NEWS Can Miami Beach Survive Global Warming?







Adele Wants to Clear Up a Beyoncé Rumor



Adele's New Song "When We Were Young" Is Here In Full



FROM THE MAGAZINE DECEMBER 2015

Can Miami Beach Survive Global Warming?



THE FUTURE

An artist's conception of what encroaching water could do to the mid-beach area. Photo-Illustration by Darrow; © Richard Cavalleri/Shutterstock (Mid-Beach).

Miami real estate is booming as never before—but rising sea levels driven by global warming might mean a major bust. The mayor, climate scientists, and other experts tackle the dilemma.

BY DAVID KAMP

I. PADDLING HOME

n the summer of 2013, one of the leading candidates in Miami
Beach's mayoral race, a businessman named Philip Levine, released a TV commercial that showed him kayaking his way home through traffic in a Paddington hat and a plastic poncho, accompanied by his boxer, Earl, who was kitted out in a life jacket. "In some parts of the world," Levine said in the spot, "going around the city by boat is pretty cool. Like Venice. But in Miami Beach, when it rains, it floods. That's got to stop. Because I'm just not sure how much more of this Earl and I can take."

Miami Beach does indeed have serious water issues. In the hundred years since it was incorporated as a city, it has repeatedly been pummeled by major storms, one of which, the Great Hurricane of 1926, wiped out buildings, tossed ships ashore, and remains, in adjusted dollars, the costliest hurricane in American history. Essentially a long, narrow barrier island, Miami Beach is surrounded by and infused with water. Biscayne Bay (which separates the city from its larger neighbor, Miami) lies to the west, the Atlantic to the east, and a large waterway, Indian Creek, cuts through the city for much of its length.



SUBSCRIBE TO VANITY FAIR MAGAZINE

To read more, subscribe now.

Get immediate access to this month's issue featuring Bill Murray. Plus, get a free V.F. tote.

Compounding the city's vulnerability to major weather events is the worldwide phenomenon of sea-level rise. Due to thermal expansion of the oceans and the melting of ice sheets and glaciers in the Earth's far latitudes, the global mean sea level is rising. How fast and how much is a matter of debate, with such federal agencies as the U.S. Army Corps of Engineers, NASA, and the National Oceanic and Atmospheric Administration projecting, on the low end, eight inches of sea-level rise by the year 2100, and, on the high end, as much as six feet.

But Miami Beach, a low-lying city to begin with, is already feeling the effects of sea-level rise. Every time there's a heavy rain, the locals brace for flooding on Alton Road, the main north-south thoroughfare of the city's west side, as well as on smaller roads in the area, such as Purdy Avenue, where Levine filmed his commercial. The city's bay side is more susceptible to flooding than its ocean side because it lies lower, less than two feet above sea level in some sections, and was built on cleared swampland that still wants to be what it used to be: a mangrove swamp.

On top of all this, Miami Beach must contend with a fairly new phenomenon that has come to be known locally as sunny-day flooding, in which Alton Road and its neighboring streets are awash in water even when no rain has fallen. This is a consequence of southeast Florida's geology.

Unlike, say, the island of Manhattan, whose bedrock is composed of hard, relatively impermeable marble, granite, and schist, Miami Beach and its neighboring towns sit upon a foundation of porous limestone. When the tides are at or nearing their seasonal highs—the highest, which occur in March and October, are known as king tides—seawater surges inward from the bay and the ocean, bubbling up through the limestone and infiltrating the sewer system. The very drains and gutters built to channel water *off* the streets function in reverse, becoming the conduits through which water gushes *onto* the streets.

With water now threatening the city from its shores and the skies above, as well as from the ground below, Levine and Earl are not the only flood-wary denizens of Miami Beach. "I feel sometimes like we're in Normandy in 1944," said Stephen Sawitz, the fourth-generation owner of the restaurant Joe's Stone Crab, a local institution that sits near the city's southernmost point. "Where is the invasion going to come? Calais? Omaha Beach?"

II. BLOOMBERG SOUTH

y the time I actually met Philip Levine, earlier this year, he was in Miami Beach's City Hall. "You know how some people say they got swept into office?" he said, sitting at the head of a conference table, with Earl lounging serenely at his feet. "I always laugh and say I got floated into office."

