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Open Letter to Marc Andreessen (@pmarca)

I was saddened but unsurprised to observe that your recent Techno-Optimist Manifesto received more than its share of negative coverage in America and Europe.

Your armchair critics in the press highlighted how they'd read your 5,000-word manifesto "so [we] don't have to", and, smug in their luxury beliefs, lambasted your audacity in defending or—God forbid—promoting capitalism and free markets, the very foundations they owe their comfortable lives to.

You had surely hoped for a better class of critics, but as a self-made man in this twilight of Western civilization where could you have aspired to find them? It could not have been in the tech press, which now bears little resemblance to, say, Wired as we knew it back in the '90s.

No, these were the kind of journos who painted the night sky "dystopian" after Starlink redefined connectivity, and who maligned the test launches of Starship—the most powerful rocket ever built—as "failures". Nearer to me, over here in Dubai, they called the Burj Khalifa—the tallest skyscraper on the planet, reaching over half a mile into the sky—"a frightening, purposeless monument".



Here on the opposite side of the globe from you, I for one appreciated your manifesto. Taking a less US-centric point of view, however, I do believe that the great pure techno-optimist cities—or city-states, as they may be—of Earth presently number only two: Dubai and Singapore.

Certainly, participation awards might be meted out to Hong Kong, Seoul, Shenzhen, Taipei, Tokyo, and San Francisco, for starters—but they're each encumbered or hampered in some essential way.

Be that as it may, since you indicated you'd love to see more substantive responses, I'd like to share with you a little about my own experiences in techno-optimist Dubai, one of the miracles and wonders of the modern world and what I've come to consider Western civilization's last outpost.

Call it the City of Gold or the City of Dreams, it is one of those matters where perspective is worth a number of IQ points.



I posit that Dubai—indeed, the United Arab Emirates (UAE)—is mankind's first large-scale terraforming project. The climate here in this nook of the Arabian Peninsula is one of the true extremes on the planet: hot and arid almost without peer. It is not business as usual, it is not in the nature of things, and it was not preordained that one might find a great city here.

Without technology, life here in the middle of a vast desert pierced by the Tropic of Cancer would be marginal and intolerable but for tiny settlements of the hardest souls. For over a millennium, the indigenous Bedouin tribes maintained a stable population of just 80,000 in the area that today comprises the UAE.

Until electricity arrived in the 1960s, almost nobody in Dubai had ever seen or tasted ice. Businesses closed for a long siesta from noon to 4:00 p.m. In summertime, villagers slept on the roofs of their houses, wrapped in wet cloth. The pace of life was slow, belying all still to come.

It was and is technology that makes civilization and comfort possible here; in particular air conditioning, seawater desalination, ubiquitous irrigation, cloud seeding, and nuclear power. Thus it's little wonder that there is techno-optimism built right into the founding ethos of the city and the country.



Air conditioning (A/C) is not really optional in Dubai. Whether at home or in your car, A/C is baseline tech that makes life tolerable and pleasant for those us expats who constitutionally would not claim to be as robust as the indigenous Bedouin.

Accordingly, in Dubai today, metro stations are air-conditioned. Curbside bus shelters are air-conditioned. Pedestrian bridges over freeways are air-conditioned. Zoos, when outdoors, are intensively ventilated with fans that also spray a fine mist of water to cool visitors and animals both.

I've never myself experienced an electricity outage in my years in Dubai; but understandably, were electricity and A/C to ever shut off in a skyscraper or high-rise in the middle of the summer, the greenhouse effect would quickly cook the interior uninhabitable. As that's unthinkable, they are built with backup generators to keep the electrons flowing.



Consider another fundamental of life: water. Despite the region's extreme scarcity of fresh water, Dubai consumes 1.4 billion liters every day. Indeed the emirate is a top global consumer of fresh water, alongside the US and Canada. Up to 98.8% of Dubai's water originates from desalinated seawater: the country's overall desalination capacity is now a staggering 7.2 billion liters of water per day, or 83,000+ liters per second. That, then, is what

it takes to make a desert inhabitable.

Dubai has sometimes been slandered as supposedly the least sustainable city on the planet, what with needing to power its skyscrapers. Such a perspective discounts the harsh natural environment the city finds itself in: just consider, if you would, that when the first Moon colony eventually will be established, it will no doubt be mankind's least sustainable settlement. Until then, Dubai.

