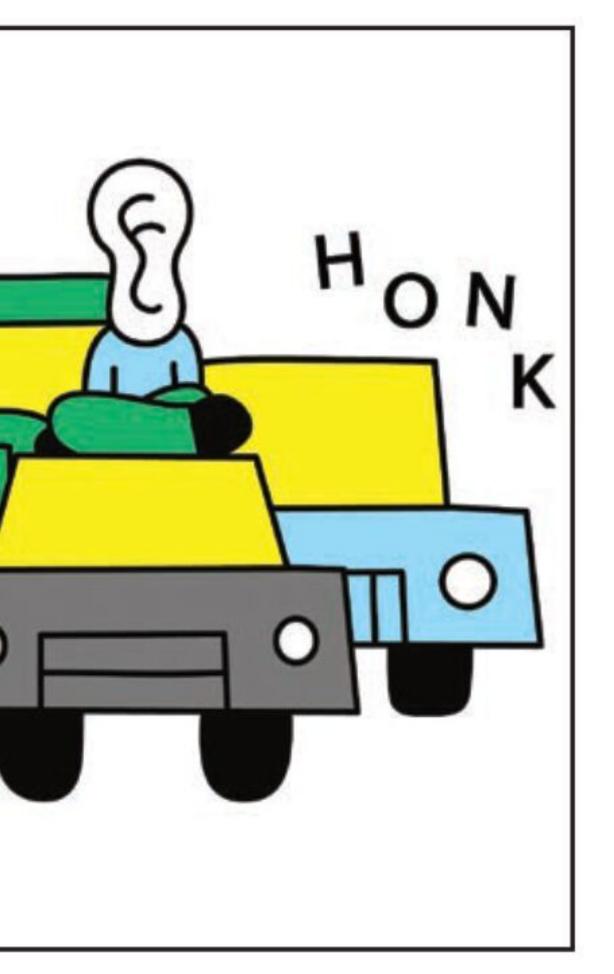
natural sounds such as birdsong or rattling pebbles. While traffic noise was still present, more families returned to the square, which became quiet enough to host a cafe terrace.

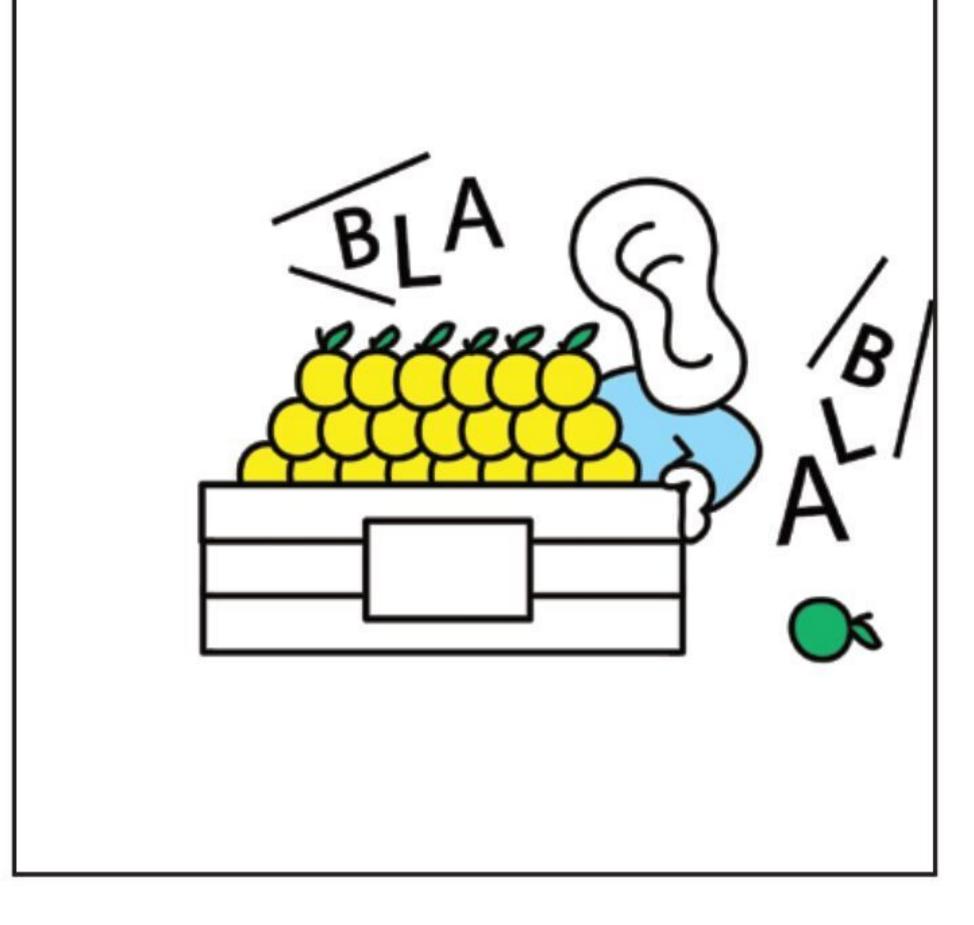
Because it acknowledges cultural and social difference, soundscape planning highlights how negotiations over matters of sound can build more neighborhood harmony. "A colleague once said to me that good community relations are as good as a 10-decibel noise reduction," Aletta says. "What people don't like is soundscapes being imposed on them. But if you give people the feeling of control-letting people know before an event is happening, restricting it to a specific time spot, and encouraging people to participateit will make that conflict much more tolerable, because they were part of the negotiations."

If local governments and property managers consulted those who use their spaces more, they'd only be doing what neighbors have always done. My own experience suggests just how much good community relations can do to make the sound of other people more bearable. One Wednesday last summer, my neighbors had a family garden party during an afternoon too hot to keep the windows shut. Unable to hear work calls, I leaned over the fence and asked them if they might keep things quiet until 6 p.m. Not understanding me, they did the opposite of what I suggested: kept the music pumping at full blast, then turned it off at 6 on the dot.

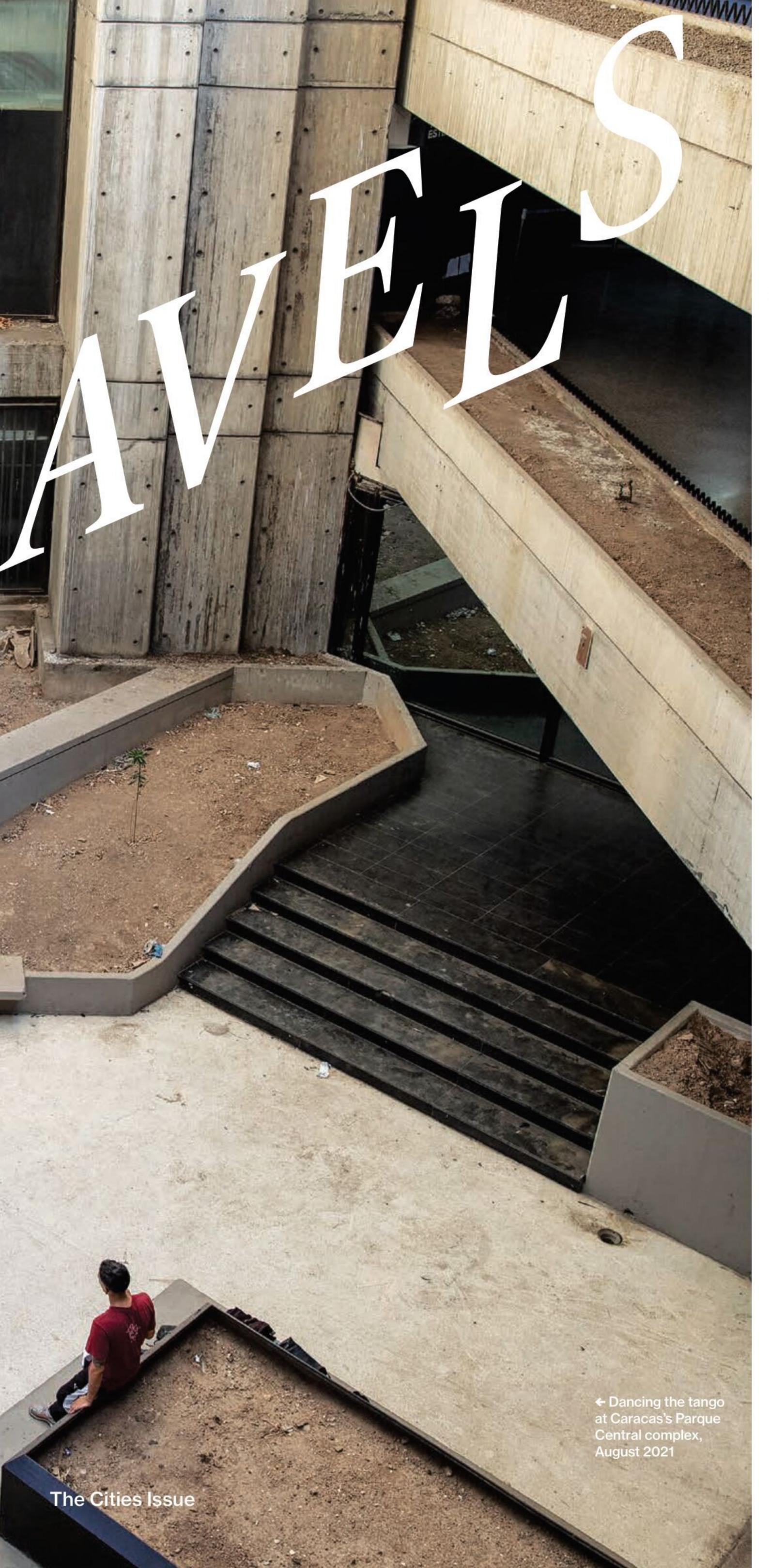
It didn't rescue my workday, but it still melted my heart. The family clearly wanted to be good neighbors and were just trying to have some fun during a difficult time. Sensing that I could negotiate a happy medium with them if I needed to made me feel better.

Cities, businesses, and urban planners can't manage sound levels just by popping their heads over a fence. But they can eschew a one-size-fits-all approach and develop noise policies that foreground community relations over simple quantitative measurements. Cities may rattle our eardrums at times, but if you tune in attentively, the sounds they make can be beautiful. **6**









aracas once looked like a glimpse of Latin America's future.

