

Whack-a-Rat

Madeleine Schwartz

The rats of Paris have presented their human neighbors with centuries of complex problems, and now face a controversial future.

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Illustration by Emmanuel Pierre

Reviewed:

Les Rats de Paris: Une brève histoire de l'infamie (1800–1939) [The Rats of Paris: A Brief History of Infamy (1800–1939)]

by Hécate Vergopoulos

Neuilly-lès-Dijon: Le Murmure, 91 pp., €9.00 (paper)

Les Rats sont entrés dans Paris [The Rats Have Entered Paris]

by Olivier Thomas

Paris: Vendémiaire, 214 pp., €22.00 (paper)

In June a Paris official made an announcement: the city would form a committee to look into the prospect of “cohabitating” with rats. For years Parisians Right Bank and Left have insisted that their city is being overtaken by rodents. Londoners complain that their rat population multiplied during the coronavirus lockdown, drawn to home-cooked meals and stuffed bird feeders. And in New York the building where Mayor Eric Adams lives—at least part of the time—has received two notices from the city’s sanitation department about rat infestations. Adams recently appointed a “rat czar” who vowed to “get those rats under control.”

Why does it feel like every city has fallen victim to a swarm of rats? They are clever creatures. Rats average sixteen inches, head to tail, but can squeeze through holes the size of a quarter. They can live anywhere: abandoned buildings, broken walls, car engines. They don’t need to see to get around—touch tells them where to go. Garbage or dog feces are enough to sustain them. One rat can have eighty-four descendants in a year.

Once among us they are bad roommates. Rats can sneak into attics and chew on cables, causing damage and setting off electrical fires. They destroy infrastructure. They ruin cars by sitting under the hood and eating the wiring. More worryingly, they can carry pathogens, including hepatitis and E. coli. Their fur houses fleas, which can be infected with a bacterium that can set off fever. Their urine can kill, too, through leptospirosis, an infection that can lead to meningitis and kidney failure.

For Anne Hidalgo, the mayor of Paris—a socialist who runs the city in an alliance with France’s Green and Communist parties—these matters are political: her opposition says that Paris has become rattier under her watch. In 2017 Hidalgo put an antirrat plan in place that involved placing antiburrow mesh and threatening fines for litterers. But politicians to her right say it’s not enough—the mayor should focus on killing rats.

In the Paris assembly last summer, a right-wing representative faced off against an animal rights activist from the Green party, who argued against stigmatizing the creatures. Other rodentphiles organized a protest this past spring to defend the animals. “Rats are sensitive, intelligent, playful, and empathetic beings,” a group called the Paris Animals Zoopolis Association said. Meanwhile the singer Pierre Perret wrote a song attacking Hidalgo for her “filthy” city, where “only the rats are happy.”

It takes a special kind of scientist to want to observe wild rats. Most ecologists “want to go to the mountains and go the jungles and go to the ocean,” Gregory Glass, a scientist who spent his career researching

rats in Baltimore, told me. “There aren’t that many people who will walk out in an alley in New York City at night and sit there and do studies.”

This may be part of why, although almost everyone has an opinion about rats, much about rat life remains obscure. Aude Lalis is a rodent expert and geneticist who runs Projet Armagedon, a newly launched initiative cosponsored by a number of scientific groups that seek to understand the city-dwelling rodents. “We realized that we knew very little even about the animals around us, starting with the rat,” she told me.

Lalis works out of the National Museum of Natural History in Paris, along a sprawling set of buildings on Allée des Crapauds (Toad Lane). Her office is located among the museum’s rodent collections. They sit in long rows of wardrobes, lying in trays, stuffed with straw, their eyes removed. These rats came from around the world, often from France’s former colonies, especially those in West Africa. The museum also coordinates with customs agents to pick up rat pelts that are part of the illegal fur trade. The collections are considered French national patrimony, just like the art in the Louvre, Lalis says. The museum, which is chronically underfunded, only has one taxidermist. It relies on volunteers to catalog the collections. One of them is Lalis’s mother.

Unlike rodents from Cameroon or Ivory Coast, the Paris rat is a relatively recent subject for the museum staff. The city’s rat is a *Rattus norvegicus*, also known as the brown rat, wharf rat, or sewer rat. Technically it is an invasive species native to Asia. No one knows when they arrived in France; Lalis says there are mentions of them in texts from the sixteenth century.

Compared to black rats, *Rattus rattus*, which tend to live in trees, brown rats like to burrow into the ground, where they can live in peace. Just how dangerous they are is an open question. Projet Armagedon started when Lalis’s team was asked to investigate the possible presence of the black rat in Paris. Unlike the brown rat, the black rat is known to have carried plague through fleas on its body. Its presence would be worrisome. “So yes, there’s an issue here, a bit of a public health issue,” said Lalis with characteristic equanimity. (It turns out that there are no known black rats in Paris, only very dark brown ones.)