In fact, though, Dubai is the most sustainable city in its wider region, and sustainability initiatives are a major and routine focus for its government. I'll also note in passing that the example of Dubai demonstrates that in case drought in California ever should seem unsolvable, that is certainly not due to a lack of applicable technology nor available capital, but must be due to other factors.



Despite being built on top of the desert, Dubai is also increasingly green. In the plainly observable, not ideological, sense. Scarcely a tree or plant in Dubai lacks its very own dedicated water supply. Once you know to look for it, you'll notice the irrigation piping everywhere. I haven't found the overall statistics, but there must be countless thousands of kilometers of piping in the city as a whole.

In newly-built developments where the pipes might not yet be operational, an early riser will see a remarkable sight: a team of two guys watering plants from a 10,000-gallon truck, one of them driving the truck at walking speed and the other following behind the truck hosing down each plant. Quite the job.



It may sound like science fiction, but another reason Dubai is increasingly greener and wetter is that in this country clouds and rains are now frequently artificial, based on cloud-seeding technology. Since the 1990s hundreds of cloud-seeding missions are flown annually, with the aircraft typically taking about three hours to target a handful of promising clouds.

The perception on the ground here is that this is working: winters are in fact cloudier and wetter, it occasionally rains even in the summer, and veteran desert safari guides who've observed the desert for decades have corroborated that the desert itself is greening by the year. So, if inspired by Kim Stanley Robinson's Mars trilogy to see terraforming in action, just visit the UAE and book your desert safari!



With a population of only 10 million inhabitants—of whom 3.6 million are in Dubai—the UAE is punching significantly above its weight class across the board. In 1950, Dubai was a small town with a population of just 20,000 souls; in the 73 years since, it has grown 180-fold. Even as recently as 2010, Dubai's population was still only 1.8 million, meaning it doubled in the short 13 years since.

Should similar growth continue, Dubai is well on its way to flipping New York City on a lot of metrics over this coming decade. The trajectory is clear, and uncontested.



One of the most cosmopolitan cities in the world, some 90% of Dubai's population are immigrants—including yours truly.

Despite massive—by American or European standards—continuing immigration, welcoming everyone from anywhere, the UAE notably has not suffered the kinds of problematic consequences from immigration that bedevil its Western counterparts.

Economist Milton Friedman explained decades ago where Western welfare states went wrong, but seeing this contrast in Dubai truly underlined for me that immigration, per se, is not the problem.

Rather, whatever the problem might be, the solution is prioritizing the protection of people and property through the competent and efficient administration of justice that disincentivizes bad behavior. (Just as President Bukele on his part showed the world in El Salvador earlier this year.)



The UAE is a peaceful and safe high-trust country, and Dubai itself is one of the very safest cities in the world. Many of the people I know here don't even bother to lock their cars and/or homes.

Indeed, in the most recent Travel & Tourism Competitiveness Report by the World Economic Forum (WEF), the UAE was ranked second only to my native Finland in the Safety and Security rankings. (Singapore and Hong Kong were also ranked closely right behind the UAE. For reference, the US ranked 84th.)

Dubai is a great place for families, in particular. My wife really appreciates always feeling safe and knowing our young children will be okay even if out of sight. She also appreciates the cultural respect for families and mothers.

None of these matters can any longer be taken for granted in much of continental Europe. The wife also lauds the relative cleanliness of the city and the evident continuous great efforts that go into keeping it that way.



Despite its humble origins and its inhospitable location in a desert, Dubai today is home to the world's tallest skyscraper and seven of the world's ten tallest hotels, and it is also the city with the most skyscrapers per capita. And Dubai is, of course, known globally for having built the largest and most distinct man-made islands on the planet, readily visible from orbit.

Dubai hosts the world's busiest international airport, with the world's largest airport terminal, which makes sense given that the UAE is now the world's fourth-most-visited country.

The city's massive visitor infrastructure also comes in useful for events such as GITEX, the world's largest annual tech & startup event every October, attracting more than 170,000 attendees from 170+ countries, with the exhibition space spanning 33 football fields.

Dubai and the UAE maintain such an affinity for world records that even the annual New Year's Eve fireworks routinely get certified as Guinness World Records, and highlight the friendly competition within the country for which city can throw the most spectacular show.



Living in Dubai feels like having one foot in the future. Dubai is currently rolling out self-driving taxis as Cruise's first non-US deployment. And some months from now, electric air taxis carrying up to six passengers will begin initial testing in the city. Competing air taxi companies are scheduled to launch the following year. The first vertiports for air taxis have been approved for construction and are set to open in 2026.

