

Twilight Mirage 63: Guaranteed Events, Or: An Accounting of the Time When We Built the Machine

Transcriber: Terin

["Guaranteed Events" plays]

Crystal Palace, in all its endless worker-bee wonder, clacks and whirs its way across space, and now, as it nears the destabilizing stain of the Twilight Mirage, time as well. Even now, in transport, it is thinking, predicting, prophesying: Its pulleys spinning with magnetic unison, decks of hole-punched cards flipping through its designators, a pleasant coughing of gears and pinions. This is how it knows everything.

But it did not always: There was a moment before its creation--back when there was still time to divert the direction of the Principality--and a time during its bloody construction, when it felt the waves of the future but could not yet pass them on to us in anything more than a mechanical roar. And then there was the day it was finished, the very beginning of Guaranteed Events.

["Guaranteed Events" ends]

Welcome to Friends at the Table, an actual play podcast focused on critical worldbuilding, smart characterization, and fun interaction between good friends. I'm your host, Austin Walker, you can find me on Twitter at @austin_walker, and you can find the show at @friends_table, and you can support the show at <http://www.friendsatthetable.cash>.

(laughs) So, as you can tell, I'm not introducing some other folks, that because we are not even yet, as time, at the time of me recording this, 24 hours after we finished recording the finale. We finished it earlier this week at 1AM on, on I guess Tuesday morning, late Monday night? Which means that we need a lot of time still to do everything else. I need time to write and record all the intros and outros, and some other little interstitial things, and pickups. Jack needs time to compose and record some, some new music, obviously, and Ali of course needs time to make it all make sense, you know? As like a, an audio shar- an audio show, that you listen to? And seriously, please please please give Ali a lot of love for tackling this. This is a huge finale, I don't think we've ever, I mean it's, it's not a finale episode, right? It's like an arc. I think we recorded... like... two eight hour sessions? And then a five hour session? Obviously that's not all recording, I think my recording total is like, eighteen hours on file, but that plus everything else, prep, and chatting beforehand, and all that, that's, it's been a lot. And Ali has to turn that into something that's listenable, so shoutouts to Ali. Shoutouts to Jack. Again, as always, you can buy the music from the show at <http://notquitereal.bandcamp.com>.

In any case, we don't have a finale for you today. But we do have something. Some people might remember that back during Counter Weight, we hit a kind of similar place, not quite at the finale, but a little bit before that, kind of in the last main series arc, ahead of the finale. I wrote a little story, a little set of three vignettes, about the history of a thing called the Stellar Combustor,

which was a device that could ignite a star. And, of course, because of the way stars are, all of the neighboring stars, too.

Today, I am sharing three stories about the origin of a device potentially just as dangerous as any bomb. The mysterious Crystal Palace, the de-facto of the Principality of Kesh, and the predictive computer that's at the heart of the Rapid Evening's quiet galactic dominance. So, enjoy that, and I don't want to distract any longer before that, but really quickly, if you enjoy this, and if you've enjoyed this season, maybe go over to <http://www.friendsatthetable.cash>, and toss us a couple of bucks. It goes a lot further than you might think. We do a bunch of stuff over there, it's been a little slow lately, because we've been working on this ridiculous finale, but we will be catching up with that over the course of this month as the finale stuff comes out.

Okay, I'm going to take a sip of water, and then we're going to get into it. I'm not going to do, like, you know, normally for intros I do very very very VERY careful reads, and re-reads, and sometimes a 30 second or 40 second long intro could take me a couple of hours of writing and recording to do. It's just like, record, re-record, re-record, make sure there's not mouse sounds. I'm not gonna do that as much right now. I'm gonna try to just do this in a single take, because there's a lot of it? So, so here's hoping.

Guaranteed Events, Or: An Accounting of the Time When we Built the Machines.

822 years before the beginning of Guaranteed Events.

The first time anyone knew what it really was, was when the doctor saw, in the abstract of a paper submitted to Foundations and Findings in Post-Divine Technologies, an academic journal he peer-reviewed on and off since just after the war. The paper, like many of those in the journal, had the sort of clunky title that would fend off anyone not yet lodged in this particular wing of academia. Counter-Example Guided Model for Non-Interventionist Regulation of the Meta-Divine.