Two years ago, Levine won the mayoral election, having made the city's constant flooding a central issue of his campaign. (As this story was going to press, he was running for a second two-year term and was widely expected

to be re-elected.) A chipper 53-year-old native of Hollywood, Florida, 20 miles north of the city he now oversees, Levine is a self-made multimillionaire who earned his fortune in the cruise-ship business, starting out in the late 1980s as an onboard lecturer who filled in passengers on the exciting things to see and do in each port of call—"I was kind of like Julie on *The Love Boat,*" he said. He parlayed this experience into a successful company called Onboard Media, which handled the duty-free shops, in-cabin magazines, and in-cabin TV programming for big ocean liners. In 2000, he sold his company to LVMH Moët Hennessy Louis Vuitton, the luxury-goods conglomerate, for a reported \$300 million.

Levine models himself after Michael Bloomberg, New York City's mayor from 2002 to 2013—as a first-time officeholder whose wealth and outsider status allow him to bypass an entrenched political culture of intransigence and inaction. After he took office, in November of 2013, Levine fast-tracked a program to install electric pumps along Alton Road and other prime flooding spots on the city's west side so that, during a storm surge or high tide, the pumps can be switched on, suctioning water off the streets and out into Biscayne Bay.

The cost of the program is huge, in the range of \$400 million—for perspective, nearly the size of the city's annual budget. So far, the results have been encouraging. In October of 2014, with just a handful of the 80 or so planned pump stations installed, the streets stayed dry during the season's king tide, and, this season, the results have been much the same. Still, Levine told me, "We don't declare victory. It's one small step in a long war that we know we're facing."

For all the sober talk about grave and ongoing environmental challenges, it is apt that Miami Beach has a self-styled Bloombergian mayor. For, curiously, at the very same time that some climate scientists are questioning whether the city will even survive into the next century, Miami Beach is going through an economic and building boom that evokes nothing so much as Bloomberg-era New York at its most sparkly and flash. In the last 12 months alone, the city has added more than 2,000 hotel rooms, many of them under impressive imprimaturs. Tommy Hilfiger is refurbishing the historic Raleigh hotel, and Ian Schrager has given the 50s-era Seville Beach Hotel a luxury redesign and a new name, Edition Miami Beach. And though the city doesn't boast a feat of urban design as ingenious as New York City's High Line, it can lay claim to what has become, since its completion in 2010, the world's most architecturally celebrated parking garage, 1111 Lincoln Road, a house-of-cards-like structure by the Swiss firm Herzog & de Meuron that has become an international tourist attraction in its own right.

Perhaps the greatest engine of the city's current boom is Art Basel, the Switzerland-based art fair, which, in 2002, established a Miami Beach outpost, one that now effectively takes over the city for the first week of December. Marc Spiegler, Art Basel's current director, admits that he was among the skeptics 13 years ago when his predecessor, Sam Keller, set up the fair's satellite operation in South Florida. At the time an art journalist, Spiegler attended warily, concerned that the resort town lacked the requisite facilities and art-world history. "I was not convinced," he said, "that a show with medieval roots could work in a place like Miami Beach. Basel has been a cultural capital for centuries." But Spiegler is now a convert. There is such a strong "cultural infrastructure" in place, he said, and such a variety of places to stay and things to do, that "we're not just parachuting in as a pop-up anymore." And he went on, "When people look

back upon this period in Miami Beach's development, I think it will be judged to have had a similar impact on the landscape as the Art Deco period."

ADVERTISEMENT

III. THE BIRTHDAY BOOM

he Art Deco period was an early demonstration of the young city's resilience. Miami Beach had begun as the brainchild of Carl G. Fisher, an Indiana-born entrepreneur who made his initial fortune in automobile headlamps and became convinced, during a vacation in Miami around 1910, that a resort city could thrive on the uninhabited barrier island across the bay. His vision proved prescient, but even Fisher's hustle and moxie were no match for the Great Hurricane of 1926, which might very well have wiped out Miami Beach for good.