When petrodollars flowed into Venezuela in the 1960s and '70s, the nation's capital experienced a build-

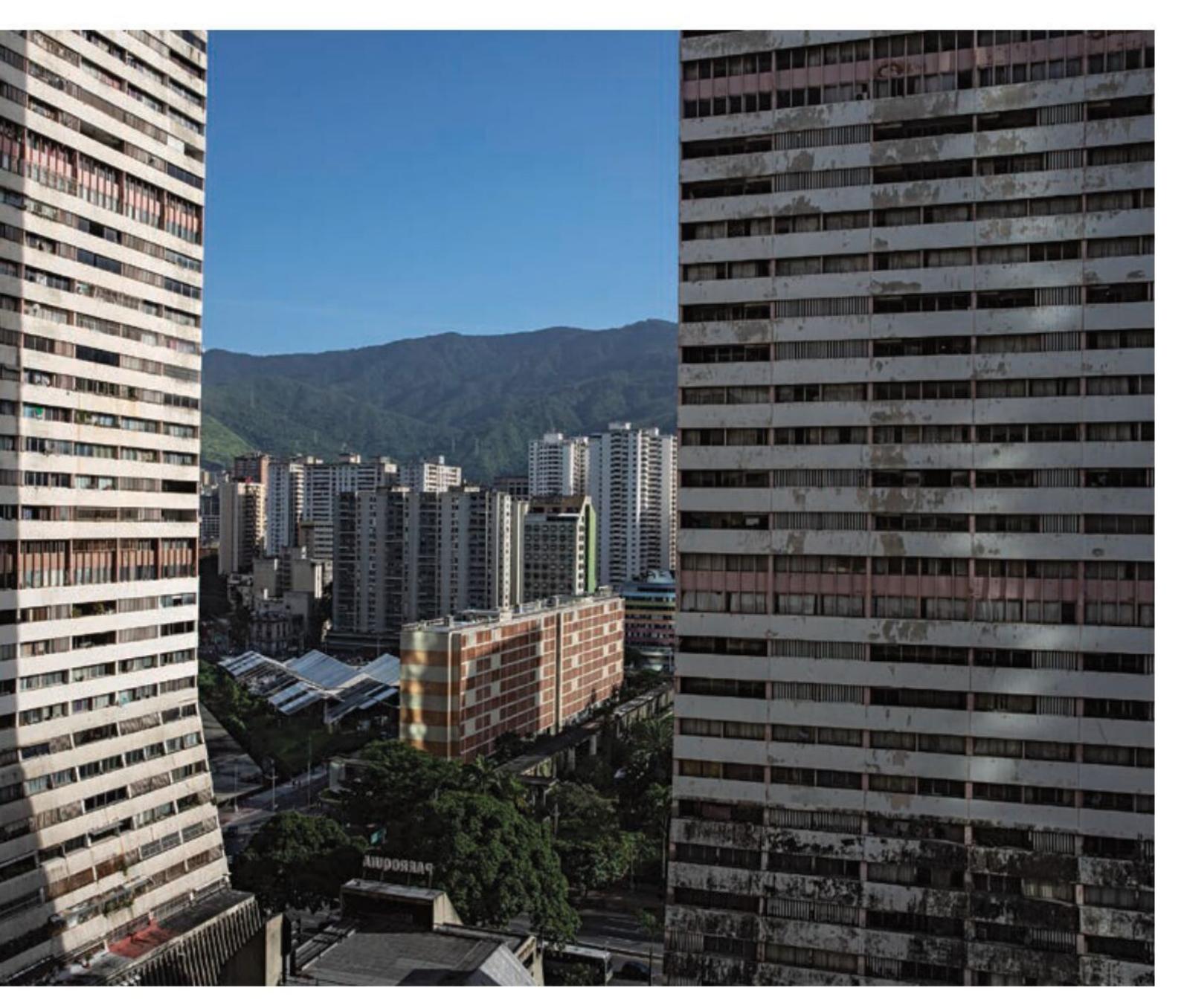
ing boom. Highways ringed the growing metropolis, which boasted a university suffused with public art and the region's tallest skyscrapers. Big American cars prowled the streets, thanks to generous fuel subsidies, while world-class museums and theaters and state-managed housing complexes were built.

But when Caracas turned 454 years old on July 25, it was less a cause for celebration and more of a reminder of the city's reversal of fortune. A spate of economic crises ensued in the '80s after oil prices crashed and the government accrued massive foreign debts, setting the stage for the election of President Hugo Chávez in 1998 and the socialist project known as Chavismo. After Chávez's death in 2013, Venezuela endured political turmoil, and economic sanctions imposed by foreign governments on his successor, authoritarian President Nicolás Maduro, have hastened the capital's decline. Today, many of Caracas's most beloved urban spaces and architectural treasures have been pummeled by years of crisis, mismanagement, and bitter political battles.

With the Venezuelan government isolated and broke, Caracas is in a strange state of flux. Water and power infrastructure is crumbling, gasoline is a luxury, and 18 months of lockdowns to combat Covid-19 have battered city life. Still, businesses are opening as authorities roll back controls on commerce, and some parts of the city are seeing efforts to make cosmetic fixes.

A close look at several of Caracas's landmarks today reveals how much this metropolis of 3.5 million people has unraveled and how residents and leaders are trying to preserve what they can of its former luster.



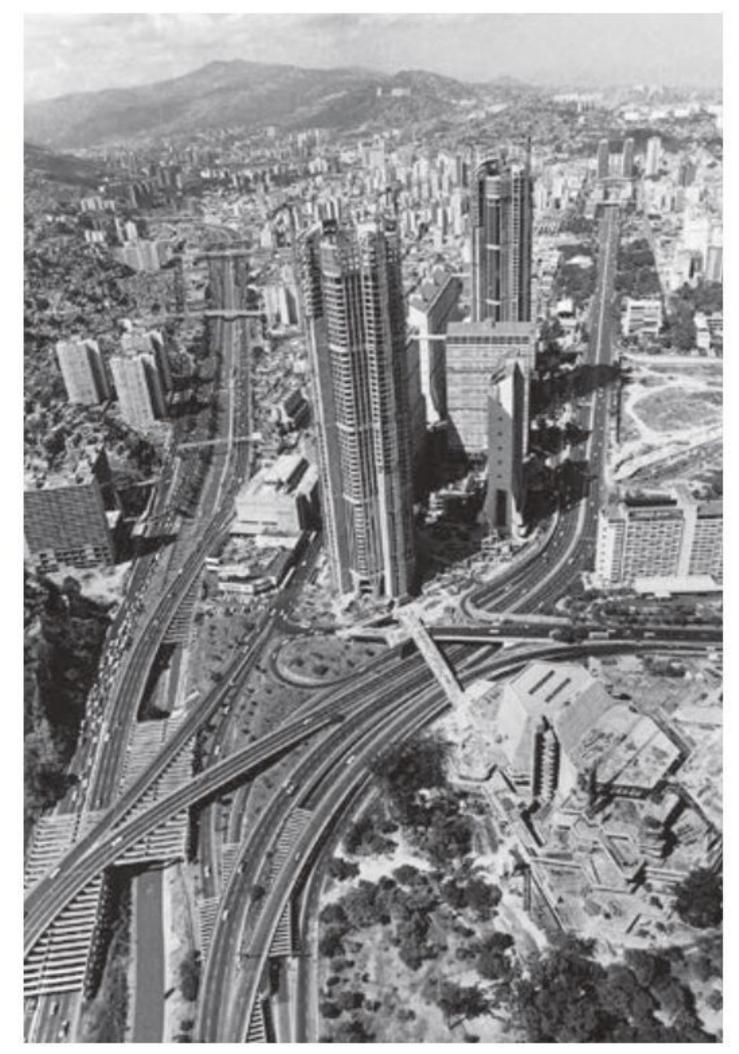


O Parque Central

Near downtown, slender towers of concrete and blue glass crown the massive Parque Central complex. Envisioned as a city within a city when it was designed and built in the 1970s, its 10 buildings house more than 1,200 apartments along with everything from museums to elementary schools and hair salons to swimming pools.

"It was like something out of *The Jetsons*," says Enrique Fernández-Shaw, son of Daniel Fernández-Shaw, one of the complex's architects.

- ↑ Parque Central's buildings
- ◆ The complex under construction in 1977



When the last tower opened in 1983, Parque Central's amenities, including suction trash chutes and live feeds from lobby security cameras, drew young professionals from Venezuela's emerging middle class. Four decades later about 15,000 people still reside in Parque Central, but many say that they're desperate to leave. Air pollution and water leaks have stained the skyscrapers' facades. A fire tore through the East Tower in 2004, and parts of the building are still not fully operational. Robberies are so frequent that residents have closed off corridors and padlocked some emergency exits.

Many of Parque Central's woes are decades in the making. Instead of a homeowners association, it's managed by a state corporation that's in charge of making repairs. "You have no authority," says Jacobo Sarevnik, an architect who's lived in Parque Central since 1980.

Museum ofContemporary Art

Parque Central's cultural installations have also suffered. The Museum of Contemporary Art of Caracas—home to a collection that includes works by Warhol, Picasso, and Monet—saw its autonomy whittled away over the past two decades. In 2001, Chávez fired the museum director on live television, and four years later the institution lost control of its main functions when it was brought under the umbrella of the Ministry of Culture. Since then the museum hasn't been able to create its own budget or receive private donations without state approval.



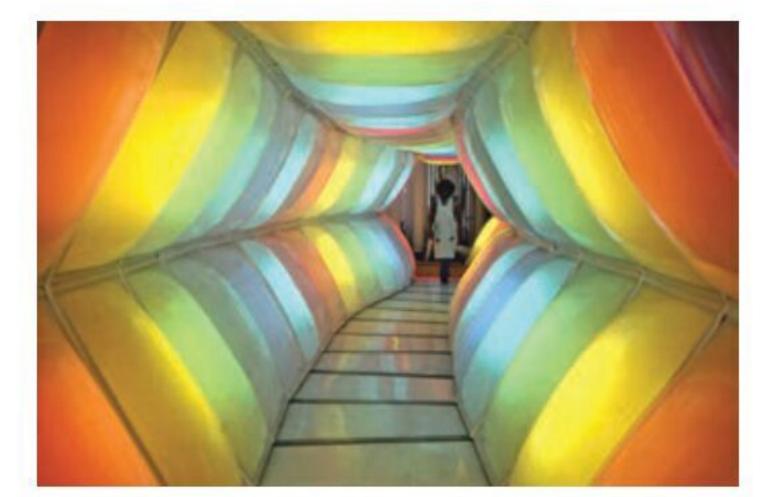


↑ The museum's galleries in 1982

Its collection has grown little since. More worrying, former staff say, is that maintenance of the air conditioning system stopped years ago, putting irreplaceable works at risk.

Security has also been a concern. Last year museum staffers were caught stealing drawings of Venezuelan modernist masters when they tried to sell them to a local gallery. The museum has been closed since the beginning of the pandemic, leaving many to fear the worst. "No one knows what's happening inside," says María Luz Cárdenas, a former director of curatorship.