The Economist recently highlighted the UAE as the third-most-important country for artificial intelligence (AI) development, after America and China—this with a population 1/34th that of the US and 1/140th that of China.

The UAE, strategic and forward-looking as it is, has had a minister of AI since 2017, and the country's open-source Falcon large language model offers an escape hatch to the circa 95.8% of the global population who might wish to work around the limitations of Silicon Valley-trained AIs that censor answers as per the Valley's insular moral matrix.

Oh, I might also mention that Abu Dhabi's cutting-edge Technology Innovation Institute (TII), who actually developed Falcon, landed as their new CEO the former CTO of Lockheed Martin, previously responsible for 72,000 staff and 4,000 programs. That is the caliber of talent now flowing into the country, and of course being headhunted in.

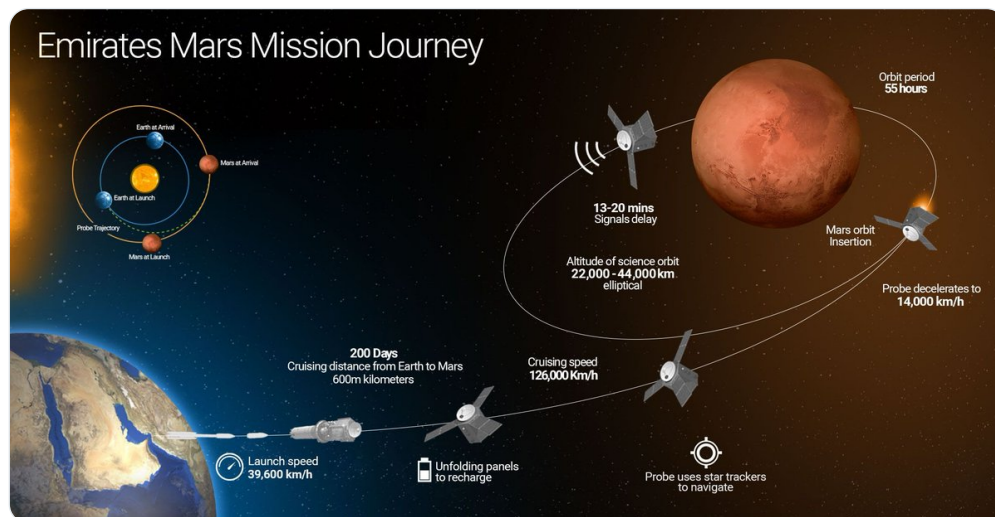


The UAE is the only nation with a population of less than 100 million to have attempted—and then successfully orbited—a mission to Mars, and only the fifth nation to ever have done so. It is the only spacefaring nation now drawing up plans to mine the asteroid belt.

(Speaking of mining, it is also one of the few places where crazy businessmen can propose towing icebergs from Antarctica to Dubai as a tourist attraction without getting laughed out of the room.)

As for Mars, after navigating the spacecraft half a billion kilometers in the void, the UAE's space agency inserted the craft neatly into Martian orbit on their first attempt—and yet this agency did not even exist just six years before the launch.

The prevailing mindset here deserves a paraphrase of a former American leader: “We choose to go to [Mars] in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win, and the others, too.”



How did such a miracle in the desert come about? And why is it that a city like Dubai could only be built—really, could only be suffered to exist—in such a marginal landscape?

Westerners tend to dismiss Dubai's success by claiming that everything's easy when you've got oil, and that "they" could have done all that if only provided those resources.

Yet those who say this don't even know that less than 1% of Dubai's gross domestic product actually derives from oil, nor that Dubai's share of total UAE oil reserves is a mere 4%.

By comparison, tourism accounts for more than 20% of Dubai's GDP. Furthermore, the miracle of Dubai has yet to be replicated anywhere else in the wider oil-rich region. (It's not the oil, dummies.)



