

THE CARTOGRAPHER WASPS AND THE ANARCHIST BEES

E. Lily Yu

"The Cartographer Wasps and the Anarchist Bees" draws from E. Lily Yu's experience with beekeeping in college, Maurice Maeterlinck's *The Life of the Bee*, and several papers on the phenomenon of anarchism in honeybees, including Oldroyd and Osborne, 1999. The story was a finalist for the Hugo, Nebula, World Fantasy, Locus, and WSFA Small Press awards, and Yu won the John W. Campbell Award for Best New Writer in 2012. She lives near Seattle, Washington.

"The Cartographer Wasps and the Anarchist Bees" is a deceptively complex story, combining insects and politics in the tradition of Bernard Mandeville and James Gould.

For longer than anyone could remember, the village of Yiwei had worn, in its orchards and under its eaves, clay-colored globes of paper that hissed and fizzed with wasps. The villagers maintained an uneasy peace with their neighbors for many years, exercising inimitable tact and circumspection. But it all ended the day a boy, digging in the riverbed, found a stone whose balance and weight pleased him. With this, he thought, he could hit a sparrow in flight. There were no sparrows to be seen, but a paper ball hung low and inviting nearby. He considered it for a moment, head cocked, then aimed and threw.

Much later, after he had been plastered and soothed, his mother scalded the fallen nest until the wasps seething in the paper were dead. In this way it was discovered that the wasp nests of Yiwei, dipped in

water, unfurled into beautifully accurate maps of provinces near far, inked in vegetable pigments and labeled in careful Mandarin : could be distinguished beneath a microscope.

The villagers' subsequent incursions with bee veils and kettles boiling water soon diminished the prosperous population to a handful. Commanded by a single stubborn foundress, the survivors led a new nest in the shape of a paper boat, provisioned it with green apricots and squash blossoms, and launched themselves onto the river. Browsing cows and children fled the riverbanks as they drifted downstream, piping sea chanteys.

At last, forty miles south from where they had begun, their craft tugged on an upthrust stick and sank. Only one drowned in the evacuation, weighed down with the remains of an apricot. They convened upon a stump and looked about themselves.

"It's a good place to land," the foundress said in her sweet soprano, examining the first rough maps that the scouts brought back. There were plenty of caterpillars, oaks for ink galls, fruiting brambles, and no signs of other wasps. A colony of bees had hived in a split oak two miles away. "Once we are established we will, of course, send a delegation to collect tribute.

"We will not make the same mistakes as before. Ours is a race of explorers and scientists, cartographers and philosophers, and to rest and grow slothful is to die. Once we are established here, we will expand."

It took two weeks to complete the nurseries with their paper mobiles, and then another month to reconstruct the Great Library and fill the pigeonholes with what the oldest cartographers could remember of their lost maps. Their comings and goings did not go unnoticed. An ambassador from the beehive arrived with an ultimatum and was promptly executed; her wings were made into stained-glass windows for the council chamber, and her stinger was returned to the hive in a paper envelope. The second ambassador came with altered attitude

and a proposal to divide the bees' kingdom evenly between the two governments, retaining pollen and water rights for the bees—"as an acknowledgment of the preexisting claims of a free people to the natural resources of a common territory," she hummed.

The wasps of the council were gracious and only divested the envoy of her sting. She survived just long enough to deliver her account to the hive.

The third ambassador arrived with a ball of wax on the tip of her stinger and was better received.

"You understand, we are not refugees applying for recognition of a token territorial sovereignty," the foundress said, as attendants served them nectars in paper horns, "nor are we negotiating with you as equal states. Those were the assumptions of your late predecessors. They were mistaken."

"I trust I will do better," the diplomat said stiffly. She was older than the others, and the hairs of her thorax were sparse and faded.

"I do hope so."

"Unlike them, I have complete authority to speak for the hive. You have propositions for us; that is clear enough. We are prepared to listen."

"Oh, good." The foundress drained her horn and took another. "Yours is an old and highly cultured society, despite the indolence of your ruler, which we understand to be a racial rather than personal proclivity. You have laws, and traditional dances, and mathematicians, and principles, which of course we do respect."