Lalis, an evolutionary biologist who has studied rodent-borne illnesses in Africa, wanted to know what the rats were really like. What happens in their burrows? How far do they travel across the city? Do they cross the Seine? Indicators of the size of rat populations are unreliable, she has argued. Although several cities reported a large increase in rats during the coronavirus lockdowns, she believes it may well be that people bored at home took new notice of their undesirable neighbors.

The Projet Armagedon members work out of parks. Last fall they were in a garden, setting traps for the rats and collecting them in the early hours. Benoît Pisanu, an ecologist at the city's Museum of Natural History, has studied rodents around the world. The morning I met him, he was wearing head-to-toe purple and smoking a hand-rolled cigarette. He brought me to what he called "the office," a small corner of brush under a walkway. He was joined by Corentin Lambert-Grimpard and Nadia Hubert, two of his students, as well as a colleague from the Pasteur Institute.

The project members were collecting traps around the park to see if any rats had taken their bait. They had some luck with kebab and fries, especially when they added lots of mayonnaise. Some traps were equipped with cameras that filmed the rats. Others held the rats they trapped to be tracked, swabbed, and released. Scientists back at Pasteur would use the samples to investigate the link between rodents and disease. Other rats would be less lucky; they faced autopsies.

Pisanu and his colleagues had secured two rats and were getting ready to study them. Pisanu took one of the traps, put it in a white trash bag, and released the rat from the cage. "I'm taking the head and I'm trying not to squeeze him," he said. "The idiot! He's rolling in a ball. He's trying to get me with his feet."

"We're always waiting for the moment when he'll take out his hand and it will just be an elbow," Lambert-Grimpard said.

Hand and rat emerged intact. The rat was female, with enlarged nipples. Maybe she had recently given birth; maybe she was pregnant. Crouched in a pile of dry leaves, Pisanu and Lambert-Grimpard worked together to tag her. Lambert-Grimpard, who wore a blue long-sleeved shirt, his long hair held up in a bun, put a gloved finger in the rat's mouth. She nibbled. He snipped off a tiny bit of her ear, which he put in a vial. "Let's go quickly. She's stressed," Pisanu said. The team swabbed the rat's mouth and butt before setting her free.

Not everyone agrees with this gentle, scientific approach. In the seventeenth arrondissement, in the northwest of the city, the district mayor, Geoffroy Boulard, has made the fight against rats one of his priorities. To Boulard, from the right-wing Les Républicains party, Paris's rat problem stems from bad leadership. He considers Hidalgo the "prisoner of a radical animal rights ideology."

For extermination inspiration, he traveled to New York, where he met with Adams, then the Brooklyn borough president. In New York Boulard watched exterminators kill rats by releasing dry ice into burrows to suffocate them with carbon dioxide. He decided to import the city's tactics to Paris and created an app where residents could report rat sightings. Now he works with a citizens' brigade with the name Rats le Bol, a pun that translates loosely as "fed up."

The brigade was hard at work on a wintry Friday afternoon, planting 130 pounds of dry ice in a patchwork of rat burrows by a public housing complex. Jacques d'Allemagne, one of the leaders of the brigade, is a self-described investor and theater owner who catches animals as a hobby. He estimated that there were sixty to eighty rats in the burrows. "We're scared," said a woman from the neighboring building, "because when we go to the garbage cans there are twenty, thirty of them coming out everywhere."

A reporter for a local paper had come to film the intervention with a middle school intern who wore a black balaclava under the hood of his black puffer jacket, his face barely visible in the cold. The journalist seemed afraid; she asked if the rats would attack her. "If they attack, we will protect you," said d'Allemagne.

D'Allemagne and the brigade's cofounder, Sylvain Clama, moved methodically, opening foam boxes of dry ice and putting them at the entrances of the burrows. They checked to see where the smoke from the ice emerged from the cold ground. This, said Clama, indicated the burrow's other end. He and d'Allemagne took turns covering the entrances to trap the rats and suffocate them. One rat came out and ran back underground. A single intervention, d'Allemagne estimates, kills 95 percent of the rats. He claims the method works: there's been a reduction of 70 percent in rat sightings on the app.

"It's not toxic. It's environmental," Clama said. He took a piece of dry ice and gave it a lick, in a dramatic gesture I didn't know what to make of. "The rats will quietly fall asleep underground," he said. "They should live down there, not up here." As the group finished up, he took a shovel and proudly retrieved the result of his work: a dead rat that had been lying on a pile of dirt. He held it up like a trophy.

