

The Second Extinction of Chocolate

by strannikov

“AIYIEEE!” was the global response, vocalized both in unison and sequentially by time zone all across the globe, to the formal but anticipated announcement that the cacao tree, too, had become extinct.

Cacao production had always been a tenuous enterprise insofar as commercial cacao tree cultivation had always been limited roughly to the land zones within twenty degrees of the equator north and south.

Cumulative but disparate effects resulting from Technogenic Climate Change had to be cited.

By the end of AD 2081, all cacao plantations across Central and South America, the original home range of cacao, had been savaged by an unrelenting and uncontrollable infestation of capsid bugs that had commenced a decade earlier. Attempts to stem the capsid plague were proposed and unleashed, first with limited success, soon with no effect whatsoever. From Paraguay to Belize, from Panama and Costa Rica to Haiti and the Dominican Republic and other spots still above water in the Caribbean Basin, cacao cultivation dwindled and collapsed over two decades: by 2091 all commercial cultivation, harvesting, and export of cacao beans in the Western Hemisphere was finished.

By the time harvests and production had ended in the Western Hemisphere, cacao plantations across Equatorial Africa were facing severe threats: massive flooding due to frequent and widespread heavy precipitation events and excessive heat with protracted high temperature periods were killing cacao trees across the continent. While noted as a possibility but not seriously expected since the second decade of the twenty-first century, the sudden collapse of the Atlantic Meridional Overturning Circulation after

2064 almost immediately led over succeeding years to annual and seasonal flooding from more numerous monsoon events and heavy precipitation events between monsoons. Floods and rising surface temperatures, when not severely limiting the scope and scale of cacao plantations and cacao cultivation, exacerbated local labor shortages that further complicated pod harvesting, bean processing, and cocoa export. Once the pesky capsid bugs began infesting African groves and plantations in 2093, the end of commercial African cocoa production was in sight and was deemed a fait accompli by the end of 2105.

—which left the increasingly meagre production from cacao plantations in Southeast Asia, centered chiefly on Indonesia, to carry the entire weight of global commercial cacao production. In the closing decades of the twenty-first century, however, regional monsoons had yielded steadily to severe and penetrating drought, with local increases in surface temperatures across the equatorial zone. By 2119 Indonesia's cacao bean production was not even a tenth of what it had been a century earlier. In spite of enormous and concerted international efforts, the dreaded capsid bugs arrived in Sumatra in 2121, and by the end of 2131 what drought and heat had not killed had been stunted or killed by the capsid bugs: all remaining trees were so ravaged by climate excesses and capsid infestations that the global cocoa market finally collapsed in 2132, as all remaining stockpiles of roasted and ground cacao beans worldwide disappeared.

The formal announcement of the extinction of the cacao tree from the surface of the planet was held off until 31 December 2132, a supremely unhappy end to an otherwise unhappy year and the supremely unhappy harbinger of a supremely unhappy 2133 CE.

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Some four millennia later, of course, calendar reckoning had changed, and as the year 9821 of the Anthropoc Era commenced, sea levels were beginning measurably and visibly to retreat in some locales, while from other remote and distant regions rumors of high-altitude mountain glaciation began to emerge,

though not one of them could be substantiated by the globe's few international travelers.

Sciences and applied technologies were continuing to recover, however slowly and fitfully, from the malign status they had won for themselves across most of the Technogenic Dark Ages, as humanity had learned to thank and to blame the cognitive and technical enterprises for their direct and distinct contributions in setting humanity up for its severe downturn to those many millennia earlier.

The small city of Frenze on the Etruran Peninsula that jutted into the swollen Mediterranean Mare was the world's center in the recovery of the science of archaeology, both with its own fabled treasures of history and the industriousness and talents of the local population.

Jovan Capel, a leading archaeologist, had undertaken an arduous expedition and a treacherous ocean journey to and from the wilds of America, the long-execrated source of most of the technologies held responsible for unleashing the Technogenic Climate Plague back in the Sixtieth Century AE. Jovan had led excavations of what seemed to have been a processing and distribution center for foodstuffs, when quite unexpectedly chemical notations relating to the long-fabled culinary treat "chocolate" were discovered.