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↑ A tunnel at the Children's Museum
 ↓ A space-themed exhibit in 1999

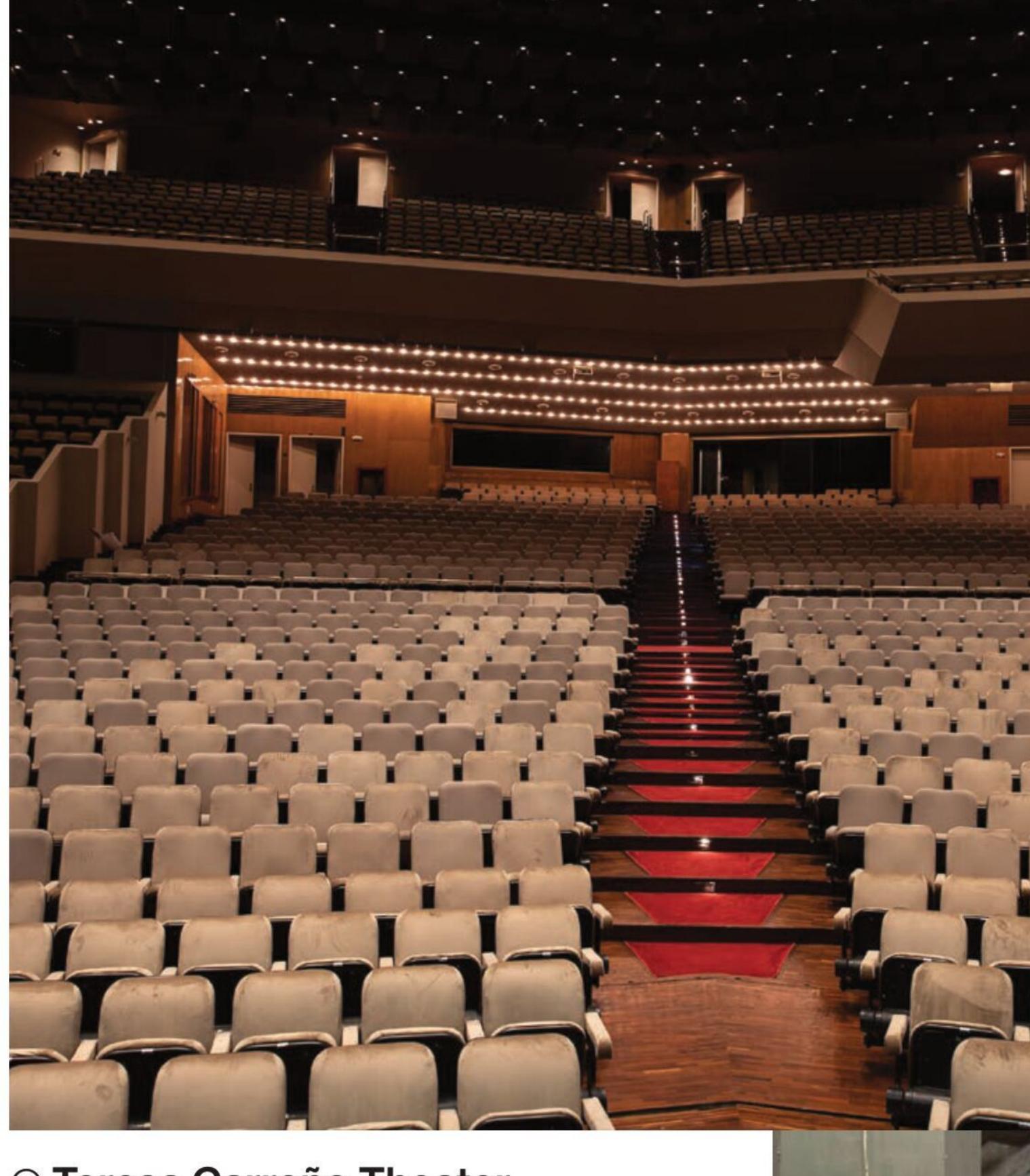


Children's Museum

A private institution on the other side of the Parque Central complex, the Children's Museum, is also trying to stay afloat. Known for dangling rockets, psychedelic tunnels, and rainbow stairs that connect its exhibits, the museum opened in 1982 but lost state funding in 2000. Crime in the area has scared off student trips, and though tickets cost less than the equivalent of \$1, that renders the museum inaccessible to many visitors. Annual visits dwindled to 40,000 in 2019 from more than 1 million when it first opened its doors.

The flow of private donations has also slowed, but Mireya Caldera, the museum's director, has managed to secure some funding. "There are always people willing to help," she says.

Caldera, the daughter of former President Rafael Caldera, has used her personal network to bring in donations from businesses big and small and people with childhood memories of the institution. The museum now broadcasts weekly educational content, such as scientific videos and readings of short stories, over social media. "We are not going to cry for all this," Caldera says. "Our mission is to educate."



O Teresa Carreño Theater

Close to Parque Central, across a pedestrian bridge over one of Caracas's main avenues, lies the Teresa Carreño Theater, a stepped brutalist building with kinetic art integrated into

its ceilings and stage curtains. Designed by Dietrich Kunckel, Tomás Lugo Marcano, and Jesús Sandoval and opened in 1983, it was Latin America's largest art space until

→ Renovation work in progress at the Teresa Carreño

2015 and Venezuela's main venue for operas, ballets, and concerts. Its two concert halls have hosted artists from Luciano Pavarotti to Dionne Warwick.

These days there are no big-name acts, but the theater has become a frequent setting for government rallies. "Political events are more widely broadcast than artistic ones, but we hold many artistic events that simply aren't broadcast," says Irving Peña, executive director of the theater.

The theater's role hosting state functions has likely helped keep it in good condition: Shortly before Teresa Carreño was closed to the public because of Covid in 2020, officials launched a major renovation, installing new air conditioning and lighting systems. Since May the theater has been overseen directly by the office of the president, which is funding much of the restoration.

"Our hopes have been made real—we're receiving huge support at a very difficult time," Peña says.

← The Ríos Reyna Concert Hall inside the Teresa Carreño Theater





University City

Sixty years ago, Venezuelan architect Carlos Raúl Villanueva completed his most ambitious urban project: the University City of Caracas. A modernist masterpiece, the campus of the Central University of Venezuela (UCV) in the city's southeast was envisioned as a model city in the tropics. The complex of 89 buildings, murals, and sculptures was recognized as a Unesco World Heritage Site in 2000.

"It was a futurist project for the country that promised much but didn't end up happening," says Paulina Villanueva, a professor of architecture at UCV and daughter of Carlos Raúl Villanueva.

The campus was created as a "synthesis of the arts" for the university, which was founded in 1721 and is the alma mater of more than a dozen Venezuelan presidents. UCV has also long served as a staging ground for civil disobedience, in part because, though public, it maintains independence from the federal government. But over the past two decades it's been

starved of funding amid clashes with the ruling socialists. University leadership says the school has received only about 2% of its requested budget for 2021.

As a result, much of the campus has fallen into disrepair. The ceilings of classrooms leak, and laboratories are shuttered. A covered walkway designed by Villanueva to connect the buildings collapsed last year. In June the School of Political Science caught fire while the university was without water service. Firefighters were powerless to put out the blaze.

Little-used corridors have been occupied by the city's homeless. Earlier this year, students released videos showing the Aula Magna—an auditorium with cloud-shaped acoustic panels designed by Alexander Calder—littered with trash, feces, and used condoms. The government has made modest cleanup efforts. A few weeks ago, public workers started trimming the grass and fixing up basketball courts, in violation of the university's autonomy.

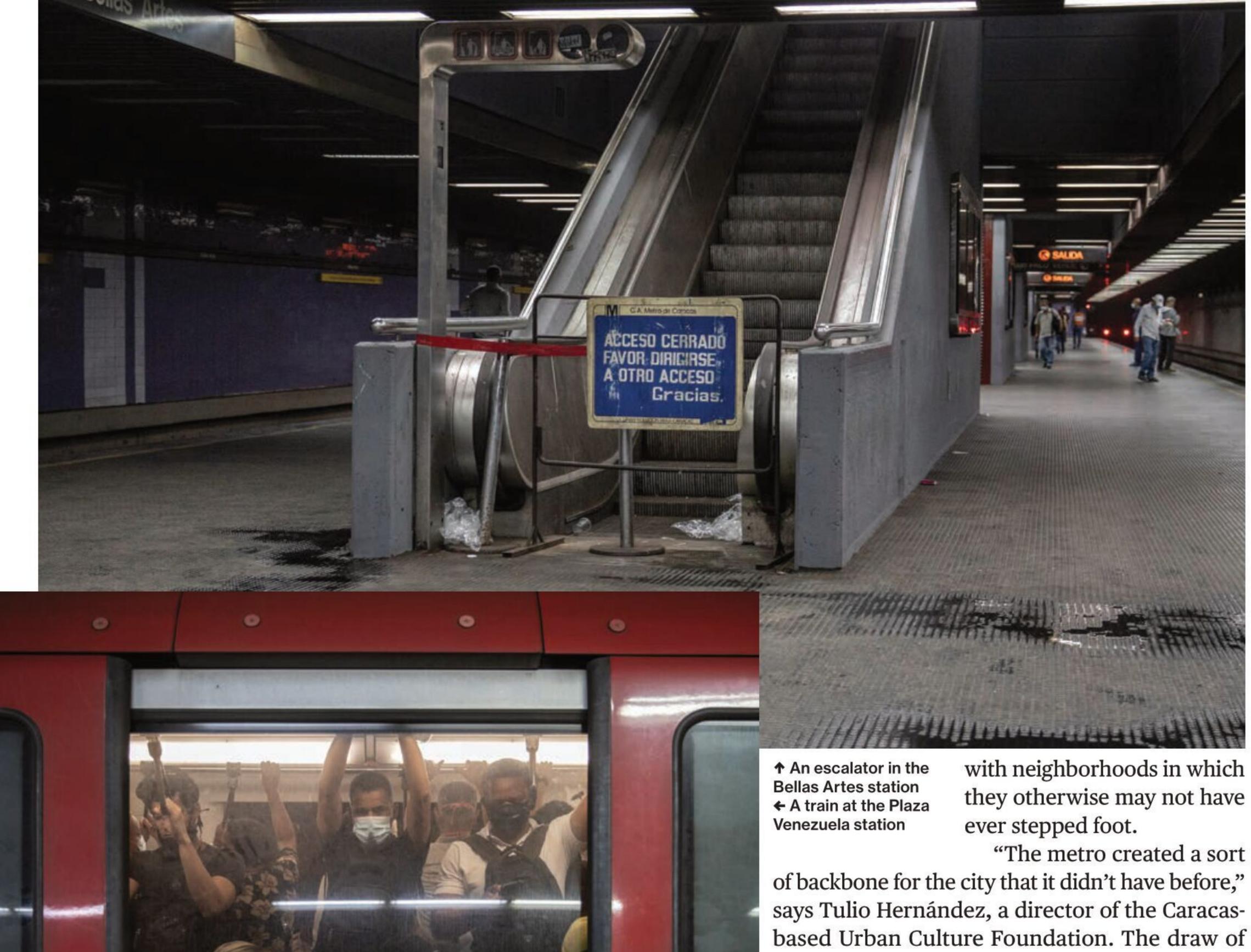
Faculty and staff earn salaries the equivalent of a few U.S. dollars a month, and about 2,000 professors have left their posts, while dropout rates are estimated to be as high as 50%. But alumni, students, and staff are rallying to help UCV survive. Their fundraising campaigns have supported operations at the School of Architecture, helped pay for repairs to the zoological museum, and are now being used to renovate the Aula Magna.

"Those of us who decided to stay have a duty to keep these spaces open despite the circumstances," says Elizabeth Ball, a dermatology professor, who in March organized a crowdfunding campaign to supply a laboratory with materials and

 to repair equipment. "People want to help the university because it gave free education to thousands and thousands of Venezuelans."







Caracas Metro

When the Caracas Metro took its inaugural journey in 1983, it was billed as "the great solution for Caracas," a traffic-choked city that spills out of a narrow valley. The metro opened with just eight stops on a line running east to west and was equipped with French-made trains from the company now known as Alstom, which produces rail cars for the Paris metro. Over the years it expanded to 51 stations across a web of four lines above and below the city, at points traveling almost 100 feet underground. Until 2014 its trains and linking bus system were transporting some 2.5 million daily riders around Greater Caracas, according to Metro Family, a nonprofit comprising former transit workers that monitors the metro.