Yet, in 1936, a determined group of city officials celebrated the opening of the first hotel to rise up on the beach since the devastating storm: the Whitman-by-the-Sea, a stately, porticoed Art Deco beauty that advertised itself as "the aristocrat of Miami Beach" and whose grounds occupied an entire oceanfront block. The Whitman was joined, four years after its debut, by another Art Deco hotel a block to its north, the Versailles, whose newspaper ads touted its "Continental verve and gayety." Both resorts thrived, attracting the swells and stars of the period, if not quite all of them; tacked onto the hotels' ads, in discreet lettering near the bottom, were the

words "Restricted Clientele"—South Florida code for "No Jews allowed."

The Whitman's aristocratic reign turned out to be brief; it changed hands, changed names, and, in 1963, was torn down to allow breathing room and better sight lines for a newer hotel that had arisen a block to its south, the modernist and conspicuously more tolerant Saxony. (The Saxony's coffee shop, which served blintzes, pastrami, and tongue, was called Ye Noshery.) Not quite a half-century into its existence, Miami Beach had already established its rhythm: boom, bust, boom, with each regeneration fueled by new cash, new buildings, and a new demographic group or two.

n the decades since, the city has cycled through further downturns and re-inventions. In brief: The 60s were glorious, with the Beatles frolicking in the surf outside the Deauville hotel on their first trip to America, and with the mammoth, Morris Lapidus-designed Fontainebleau hotel serving as the setting for Jerry Lewis's *The* Bellboy, Frank Sinatra's Tony Rome, and James Bond's sensual encounter with Jill Masterson, the young lady tragically gilded to death in Goldfinger. The 70s were rough, the "God's waiting room" era, when the Jewish population that had sustained Miami Beach in the midcentury was aging into senescence, the city's condominiums and infrastructure deteriorating correspondingly. The early 80s weren't much better, with Scarface and Miami Vice projecting an image of rampant criminality in the aftermath of the Mariel boatlift of 1980, which brought thousands of Cuban refugees to the shores. The late 80s and 90s were an improvement, especially in the city's southernmost district, South Beach, where an influx of gay residents breathed new life into the neighborhood's historic Deco buildings, a bustling milieu captured for posterity in 1996 in Mike Nichols's film The Birdcage. South Beach quieted considerably the following year after the

murder of Gianni Versace.

The next big rebound came in this century, with the arrival of Art Basel. It was in this period that the city began to acquire a skyline, with developers building high-rise hotels and luxury condominiums to accommodate a new wave of wealthy international visitors who came for the art but stayed for the beaches and the scene.

Still, the Miami Beach real-estate market took the same hit that most others did during the 2008–9 economic downturn, and, as recently as five or six years ago, there were pockets of the city stubbornly immune to groovy revitalization—for example, the formerly busy stretch where the Whitman, the Saxony, and the Versailles had stood. The latter two hotels somehow remained upright at the beginning of this decade, but they had fallen into dilapidation, their mid-island acreage on Collins Avenue a drab, sleepy affront to the fabulosity of an otherwise bustling boulevard.

Yet this very stretch is now the site of the most audacious of Miami Beach's latter-day boomtown undertakings—the redevelopment of the entire neighborhood, encompassing eight city blocks, as something called the Faena District. The "Faena" behind the Faena District is Alan Faena, a 51-year-old Argentinean who dresses entirely in tropical whites and, with his shaven head and chiseled build, resembles an action star on holiday. Like a lot of participants in the latest Miami Beach rebirth, he is very rich (in his case, from successful endeavors in clothing and real estate) and from South America. But unlike that of most buyers, his presence isn't merely recreational. With his business partner on these projects, the Ukrainian-born, New York-based entrepreneur Len Blavatnik, Faena

envisions his district as a year-round extension of the energy and cultural life that Art Basel visits upon the city for that one week every December.

here the Whitman once stood, there is now a floaty, sinuous new residential tower overlooking the Atlantic that was designed by Foster & Partners, the prestigious architectural firm. It is called Faena House, and among the buyers of its 42 sold-out units are Larry Gagosian,

the art dealer, Lloyd Blankfein, the chairman and C.E.O. of Goldman Sachs, Leon Black, the head of the private-equity firm Apollo Global Management, and Kenneth Griffin, a hedge-fund manager who, in September, set a Miami Beach real-estate record by paying \$60 million for the building's penthouse. The unit I toured features an extravagantly proportioned wraparound balcony, 11 feet deep on its ocean-facing side. As I stepped out onto the balcony and walked to my right, I could see the Saxony getting scrubbed down and brushed up in preparation for its pending rebirth as the Faena Hotel. Walking to my left, I could see the Versailles, stripped down to its concrete skeleton but still *Daily Planet*-building handsome, in a stage of its conversion to another luxury condominium building, the Faena Versailles Classic.