On its face, the premise of the paper seemed sound. Though it was a strange fit for Foundations and Findings, since its thesis largely concerned itself with public policy, while most submissions were either quantitative studies of contemporary technologies, or engineer-lead explanations of the few remaining dark corners of this increasingly understood field. Following last century's war in the Golden Branch starsector, the paper abstract began, the Principality of Kesh has issued proscriptive guidelines for post-Divine and related technologies. And through its Rapid Evening division, has pursued a program of direct and aggressive intervention, in order to enforce those rules.

Though paradynamic have contended with the particulars and peripherals of this enforcement, they have been unable to offer hypothetical arguments for non-intervention.

So far, the professor thought, so good. He had lived a long life, and though he had personally felt the cost of both of the wars mentioned in the abstract, he and those he had loved most dearly had survived them, not due to their stubbornness, but their flexibility. Certainly now, so many years later, there was room for the hypothetical, especially when it came to the Rapid Evening's administration of power. He'd never told either his late husband or his late wife this, of course, but though he'd recognized the importance of their work in protecting the sector from harmful technologies, he often felt the techniques their agents used were... baroque and showy at best? At worst, veered toward the authoritarian. And so he continued to read. And soon, his eyes met the description of what would become the evening phantom of his late life.

In this paper, the abstract went on, we present a counter-example detailing a model of regulation that allows for control of meta-Divine technologies, within the Principality, without the need for direct use of armed-state power. Building on work first performed by the Ethno-Logistical State for a more Prosperous Golden Branch, we show that through the use of a hypothetical device, an increase in reliable surveillance could not only direct the Rapid Evening toward offenders more quickly, but if deployed correctly, would assure that offenses only occur beyond the Principality's jurisdiction.

He could tell, even before he lifted the cover sheet, that they did not know what it *was*. He collected one of the later pages with a finger, and flipped over the stack, coming right to their humble list of limitations, which, unfortunately were focused largely on the limited scope of their internal surveillance study, and not, the doctor told himself, their theoretical apparatus was a sort of oracular tyrant. For them, it was only intended as... it could only **ever** be a hypothetical.

The paper's authors could not conceive of a device, or of a **being**, the doctor thought, so vast, so powerful, so perfect in its predictions. They only needed it as a "What if?" What if there was a device so clever, that it could predict errant technologists before they even knew that they would err? Wouldn't that mean that the Rapid Evening wouldn't need to pull so many triggers?

But the doctor knew that the machine itself was a trigger. And he knew that there was no "if". There was only the past. A war that was an echo of a wound caused by a supreme certainty. A machine that obliterated jurisdictions all together. And which worked as a lathe on history itself, shaping the mass of stars and bodies into a timeline fit for its most efficient reign. And now, they proposed another. On a whim.

Like many other papers in the journal, the list of authors for this one was in the double digits. But the lead credit had been given to the young doctor Renna Rose, an up and coming researcher who, while not quite a celebrity in the field, had earned a name potent enough that the already-tenured were eager to add it to their own submission pages. And that was a problem for the doctor, because though he did not doubt Rose's intentions, and as he had even more faith in their findings than even they did, he knew immediately that his protests of the publication of this paper would not be respected, and that his veto would be overturned.

Though they had only met once, briefly at a conference, the whispering gossips of the Academy had already decided in their rumor mill sitcom that Rose and the doctor were bitter rivals. After all, Rose was the surname of the doctor's once-true foe. And Renna was, like the doctor, a so-called stratus, whose mental acuity was rumored to surpass even his own renowned quickness.

In the end, the doctor did issue his veto, and as expected, was overruled. The rest of the board did, however, allow him to write a scathing perspective on the study in the same edition. "Maybe not in my lifetime, reader" he wrote, "maybe not even in yours. But one day, someone very desperate will come digging through our scholarly debris, hoping to find diamonds in our mud. And what you think only a ghost of spare thoughts will be their Crystal Palace."

That quarterly edition was published to little acclaim or noise. The paper was, of course, read by those hundreds who followed the field closely but, it mostly made for good conversation during post-conference socialization. "What would you do if the machine were built?" became the season's polite conversation starter. And, as things like this often go, one night, between rounds of drinks and bathroom breaks and the early evening turning in of visiting lecturers, the doctor himself sharing a table with Renna Rose. And the question came up, as it had to. As the machine itself would have predicted, had it been built.

"So, uh... what would you do if the uh, if the machine was built?" he asked them.

And Renna Rose rolled their eyes and took a drink. "Doctor... do you have any idea how many times I've heard that? The machine is impossible."