The sleek mass transit system was often celebrated as the public work that most modernized the capital of this petrostate that, until recently, was home to the world's cheapest gasoline. Beyond cutting commute times, it linked residents

of backbone for the city that it didn't have before," says Tulio Hernández, a director of the Caracasbased Urban Culture Foundation. The draw of cheap, quick, and well-managed transportation had white-collar workers rubbing elbows with the city's poor, and for decades the metro instilled a sense of pride in *Caraqueños*.

"People were grateful for a place of order, when outside there was none," says Cheo Carvajal, director of Ciudlab, a group that promotes activ-

ism in Caracas's public spaces.

But scenes of riders calmly filing into trains have given way to rush-hour gantlets for frustrated commuters. Soaring private transportation costs have caused more people to use the metro, straining capacity. Meanwhile, the fleet of trains has shrunk amid mounting debts and an exodus of staff. Only about 20% of trains on Line 1, the busiest corridor, are operational, Metro Family says. Many escalators are broken in the cavernous stations, and occasional blackouts and floods halt service entirely.

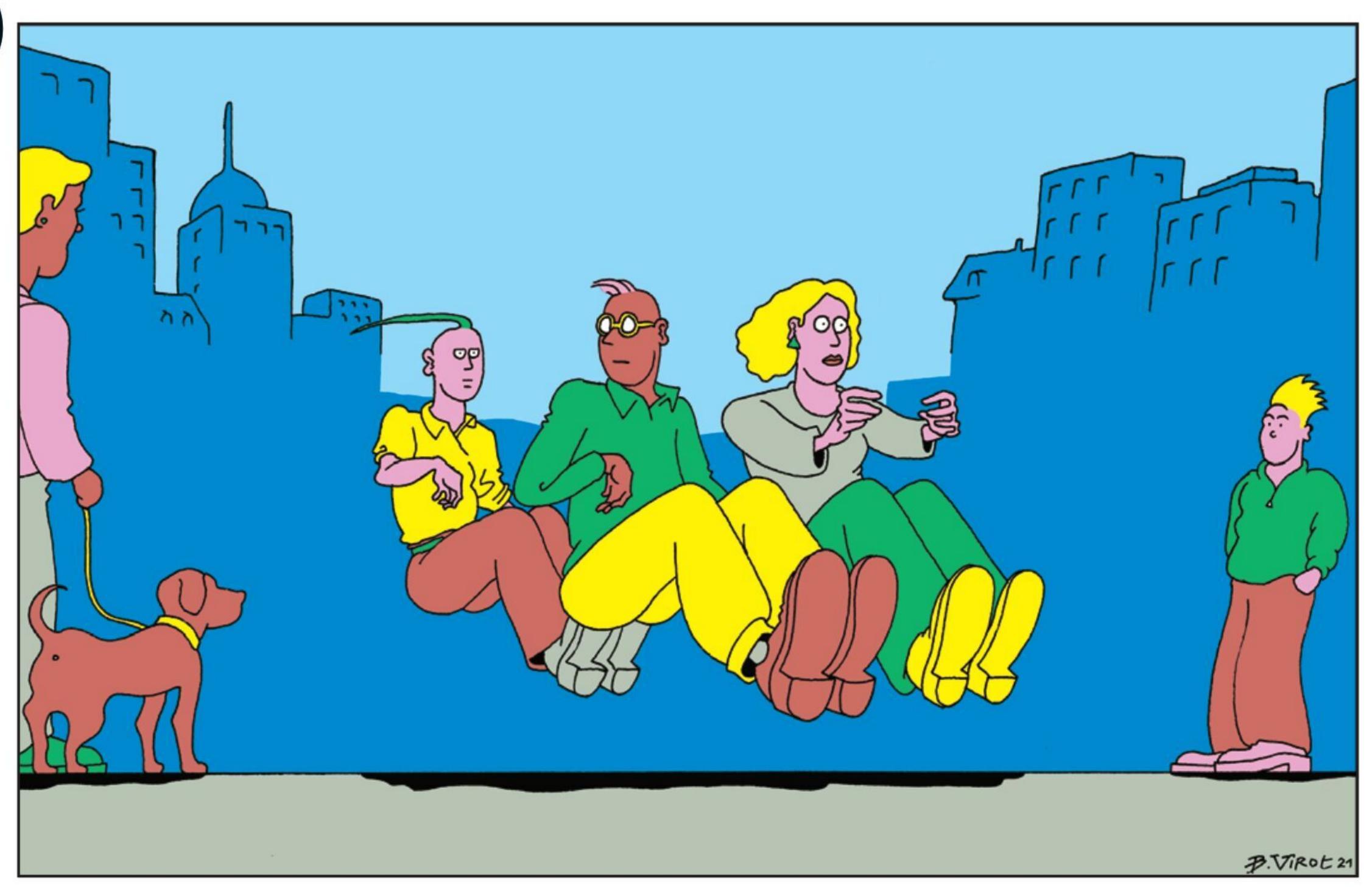
Local transit advocates say the system simply can't afford its outsize subsidies for metro fares. A single ride costs less than the equivalent of 2¢, and it's often essentially free, because ticket counters run out of paper, leaving riders to blow past turnstiles without paying.

As the system erodes, locals must adjust to its limitations. "In the end," says Metro Family's Ricardo Sansone, "people end up doing less and less." — With Fabiola Zerpa

The Political Perils of the Carless City

In Milan, authorities used the pandemic to push through changes aimed at reining in driving, while Helsinki has taken a more deliberate approach. In weaning people from cars, speed can be risky

- □ By Marc Herman and Paul Tullis
- ☐ Illustrations by Baptiste Virot



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On Milan's long list of pandemic-era public initiatives, remodeling Piazza Sicilia is a strange one to get worked up about. The city built the tiny park in just a few weeks last autumn, at an estimated cost of €20,000 (\$23,600). The strip of land had been a right-turn lane at the intersection of busy Via Sardegna and four residential streets, jammed every morning with honking commuters and every afternoon with parents double-parked to pick up their kids from school. Now, with cars forced to divert around the piazza, one of Milan's myriad traffic nightmares has become a place where children play soccer, food delivery riders perch on their bikes awaiting calls, and residents of nearby apartment blocks face off at the pingpong table.

But people are worked up. Covidera urban planning projects like Piazza Sicilia, intended to reduce traffic and provide more public space for residents locked at home during the pandemic, have become a flashpoint. In the runup to elections scheduled for October, right-of-center parties in Milan are using such post-pandemic lifestyle changes as a wedge issue.

The alterations have been far less radical than plans such as Paris Mayor Anne Hidalgo's "15-minute city" (which aims to redesign the metropolis so residents can get most of what they need within a quarter-hour on foot) and Barcelona's Superblocks, where entire avenues are reconceived as open spaces. But in Milan, the automobile still rules, and Covid-era changes favoring pedestrians over cars have been more tentative. Even small programs such as the one that created Piazza Sicilia have fostered the perception among some voters that the government is waging war on the Milanese auto.

In 2015, Milan outlined an urbanplanning strategy aimed at moving away from car-centric transit, and the urgent need for outdoor space that came with Covid-19 accelerated that transformation. City Hall is betting that small, inexpensive interventions such as Piazza Sicilia can turbocharge the transition without the need for grand infrastructure projects. "Covid has given us a stronger reason to say, 'We must intervene,' and this allowed for acceleration," says Marco Granelli, Milan's assessore for mobility and public works and an elected member of the local government. Granelli's Democratic Party forms the base of Milan's ruling center-left coalition, which took power in 2016 and was in office as Covid began savaging northern Italy. The coalition won international praise for quickly building three dozen "tactical plazas" such as Piazza Sicilia.

But that was last year. With the masks starting to come off and the urgency of the crisis easing, initiatives such as tactical plazas are no longer perceived as a simple crisis response. In 2021, the local governments in Milan and other cities have to own what they're really

Ending the Auto Era

Across Europe, cities are stepping up efforts to make driving more difficult and open the streets to pedestrians and bikes

City	Action
Barcelona	Planning 13 miles of new bike lanes as part of a major citywide rezoning
Belfast	Closed some streets to motor vehicles and reallocated lanes on others to bikes
Birmingham, England	Fast-tracking street closures; removing parking; restricting residential streets to 20 mph
Brussels	Converted all streets in the center to shared use for pedestrians, vehicles, and bikes
Dublin	Closed four major commercial streets to driving and parking
Lisbon	Budgeted €3 million for bike purchase subsidies; adding 7,740 bike parking spots
Manchester, England	Spending £5 million on temporary cycle lanes and widened sidewalks
Rome	Planning 93 more miles of bike lanes across its seven hills
Tirana, Albania	Taking over parking spaces for bike lanes and expanded sidewalks
Vilnius,	Barred cars from several

downtown streets; using parking

spaces for outdoor dining

doing: a fundamental redrawing of the urban landscape and a top-down social engineering experiment that seeks to steer residents away from the car, permanently. And officials need to do this while also getting reelected, because most such changes take years. If the results don't please a majority of Milanese, Granelli's party risks being thrown out, and his replacement would likely kill the program. Mid-August polls by Ipsos showed an opposition rightwing group just four points behind the governing coalition.

While some politicians and drivers in Milan complain that the city has rammed reforms through too quickly, 1,200 miles northeast in Helsinki there's concern that efforts to reduce the number of autos in the center is coming too slowly. The changes stem from a desire to limit climate-warming emissions alongside a push to boost efficiency and simply make Helsinki a nicer place to live. But with traffic that's less snarled than Milan's, the Finns can afford to move more slowly.

The Finnish capital has set a goal of increasing the share of trips by bike from around 9% today to 20% by 2035 (in Amsterdam it's now 36%; in London, 2%). The more incremental approach to getting there, though, hasn't always been by choice: It wasn't until last year that Helsinki reached its funding target for cycling infrastructure. But the city has avoided the kinds of conflicts brewing in Milan and elsewhere. A decade ago, Helsinki started to look to Copenhagen, an urban cyclist's paradise, for ideas. As Helsinki has grown, adding 5,000 to 8,000 residents a year, so has demand for housing and transportation linking those homes to the rest of the city. "It was about integration of cycling instead of building bicycle infrastructure where there's room," says Oskari Kaupinmäki, a cycling coordinator for the city.

As the underfunded transformation limps along, dissatisfaction with the changes seems to be mostly about growing pains rather than a rejection of the concept. In June, after years of slow-and-steady implementation of the program, the mayor's party won reelection,

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Lithuania

■ with the deputy mayor in charge of the changes placing among the most popular candidates for city council.

Across Europe, policymakers are questioning the free ride that cars and drivers have gotten for almost a century. From Antwerp to Zagreb, governments have launched or sped up plans to drastically scale back traffic through infrastructure upgrades, new laws, and redesigns aimed at favoring other modes of transit. They've wiped out parking spaces, added bike lanes, and even barred autos completely from some areas. "Cities are using the opportunity of the pandemic to accelerate things they wanted and maybe didn't have broad consensus to do," says Jill Warren, chief executive officer of the European Cyclists' Federation. "Residents can be afraid of having parking spaces removed, reductions in speed limits—anything that makes driving less attractive. Taking things away from people tends to irritate them the most."