Across the street from Faena House, I saw construction crews and engineers doggedly seeing to it that the Faena District's cultural center, the Faena Forum, will be open for business by early next year. The Faena Forum, a funky, irregularly shaped pillbox with two auditoriums and a sunken, in-the-round performance space, was designed by OMA, Rem Koolhaas's firm, to be a venue not only for operas and concerts, Faena told me, but also "for talks, for conventions, for exhibitions, for literature." Work is also under way on an OMA-designed retail center in the district, to be called

Faena Bazaar. It's as if someone with the megalomania and branding compulsions of Donald Trump had decided to impose his will on Miami Beach, only this person happened to have good taste.

Given the sheer amount of money, labor, and faith invested in Miami Beach, you get the sense that this hundredth-birthday boom just might be the one that will stick. But then, there is still the disquieting and unavoidable subject of sea-level rise. How can these two huge, concurrent phenomena, seemingly at odds, be reconciled?

Harold Wanless, chairman of the Department of Geological Sciences at the University of Miami and South Florida's most prominent climate-change doomsayer, was emphatic when I put that question to him: "They can't be." The developers, he said, are "building like there's no tomorrow—and they're right!"



SURF'S UP

Despite dire predictions, visionary planners believe that Miami Beach can adapt—and show other cities the way.

Photo-Illustration by Darrow; From ChinaFotoPress/Getty Images (Left car), © Meuinerd/Shutterstock (Miami Beach), By Bill O'Leary/The Washington Post/Getty Images (Right cars).

IV. IN DEEP

hile floods have long been a fact of Miami Beach life, the concept of sea-level rise entered the public's consciousness there only relatively recently. One big awareness-raiser was a lawsuit that Biscayne Bay Waterkeeper, a clean-water advocacy group, filed against

Miami-Dade County in 2012. That year, Albert J. Slap, an environmental lawyer working on Waterkeeper's behalf, asked a research geologist at

Florida International University named Pete Harlem to work up some maps that would illustrate the degree to which the three largest sewage-treatment plants serving the county were vulnerable to seawater inundation.

Waterkeeper's suit argued that the county's plan to upgrade these leaky, aging plants was inadequate because it didn't take into account the threat of sea-level rise.

ADVERTISEMENT

Harlem had been making sea-level-rise maps since the middle of the last decade for his own research purposes, using data sets from federal, state, and regional agencies about tides, water levels, and the topography of South Florida. But the images he created for Slap, using the latest mapping software, became a news sensation. In Harlem's maps, which progress from one foot of sea-level rise to six, Miami Beach, a green, oblong strip in the first image, gradually goes bluer and bluer—transforming into a waterlogged remnant of its former self, with the final image depicting an archipelago of tiny islands abutting a long, skinny, north-south sandbar on the ocean side, also known as Hotel Row, where the existing city's elevations are at or near their highest. If Harlem's inundation simulations are correct, and if nothing is done to forestall or accommodate sea-level rise, there's a chance that all those new and newly refurbished hotels will still be standing in the 22nd century—but they will be marooned, with no infrastructure to support them, nor roads to link them to the mainland.

In March 2013, Biscayne Bay Waterkeeper (which has since renamed itself Miami Waterkeeper) shared Harlem's images with the *Miami Herald*,

whose correspondent Curtis Morgan wrote of the maps, "If they prove anywhere close to accurate, the fate of three major sewage plants would represent only the tip of a hulking, hugely expensive iceberg of concerns for South Florida." It was in this context that Philip Levine was able to make flooding a persuasive issue on which to campaign, and, once he was elected, to raise the city's storm-water utility fee by \$7 a month per household, with little protest, to underwrite the first phase of the city's pump program.

