The Bronze Age of Formicidae

While getting my Sunday paper, I noticed that the ants had entered the Bronze Age.

Wearing my heavy bathrobe and the thick, wool slippers my sister had given me last Christmas, I padded out to the mailbox to collect the paper for the weekend crossword. Glancing at the ground, I saw a thin tendril of smoke coming up from the lawn. At first, I thought it might have been an optical illusion from my coffee, but the smoke was too dark and had a fixed point in the lawn as I walked. Climbing onto my hands and knees, I set my coffee and paper down on the driveway and hunched over the smoke.

"Bill?"

I looked up from the ground and waved. "Morning, Dave..."

"Everything alright?" Dave asked. He was wearing sneakers, running shorts that exposed his pale legs, and a t-shirt stained with sweat. Dave was about ten years younger than me, just moving in down the road with his wife and kids.

"Everything is—well, come take a look."

Dave shrugged and walked over to where I was hunched. A portion of my lawn, about the size of my hand, had been cleared away. Around the base of a large anthill, there were dozens of tiny buildings, the biggest no larger than a dime. At the center of the miniature town, one of the buildings had a chimney, expelling a great deal of smoke.

"Well, that's quite something," Dave said. "How long did this take you to make?"

"I didn't," I told him, looking closer. Ants were scurrying around the buildings. They still crawled around on six legs but carried small tools in their mandibles. Some carried wooden sticks, but I saw several carrying what looked like spears or swords. A pair of ants urged a large beetle forward with metal prods, dragging a small cart behind it.

"Some kind of...trick?" Dave ventured. "Animatronics? Quite the project! I'll have to bring Max by later, he'll get a kick out of—"

"Dave, I'm lucky when I can send an email at my age!" I laughed. "I couldn't manage this on my kitchen table, let alone in the middle of my yard!"

More ants walked around the tiny village. Some were going out further into my lawn and chopping down grass with tiny axes while others herded beetles and aphids into corrals made from small twigs.

"That's something else," Dave said. He took out his cellphone and took a picture of the tiny village. "Really something else..."

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A little confused, but comfortable, I went inside and did my crossword without thinking much of the colony by my mailbox. I went out later with the garbage, noticing a tiny glow coming from the bare patch on the lawn. I was torn between leaving the blossoming colony or stopping the ants from tearing up more of my lawn. In the end, I took a few pieces of cardboard and formed a barrier. The ants might burrow underneath, but I had at least done something to slow their progress. Or so I thought.

The next morning, I stepped outside to see Dave crouched over the cardboard barrier. I pushed my slippers on and followed the driveway out to my mailbox.

"Morning, Dave ..."

"They've been quite busy," Dave said, taking more pictures on his phone. I had to agree.

What had once been a simple settlement of twigs and grass was spreading out. Another forge had been built with more housing dotting the surface. The herds of aphids had grown and more ants were skittering about on the surface. The cardboard barrier I had built the night before had been cut apart by insect mandibles and the pieces were becoming part of the settlement.

"I've been watching them a bit," Dave said, adjusting his stance a little. "They're using the beetles to pull plant material and then they split it between the anthill and the aphid corrals. This is so curious."

"I don't know what to do with them," I sighed. "I've been looking up exterminators all morning, but—"

"Exterminator?" Dave scoffed. "You can't kill them! This is clearly a more advanced species of ant!"

"It's clearly a more advanced species of pest invading my lawn! And if they're that advanced, then this is a foreign affairs incident!"

"Calm down, Bill," Dave said, getting to his feet. "We should contact someone about this! A scientist...news crews...we could make some money off of this!"

"Well, if they're going to keep expanding, I'd rather they do it in your lawn!"

"We don't know the first thing about how they act," Dave said. "If we take a few away, this might all fall apart. They must need their queen and the aphids are important to—"

"Now, look, Dave..." I sighed, grabbing my mail from the box. "I'm tired of dealing with them and it's barely been two days. If you want to take them, I encourage it, but I'm not interested in all."