Given a chance, though, such measures can be enormously popular. Amsterdam was a battleground in the 1970s; now the city has wide latitude to beat back the automobile and is removing 11,000 parking spaces. In June, Paris's Hidalgo won reelection in a landslide after quickly adding 30 miles of bike lanes the previous spring. A proposal two decades ago to ban cars from the center of Pontevedra, Spain, faced strong opposition, but the mayor who implemented the plan has been reelected four times, and polls show locals have scant interest in going back.

In Milan, simple projects like Piazza Sicilia came together fast and were instantly popular, with their bright colors and minimalist designs Instagramming well. Known for style and history—and home to both Da Vinci's *The Last Supper* and Maurizio Cattelan's *L.O.V.E.*, a 36-foot-tall sculpture of a middle finger in front of the stock exchange—Milan became a template for transforming tragedy into opportunity.

Although tactical plazas began last year as an effort to facilitate social distancing among the city's 1.4 million pandemic-ravaged citizens, in 2021

they are more obviously a means of introducing Milanese to the Milan that could be. The strategy is to convince residents that it's all right for Granelli to tinker with their roads and get them out of their cars, which still rule Milan's streets (and sometimes its sidewalks). The city, after all, is where Alfa Romeo's sexy convertibles were born. The legendary Monza racetrack is just 12 miles away. And tiremaker Pirelli operates from a skyscraper downtown.

But Milan isn't simply a motown. Romantic wood-trimmed streetcars creak through the historic center and out into the suburbs. Italy's largest bicycle company, Bianchi, was founded there in 1885. (Bianchi also made cars for a while, but it abandoned them in favor of bikes.) Pedestrian-friendly

"Residents can be afraid of having parking spaces removed, reductions in speed limits—anything that makes driving less attractive"

Navigli, with its canal-side cafes, is thronged now that restaurants are open again. Even traffic-choked Piazzale Loreto was once pedestrian, but in the 1950s, a decade after dictator Benito Mussolini's body was hung there for everyone to spit on, it became a four-lane traffic circle, impossible to cross on foot. "Experiments help," Granelli says. "They allow the citizen to avoid immediate change from white to black. A little culture, a little citizen involvement in saying, 'Let's try to do something that is not definitive' and make them grasp the positive effects."

Granelli's office occupies a corner of the modern transportation department headquarters, one of the few spots in Milan that feels welcoming to people arriving by bike. Everything about the tall, square building's entrance demands that you stride up to it, not arrive in a car or cab. Wide sidewalks mean you can't pull right up to the front door, and one side is dominated by a long bicycle rack, where Granelli says his two-wheeler is locked up—without mentioning that the rest of the rack is mostly empty because few people in Milan commute by bike.

Granelli knows tactical urbanism's success will define whether he still has a job in a few weeks. His opposition does, too, and it's hitting the issue hard. "There is a big movement that is considered green, but it's not," says Andrea Sacchi, a candidate for city council with the right-wing Fratelli d'Italia (Brothers of Italy) party.

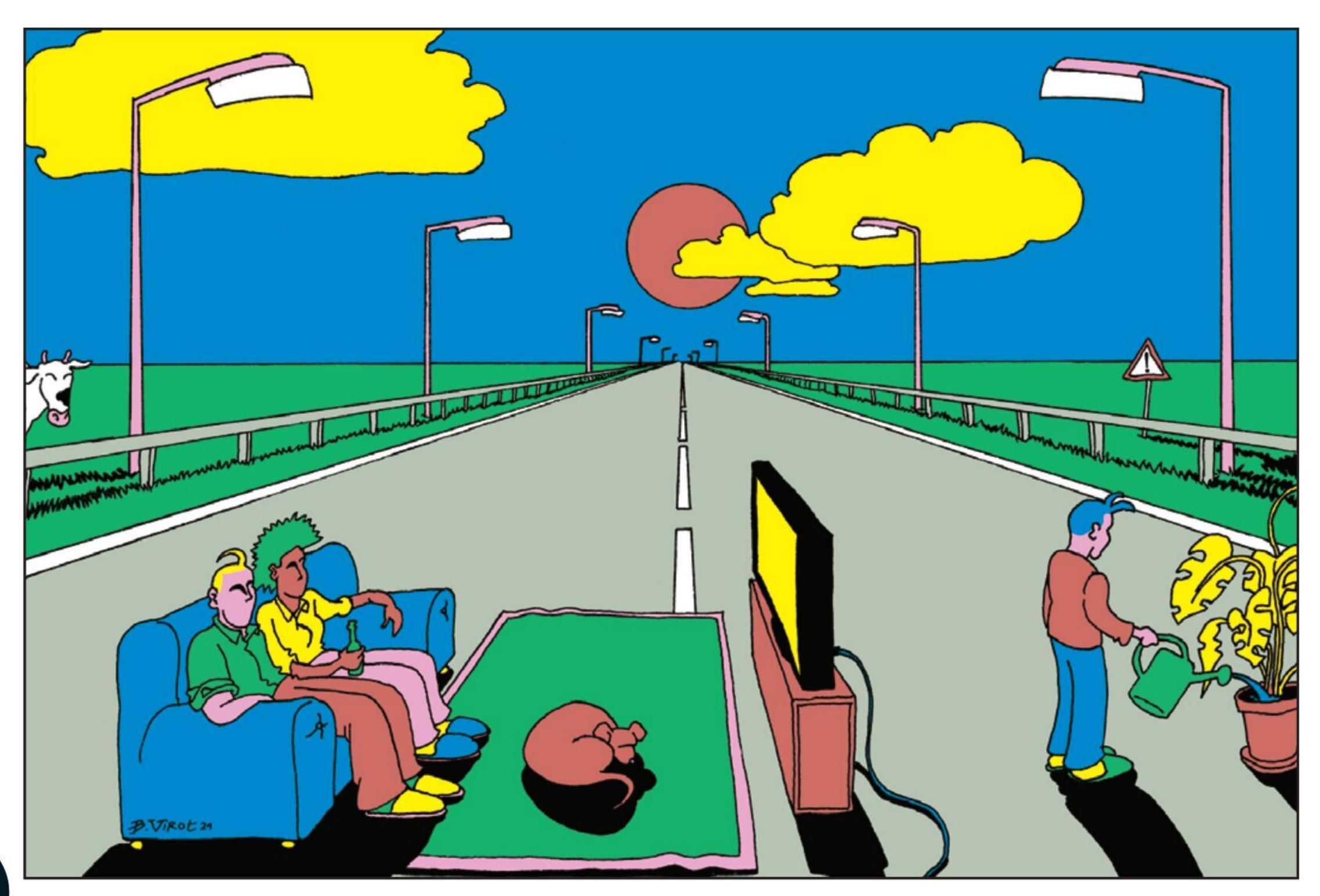
Sacchi, the son of a motorcycle racing official, looks like a rockabilly guitarist and writes for Italian car magazines. He notes Granelli doesn't have an urban planning background—the transportation chief used to be a social worker—and calls tactical urbanism a misappropriation of public funds, accusing Granelli of rolling out cheap little squares to pad the city budget with Covid relief from the European Union. "It's like greenwashing," Sacchi says, sitting on a bench at Piazza Sicilia and gesturing dismissively at the planters filled with small trees.

Sacchi is a climate change doubter who insists auto exhaust doesn't harm Milan's air quality. In any other political era, he'd be just another middle-aged car guy grousing about a world moving on without him. But now he's being recruited to write transportation policy for Milan's chapter of Italy's fastestrising far-right force. Its leader, Giorgia Meloni, has surged to national prominence on the back of Trump-style provocation targeting immigrants, same-sex couples, and Italy's left. Sacchi calls the move to make the Covid infrastructure permanent an ideological power grab by a leftist City Hall. "You have to give people the liberty to move how they want," he says.

Looking over Piazza Sicilia, he also notes that, well, it's actually pretty ugly. And he's not wrong.

A year after their inauguration, ▶





■ many of the tactical plazas look a bit grotty. Piazza Sicilia is full of people, but it's already falling apart under their use. The bright, surreal paint job that popped on Instagram has faded, and the picnic table wobbles unnervingly. The grass alongside Via Sardegna is patchy and uninviting, apparently unwatered. Errant shots from the pingpong tables frequently ping into traffic or pong into the darkness of a storm drain. The redesign hasn't even reduced driving, Sacchi claims. Before, parents "came, parked, and picked up children from school. Now they still come with the car, but they park in the middle of the street."

If the goal was just to get a foothold, the plaza clearly worked. But as Covid fades as a spur for policy, the tactical program's hasty implementation—and even tiny design flaws affecting matters as mundane as which way a pingpong ball bounces (turning the table 90 degrees would have largely solved the problem)—have given critics an opening. "I am not against the

vision," says Geronimo La Russa, president of Milan's Automobile Club, one of Italy's biggest lobbies. "I am against being the Taliban. Forcing the issue is not OK with me."

In a worrying sign for Granelli, even some members of the natural constituency for the Covid changes have voiced dismay. Cyclists aren't wild about the 37 miles of bike lanes installed with great fanfare during the pandemic. Rather than separating bikes from cars, Milan's lanes amount to a few stripes painted on the side of existing streets, leaving riders exposed to much of the chaotic traffic.

"They really suck," says Iosef Tilza, manager of La Bicicletteria, a bike shop a few blocks from Piazza Sicilia. He says Milanese want to ride and estimates his shop's sales jumped tenfold in 2020 after the Italian government spent more than €215 million on subsidies for bicycles, e-bikes, and electric scooters. But all those new bikes are still tussling with Milan's aggressive drivers.

If Granelli faces skepticism from the

likes of Tilza, he'll have a tough time convincing the rest of Milan that the Covid emergency lanes are an important piece of the future. Even on the wide avenue in front of Tilza's shop, the rare bike commuter is still exposed to cars racing past. Anyone not already confident on a bike wouldn't dare wade into the afternoon traffic, and letting children pedal home from school there seems wildly irresponsible, an invitation to tragedy. "Sometimes you want to ask the designer, 'How did you come up with this?'" Tilza says. "'Have you ever ridden a bike?' Boh."

Helsinki started down its path of mobility transformation more than a decade ago, taking a full five years to study the matter with Nordic fastidiousness before even releasing a plan. The deliberate pace irritates some, but by not using Covid as a feint to rush through changes, city officials have given themselves more time to win people over.

For a mile and a half, cyclists

riding downtown from the northern neighborhood of Vallila enjoy their own pathway, 8 feet wide and on a separate level from those of vehicles and pedestrians. The southern stretch takes a lane from cars, and traffic cameras enforce new, no-through-traffic regulations. Riders roll past secondhand shops, barbers, and ethnic groceries in an area transitioning from working class/ immigrant to hipster. Osman Shakil, who owns a halal butcher shop beside the new cycle path, says the change has hurt business. "Fewer people are coming in because they can't park," he says. "There are other places with good parking where they can shop."

Henni Ahvenlampi, executive director of Helsinki Region Cyclists, an advocacy group with 1,500 members, frequently hears complaints like Shakil's. "The problem is there's no continuity to the center," she says. Indeed, a quarter-mile from Shakil's shop, just north of a bridge that marks the unofficial border with downtown, cyclists must rejoin traffic because the lanes need to be wider to accommodate turning buses. It's less appealing, less safe, and a disincentive for anyone seeking to commute by bike.

The city is investigating whether it can extend the path to the bridge and southward, but even if that's feasible, work won't be complete for three or four years. That's both necessary and part of the plan. "Economy, design, land use codes, fire regulations—all these very solid systems are interlinked through the automobile," says Meredith Glaser, acting director of the Urban Cycling Institute at the University of Amsterdam. "You can't expect to uproot a century's system overnight."