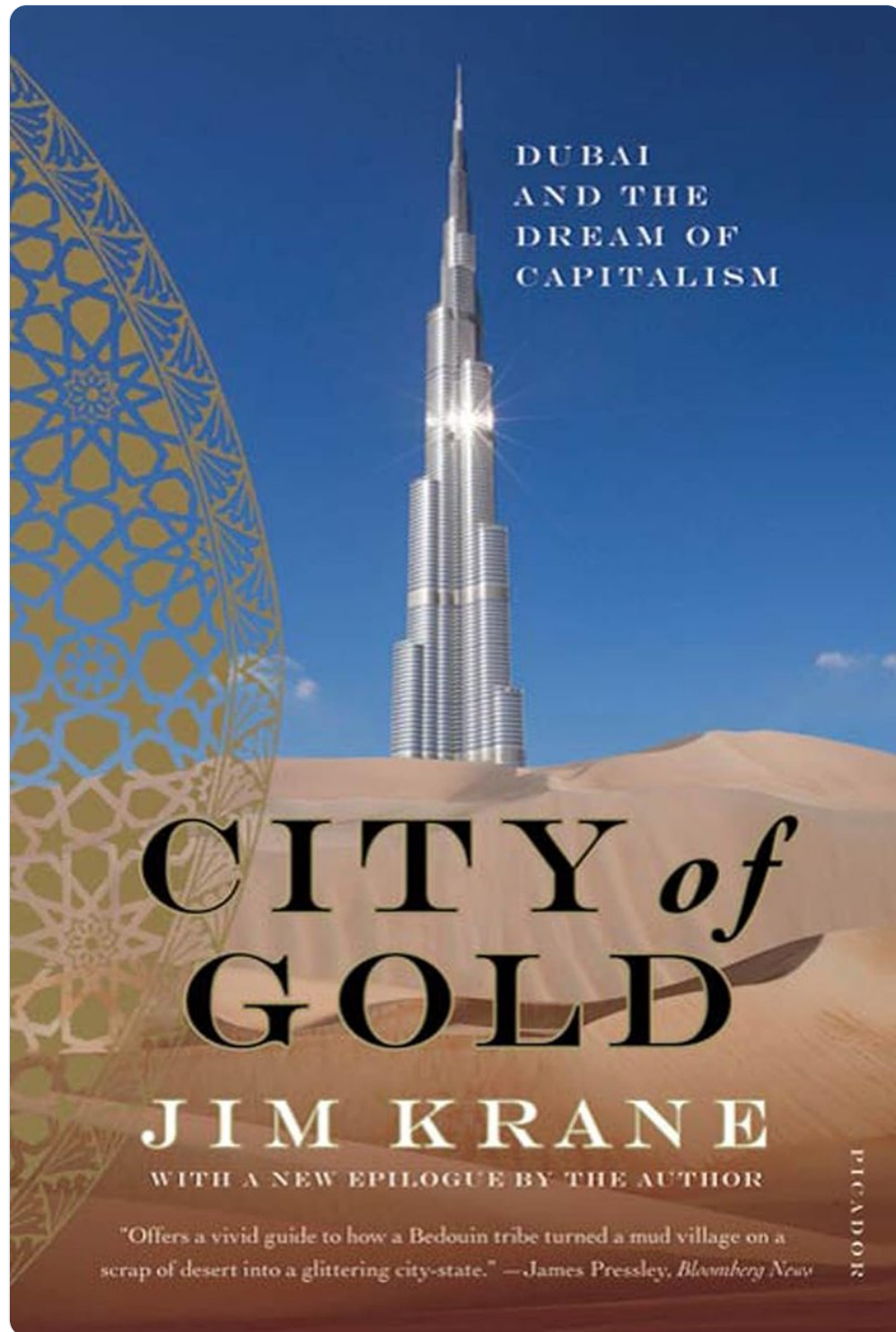
Consider the ELI5 version of Dubai's origin story as extracted from award-winning journalist Jim Krane's excellent book *City of Gold: Dubai and the Dream of Capitalism* (2010), emphasis mine:

This is the story of a small Arab village that grew into a big city. No one thought the village would become a city. It sat on the edge of a vast desert, surrounded by a sea of sand. There was no running water, no ice, no radio, no road. The village drifted in an eddy of time. While other nations launched rockets into space, the villagers fished and napped. [...]

Foreigners who ventured in liked the village and its ambitious leader, a man named Rashid. The village grew into a town. The foreigners told Rashid of the wonders of the modern world, the skyscrapers of New York and the London Underground. He listened intently.

Rashid and his townspeople were dismayed to learn that no one in the outside world had ever heard of them. Rashid decided this would change. Rashid wanted the name of his town, Dubai, on the lips of every person on earth.