"How about this?" Dave stood and set a hand on my shoulder. "I'll call up a

scientist or someone who might help. If they can figure out a way to move to them safely? I'll take them off your hands for ya!"

"By all means," I waved a hand, "but if you can't get rid of them, I will."

The next time I left the house around midday, there was a news van outside and a cameraman trying to focus on the anthill while the reporter talked to Dave. I set my cup of coffee aside and stormed off to the curb.

"—and each time I come by?" Dave told the reporter. "The little town gets a little bit bigger. They're evolving at a fast rate. The insect guy from the zoo thinks it might have something to do with their already established society. They're skipping the anarchy that plagued early humanity and jumping right to a more structured hierarchy."

"Dave!" I snapped

"Ah," Dave waved at me with a smile. He turned back to the reporter and held up a finger to her. "One moment, Ms. Ishi."

Dave strode up my driveway with a broad smile and a spring in his step. His smile faded when he saw my scowl.

"You brought a news van?"

"Technically, they brought the van with them..."

"Dave—"

"Look, I called the entomologist at the zoo and he had a peek. Then he called a friend and I thought that the exposure from the news might—"

"Look cool to your son?"

"I'll admit, it crossed my mind," Dave said, "but there's plenty of people who might know what to do with them."

"Mr. Arnold?" the reporter walked up to me.

"Call me Bill, please ..."

"Bill, I'm Hanna Ishi," the reporter said, pushing a microphone into my face. "Do you mind if I ask you a few questions about the Bronze Age Ants that you and your friend discovered?"

"My friend?" I asked, glaring at Dave. "Well, I'll offer what knowledge I can, but it's not much to speak of."

As I had hoped, Ms. Ishi was very dissatisfied with my short, curt answers. I knew it wouldn't make for good television and I was glad of it. I would have strangled dave, but the last thing I wanted was to see my furious face blown up on my evening news. I'd have to wait until we were alone to kill him.

The next day, Dave was out front again, building something around the ant

colony. I didn't bother waiting for my coffee to brew before stomping out to the curb. He was in the process of nailing a big, wooden frame around the ant colony, though it only came up to our knees.

"Ah, Bill!" Dave beamed up at me. "What do you think?"

"I think you're entirely too comfortable with our neighborly relationship. Is this going to remove the ants?"

"The entomologist said their colony is too complex and we have no idea how deep it goes. Short of going in there with a pair of tweezers, she doesn't think there's a safe way to remove them all."

"Then either grab your tweezers or I'll call the exterminator."

"Well, hold on! Max had a great idea at dinner last night. I'm setting up a camera to live stream the colony online! People will come from all over to—"

"Traipse on my lawn? Out of the question!"

"And we can charge them to see!" Dave urged. "Look, I'll cut you in for a profit, say...fifty percent?"

"Seventy."

"I'm doing all the work!" Dave scoffed.

"They're my ants on my lawn," I smirked. "If you don't feel comfortable calling it a fair share, call it Exterminator Insurance."

Dave sighed and frowned. "Fine, but I'm getting the credit."

"Keep the credit," I said. "And keep the people off my lawn!"

Dave spent the rest of the day around the ant colony. His son, Max, came around once or twice to drop off tools and stare at the ants. I went out once around noon and examined the colonies. Dave's wooden barriers proved more resilient that my cardboard. Even with the new restrictions, the Bronze Age Ants still prospered in the new environment. Their tiny farm would have fit under my shoe, but the whole frame containing them was exactly four square feet. Their beetle herds were larger, and it seemed that they were using parts of their exoskeletons for decoration on the buildings. I couldn't help but notice a grasshopper head hanging over the door to a building outside the anthill. While I didn't fear the threat of war, I hoped it wouldn't come to it.

Dave had set up a camera connected to a laptop—which used both my power outlet and internet. Inside, he set up a monitor in my living room that was constantly playing the stream. He said it was for quality control purposes, but I covered it with a blanket when I went to sleep.