When the city of 650,000 embarked on its mobility transformation back in 2010, "People thought of cycling as not serious transportation—like, 'Why do we need all this infrastructure for men in their 50s who wear Lycra?'" says Anni Sinnemäki, a deputy mayor from the Green Party.

First, city officials conducted surveys to find out what would motivate people to cycle more. They monitored bike traffic and analyzed how and why

it changed. And to increase the buy-in, they calculated the return on investment in cycling infrastructure (more than 7 to 1 in health benefits and time saved). In 2015, after four-plus years of study, the city published a biking plan, which it updated in 2019.

In the end, a methodical approach might benefit both advocates such as Ahvenlampi and doubters like Shakil in the end. Study after study has shown that cyclists actually spend more in local businesses than drivers—and that business owners overestimate the portion of customers they believe arrive in their shops by car. Along a mile of the bike path that passes Shakil's shop, there's not a single empty retail space, even after more than a year of social distancing restrictions.

"It's true that there is cultural resistance. We have to make citizens understand the positive sides of change"

Changes have been easier to implement in Helsinki than they might be elsewhere, Deputy Mayor Sinnemäki says, since public transit is widely used and Finland's automobile lobby isn't particularly strong—there's just a single car factory in the country, employing fewer than 5,000, while Italy's automotive industry has 250,000 workers.

Thanks to wide support for public transportation, reducing car traffic doesn't have to mean putting everyone on a bike. The portion of trips in Helsinki on a bicycle is far lower than in Amsterdam or Copenhagen, long considered the gold standard for bikeability. But the share in private cars is also smaller than in those two cities, with public transit making up the difference. Helsinki is, after all, a place where the average

temperature hovers around freezing and snow often covers the ground from December through March—though the city is trying to improve winter maintenance of bike lanes. City Hall devotes just €20 million of its €200 million in annual transportation investment to cycling. Yet the bicycle work has the support of Finland's national government as part of its climate agenda.

Even the business lobby is on board or at least hasn't yet been alienated. Some doubt the willingness of Finns to frequently hop on their bikes for groceries, as Danes and Dutch do, rather than driving to the supermarket for a big shopping trip every week or so. And with a working cargo port in the central business district, the city can't afford to choke off too much car and truck traffic, says Markku Lahtinen, director of the Helsinki Region Chamber of Commerce. "We like to support bikes, but the center must be accessible," Lahtinen says. "All kinds of logistical chains need to be taken care of, and that possibility is diminished when cycling rules."

If Helsinki shows the wisdom of slow, steady change, Milan offers an example of city officials facing the consequences of moving fast. As the pandemic eases, Granelli no longer has the luxury of justifying post-car urbanism as a crisis response. He has to sell Milanese on a revised model of urbanism, pushing them toward a long-term reinvention of their city.

Granelli is betting that the longer Milan's new normal includes ideas such as Piazza Sicilia, expanded bike lanes, and fewer cars, the more people will come to support them. "It's true that there is cultural resistance," he says. "We have to make citizens understand the positive sides of change."

The question is whether Covid sufficiently changed Milan, or whether opponents like Sacchi can marshal frustrations from an unfinished transition. Granelli knows that many voters will still drive to the polls rather than biking or walking. "Five years is too short to complete the vision we have," he says. It is, however, the length of a term in City Hall.

— With Alessio Perrone

() Rochester

END OF THE LINE

A photographer sets out to capture a city's last pay phones before they disappear

By David Dudley

☐ Photographs by Eric Kunsman

→ ABC School of Driving, State Street

Goodman Street, past pizza places and gas stations and narrow woodframed homes, when Eric Kunsman spots a red-crowned kiosk in front of the parking lot of a convenience store/smoke shop. It's a pay phone, one he'd probably seen many times before but had never truly *seen* until now.

"Look at that!" he says. We pull over, and he pops the hatch on his Toyota SUV. "I can't believe I missed this one."

In the back, Kunsman keeps photography equipment—a vintage Hasselblad film camera in a suitcase-size case. It's an attention-getting rig, and as he sets it up and trains it on the battered telephone, the owner of the smoke shop emerges, frowning.

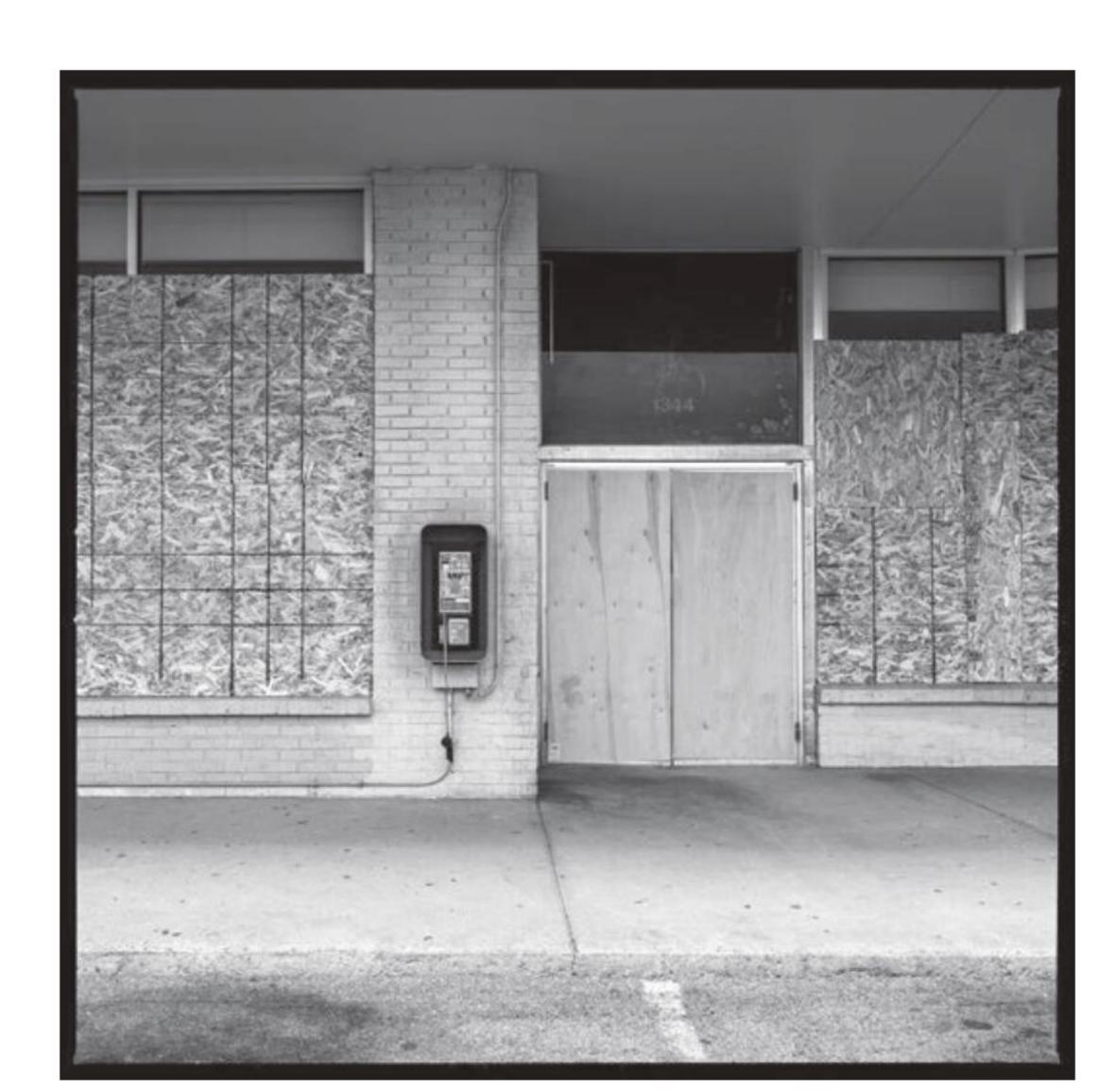
Kunsman is very familiar with this part of the process, and with an enormous grin he explains himself: He's a photographer, and he takes pictures of pay phones.

Specifically, Kunsman, who teaches photography at the Rochester Institute of Technology, is engaged in a multiyear project to document every surviving pay phone in and around the city in upstate New York. As of 2018 that would be 1,455 phones, according to a dogeared list of locations provided by Frontier Communications Corp., the telecommunications company that operates the machines that remain in Monroe County. So far, Kunsman has captured about 900 of them on film. Perhaps 35% of them, he says, still work.

It's an endeavor born of Kunsman's fascination with obsolete technology—and with a city that has become associated with it. Rochester was famously the home of George Eastman, founder of the Eastman Kodak Co.; at its ▶







← → Family Dollar, Lyell Avenue 2020 (left) 2021 (right)



↑→ East Main Street 2018 (left) 2020 (right)



"WE FORGET THAT TECHNOLOGY MOVES SO FAST. WE DON'T THINK ABOUT THE PEOPLE LEFT BEHIND"





◀ 1970s peak the photography giant employed about 50,000 people and fueled a quarter of the city's economic activity. But the rise of digital photography and the collapse of the film business brought mass layoffs and a 2012 bankruptcy that hollowed out the city's middle class. Once insulated from the hard times that had befallen nearby Rust Belt cities such as Buffalo, Rochester plunged into a sharp economic decline. Its current poverty rate, 31%, trails only Detroit and Cleveland as the worst among the 75 largest U.S. metros.

This history haunts Kunsman, who moved to Rochester from his hometown of Bethlehem, Pa., in 1996. "I got to see its heyday," he says of the city, "and then I got to see it fall apart."

Rochester's pay phones caught his eye around 2017, when Kunsman moved his photography studio from the Neighborhood of the Arts, a revitalized district in the city's southeast, to a lower-income community inside the "crescent of poverty"—a complex of low-income neighborhoods north and west of downtown that had earned a reputation for crime and abandonment. Friends warned him that the area was a "war zone," but once Kunsman set up his studio in an old bumper warehouse he found a tight-knit neighborhood of families amid the vacant lots and other signs of economic distress. Among those signs, he soon noticed one: a surprising surfeit of pay phones.

To Kunsman, the persistence of these devices in low-income neighborhoods spoke to the patterns of investment and attention these spaces command; once a widely used public amenity, pay phones had become markers of poverty and neglect, enduring only because property owners or telecommunications operators couldn't be troubled to remove them. Still, even in an age of near-universal cellphone access, people used them—the unhoused people who camped near a restaurant, for example. Kunsman began taking photos of the pay phones, first the ones he'd spotted around the neighborhood, then farther afield. He shoots black-and-white images on Kodak film, because, he says, "their demise is what caused this issue."

The shots are unpeopled, though occasionally there are figures in the background. Kunsman says people who use pay phones can face stigma, and he didn't want the project to provide easy answers about those who might rely on them. "You have to think about who might be using that phone," he says.

