

# Le Corbusier and Louis Kahn visit Dhaka

This is a fictional piece, but inspired by historical facts and assessments. It is an exploration of Dhaka through an imaginary encounter between two legendary architects of the 20th century.

THE GRUDGING URBANIST



ADNAN ZILLUR MORSHED

AT a public place in the afterlife, Louis Kahn ran into Le Corbusier. The Franco-Swiss architect was pleased to see the esoteric architect/guru from Philadelphia. They sat on a Henry Moore bench, custom-built for eternal life, under a leafy tree. As one would imagine, it was not easy for two heavyweights to strike up a conversation.

After an uneasy pause Le Corbusier asked, "So, I hear you designed the large parliament complex in Dhaka which was first offered to me?"

Looking away at a heavenly bird that chirped on a nearby tree, Kahn replied, "Yes. In 1965, when you perished during your Mediterranean swim in the south of France, I was actually in Dhaka. We worked feverishly to get the design work for the parliament done before agitation for independence in the then East Pakistan would take it all away. Politically, it was a tempestuous time there. Bengalis were very unhappy that West Pakistan's ruling elite was depriving them both politically and economically. The streets in Dhaka were rough. But I kept my cool and went on with the work. So, why did you not accept the Dhaka project?"

"Well, I was too tired after Chandigarh. During the 1950s, the Indian bureaucracy kind of drained me. I just couldn't take on a grand new commission in the Subcontinent! By the way, did you visit Chandigarh?"

"Yes, of course, I was already in India, designing the Indian Institute of Management (IIM) in Ahmedabad. My first trip to India was in 1962 and your new capital in Punjab was being described as India's new, modern face. I visited Chandigarh with great interest. I knew you had struggled there to make something that needed to be timeless and to shoulder India's burden of showcasing its own modernity."

"You can say that! Chandigarh was sort of my existential crisis. I have been writing about cities since the 1920s but I needed a project with which, and a leader with whom, to realise my dreams of the *Ville Contemporaine* and the *Ville Radiuse*. With Chandigarh and Nehru came my happy opportunity. But tell me about Dhaka. How was the city in the

1960s when you got there and what kind of problems did you face?"

"Well, Dhaka was then a quiet city with a rural ambience. Very few cars and lots of green! The 200-acre site that was given to us at the beginning was on the northern border of the city. The area was mostly a vast paddy field. The capital of East Pakistan was not really a city then. It was more like a large village with minimal urban infrastructure and some buildings. On my arrival in Dhaka, I took a boat ride down the Buriganga River, saw some interesting canals and wetlands, and tried to understand the role of water in this vast delta. I also visited some Mughal buildings in Old Dhaka. Gradually I began to think of what a parliament complex should

almost like a religious duty. The parliament complex at Sher-e-Bangla Nagar was eventually completed in 1983, nine years after I took off. The 11-storey concrete building survived the Liberation War of Bangladesh in 1971. In fact, the West Pakistani pilots who were bombing East Pakistan thought it was a vast ancient ruin. So, they didn't bomb it! In the end, I think it turned out to be a neat project. Architects loved it, people loved it, the administration loved it. It seemed to have symbolised the independence struggle of Bangladesh."

Corbusier didn't seem too eager to believe Kahn. He said with hesitation, "But I also heard that some thought it was too much like a castle—a fort—too removed from the ordinary life of the city; and, too expensive

anybody noticing us? I am sure we can manage the heavenly guards up here."

Corbusier sounded energised too, "Yes, let's do it. I wish I had visited the city when I was doing Chandigarh." There was a massive explosion, followed by lightning and Corbusier and Kahn appeared at Motijheel, about 200 feet away from Shapla Chatter. The time was 11:45 in the morning. It was hot and humid. The streets were crowded and cacophonous.

Corbusier seemed shocked to see the intensity of traffic congestion in downtown Dhaka. "When I was proposing city concepts back in the 1920s and 1930s, I thought that cars were the answer to the cities of tomorrow; that cars would give people mobility. So, cities like Chandigarh and Brasilia were inspired by the need for motorised vehicles. But Dhaka feels like a place from another planet! I thought the country was poor. How on earth are there so many cars?"

"Well, that's the paradox. Instead of learning from our failed experiences, the developing countries are making the same mistakes we did in Paris, New York, and London. We thought that we must have cars to go around the city. In America, except for a few main cities we never really had public transportation systems that served all economic classes. So, people bought cars for mobility and for prestige. Sadly, Dhaka is repeating that urban ritual. With the amount of fuel that is burning, in this Dhaka air we may die again, today! The city that I knew during the 1960s was pleasant, even though it was very hot and humid during the summer. I walked a lot around Farmgate and Agargaon to get a sense of the site for the parliament. The Bengali architect Muzharul Islam was my guide. He was energetic and eager to introduce me to Bengali culture. There were very few cars in the streets and you could walk safely."

Kahn continued, "People were more interested in talking about politics and West Pakistani conspiracies than cars and other stuff. Anyway, let's get out of here. The honking is driving me crazy! Did you try the rickshaws in India?"