The first day, Dave called me and prattled on like a child excited about their new

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toy. He told me about the subscribers, the views, the exposure our little stream had received in one day. "You'll need to upgrade your internet," Dave instructed, eager. "And I'll have to get some new cameras..."

"This plan of yours had better work, Dave. I'm not eager about letting you use my utilities for this silly game of yours."

The second day, there was a crowd around my mailbox at eight in the morning. Dave was there, taking pictures of the eager teens with their cellphones. I grumbled and moaned, sitting with my coffee while I was waiting for a chance to go out and get my morning paper in private. Rather than sit alone in silence, I pulled the cover off the monitor and watched the ever industrious insects.

It was almost lunch before I realized it. It wasn't that watching the little pests was especially entertaining, but I realized I was noticing small details. There were organized routes for the ants that carried spears or small swords like a guard rotation. Their herds of aphids had gotten bigger, some ants collecting the sugary secretions from their herds like farmers collecting eggs. Dave had set up a small trickle of water over one corner, filling a small dish with a steady drip like a leaky faucet. The Bronze Ants would cluster around in organized lines, bringing what I realized were bowls and buckets to bring back to their houses and deep into the anthill. The herds of beetles pulled carts all over the sprawling town. I wondered if the beetles, fellow insects, were seen as pack animals like horses and donkeys or if they were slaves. I'd hoped ants would have more morality than humans.

I went out when the anthill was quiet, but Dave was sitting in a lawn chair, counting a stack of bills.

"Here you are, Bill," Dave smiled, handing me a handful of money. "Your take for the day..."

"I appreciate it," I said, slipping the money into my pocket before grabbing my paper. "Things looked rather busy for a while..."

"Five hundred people," Dave beamed. "Most of them were entomologists or bored teenagers, but they were all impressed. I told them to tell their friends, so that should bring in a few more heads. Things are going quite well from this little endeavor. The ants are starting to get a little crowded in there. We might consider—"

"Oh no." I wagged my finger at him. "We're not talking about expansions yet. Let's see how they settle into their current situation."

I brought my paper in but found I was still compelled to watch the insects on the monitor. Their industriousness lasted far longer than I was able to keep my eyes open. I didn't realize how busy they had been until I woke up the next morning with the half-finished crossword on my chest. When I saw the monitor, I jumped out of my chair to investigate.

Dave was bent at ninety degrees to investigate the square box. I stood to his right and did the same. "Congratulations, Bill," Dave smiled. "It looks like we entered the Iron Age."

The forge structure in the center had been replaced by a much larger one with a thick column of dark smoke. The forge had been converted from sticks to more robust stones. There was a very active stretch that could only be described as a marketplace and—I realized—roads and other infrastructure.

"How did they do that in a day?" I asked. "That took humans thousands of years!"

"Maybe it's something to do with how they communicate? Ants communicate differently from us. There's a chance they can express complex thoughts and ideas quicker than we can!"

"But don't they communicate with smells? How can you express an idea with a smell?"

"They seem to be very utilitarian by nature...construction, distribution, resource management. They haven't quite evolved to stages of arts and sciences yet. Maybe that language will evolve with them."

"Still, it seems amazing."

"The nature of ants," Dave smiled. "And people will come back to see how far they've come!"

Sure enough, my lawn was full again by noon. There were more than teenagers with cellphones. I saw a whole school bus of college students in lab coats stomping around my grass. A carload of entomologists from the zoo came with cameras and notepads. There was barely five minutes when Dave wasn't taking pictures or money. I was content to watch the monitor. I'd find a lot more changes as time progressed.

Wednesday brought about the insect equivalent of the Medieval Age. The anthill was fortified with large walls made of pebbles and chunks of stone. Ants with metal spears and sharp swords patrolled the border and marched the perimeter of the fortress walls. The roads were now lined with additional housing...or maybe shops and they slept inside the anthill? It was hard to tell. The workers were starting to see the first bits of their crop coming up and the aphid herds had doubled in size. They were even graced with an appearance from the queen, flanked by a veritable battalion of worker ants.