Sometimes, he shoots bare Frontier kiosks whose phones have been removed or the unpainted spaces on a wall where the devices once hung. The scenes usually highlight Rochester's less-celebrated spaces: strip malls, parking lots, storefronts caked in heaps of snow. But some local landmarks make appearances. Frontier Field, the minor league baseball stadium named for the telecommunications company, has a few pay phones. So does Kodak Park, the enormous research and manufacturing complex that Eastman Kodak built across 1,300 acres of the city's northern outskirts during its heyday. A city-within-a-city that boasted its own power plant and private railroad, the campus was partially demolished in the 2000s. The remaining buildings have been renamed the Eastman Business Park and opened up to local businesses, in the



↑ Genesee Brewery, St. Paul Street



↑ Campi's Restaurant, Scottsville Road

◆ hopes of transforming the area into a tech and innovation hub. The ashes of George Eastman still reside there, under a marble memorial. For a photographer, getting a tour inside the film-making facility was "like going inside Willy Wonka's factory," Kunsman says.

Contemplating the economics of the disappearing pay phone industry and where he was still finding working phones—sometimes with new or repaired equipment—Kunsman theorized that Frontier was keeping some phones in low-income neighborhoods as a kind of altruistic gesture to the community, because the quarters they were taking in likely didn't recoup the expense of maintaining the devices. He saw it as an example of "felicific calculus," a method of determining the rightness of an action from its pleasurable payoff, which is attributed to the utilitarian philosopher Jeremy Bentham. (Felicific Calculus is also the title of Kunsman's photo project.)

The company, which filed for bankruptcy in March 2020, has never exactly confirmed that premise. (Frontier didn't respond to requests for comment.) "It's a declining business, and decisions made about it are pretty black and white," a Frontier spokesperson told Rochester's *City* newspaper reporter David Andreatta in 2019. "As long as the remaining units are used enough to support the maintenance and operation costs, Frontier will be able to keep them in service."

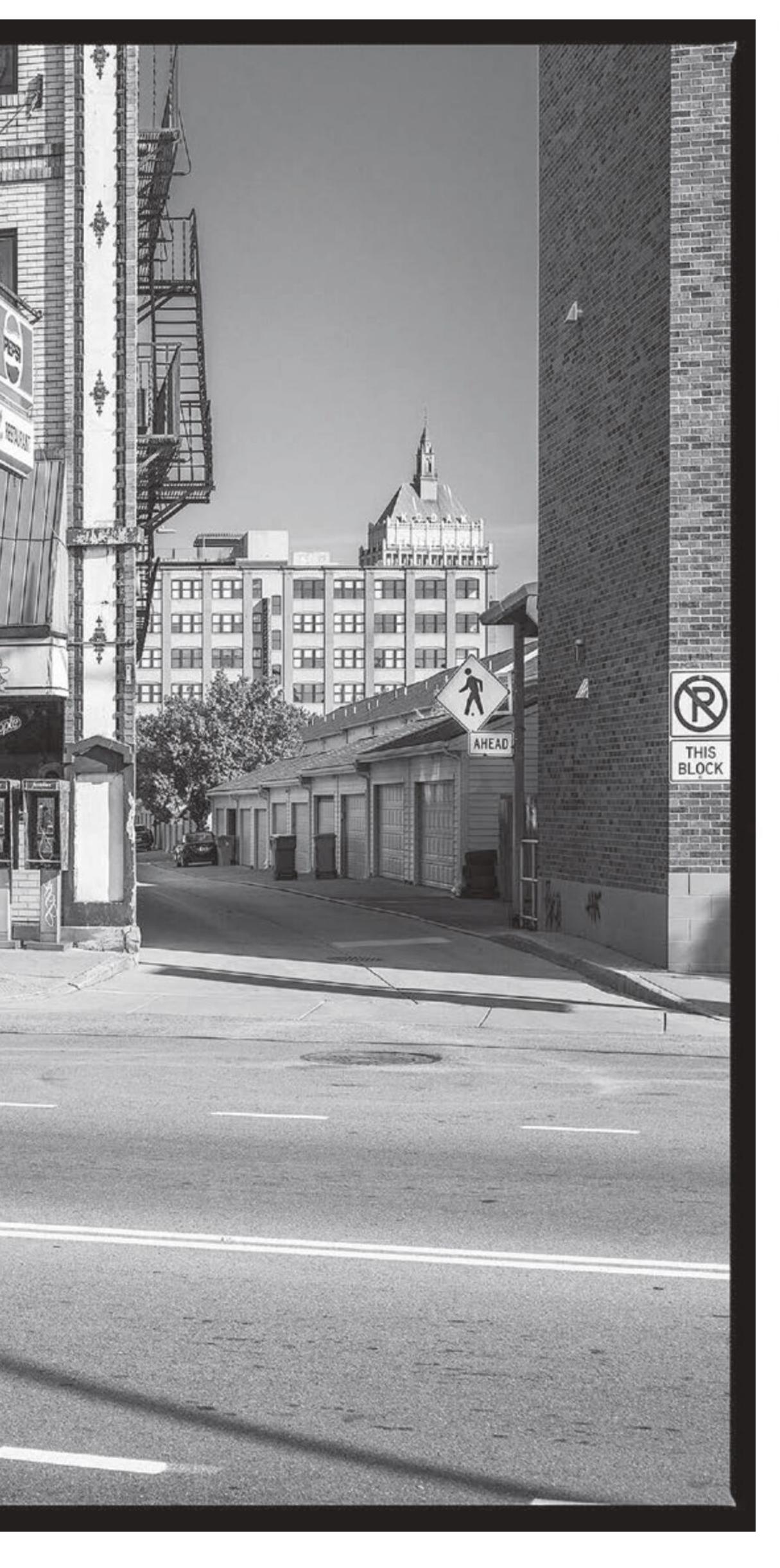
But regardless of whether they represent an intentional act of corporate goodwill or just classic "stranded assets"—infrastructure whose value and purpose have been swamped by the tides of progress—the pay phones in Rochester stand as compelling subjects for Kunsman's lens. "We forget that technology moves so fast," he says. "We don't think about the people left behind."

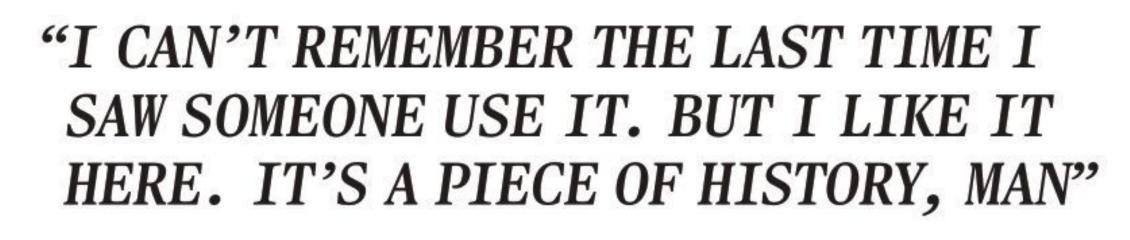




↑ Busy Bee Restaurant, West Main Street

← Grape and Orange Mini Mart, Orange Street







↑ Stoney's Plaza, West Henrietta Road, Henrietta

T's easy to forget that pay telephones were once omnipresent in the American cities of the 20th century, and how swiftly these iconic features of the streetscape vanished in the 21st. The first coin-operated public telephone appeared on the outside of a downtown building in Hartford, Conn., in 1889; by 1999 more than 2 million pay phones blanketed U.S. sidewalks, hotel lobbies, airports, and hospitals. The last time the Federal Communications Commission issued a pay phone count, in 2016, fewer than 100,000 remained. Thanks in part to federal government programs such as Lifeline, which partially subsidizes mobile phone service for low-income Americans, cellphone access in the U.S. has now reached 97% of adults, according to the Pew Research Center.

As handheld devices swept the population, pay phones—and those who still used them—acquired an unsavory reputation. In the 1990s some city leaders passed legislation limiting their placement in a bid to fend off the drug dealing that they were widely seen as abetting. Cities junked pay phones by the tens of thousands.

The relative handful that remain in major cities such as New York and Los Angeles have since become objects of nostalgic fascination, as Kunsman discovered when he took his pursuit of Rochester's pay phones to social media. There he ▶





↑ Whitney Street









← East Ave. Auto, East Avenue





◀ found fellow enthusiasts including filmmaker Ryan Steven Green, who runs the account Payphones of Los Angeles on Instagram, and the artist Pentabo Clortino, who turns dead pay phone kiosks into art installations.

But Kunsman is not only interested in the aesthetics of these abandoned pieces of street furniture: He uses his project to plumb the city's social and economic circumstances. He collaborated with two RIT colleagues, digital librarian Rebekah Walker and Janelle Duda-Banwar, a researcher at the Center for Public Safety Initiatives, to map pay phone locations across the Rochester region and overlay them with poverty rates, median income, housing values, and demographic information. "Where there are higher levels of poverty, there are higher levels of pay phones," says Duda-Banwar, who also talked to community residents about what the phones were being used for. "They had this negative connotation: 'Oh, drug dealers use that,' or 'homeless people use that.' No one really talked about phones as a resource."

When Kunsman comes across people who are making calls from pay phones—something that, in the Covid-19 era, has become rare—he finds that they're almost always calling family members or doctors. And they are acutely aware of the connotations that accompany talking on a public pay phone in 2021. "One thing that's a common thread is that they don't like people looking at them," he says.

For those who still rely on these devices, the options are becoming more limited. Since his project began, Kunsman has tracked the disappearance or destruction of scores of onceoperational pay phones. On Lyell Avenue, he spots another recent victim on the brick side wall of a corner store, which used to sport a working pay phone. (Kunsman's photo highlights some visual irony: The store sells cellphones.) Now only the severed wires are visible. He stops to photograph it, carefully duplicating the angle of his earlier shot. Again, the store owner comes out to chat—suspicious at first, then bemused. The pay phone was removed a few months ago, the owner explains, when he had the building painted.

Not far away, we pull into a Sunoco station said to have a working pay phone. But upon closer inspection, the head-set appears damaged, and no dial tone emerges. "I can't remember the last time I saw someone use it," says Michael Maccio, who works at the garage. "But I like it here. It's a piece of history, man."