"Yes, a few times, in Ahmedabad. An Indian architect named Doshi, who was my good friend, took me around to see the old city in Ahmedabad. You probably know Doshi too."

"Of course, Doshi was my guide when I was there working on IIM."

The two gentlemen hailed a rickshaw. Kahn directed the rickshawwalla to Manik Mia Avenue. The two men enjoyed the ride, as

they discussed city planning, road congestion, over population, urban politics, and, of course, building, building everywhere. They both wished for a chance to fix the city. Corbusier insisted that the capital must be moved somewhere else in Bangladesh in order to alleviate the pressure on Dhaka. But this was classic Le Corbusier: Taking the capital somewhere else would mean he would be the logical choice to design the new capital! Kahn was reluctant to abandon the existing city. He suggested decentralising it and argued that nothing would solve Dhaka's problems unless people were able to find opportunities elsewhere as well.

When they arrived at Manik Mia Avenue, Corbusier alighted from the rickshaw and stepped on to the broad sidewalk. He gazed toward the parliament building for a long time.

In a measured tone he said, "It doesn't look democratic, but its allusion to ancient grandeur is intriguing. I think your building is catastrophically modern. It moves us with both a timeless spirit and melancholy. It gives the haunting, sublime experience that every edifice ultimately aspires to achieve. Still, I think you could have done more. You had the chance to do a master plan for the city, instead of just a parliament complex. An architect should never create just the project that was commissioned to him. He must improve the very location for which the construction is proposed. Here, you have created a false Taj Mahal, surrounded by a sea of urban absurdities. Where is the good society?"

"A small spatial ritual, a tiny order, a quiet institution, a meditative monument can be the beginning of a good society, of a resilient nation. That is this, here. That is what I dreamed of in the 1960s."

For the rest of the time that the two men spent there, Corbusier was silent until he pronounced, "Great architecture ultimately gives us a spiritual experience, one in which the temptation of heaven and the fear of hell become less important. A spiritual reckoning is essential for social transformation."

"Dhaka needs it," Kahn responded. "Without that feeling, it is impossible to abandon a life of false luxury and empty promises. Shall we return to the skies?"

Corbusier replied, "Yes, let's. I think our journey has either ended, or just begun."

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PHOTO: COURTESY

be in a context in which there wasn't much urban history."

"I know you departed from that world below in 1974. Interestingly, from a men's room at the Pennsylvania Station in New York, on your way back from the Indian Subcontinent. You lay unclaimed for a few days because your passport didn't show an address, right? I too had a dramatic departure from the world. My body floated in the Mediterranean and was found by bathers. Don't you agree that both our ends were rather strangely poetic? By the way, who finished the project after you left?"

"I died broke, but I was fortunate to have a few very trusted architects in my team. They took the completion of the project

for a war-ravaged country!"

"Well, I was interested in a monumental public institution and an architectural language for it that would inspire a new nation. In my design for the parliament complex of Bangladesh, I wanted to be Roman, Mughal, Bengali, and deltaic, all at the same time. In the end though, I wanted none of these. I strove for an archetypal building onto which people could project their dreams and hopes."

"That's what all architects wish for, don't they? I had tried to achieve that in Chandigarh. In any case, how's Dhaka these days? Have you been following things there?"

Kahn seemed excited suddenly, "Why don't we take a quick trip to Dhaka without

# Blue energy: Can it power a sustainable future?



QUAMRUL HAIDER

Ever since global warming became a hot button issue, our leaders have told us umpteen times that "climate change is the greatest environmental threat and the biggest challenge humanity has ever faced." Yet, they are not "bold enough to do enough" to pull us out of the climate change conundrum soon enough.

In the meantime, impacts of climate change are being felt in communities across the world. Average global temperatures have risen every decade since the 1970s, and the 10 warmest years on record have all occurred since 1997. If the trend continues unchecked, very soon we will be living on a planet with unbearable heat, unbreathable air, inundated coastal areas, widespread drought and wilder weather. Indeed, an Australian think tank warns that climate change could bring about the end of civilisation, as we know it, within three decades.

So, what should we do to tackle the disastrous effects of climate change? Since human activity is responsible for climate change, human activity can also mitigate it. To that end, we have to force our national governments to stop using the suicidal fossil fuels without any further delay. In other words, we need a carbon negative economy, or at the least, a zero-carbon economy.

We already have the potential to produce everything we need with no or very little greenhouse gas emissions. It is "green" energy solar, wind, hydropower, geothermal, nuclear that provides an alternative, sustainable and cleaner source of energy. Promising new green

technologies, such as tidal, wave and ocean's thermal energy, are also on the horizon.

There is a third type of energy many of us are not familiar with—another alternative, sustainable source of energy that could be the next frontier in clean-energy technology. It is energy released during controlled mixing of a stream of saltwater and a stream of less saline water and can, therefore, be found in abundance anywhere a river meets the sea. Since energy at the river-sea nexus is produced in naturally occurring waterbodies, which are blue, it is called "blue" energy.