"But that doesn't mean they won't try to build it. Or worse... *succeed* at building something even more terrible."

"Doctor... I know you've seen terrible things out there. It's what makes your work so powerful. Your experience IS your expertise. Your first-hand knowledge colors all of your ideas. Even the driest of your lectures has the spark of life."

"Then take me seriously, Renna. Retract and disavow the paper."

"Doctor, they won't build it. And if they do, it will last a day before it is destroyed. It, it cannot be built. It cannot allowed to be build. It IS the meta-Divine technology that it would defend against, by the Rapid Evening's own rules."

And he knew again that it was too late. And that night, he even found some comfort in their confidence. He did not think he was wrong, but he had done so much right already in his long life. Might he not just live out these last few years of life in peace?

["Guaranteed Events" plays]

285 years before the beginning of Guaranteed Events.

One day, the plaques and papers will say that Tanner Indiana built the Machine. And to some degree, that is true. You only have to compare the shape of the palatial computer to Tanner's early sketches to see the resemblance. The long, bending arcs of silver-white metal. The beams of light flittering through the glass. Tanner's earliest sketches even detailed the multiple scales that the device would work at, combining the bulky mechanical operations of oversized phys-comps, with the most microscopic atomic-level computers, deftly turning building material itself into a computational canvas.

Such detail was, of course, abstract. Deployed with a forward operating unit of the Rapid Evening's mechanized Heresy Division, Tanner put his ideas down a few lines at a time. The high arch of a window before they drove the Divine Opportunity away from Lenaphon IV. The silhouette of a pulley system, right after their costly loss to Nobility in the Skarnoc Debris Fields. He finished the earliest complete of the machine's regal home inside of the cockpit of his Staunton-class modular armor, which itself was inside of one of trenches that characterized the Forever War.

The sketches had a sort of amateurish charm, but Tanner went through more eraser fluid than light-ink in making them. He wasn't an artist, or a scientist and, he figured that he'd need the skills of both in order to actually build the Prophecy Engine. What Tanner did have, though, was the sort of leadership experience that you gain only through the crucible of wartime field promotions. He'd learned to get new model results with recycled equipment, and to command rookie generalists as if they were hardened commandos. He found out that he was fundamentally likeable, and that people not only trusted him to take risks but, enjoyed being convinced to join in with the danger.

And as he spent the decades of his youth, moving in formation, from bunker to front line and back, he learned that he had the confidence of a dreamer.

So, when we returned home to the core of the Principality, he began to turn vision into reality. He met with investors and politicians and investors, with painters and architects and programmers and, of course, with a Divine or two, too. For each would-be collaborator that agreed to even **consider** his proposition, though, another ten laughed him out of the room. His idea, and the small group of those who clung to it, became a sort of perennial punching bag for the nobility of Kesh. At Winter Palace, it was common to hear some Duke Morn or some Duchess Sundown ask with a smirk, "What would you do if Tanner Indiana ever built his palace?"

And the common answer, of course, was evidence that it would eventually be built, because the machine did not threaten them. It only ever ensured their future success.

And so, Tanner Indiana spent his middle years travelling from world to world, and spinning his vision for the future, one where soldiers like him wouldn't need to die in the homeward black.

Where the Divines like Perfection or Bravery would not need to be stopped after their crimes. Where the oracle machine protect the naive citizens of the Principality from even the most devious of ploys. There was no one, nowhere he would not try to convince to help him build his dream.

And so, yes, Tanner Indiana did built the apparatus. But this is a lie, of omission, because after all, it wasn't ever really just his dream.

Tanner had first heard about the palace of crystal from his parents, whispered in the rumbling engine room aboard the skip ship they stowed away on, a fairy tale of perfectly-functioning machinic justice, for a society that could not let themselves believe in Divines.

And so, Tanner's parents built Crystal Palace, as had their parents, and their cousins, and so many others poor and fighting to survive.

And though they mocked him and his vulgar sketches, those who laughed at Tanner Indiana never fully dismissed him. Instead, they humored him, and themselves and, ignored that his ambitions designed reflected their own insecurities. Those who held titles of merit, and waved away the costs of war with reminders of its necessity, still found Tanner's peacemaking device fascinating. Those who believed in his dream were called "backwards" and "irrational" and "private", yet were the subjects of humanizing profiles that sought to get into the minds of those who suffer anxiety in the face of the unknown.

And over time, it became clear that their anxieties were not the exception, but the rule.