Nevertheless, as a pro-business Bloombergian, Levine sees no cognitive dissonance between fighting the seas and embracing the developers. The construction keeps the economy thriving, and the inflow of real-estate and hotel taxes helps pay for environmental initiatives—not just the pumps but also the city's plans to elevate 30 percent of Miami Beach's streets, replenish its oceanside dunes, heighten its existing seawalls, and create new urban greenspaces that will absorb water and carbon dioxide. By Levine's estimation, these moves are buying Miami Beach 50 years, during which time, he is convinced, scientists will develop ingenious new ways to combat the problem.

"If, 50 years ago, I had shown you an iPhone and an iPad, and how FaceTime works, you would have thought I was insane," Levine said. "So, 10, 20, 30 years from today, humankind will come up with amazing, innovative ideas that will create an even greater level of resiliency for coastal cities."



o Harold Wanless, such talk is foolishness. In his view, it is already too late; even if everyone in the world stopped burning fossil fuels tomorrow, humankind has already set in motion a

chain of catastrophic events that we can't innovate our way out of. Miami Beach's new pumps, he said, are "just the tiniest little Band-Aid for a cost of hundreds of millions of dollars, and they certainly won't get us to the middle of the century."

While there is consensus in the scientific community that sea-level rise is accelerating, there is a startlingly broad divide in opinion on how severely and quickly it is going to affect us. Wanless stands with James Hansen on the more pessimistic end of the spectrum. In July, the 74-year-old Hansen, who was NASA's leading climatologist until he retired from the agency, two years ago, published an alarming (albeit not yet peer-reviewed) paper in which he, along with 16 co-authors, asserts that "multi-meter sea-level rise" is "likely to occur this century" unless carbon-dioxide emissions are drastically and quickly curbed. This would spell the demise not only of Miami Beach but also of the rest of the world's coastal cities: New York, Boston, New Orleans, Osaka, Mumbai—you name it.

Wanless, who is among the scientists whose work is cited in Hansen's paper, told me that he and Hansen take issue with the current models for projected sea-level rise—most of which top out at around six feet as the absolute worst-case scenario for 2100—because they don't account for how rapidly the world's glaciers and ice sheets are going to melt in the decades to come. "If you ever fly over Greenland, which I've done, it's unbelievable," he said. "The ice sheet is already melting from global warming, and now it's also dirty on top, because of dust and soot blowing in from other parts of the world." The darkened ice absorbs heat more quickly than clean, white ice, hastening its melt rate. Given such factors, Wanless said, he predicts that Miami Beach will experience something in the range of 10 to 30 feet of sea-level rise by the end of the century. I was so stunned by these numbers

that I asked him to repeat them, to make sure I had heard him right. He did.

V. RECORD HIGHS

pe Flo ex M

anless acknowledges that he is an outlier among his peers. I received a more optimistic take on South Florida's future from Ben Kirtman, a climate-modeling expert at the University of Miami's Rosenstiel School of Marine and Atmospheric Science. While not shying away

from dire climatic trends or from the extraordinary measures that will be required to contend with them, he sounded a lot like Mayor Levine, believing that there remains time for human ingenuity to save the day. "I want to see Miami Beach survive," he said. "When we acknowledge a problem, we diagnose the problem, and then we start to develop really good technology to fix the problem. I believe in that."

It's this sort of determination that allows Levine to believe that the current boom of building and buying, far from being a crazy bet on what's destined to become Waterworld, makes perfect sense. "If you can show me the first owner of real estate who's panicky, who would like to sell cheap, please let me know—because I'd like to be the buyer," he said. "And I have about 100,000 people right behind me."

The real-estate figures bear him out. Peter Zalewski, the founder of CraneSpotters.com, a Web site and consulting service that monitors the high-end condominium market in South Florida, told me that, while the pre-2008 real-estate boom was actually bigger in terms of units sold, "from a price perspective, this is the biggest boom by far. It's triple or quadruple

anything we've ever seen." To wit, two years ago, Alex Rodriguez sold his mansion on North Bay Road, for which he had paid \$7.4 million in 2010, for \$30 million. In June, Phil Collins paid \$33 million for a home, also on North Bay Road, that had once belonged to Jennifer Lopez—and which Lopez had sold, 10 years ago, for \$14 million.

