Center for Buildings Infrastructure and Public Space Commentary on The Future Rick Bell, 4 February 2021

Yogi Berra won ten World Series championships as a player – more than any other player in Major League Baseball History. He was also known for his paradoxical statements, for example: "It's tough to make predictions, especially about the future." He also said: "If the world was perfect, it wouldn't be."

With the coronavirus pandemic and current economic crisis there is widespread pessimism about the future. Shakespeare said: "The golden age is before us, not behind us." Mao agreed: "In times of difficulty we must not lost sight of our achievements, see the bright future and must pluck up our courage."

Bob Marley sang "Good friends we have had, oh good friends we've lost along the way. In this bright future, you can't forget your past. So dry your tears, I say." And First Lady Eleanor Roosevelt said "The future belongs to those who believe in the beauty of their dreams."

Alvin Toffler, who wrote *Future Shock*, said: "No serious futurist deals in prediction. Nobody knows the future with certainty. We can, however, identify ongoing patterns of change. The future always comes too fast and in the wrong order." Gandhi noted: "The future depends on what we do in the present."

For an article in *Oculus* called *Dialogues from the Edge of Practice: Thinking Into Other Boxes*, David Zach, wrote we "will rethink boundaries and re-enchant the world with design connected outside of today's boxes. They will not be boring – and that may be the most exciting thing about the future...."

I think there are ten areas involving the built environment where optimistic hypotheses about New York's future are justified and merit concerted research: commercial real estate, housing, green buildings, zoning regulations, public space, educational facilities, public transit, civic infrastructure, cultural and educational facilities, infrastructure, public transit, health facilities, and food.

Hypothesis: The 2020 coronavirus pandemic catalyzed a worldwide revolution in off-site fabrication of building elements, greatly accelerating the affordability and acceptance of modular units for housing and other related building types. Remote pre-fabrication proved ideal for smaller micro-units, collective co-housing, redefined assisted living units for the elderly, and live-work space.

Hypothesis: COVID-19 hastened the move away from 20th century office space, with its large floorplate hierarchy and open-plan cubicles. Hybrid-use work-live space transformed existing commercial structures with previously unimaginable uses. Ground floor space previously occupied by retail shops was similarly welcomes new pop-ups, distribution centers, galleries, and semi-enclosed market space.

Hypothesis: In 2030 carbon-neutral green buildings universally include solar and wind power generation. BIM and other building documentation and management methodologies have allowed for pragmatic energy sharing. Green roof and green wall technology has been made obligatory by code and has gained wide acceptance to help with heat island effect.

Hypothesis: From the "Excelsior Revision" of the NYC Zoning Resolution in 2022 (which tripled allowable height) to the adoption of Sorkin's "Local Code Constitution" in 2030 (which focused on community and environmental well-being), changes in New York City's building codes and zoning ordinance radically changed permissible uses, heights, and densities.

Hypothesis: Lessons of social distancing and fear of airborne contagion in confined spaces led people, during the 2020 health crisis, to revalue the importance of public space. By 2030 parks, plazas, sidewalks, streets, and markets took on vastly increased importance with New Yorkers spending half of their waking hours outdoors.

Hypothesis: The "*decarceration*" movement of the 2020's that depopulated federal, state, and local prisons, had a ripple effect on schools, museums, and theaters. This radical rethinking initiative, called "*Another Brick in the Wall*" after the Pink Floyd song, redefined the nature of spaces used for alternative pedagogy and creative exchange.

Hypothesis: The transformation of civic infrastructure started in 2022 with the new mayor of New York banning cars on the pedestrianized East River bridges. In Paris, the same year, all cars were banned from the *grands boulevards*. By 2030 new social infrastructure, including hydrofoil bridges, linked rather than divided communities.

Hypothesis: In *Dark Age Ahead*, Jane Jacobs wrote "Not TV or illegal drugs but the automobile has been the chief destroyer of American communities." By 2030 all private cars, including gasoline-burning and electric cars were banned everywhere in the world. New means of mobility were invented by Columbia engineering grads.

Hypothesis: In 2030 here in the US few remember the chaos that characterized the health services industry as recently as 2021, when the Biden Administration made decent health care a basic human right. The hospital, clinics, and mobile health centers serving all communities, rich and poor, took on different forms.

Hypothesis: The commercial real estate meltdown initiated by the COVID-19 pandemic made available vast amounts of inner-city agricultural acreage, still measured in square feet, available for multi-level skyscraper agriculture. Increasingly this included hydroponics for both growing vegetables and cultivating fish after Columbia engineers invented structure-enhancing energy-efficient lighting and heating systems.

The New York Times describes N.K. Jemisin as "the most celebrated science fiction and fantasy writer of her generation." One of her characters says: "Living cities aren't defined by politics.... Not by city limits or county lines. *They're made of whatever the people who live in and around them believe.*"

The American Society of Civil Engineers has recently developed a *Future World Vision* as an interactive, immersive experience exploring the built environment and pushing civil engineers to reimagine the future. Hypotheses about megacities and floating cities are presented that preserve history while promoting sustainability and supporting various lifestyles and economies.

New York in 2140 is partially underwater but resilient. Kim Stanley Robinson quotes Whitman's *Crossing Brooklyn Ferry*: "A hundred years hence, or ever so many hundred years hence, others will see them / Will enjoy the sunset, the pouring-in of the flood-tide, the falling-back to the sea of the ebb-tide"

In 2013, in a book about New York's uncertain future, I wrote: "It is easy to note the influence of one city on another... Can we use buzzwords such as reuse, sustainability, openness, connectivity, fun, and spirit to determine if we are moving in the same direction?... Time will tell."