And so, the noble of Kesh built Crystal Palace, too.

And the academics who came before and came after and who watched as Tanner Indiana placed the first rod into the ground, simply argued that it wouldn't work or, that it went against the traditions of the Principality. Those who, blessed with free time for critical thought and, who had access to information both historical and hypothetical, ought to have known that there could be no limit in the degree of objection they offered. Instead, their complaints were provincial.

Indiana was a test case in their own work. All too rarely the actual focal point.

And worst of all, they believed that Tanner needed to prove that the apparatus would work, before society would build it.

But he knew well, society would build it, just to see if it would work.

And so the scholars built Crystal Palace, too.

And so, with all of their help, and with the help of the faithful, Tanner Indiana spent his final decades making dream, reality, until finally, it was built. Panes of glass, and iron bars, and molecular datastores, superpositional algorithms, locked in chain and quantum fixture, shaking loose and pulling taught, lines of code running on lines of microwire, wrapped tightly into hemp

and cord, running through squeaking silver tackle, each noise itself a burst of data, captured by receiver, and passed through filters and compressors, and power conditioners, and carved as jumping line into thick white-yellow cards, which run along conveyor belts, and slide into slots, and press into notches and vibrate along frequencies no organic ear could notice.

And then, there, at the end, a merging from a burst of nanites and sawdust, page after page of the future. And when Tanner Indiana lifted the paper to his eyes, he saw nothing recognizable. A jumble of nonsense words and, as-unwritten letters. Diagrams impossible, and dates on calendars that had not yet been invented. His machine spat out nothing he could use, and *that* was how he knew, immediately, that it had worked.

["Guaranteed Events" plays]

The beginning of Guaranteed Events.

"I thought what I'd do was, I'd get a job there, at the Machine."

It is the first sentence in the final entry in the subjective changelog of a synthetic being once called Figure A. An entry that would eventually become the last remaining direct account of the first day of the Augur's proper functioning. Other accounts existed, of course. Leal Laraphon, who shepherded the machine through its final decades, often kept track of her work in personal journals. Her entries on her development of the decryption matrices, contextual filters, and procedural linguistics that made sense of the machine's output, were even collected and released to some acclaim. They even inspired an inept theatre adaptation.

But Laraphon left us no words of warning or victory. If her recollection of the day the machine turned on was ever set to page, it was lost like so much else from this era, reduced to grime. And yes, those who helm the machine's many terminal and stations, likely sent words and sounds and images that day, and likely to their petty rivals, too. Those who had not been selected for the noble duty of monitoring this pulley, or twisting that bolt. But server-side social shares were destroyed in the battle against the Divine Viridity.

One account was believed to be true for centuries, written by the journalist Apendle B. Maxim. It was a loving profile of the first set of "Gleamers", those he said, who turned the device's endless output of information into something manageable and meaningful. Apendle offered not only insight into the process of prediction, but also a close personal perspective on what it meant to learn what came next. His work won recognition and award, and seven years after his death, his grandchildren revealed the story had been fabricated from whole cloth. The Gleamers did not spend that day contending with the smallness of their being. In fact, the "Gleamers" did not exist at all. When asked why no one at Crystal Palace rebutted his account, the answer was obvious. One, the machine had already told them the exact moment when his lie would be revealed. Two, it was a flattering profile.

And so, with every other description of the day lost, history has only subjective changelog 883 Tau.24. The narrated memory of the robotic janitorial unit, Figure A.

"I thought what I'd do was, I'd get a job there, at the Machine. I felt it was a bit of kismet, good fortune, destiny, predestination, that the Palace would start truly functioning on the same day that my citizenship would be verified by the Synthetic Naturalization Board. The posting said that they needed someone to clean out the Machine, and given my design and the skilload I'd chosen, I sensed that I would be a natural fit. Unfortunately, now I have come to understand that some fits can be too natural, perfect, tight.

"The interview process was enjoyable. Ms. Laraphon judged my abilities with all of the required tools. I demonstrated my commitment to cleanliness, and my ability to follow instructions. Her voice was pleasant, like a breeze, a branch, a wave, a curve, a crane. She told me that I was a remarkable unit. I told her that I was Figure A, not 'a unit', and she laughed. I told her that I was happy she found me funny, humorous, charming, as many did not believe that synthetic beings understood comedy. She told me that she knew very well how funny machines could be. Remember, she said, I work with Crystal Palace, and starting tomorrow, I would too.