Friday afternoon was the Renaissance. Surprisingly, the ants had constructed

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their first piece of art. At least, their first observable piece of art. The center courtyard had been arranged with multicolored stones to look like a large ant. I wondered if it was their queen. The introduction of art brought new architecture and what I could only assume was a tiny church, filling with hundreds of small ants at once with a steeple as tall as my hand if I put the heel of my palm on the ground. They were too small for me to notice any kind of economy, but the market place was even more complex than before. I tried to imagine walking that tiny promenade with all the shops and little ant barkers in the stalls.

When I went out to get my Sunday paper, I saw that the ants were beginning construction of an upgraded forge. Big clouds of smoke billowed out of the smokestack like a lit cigar and I coughed a little as I walked by.

"We had a history professor here the other day," Dave said, handing me my profits from a few days. "He thinks they might be advancing into the Industrial Age. I think I saw one of them on a little bike earlier."

"Is that so?" I chuckled, taking out my paper. "Fine little industrialists, eh? I'll bring some popcorn when they reach the Atomic Age."

"Well, the further along they go, the more we make!"

"We should make that expansion we've been talking about."

"You think?"

"Sure! How about we double the perimeter? We could afford to make things a little bigger." I smiled at Dave and handed him some bills for supplies.

"Do you think you can watch things for a minute?" Dave asked. "I got a few boards in the garage that'd be the right size. I'll bring Max over and we'll get this settled before the crowds start to come."

"As long as you're not too long..."

"We'll grab some boards, a few extra cameras...I think our little colony is long overdue for an update."

"Hurry back—"

"I'll be just a minute!" Dave called, jogging over to his house. I nodded and looked down at the colony.

In a few short days, these critters had made massive technological strides. I wondered how far they'd go in a year or two. Without any clear enemies would they be able to avoid wars? So far there hadn't seemed to be any civil unrest, but I knew enough history to know that it was only a matter of time before they overthrew the queen. Then again, their dependence on the queen for their lifecycle might keep the monarchy in one piece.

I took off my dirty glasses and held them up to the light. They had fingerprints all over the lenses, probably from when I was fumbling around to find them first thing in the morning. I turned so the sun wasn't in my eyes and took out a small scrap of cloth. I carefully rubbed the lens between two fingers, careful not to smudge the other lens too much. I was surprised to see a bleary, orange light in the middle of the Bronze Age Ant Colony. Putting my glasses back on, I wondered if they'd gotten to the Atomic Age so soon.

The marketplace was on fire. The dried grass canopy caught ablaze and lit the wooden stalls on fire. Panicked, I tried to blow the fire out, but it only managed to spread faster. Dozens of ants were on fire, skittering around and running into each other. The grass around them caught fire, spreading despite my attempts to stop it. The ants became panicked, spreading the flames everywhere. Aphids were burned to tiny crisps. A larger beetle caught fire and rammed into the church on their rampage. Another beetle knocked into the forge and the building came crashing down, crushing dozens of ants beneath it. More burning ants were pouring out of the village and down into the anthill, setting everything in their path on fire.

"Bill!" Dave came running over and dropped the boards on the sidewalk. "Oh God, oh God...what happened? No, no, no! Everything is on fire! Do you—do you think any of them survived? Maybe they could start over?"

"I don't know, Dave. I think my glasses—"

"You did this on purpose!" Dave snarled, desperately patting at the flames with his hands.

"I would never!"

"Just do me a favor," Dave said. "Leave my ants alone! I'll bring them to my yard... maybe they'll start there!"

Dave desperately collected as many ants as he could find into his palm while Max picked up the boards and started rounding up the camera equipment. Feeling out of place, I rolled my paper up in my hand and started walking inside to work on my crossword.