"Your terms, please."

She smiled. "Since there is a local population of tussah moths, which we prefer for incubation, there is no need for anything so un-republican as slavery. If you refrain from insurrection, you may keep your self-rule. But we will take a fifth of your stores in an ordinary year, and a tenth in drought years, and one of every hundred larvae."

"To eat?" Her antennae trembled with revulsion.

"Only if food is scarce. No, they will be raised among us and learn our ways and our arts, and then they will serve as officials and bureaucrats among you. It will be to your advantage, you see."

The diplomat paused for a moment, looking at nothing at all. Finally she said, "A tenth, in a good year—"

"Our terms," the foundress said, "are not negotiable."

The guards shifted among themselves, clinking the plates of their armor and shifting the gleaming points of their stings.

"I don't have a choice, do I?"

"The choice is enslavement or cooperation," the foundress said. "For your hive, I mean. You might choose something else, certainly, but they have tens of thousands to replace you with."

The diplomat bent her head. "I am old," she said. "I have served the hive all my life, in every fashion. My loyalty is to my hive and I will do what is best for it."

"I am so very glad."

"I ask you—I beg you—to wait three or four days to impose your terms. I will be dead by then, and will not see my sisters become a servile people."

The foundress clicked her claws together. "Is the delaying of business a custom of yours? We have no such practice. You will have the honor of watching us elevate your sisters to moral and technological heights you could never imagine."

The diplomat shivered.

"Go back to your queen, my dear. Tell them the good news."

It was a crisis for the constitutional monarchy. A riot broke out in District 6, destroying the royal waxworks and toppling the mouse-bone monuments before it was brutally suppressed. The queen had to be calmed with large doses of jelly after she burst into tears on her ministers' shoulders.

"Your Majesty," said one, "it's not a matter for your concern. Be at peace."

"These are my children," she said, sniffing. "You would feel for them too, were you a mother."

"Thankfully, I am not," the minister said briskly, "so to business."

"War is out of the question," another said.

"Their forces are vastly superior."

"We outnumber them three hundred to one!"

"They are experienced fighters. Sixty of us would die for each of theirs. We might drive them away, but it would cost us most of the hive and possibly our queen—"

The queen began weeping noisily again and had to be cleaned and comforted.

"Have we any alternatives?"

There was a small silence.

"Very well, then."

The terms of the relationship were copied out, at the wasps' direction, on small paper plaques embedded in propolis and wax around the hive. As paper and ink were new substances to the bees, they jostled and touched and tasted the bills until the paper fell to pieces. The wasps sent to oversee the installation did not take this kindly. Several civilians died before it was established that the bees could not read the Yiwei dialect.

Thereafter the hive's chemists were charged with compounding pheromones complex enough to encode the terms of the treaty. These were applied to the papers, so that both species could inspect them and comprehend the relationship between the two states.

Whereas the hive before the wasp infestation had been busy but content, the bees now lived in desperation. The natural terms of their lives were cut short by the need to gather enough honey for both the hive and the wasp nest. As they traveled farther and farther afield in search of nectar, they stopped singing. They danced their findings

grimly, without joy. The queen herself grew gaunt and thin from breeding replacements, and certain ministers who understood such matters began feeding royal jelly to the strongest larvae.

Meanwhile, the wasps grew sleek and strong. Cadres of scholars, cartographers, botanists, and soldiers were dispatched on the river in small floating nests caulked with beeswax and loaded with rations of honeycomb to chart the unknown lands to the south. Those who returned bore beautiful maps with towns and farms and alien populations of wasps carefully noted in blue and purple ink, and these, once studied by the foundress and her generals, were carefully filed away in the depths of the Great Library for their southern advance in the new year.

The bees adopted by the wasps were first trained to clerical tasks, but once it was determined that they could be taught to read and write, they were assigned to some of the reconnaissance missions. The brightest students, gifted at trigonometry and angles, were educated beside the cartographers themselves and proved valuable assistants. They learned not to see the thick green caterpillars led on silver chains, or the dead bees fed to the wasp brood. It was easier that way.