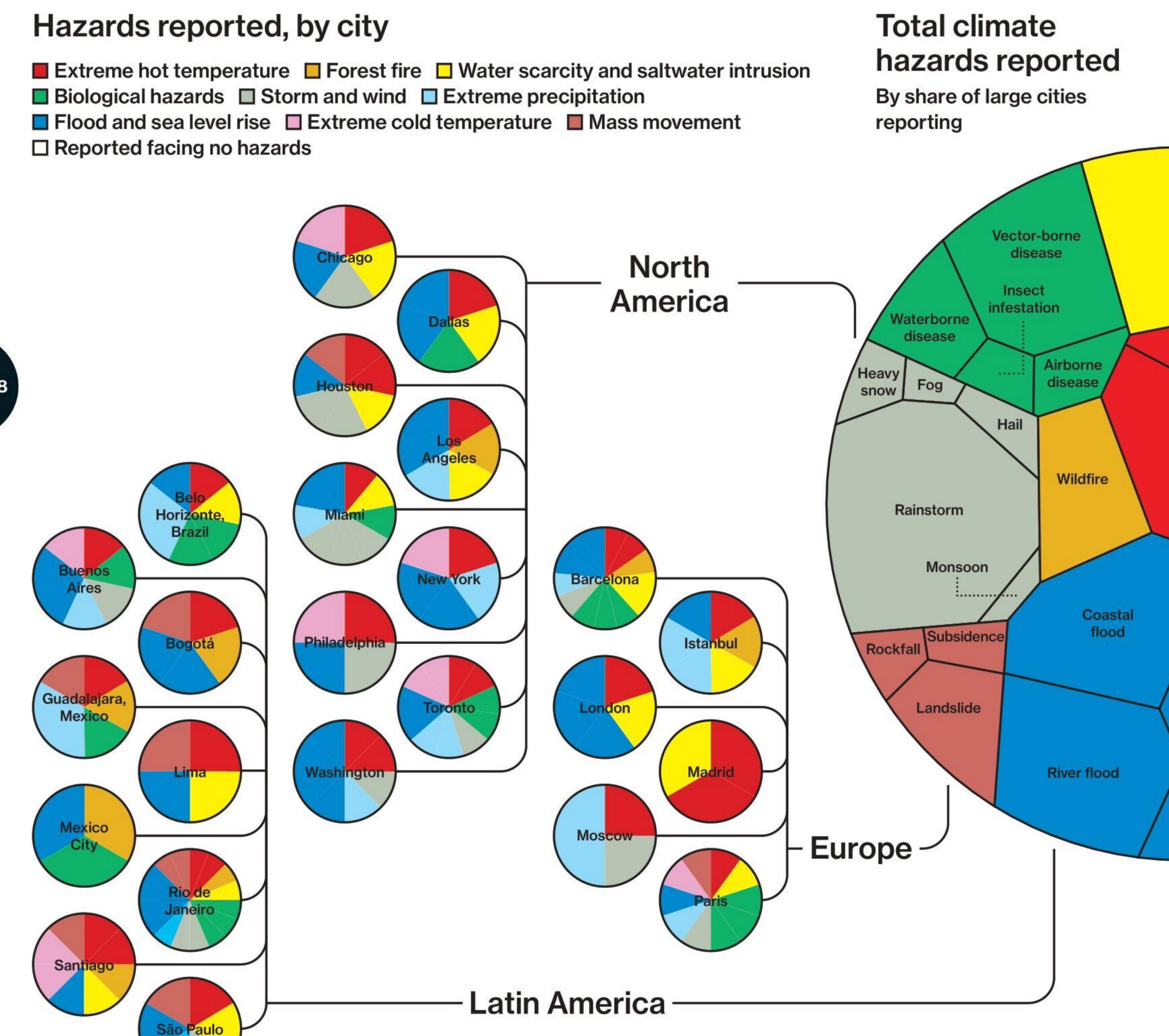
We press on, visiting shopping centers of various vintages, where phones often hide on interior columns, and nail salons and dollar stores. In an affluent suburb, a lone phone is stationed on the edge of a vast parking lot. A beat-up convenience store bristles with a quartet of them. None work; one gives up a quarter. Kunsman pockets it. "That's a first."

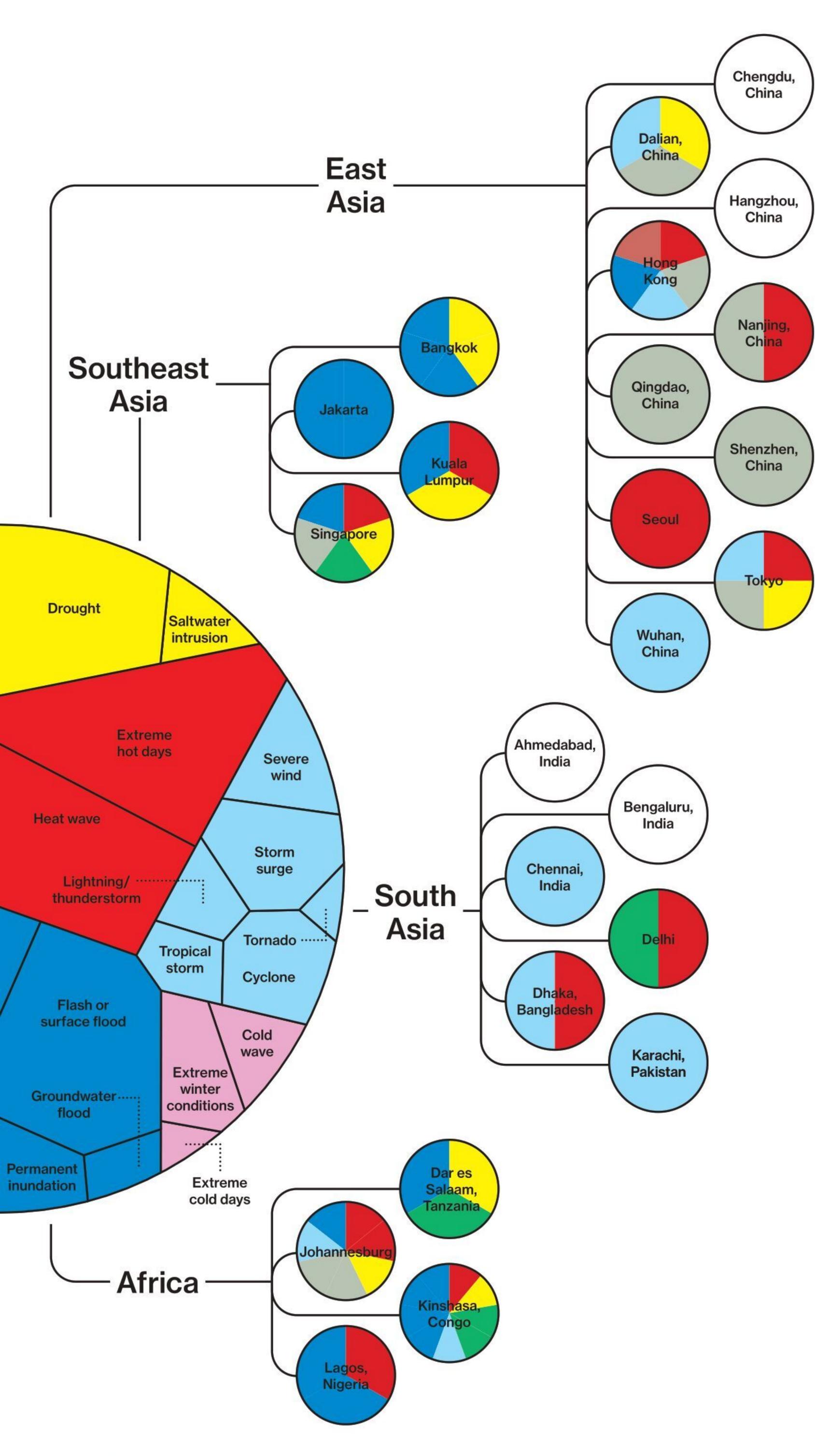
On the way back into the city, we pass construction work on Main Street and spot one of the green-roofed public phone kiosks that were installed during a wave of 1990s downtown renovation. The structure is listing to one side now, marooned in a sea of gravel as the sidewalk is jackhammered around it. Kunsman makes a note to turn around and capture the scene: "That one will be gone by morning."

In Harm's Way

Last year 48 global cities with a population of more than 1 million reported the climate hazards they faced to the nonprofit CDP, which helps them track their environmental actions and risks and compare themselves with peers.

□ By Dorothy Gambrell





Social impacts

Cities experiencing or expecting to experience social problems because of climate hazards, of all 812 that reported to CDP in 2020*

Expected time of impact:

- Immediate 2022-25

Increased risk to already vulnerable populations

Increased demand for public services

Increased demand for healthcare services

Increased resource

demand

Increased incidence and prevalence of disease and illness

Fluctuating socioeconomic

conditions

Population displacement

Loss of traditional jobs

Increased conflict and/or crime

Migration from rural areas to cities

Loss of tax base to support public services

0 250 500

750

The Cities Issue

Faded 20th century shopping hubs are being reborn as colleges, libraries, and more ☐ By Alexandra Lange ☐ Illustrations

About 40% of U.S. department store outlets have closed over the past five years. Many of the large, boxy structures that house them, where prom dresses were purchased and perfume sampled, will be demolished. But some will be put to new uses.

Why repurpose department stores, the supposed white elephants of the retail world? Property owners and designers are becoming aware of the cost savings and environmental benefits of adapting older buildings rather than tearing them down. Beyond that, many urban department stores have high-quality historic architecture, prime downtown locations, big lower-floor

windows, and lots of open floor space. Suburban stores are often plain and windowless; inside, however, they have the same large floor plates, as well as key locations near highway interchanges. (No wonder some stores have been converted to temporary Covid testing and vaccination sites.)

by Sam Island

"The big urban question of the 1980s and 1990s was what to do with former industrial areas of all of our major cities," says Owen Hopkins, director of the Farrell Centre, a research hub for architecture and planning at Newcastle University in England. In the 2020s, he says, it's "What can we do with post-retail spaces?"

Community college



In Texas, Austin Community College

has spent more than a decade trans-

forming the former Highland Mall

into a mixed-use campus via a part-

nership with developer RedLeaf

Properties LLC. The 50-year-old

mall's J.C. Penney reopened as aca-

demic space in 2014 after Barnes

Gromatzky Kosarek Architects added

a central skylight and glass portico.

Design firms Gensler and Steinbomer,

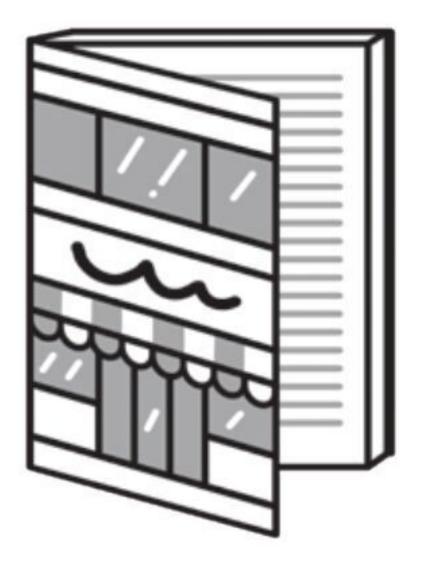
Bramwell & Vrazel Architects turned

the mall's former Dillard's into the

headquarters for KLRU, Austin's PBS

station, along with college broadcast

Library

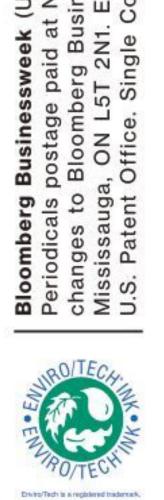


The Stavros Niarchos Foundation Library (SNFL) on Manhattan's Fifth Avenue, designed by Mecanoo and Beyer Blinder Belle, fits beautifully into a Second Empire building that opened in 1914 as the uptown branch of Arnold Constable & Co., the first department store chain in the U.S. The building's clear layout and sweeping sightlines continue to be pluses, even after previous renovations. "If what you need is help with your résumé, you're able to walk in and beeline to where you want to go," says Elizabeth Leber, managing partner at Beyer Blinder Belle.

Office space



Last year, Amazon.com Inc. bought the former Lord & Taylor flagship store down the block from the SNFL, with plans to convert the 1914 landmark building into 630,000 square feet of office space for 2,000 employees. The company intends to add two floors and a rooftop terrace to the 11-story building, while restoring its facade and taking advantage of the store's high ceilings and large, operable windows. Separately, the Wall Street Journal reported that Amazon is planning to roll out retail locations that will be smaller ver-





The Cities Issue

facilities and offices.

Bloomberg Businessweek



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