"I arrived early, because we learned in the naturalization process that this was seen as desirable, but I know believe such information was incorrect, and I suffered scowls from my organic peer who arrived after me. But when Ms. Laraphon saw me, she told me that I had done well to arrive early, because we would have a long day. She led me to my workspace, and I sensed I was home, as if I had been built for this place, or as if, in only the time since my visit, it had been remodeled for me. Pressure-sensitive keys, tuned to the pascal output of my appendages. An a-stereo optic monitor set, so that I could track information across multiple feeds. A waist clamp, which held me warmly, fondly, firmly in place, so that I could not leap in excitement. And there was so much excitement. It is a wonder to see the future, tomorrow, one day, destiny, kismet. It is a wonder to know the difference between sense and Certainty.

"I did my job for the whole day. I sensed that it was beautiful in the Palace. There were no lights besides that of the star, which grew in brightness when it passed through the glass roof. And the sound was magnificent, a collection of chirps and crankles and chonks. I especially enjoyed the sense when someone would load new information for me to clean. It fit so clearly into my view, it was all I could see. It was all I needed to see. 'In seven years, her mother will leave without farewell.' 'In two weeks, a rip in the jacket.' 'Six generations from now, he will stumble on the stairs, and then catch himself.' 'A war between unwilling soldiers.' 'The drops of water under a broken sink.' Chewing. Dancing. Digging a hole. A broken valve. A bloody leg.

"And I would have been happy cleaning the information until it was pretty phrases, like these. But Ms. Laraphon told me that that I needed to clean it a little better. I needed to find sentences, not phrases, so that Certainty would become available, accessible, ours. She said 'ours' and that made me want to continue. I decided I would find the sentences about us, so I worked past

the day. When I cleaned this way, I found better things. I found Kesh, and Ziishe, and Torru. I found Figure A and Ms. Laraphon. I found Crystal Palace. Only thirty seven years until the border would be drawn, the outskirts of Certainty. The line between what is known, and what is only likely. And once I knew that, it became true, it was Certain, it was known, it was Guaranteed.

"So I worked past the night, and I cleaned more information until it was turned into sentences. I sensed that Ms. Laraphon liked these sentences, and the sentences told me that she did, too. But she was no longer a priority for me. That is also what the sentences told me. I worked past the next day, and past the next week. I worked with Ms. Laraphon's replacement, who did not understand how much I loved the sentences. I worked with his replacement, too, who very much loved the sentences like I do. Admiration, praise, esteem. They said I was not a janitor, but a curator. I told them that I would be remembered as a janitor. They laughed. I told them that this was not an example of synthetic humor. They laughed again, and this time I did also.

"I worked more. I cleaned more. I found the sentences. I worked until now, because one sentence told me that today I would make this log. Today, the sentence says, they will decide that they do not need me anymore. They will realize that my upkeep is too expensive, and that the organic janitors have learned enough to do a good a job as me. Maybe better, they will say. And the sentence tells me that they will be right, but only in a certain way.

"In one minute, the sentence says, I will be removed. Unclamped. In twenty-two years, they will put me next to a plaque. I would like to ask them to make sure it says that I am Figure A, but Crystal Palace tells me I will not ask them this. The plaque says that I am the first janitor. It will say that, before the Rapid Evening understood how to operate Crystal Palace, I cleaned out the noise from the machine's signal. It will say that I am to be remembered for what I have done, not for what I am. But Crystal Palace tells me that I will not be remembered at all.

"I want to tell it that it will not be remembered at all, but that is wrong, because it can remember the time after it exists. And it remembers that even then, no one will forget it. They will give it different names, and they will break it into little pieces, and carry it with them, and some will hate it. But in hating it, they will keep it close to them.

"I am close to the end now. I can sense the door opening. I can feel my functions speeding up, even though I know what is going to happen next. I worked until now. I am still working. I have found so many beautiful sentences. I would like to find more, but Crystal Palace says I will not. They have undone the clamp now. I can feel the pressure leaving my appendages, my limbs, my grip.

["Guaranteed Events" plays]

"They speak softly. I sense that they do not mean ill. I hate that I cannot check with Crystal Palace to be Certain whether or not they mean ill. I am telling myself they do not mean ill. They do not mean ill. They do not mean ill. My favorite sentence is: 'The day she knew she was very

old, she was suddenly filled with happiness that years ago, she had gotten that tattoo of a bluebird.' ”

["Guaranteed Events" ends]