Jovan was an archaeologist, not an historical linguist or a food chemist, though, and so it took most of the following two decades for translations and transcriptions of the recovered data to reach the Almentar Chemst Scuol in Milan (with trans-Alpine collaboration provided by members of the Scenza Culinare Scuol in the Etruran city of Pars).

The fabled cacao trees, their fruit pods and their beans, were still extinct, yet here apparently was a detailed chemical formula for a chocolate food product, although some precise details were missing and continued to defy understanding even after painstaking translation and transcription. Now that the suspension bioreactor sector was beginning to make a comeback, it seemed

possible that some reasonable facsimile or synthesis of “chocolate”—a veritable nectar of the gods, originally available in semi-solid and liquid forms, if poets of the Sixty-first and Sixty-second Centuries AE could be believed—could in fact and in truth be reconstituted in a food chemistry facility.

Jovan had all but forgotten about his discovery some twenty years later, although the follow-up monograph he had written had earned him a life appointment to the Frenze Archaeolog Scuol, a position from which he had only recently retired, when his daughter Albon paid a visit from Pars, where she worked in the (re-)emerging suspension bioreactor sector. Her company had been consulted by members of the Scenza Culnare Scuol for several recent projects.

“Papa!” she squealed, as she always did when returning to the seaside town of her birth. “I have a gift for you, you will hardly believe it!”

“Ehh?” Jovan looked over the tops of his spectacles at her hands cradling a wrapped gift box.

“A surprise! I promise you, you will be astonished!” Albon squealed again.

Jovan fussed and fiddled with the wrapping paper to find a white paperboard box underneath. The white box was itself wrapped in waxed paper. “Must be something special!” Jovan winked.

“You will be amazed!” Albon beamed.

After sliding a thumbnail under the edges of the box-top through the waxed paper, Jovan curled his lips and gritted his teeth involuntarily as he finally lifted the lid off the box. Inside was a cakey brown viscous sludge with not the most appealing odor. “What kind of joke is this?” he asked as he instantly reached to place the box on a table so’s not to spill the contents.

Albon’s demeanor flattened then fell. “It’s supposed to be chocolate!”

Jovan bent over the box with his nose and winced somewhat comically to try to cheer his daughter up. “I cannot believe this would be mistaken for ‘nectar of the gods!’”

Albon eased over to the table for a whiff, and her face turned far more sincerely sour than her father's. "It has—an acrid aroma."

Jovan licked the tip of one finger and dabbed the sludge. "Yes, tastes bitter, too, it smells not quite as sharp as sulphur!" Jovan agreed. "This is what that formula has led to?"

"I do not understand," Albon explained through her perplexity. "This appeared on store shelves in Pars just last week, everyone was excited with the novelty of it and were talking about putting it in espresso. I thought for sure it would have to taste good by itself, but I guess not."

Jovan sipped his tea, he had never had any taste for coffee, which itself had always struck his palate as too bitter. As he sat with his tea, Albon strolled over to her father's library to retrieve the copy of his twenty-year-old monograph, some detail she recalled reading provoked her curiosity.

When she returned to the living room, Jovan had already flushed the acrid brown sludge down the kitchen sink, careful not to get any on him or the counter. "People were actually ingesting this stuff? They couldn't have been enjoying something that smelled or tasted like this, not even in their coffee, surely. What are you reading? Oh, that."

Albon flipped pages slowly. "I wonder if they got the translation and the transcription of that formula right. Maybe some preservative agent was necessary. Something . . ." her voice trailed off as she flipped pages back and forth in her search for what had begun to nag her.

She continued to frown then suddenly brightened. "Okay, this is what I was looking for," her eyes darting left and right as she read: then her expression flattened again. She had found the reference she was looking for, but it told her nothing. "Papa, what is this word?" Albon asked her father, even if he wasn't a trained linguist.

Jovan tilted his head to read through his spectacles. "Oh that: yes. No one on the team understood it, either, and no food

chemist I've spoken with over the years knows what it meant—some other ingredient, obviously, the word there is 'sugar'."

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