When the old queen died, they did not mourn.

By the sheerest of accidents, one of the bees trained as a cartographer's assistant was an anarchist. It might have been the stresses on the hive, or it might have been luck; wherever it came from, the mutation was viable. She tucked a number of her own eggs in beeswax and wasp paper among the pigeonholes of the library and fed the larvae their milk and bread in secret. To her sons in their capped silk cradles—and they were all sons—she whispered the precepts she had developed while calculating flight paths and azimuths, that there should be no queen and no state, and that, as in the wasp nest, the

males should labor and profit equally with the females. In their sleep and slow transformation they heard her teachings and instructions, and when they chewed their way out of their cells and out of the wasp nest, they made their way to the hive.

The damage to the nest was discovered, of course, but by then the anarchist was dead of old age. She had done impeccable work, her tutor sighed, looking over the filigree of her inscriptions, but the brilliant were subject to mental aberrations, were they not? He buried beneath grumblings and labors his fondness for her, which had become a grief to him and a political liability, and he never again took on any student from the hive who showed a glint of talent.

Though they had the bitter smell of the wasp nest in their hair, the anarchist's twenty sons were permitted to wander freely through the hive, as it was assumed that they were either spies or on official business. When the new queen emerged from her chamber, they joined unnoticed the other drones in the nuptial flight. Two succeeded in mating with her. Those who failed and survived spoke afterward in hushed tones of what had been done for the sake of the ideal. Before they died they took propolis and oak-apple ink and inscribed upon the lintels of the hive, in a shorthand they had developed, the story of the first anarchist and her twenty sons.

Anarchism being a heritable trait in bees, a number of the daughters of the new queen found themselves questioning the purpose of the monarchy. Two were taken by the wasps and taught to read and write. On one of their visits to the hive they spotted the history of their forefathers, and, being excellent scholars, soon figured out the translation.

They found their sisters in the hive who were unquiet in soul and whispered to them the strange knowledge they had learned among the wasps: astronomy, military strategy, the state of the world beyond

the farthest flights of the bees. Hitherto educated as dancers and architects, nurses and foragers, the bees were full of a new wonder, stranger even than the first day they flew from the hive and felt the sun on their backs.

"Govern us," they said to the two wasp-taught anarchists, but they refused.

"A perfect society needs no rulers," they said. "Knowledge and authority ought to be held in common. In order to imagine a new existence, we must free ourselves from the structures of both our failed government and the unjustifiable hegemony of the wasp nests. Hear what you can hear and learn what you can learn while we remain among them. But be ready."

It was the first summer in Yiwei without the immemorial hum of the cartographer wasps. In the orchards, though their skins split with sweetness, fallen fruit lay unmolested, and children played barefoot with impunity. One of the villagers' daughters, in her third year at an agricultural college, came home in the back of a pickup truck at the end of July. She thumped her single suitcase against the gate before opening it, to scatter the chickens, then raised the latch and swung the iron aside, and was immediately wrapped in a flying hug.

Once she disentangled herself from brother and parents and liberally distributed kisses, she listened to the news she'd missed: how the cows were dying from drinking stonecutters' dust in the streams; how grain prices were falling everywhere, despite the drought; and how her brother, little fool that he was, had torn down a wasp nest and received a faceful of red and white lumps for it. One of the most detailed wasp's maps had reached the capital, she was told, and a bureaucrat had arrived in a sleek black car. But because the wasps were all dead, he could report little more than a prank, a freak, or a miracle. There were no further inquiries.

Her brother produced for her inspection the brittle, boiled bodies of several wasps in a glass jar, along with one of the smaller maps. She tickled him until he surrendered his trophies, promised him a basket of peaches in return, and let herself be fed to tautness. Then, to her family's dismay, she wrote an urgent letter to the Academy of Sciences and packed a satchel with clothes and cash. If she could find one more nest of wasps, she said, it would make their fortune and her name. But it had to be done quickly.

In the morning, before the cockerels woke and while the sky was still purple, she hopped onto her old bicycle and rode down the dusty path.