Blue energy exploits the phenomenon of osmosis, which is the spontaneous movement of molecules of a solvent through a semi-permeable membrane from the side of lower concentration into the side of higher concentration until the concentration becomes equal on both sides. In the process, energy is released which could be used to generate electricity. That is why it is also called "osmotic power," or "salinity gradient power"

The energy output would depend on the salinity and temperature difference between the river and seawater and properties of the specific membrane. The greater the salinity difference, more energy would be produced. In fact, based on average ocean salinity and global river discharges, it has been estimated that if blue energy plants were to be built at all river estuaries, they could produce about 1,370 terawatts of power each year, according to the Norway Center for Renewable Energy (a tera is a trillion.)

The concept of blue energy is not new. It was first proposed in 1954 by a British engineer named RE Pattle, although it was not possible to implement his idea for power generation until the 1970s, when a practical method of harnessing it was outlined.



Statkraft osmotic power prototype is the world's first osmotic power plant.

PHOTO: WIKIMEDIA COMMONS

The first osmotic power plant was built in 2009 in Tofte, Norway. It produced only four kilowatts of power, which was not enough to offset the cost of construction, operation and maintenance. Consequently, it was shut down in 2013.

Since then, improved technologies to tap blue energy have been developed at various laboratories, primarily in the Netherlands and Norway. Using these technologies and the difference in salt concentration in the surface water on each side of the Afsluitdijk dam, the Dutch built a power plant in 2014 generating enough electricity to meet the energy requirements of about 500,000 homes.

Blue energy is not limited to mixing of river and seawater because osmosis works with any concentration difference of

dissolved substances. It may thus be possible to generate electricity from dissolved carbon dioxide, which could be captured from fossil-fuel power plants. Researchers believe that worldwide, the flue gases of fossil fuel power plants contain enough carbon dioxide to make around 850 terawatts of blue power. Hard to believe that the villain of climate change could be part of the solution after all.

In a paper published in July 2019 in ACS Omega, one of the journals of the American Chemical Society, researchers of Stanford University claim to have made a battery that runs on electricity generated by harvesting blue energy from wastewater effluent from the Palo Alto Regional Water Quality Control Plant and seawater collected from Half Moon Bay. Their work clearly demonstrates that

blue energy could make coastal wastewater treatment plants energy-independent and carbon neutral.

An advantage of blue energy technology is that it does not depend on external factors like wind or sun. Another advantage is that a commercial plant would be modest in size, but still produce a significant amount of energy. Moreover, compared with, for instance, wind and solar energy, implementing a blue energy power plant would have a smaller impact on landscape, and it requires less land usage. Besides, once fully developed and deployed, the technology would be able to generate energy continuously and would not emit greenhouse gases. Hence, it would ensure access to affordable, reliable, sustainable and clean energy for all.

There are some drawbacks of blue energy though. Power plants exploiting blue energy may have an effect on the marine life, hydrological systems and water management rules of the region. The main drawback, however, is the cost. Compared to a conventional power plant using fossil fuels, the cost of construction of a blue energy power plant would be several times higher because artificial membrane is very difficult and expensive to make. Nevertheless, once built, the expectation is that blue energy would succeed in generating power at a much cheaper rate than solar and wind.

Finally, blue energy is potentially one of the best sustainable energy resources we have at our disposal. The raw material is free and inexhaustible. "Blue" could be the "green" of the future. And the blue-green combination can match the urgency of the climate change crisis.

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**QUOTABLE Quote**

**BRUCE LEE**  
(1940-1973)

American-born film actor who was renowned for his martial arts prowess and who helped popularise martial arts movies in the 1970s.

*A wise man can learn more from a foolish question than a fool can learn from a wise answer.*

**CROSSWORD BY THOMAS JOSEPH**

**ACROSS**

1. Some bow ties	33 Keg need	4 Hamilton's bill
6 Mixes up	34 Bounder	5 Pretentious
11 Stage direction	36 "Wherefore - thou Romeo?"	6 Tough to clean
12 Temple scroll	37 Ornate wardrobe	7 Ripped
13 Hollywood mover	39 John, to Ringo	8 Surefire out
14 Stood up	40 Duck hunter's cover	9 Knave
15 Spike of film	41 —acids	10 Woolly ones
16 School subject	43 Javelin's kin	17 Take in
18 Building wing	44 Dynamite	22 Melody
19 Over there	45 Brought to a close	24 One-million link
20 Upper limit	46 Cheese choice	26 Made a choice
21 Almanac fill		28 Writer Ellison
23 Sam of "Jurassic Park"		29 Blemish
25 Free (of)		31 Unmanned planes
27 Genetic stuff	<b>DOWN</b>	32 Bar perches
28 Women's quarters	1 Rang	33 Dinner setting
30 Says further	2 Germany's Merkel	35 College VIPs
	3 Incisive attribute	38 In the past
		42 Cut the hay

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**YESTERDAY'S ANSWERS**

E	G	G	S	H	E	A	R	T
R	E	E	L	B	A	A	B	A
I	N	R	E	O	N	R	A	M
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				P	A	K	I	S
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C	O	L	O	M	B	I	A	
				P	O	R	T	U
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C	H	E	S	S	T	A	D	S

**BEETLE BAILEY** by Mort Walker

**BABY BLUES** by Kirkman & Scott