Two of the foremost brokers in this super-luxury market are Jill Eber and Jill Hertzberg, a pair of glamorous, mediagenic Coldwell Banker agents who bill themselves as The Jills®, and who, three years ago, bagged themselves what was then, pre-Faena House, the county record for a single-family dwelling, selling a mansion at 3 Indian Creek to a Russian buyer for \$47 million. I met with Hertzberg at her office, where even she expressed surprise at what people are paying for properties nowadays—not just in desirable South Beach but in areas like the one where the Edition and the Faena properties are ("They're calling it 'Mid-Beach,' but no one had a name for it before," she said) and in the quiet town of Surfside, just north of Miami Beach proper, where the developer Nadim Ashi and the architect Richard Meier are making over the Surf Club, that toffs' haunt from the 1930s, as a Four Seasons-branded hotel-and-residential complex. It won't be completed until next year, yet Hertzberg has already sold one of its penthouses for \$35 million.

Many of The Jills' well-off buyers are from overseas and pay for their purchases in cash. For her foreign customers, Hertzberg explained, Miami Beach is precisely the opposite of a risky investment; rather, it's a safe harbor in which to park their money (and often their extended families) when things get volatile at home. There is even a colorful real-estate term for the cash spent in this fashion: flight capital. Selling super-luxury real estate, Hertzberg said, has provided her and Eber with a continuing

education in political unrest around the globe. "Years ago, when they started having all the kidnappings in Bogotá, and newspeople and judges were getting killed, we started to have Colombians coming in," she said. More recently, she noted, there has been an influx of customers from troubled Argentina. With Miami Beach offering beautiful views, a temperate climate, a stable national political system (well, relative to other countries), and properties that seem to only appreciate in value, sea-level rise is not foremost among the considerations of today's eight-figure buyer. In fact, when I asked Hertzberg how many of The Jills' clients have even raised the subject, the answer was precise: one. And that client still proceeded with his purchase.

ADVERTISEMENT

Which isn't to say, Hertzberg hastened to add, that her customers are oblivious or delusional. "I don't want to belittle my clients, because I think they're very sophisticated, world-traveled, and well read," she said. "What it is, I think, is that they have confidence that the city will figure it out."

Zalewski, the condominium analyst, takes a more cynical view. "Rising sea levels are in the back of everyone's minds, but it's all about immediate gratification," he said. "I would wager that less than 10 percent of these purchases are long-term investments. It's more like 'I will buy into that position, I will hold for three, five, seven years, and then I will exit that position.' I like to say that in New York you trade stocks, in Chicago you trade commodities, and in South Florida you trade condos." It's an index of Miami Beach's ascendant cultural status that it now sits alongside New

York, London, St. Barth's, Portofino, and Aspen on the circuit of the International Set—as the site of a "third, fourth, or fifth home," in Zalewski's words, that will sit unoccupied for the better part of the year.

egardless of how invested Miami Beach's newest rich residents are in its future, they do strengthen its tax base, and some scientists and environmentalists are impressed with how the city is using its resources to address sea-level rise. "Give Phil Levine credit—he is more proactive than most of the officials down here," said Pete Harlem. Levine grants that the long-term solutions are going to be very expensive, and that he and his successors will need to harness state and federal funding to preserve the city. This is a trickier proposition than it sounds. Florida is the country's third-most-populous state, with nearly 20 million residents, and two-thirds of these residents live in coastal counties threatened by sea-level rise. Yet it is also a state whose current governor, Rick Scott, is a climate-change skeptic—officials in his administration have directed state employees and contractors not to use the terms "climate change" and "global warming" in public discourse.

Those who do make a concerted, good-faith effort to engage the global-warming skeptics face a tall task. Kirtman, the climate modeler, explained to me how gingerly environmental issues must be approached at the state level. He is part of a group of five prominent Florida scientists who last year met with Governor Scott at his office in Tallahassee to urge swift action on sea-level rise—a meeting that lasted only 30 minutes, with Scott asking no follow-up questions. Kirtman has also provided a briefing to one of the current presidential candidates, though he wouldn't say which one. In such meetings, Kirtman said, he is mindful of the need to speak in as "policy neutral" a fashion as possible. "You don't really talk about 'climate change,'

but you're allowed to talk about 'sea-level rise,' because we can see it," he said.