Bees do not fly at night or lie to each other, but the anarchists had learned both from the wasps. On a warm, clear evening they left the hive at last, flying west in a small tight cloud. Around them swelled the voices of summer insects, strange and disquieting. Several miles west of the old hive and the wasp nest, in a lightning-scarred elm, the anarchists had built up a small stock of stolen honey sealed in wax and paper. They rested there for the night, in cells of clean white wax, and in the morning they arose to the building of their city.

The first business of the new colony was the laying of eggs, which a number of workers set to, and provisions for winter. One egg from the old queen, brought from the hive in an anarchist's jaws, was hatched and raised as a new mother. Uncrowned and unconcerned, she too laid mortar and wax, chewed wood to make paper, and fanned the storerooms with her wings.

The anarchists labored secretly but rapidly, drones alongside workers, because the copper taste of autumn was in the air. None had seen a winter before, but the memory of the species is subtle and long, and in their hearts, despite the summer sun, they felt an imminent darkness.

The flowers were fading in the fields. Every day the anarchists added to their coffers of warm gold and built their white walls higher. Every day the air grew a little crisper, the grass a little drier. They sang as they worked, sometimes ballads from the old hive, sometimes anthems of their own devising, and for a time they were happy. Too soon, the leaves turned flame colors and blew from the trees, and then there were no more flowers. The anarchists pressed down the lid on the last vat of honey and wondered what was coming.

Four miles away, at the first touch of cold, the wasps licked shut their paper doors and slept in a tight knot around the foundress. In both beehives, the bees huddled together, awake and watchful, warming themselves with the thrumming of their wings. The anarchists murmured comfort to each other.

"There will be more, after us. It will breed out again."

"We are only the beginning."

"There will be more."

Snow fell silently outside.

The snow was ankle-deep and the river iced over when the girl from Yiwei reached up into the empty branches of an oak tree and plucked down the paper castle of a nest. The wasps within, drowsy with cold, murmured but did not stir. In their barracks the soldiers dreamed of the unexplored south and battles in strange cities, among strange peoples, and scouts dreamed of the corpses of starved and frozen deer. The cartographers dreamed of the changes that winter would work on the landscape, the diverted creeks and dead trees they would have to note down. They did not feel the burlap bag that settled around them, nor the crunch of tires on the frozen road.

She had spent weeks tramping through the countryside, questioning beekeepers and villagers' children, peering up into trees and into hives, before she found the last wasps from Yiwei. Then she

had had to wait for winter and the anesthetizing cold. But now, back in the warmth of her own room, she broke open the soft pages of the nest and pushed aside the heaps of glistening wasps until she found the foundress herself, stumbling on uncertain legs.

When it thawed, she would breed new foundresses among the village's apricot trees. The letters she received indicated a great demand for them in the capital, particularly from army generals and the captains of scientific explorations. In years to come, the village of Yiwei would be known for its delicately inscribed maps, the legends almost too small to see, and not for its barley and oats, its velvet apricots and glassy pears.

In the spring, the old beehive awoke to find the wasps gone, like a nightmare that evaporates by day. It was difficult to believe, but when not the slightest scrap of wasp paper could be found, the whole hive sang with delight. Even the queen, who had been coached from the pupa on the details of her client state and the conditions by which she ruled, and who had felt, perhaps, more sympathy for the wasps than she should have, cleared her throat and trilled once or twice. If she did not sing so loudly or so joyously as the rest, only a few noticed, and the winter had been a hard one, anyhow.

The maps had vanished with the wasps. No more would be made. Those who had studied among the wasps began to draft memoranda and the first independent decrees of queen and council. To defend against future invasions, it was decided that a detachment of bees would fly the borders of their land and carry home reports of what they found.

It was on one of these patrols that a small hive was discovered in the fork of an elm tree. Bees lay dead and brittle around it, no identifiable queen among them. Not a trace of honey remained in the storehouse; the dark wax of its walls had been gnawed to rags.

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Even the brood cells had been scraped clean. But in the last intact hexagons they found, curled and capped in wax, scrawled on page after page, words of revolution. They read in silence.

Then—

“Write,” one said to the other, and she did.