When a family sat down to dinner in America, Rashid wanted them to discuss the happenings of Dubai. And when two Englishmen paused for a glass of beer, it was Dubai that he wished them to talk about. Farmers in China, bankers in Switzerland, and generals in Russia: All of them must know of Dubai. For this to happen, the town couldn't stay small and poor. Rashid made a wish. Dubai must become the most luxurious city the world has ever known: the City of Gold.



Sheikh Rashid's dream for Dubai was as audacious as it was improbable. Yet here we are, two generations later. The aforementioned book has the rest of the story, and what a good yarn it is!

One would surely be wise to not bet against men like this, for the laws of plausibility and probability don't seem to operate in their usual manner around them, showing that luck is not found so much as made. That, of course, is exactly the reality-distortion field that certain Silicon Valley founders are also known for—but here writ large, determining the fates of peoples and nations.

As Sheikh Rashid's son Sheikh Mohammed, the present Ruler of Dubai, has been known to say: "We, in the UAE, have no such word as "impossible"; it does not exist in our lexicon. Such a word is used by the lazy and the weak, who fear challenges and progress. When one doubts his potential and capabilities as well as his confidence, he will lose the compass that leads him to success and excellence, thus failing to achieve his goal."

This echoes the famous quip usually attributed to Henry Ford: "Whether you believe you can do a thing or not, you are right."



The miracle that is Dubai is rare in the modern world, but it is by no means singular. To mention but a few parallels, it was also the miracle of Singapore, the miracle of Hong Kong, and—a long time ago—the miracle of New York. Without question, as you know, it is replicable given the right preconditions, and one might hope the case example of Dubai sufficiently underlines that if it can be done in the middle of a desert, it could surely be done anywhere.

Milton Friedman in his classic *Free to Choose* (1980) broadcast highlighted Hong Kong in particular, explaining how the city grew prosperous from millions of people freely pursuing their own self-interest.

Not shown in that broadcast, in the subsequent forty plus years Hong Kong's counterpart on the mainland, Shenzhen, also developed from a fishing village into a metropolis of 17.5 million inhabitants after being chartered as China's first special economic zone in, you guessed it, 1980.

The same forty plus years later, it seems likely that had Prof. Friedman been writing today, he might have based many of his examples on Dubai. Be that as it may, virtually all of Prof. Friedman's arguments are as applicable to Dubai as to Hong Kong, and in point of fact 2023 is when Dubai proceeded to flip Hong Kong on metrics such as skyscrapers per capita.



Hans-Hermann Hoppe in his study of incentives and property rights under monarchy versus democracy concluded that monarchy is generally preferable to democracy, because monarchs tend to have a lower time preference and a long-term interest in capital value. This leads to more prudent and farsighted management of resources and less exploitation of subjects.

This is in contrast to politicians in a democracy who are temporary caretakers instead of owners, and are hence incentivized to maximize short-term gains often at the expense of long-term capital value. This leads to higher taxes, more regulations, and less respect for property rights, as democratic rulers have less personal stake in the long-term health and wealth of the country.

As a fellow fan of that inimitable old curmudgeon, H.L. Mencken, who had some choice bits to say about democracy, I know you would at least humor the argument. Prof. Hoppe's predictions can readily be observed manifested in the UAE, where the ruling families have a proprietary long-term, multi-generational interest in the future of the country. They have skin in the game, they plan up to 50 years forward from the present, and they value results over intentions.

They also don't mistreat their populace by imposing any personal income tax, capital gains tax, or property tax. Freehold property ownership is available even to noncitizens. Respect for property rights is the basis for the virtuous spiral that drives investment into the country on both the macro and micro levels.



In terms of Machiavelli's political cycle, Dubai and the UAE are yet but at the dawn of their golden age. Meanwhile, the hour already grows late for the US welfare-warfare state in this oligarchic stage—as you have yourself observed and previously noted. No other social cycle model, such as Ray Dalio's changing world order, offers any cheerier prognosis for the late-stage Pax Americana.

In your present circumstances, you are ruled by a resentful and ideologically-possessed elite who are well insulated from the consequences of their bad ideas and incompetence. At some point, trying to reform—or simply endure—American exceptionalism will surely come to feel quixotic, and the agency costs tally will grow too high.

At that time, consider going on adventure and trading in chronically-elevated cortisol for jubilantly-high testosterone punctuated by the occasional high-G jolt of pure adrenaline. If technology is a lever on the world, you still need a firm place to stand to move the world. Consider, if you would, whether your lever is optimally positioned for maximum effect. Who is John Galt, anyway?

Happy holidays to you & yours,

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