This walking-on-eggshells approach may seem ridiculous, but Kirtman stresses that it's important for scientists of his ilk to at least impart the knowledge they possess. "I may not agree with what our politicians are doing, but that's my personal opinion," he said. "What I strongly disagree with is politicians' not taking the best available science to inform their opinions. If you just say 'I'm not a scientist' and throw up your arms, that's the ostrich strategy. That's putting your head in the sand."

VI. BACK TO THE SWAMPS?

o, what are the next steps, beyond water pumps, fortifications, and placing one's hope in as-yet-unrealized engineering breakthroughs? Allan Shulman, one of South Florida's most celebrated architects (among his commissions is the Soho Beach House, a hotel and members' club just south of the Fontainebleau), noted that one emerging trend in his field is to adapt to, rather than mitigate, the effects of rising waters. For some architects and developers, he said, sea-level rise is actually viewed as a design opportunity to be exploited. Whereas, in the past, builders bristled at mandates from the Federal Emergency Management Agency to place new buildings on foundations a few feet off the ground, there is now a movement afoot to allow builders to go *higher* than the FEMA mandates. The expanded, heightened ground-floor space of a building might then become, Shulman said, "more of an indoor-outdoor area that is actually quite pleasant to be in, a kind of leisure space that's more common in tropical cultures around

the world."

Jill Hertzberg, the realtor, pointed out that the expensive new-build condominiums that she sells take resilience into account. They must adhere to rigorous specifications, requiring, for example, thick, wind-resistant impact glass—no small thing in the city's new generation of towers, since a hurricane's wind speeds increase with altitude, posing a greater threat to the apartments on higher floors. Many newer buildings are also incorporating so-called "washout floors" at ground level, which are designed with flooding in mind—as rooms or open areas that can take a soaking without compromising the value or structural integrity of the building. And Alan Faena, during my hard-hat tour, noted that his condominiums have deliberately tall lobbies that place first-floor residences well above flood level.

Nevertheless, the bigger picture demands bigger solutions, since even a conservative estimate of Miami Beach's amount of sea-level rise by the year 2100—say, two to three feet—would still have a devastating impact upon the city as it currently exists. Harlem, who began his career as a protégé of Wanless's and shares his mentor's outlook, told me that if he had enough money he would buy land at a certain spot he knows along Route 27 in central Florida, where there's a high sand dune from an ancient interglacial era, incongruously landlocked. "I'd build a dock and tell everybody I'm waiting for the ocean to get there," he said. "That would be fun to do."

More realistically, the city of Miami Beach will have to take radical, massively ambitious measures to preserve itself. Shulman, who teaches courses in urban design and tropical housing at the University of Miami,

put me in touch with one of his former students, Isaac Stein, whose senior thesis tackled this very subject on a scale that few public servants, mindful of tax dollars and public blowback, would dare take on.

Stein is now 24 and works in the New York office of West 8, an urbandesign firm based in Rotterdam, a Dutch port city that knows a thing or two about resilience since much of it lies below sea level, protected by a series of dikes and dams. Stein's Miami Beach plan is impressively realized, proposing not only mitigation measures similar to those the city is already pursuing but also some bold adaptation strategies, such as raising entire neighborhoods on stilts, bringing in streetcars to replace automobile traffic, and cutting into the west side's broad north-south avenues to create canals and culverts—in other words, channels into which the encroaching seawater could flow without overwhelming the city. "You have these old roads built in 1915, 1920, that are 70 feet wide," said Stein. "And you can make the minor roads all one-way and designate 30 feet of them for the public sector—the trams—and 40 feet of them for a canal that would be enjoyable to walk along."

Stein, too, is a fan of washout floors, citing a museum in Venice, the Fondazione Querini Stampalia, that commissioned the Italian architect Carlo Scarpa to design a ground-floor space that changes with the floods, attractive both when dry and when wet. In Miami Beach, Stein said, "that sort of opportunity could exist on every block."

What Stein's plan doesn't shy away from is the idea that some parts of Miami Beach as we know it will have to go away, or at the very least yield to nature. His plan, for example, would warrant a human retreat from some

sections of the west side, with developed areas returning to their natural past as mangrove thickets. And his culvert-and-canal system would necessitate the removal and relocation of several stores and businesses near the busy corner of Alton Road and 10th Street, where a Whole Foods and a Walgreens currently stand. Now, multiply that many times over.

In the short term, these would be politically unpopular moves, but they're the sorts of moves that Miami Beach will have to reckon with sooner or later. For scientists like Kirtman, the city's challenges are not only worth facing up to but an opportunity, he said, "for us to lead the world in how to plan and respond to sea-level rise." He noted that the city government has been working extensively with Dutch scientists and officials, who are in wide demand for their expertise in living with high water. Miami Beach, he said, stands to become an American analogue to the Netherlands: a laboratory in which to develop solutions for densely populated urban areas not only to survive but to thrive in the wetter future.

"I'm biased," Kirtman said. "I want to see Miami Beach survive. You know, South Florida is beautiful. And the concern I have about the gloom-and-doom approach is that it's too easy to give up and walk away. And that I am not ready to do yet—to walk away."

Even South Florida's Dr. Doom himself, Harold Wanless, who is 73 years old and lives in Coral Gables ("at 10.75 feet; we all know our elevations around here"), acknowledges that the romance of Miami Beach is not lost on him. "I grew up in Illinois, listening to Arthur Godfrey on the radio, broadcasting 'from beautiful Miami Beach.' And the last two winters here have been especially gorgeous."

he problem, Wanless said, is that the forces of nature and climate change are unsentimental. "Everywhere I go to give a talk," he said, "I hear people say, 'We must defend *this specific place*, because it has a special, unique something-something!' We have to get beyond that."

Yet it's hard to get beyond that where Miami Beach is concerned—beyond sentimentality about the raffish, sexy days of the Rat Pack and *Goldfinger*; beyond the collective national memory of a million winter vacations and early-bird specials with Grandma; beyond the city's dazzling, Art Basel-propelled maturation into an international destination. Like Hollywood, Miami Beach is one of America's great inventions—in its glamour and lore, the very definition of a special, unique something-something.

Shulman, like Kirtman a Miami Beach optimist, regards sea-level rise as another chapter in the city's ongoing saga of challenges. "Economically, the city has always been a boom-and-bust place, and the busts always seem existentially like the end," he said. "But they're not. The city continues to re-invent itself, in each case."

Inaction and denial are out of the question, he said, but then, so is retreat

—"because a city is a great thing, and a city like Miami Beach is a
tremendous achievement of mankind. So, we should think about how to
adapt it, how to make it work—and not just, let's say, limit the damage. It's
worth it. Miami Beach is worth it."

Related: This Visionary Plan Could Help Miami Beach Deal with Rising Sea Levels

David Kamp has been a Vanity Fair contributing editor since 1996, profiling such monumental figures of the arts as Johnny Cash, Lucian Freud, Sly Stone, and John Hughes. @MrKamp

SHARE

News. Hollywood. Style. Culture.

Subscribe now to Vanity
Fair magazine. Get
immediate access to this
month's issue and a free V.F.
tote.



RECOMMENDED



Adele's New Song "When We Were Young" Is Here In Full



Adele Wants to Clear Up a Beyoncé Rumor



John Oliver Responds to the Paris Attacks As No One Else Could

The Hunger Games Cast Found the Perfect Way to Honor Paris Charlie Sheen's War

The Best Part About This Season of The Good Wife Is About to Walk out the Door

AROUND THE WEB

POWERED BY ZERGNET



One 'Walking Dead' Glenn Theory Gets Debunked



15 'Teen' Actors Who Were Actually Adults



15 Famous Phrases That Actually Came From 'Seinfeld'



Ariana Grande Is Now One Of The Nation's Most Hated Celebrities



NEWSLETTER SIGN UP

SUBSCRIBE

Will be used in accordance with our Privacy Policy

FOLLOW VF

AD CHOICES

[©] Condé Nast. Use of this site constitutes acceptance of our <u>User Agreement</u> (effictive January 2, 2014) and <u>Privacy Policy</u> (effective January 2, 2014). <u>Your CA Privacy Rights</u>. The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of Condé Nast.