Rats have not always provoked this kind of reaction. In her book *Les Rats de Paris*, Hécate Vergopoulos, a lecturer at the Sorbonne, argues that they have long been part of the fabric of the city. (Vergopoulos has been working with the Armageddon team to study contemporary feelings about rats.) In hard times, Parisians have even eaten them. During the siege of the city in 1870, at the end of the Franco-Prussian War, a rat catcher later recalled:

I sold rats for three francs at the Richard-Lucas house, an English tavern on rue Boissy d'Anglas. On the menu: horse, dog, cat, guinea pig, and rat. When the customer asked for rat, we gave him rat; when he asked for guinea pig, we gave him rat again.

Over the course of the nineteenth century, Paris modernized; the visionary city planner Baron Georges-Eugène Haussmann razed tiny streets and transformed them into large boulevards. A new metro tunneled through the city. Once full of animals, Paris emptied of much

nonhuman life. Butchers and markets moved out of the center. Unless they were there to serve humans, Vergopoulos writes, animals in the city were signs of “urban malfunction.”

At the same time, partly in response to illnesses like cholera, the denizens of Paris turned their attentions to public health. A civil servant named Eugène Poubelle ordered the use of trashcans, which in French bear his name. (Previously, ragpickers would roam the streets.) The city embarked on a large-scale sewer construction program. In the process, Vergopoulos writes, “the modern city gave rats the most sumptuous lodgings and the most gourmet tableware,” a real-life *Ratatouille*.

In a sense these changes made encounters between rats and humans rarer. The animals moved underground, where they could avoid humans. When they did pop out, it felt unexpected, even shocking. Their presence titillated and upset. In “ratodromes” across France, rats and dogs, or sometimes even rats and men, fought in front of large crowds. On the Avenue d’Eylau in the sixteenth arrondissement, a showman opened an arena framed by mirrors to pit dogs against rats; five hundred spectators could come at a time. Newspapers reported rat sightings, including one horror story in which a rat allegedly ate a baby’s hand and part of his face.

At the turn of the twentieth century scientists discovered that rats could carry the plague. As the journalist Olivier Thomas writes in *Les Rats sont entrés dans Paris* (The Rats Have Entered Paris), the war between humans and rats entered a new phase. Studying rats and how to get rid of them became a central medical concern. (The medical professor Adrien Proust—Marcel’s father—wrote a paper in 1902 studying how sailors dealt with shipboard rodents.) In 1920, as cases of the plague spread in Paris, the city allocated money for anyone who presented a dead rat; 500,935 rats were killed between September 1920 and July 1921. Six months later the city’s position changed: it turned out people had started raising rats for the bounty. But memories in politics and news are short, and the ratcatchers were soon at it again. In 1934, inspired by similar endeavors in Germany, Italy, and Belgium, the city declared a “rat week” that claimed 38,000 furry lives.

Both Thomas and Vergopoulos see antirat sentiment as a displaced answer to larger questions about city planning. “Like abandoned trash or graffiti, the rat belongs to the visible, subjective marks of the urban dirtiness,” Thomas writes. “If people don’t see it, the rat doesn’t ‘exist’ anymore, even if in reality it has simply hidden itself in the basement.”

For Vergopoulos, the rats became, over the course of Paris’s history, symbols of all that humans could not control: “Paris was, in broad terms, a clean and orderly city.... Yet agents of urban irregularity threatened to disrupt the environment at every turn. These agents

were the rats of the capital.” We dislike rats, she suggests, not only for what they are but for what they represent: dirt, poverty, every disagreeable aspect of city life.

To carry out its study, Projet Armagedon made an agreement with the City of Paris in which it conceded to certain conditions: it couldn’t publicly discuss hard numbers about rats or where in the city it had carried out its experiments. (As a result, while Rats le Bol disseminates as much information about rat sightings as possible, I cannot tell you where exactly I followed Pisanu, nor how many traps his team laid.) Still, Lalis found that journalists would call her up to provoke her for soundbites. When we talked in November, she said that she no longer felt like she could talk about the project publicly.

Despite the inflamed reaction, the researchers found themselves with fairly uncontroversial findings. Projet Armagedon is still ongoing, but early discoveries seem to indicate that rats mostly avoid humans.

“From our first observations, rats stay very close to their burrows,” Lalis said. A number of factors have created a perception that Paris’s rats are spreading through the city. Clear trash bags, hailed as a way to thwart terrorist attacks by revealing potential bombs, are vulnerable to rodents, which can easily chew through them for a meal. The city’s sewers have been cleaned out, pushing rats aboveground. Infrastructure projects disturb the populations, as does the occasional flooding of the Seine. “All of this means that the rats have risen to the surface,” Lalis said.

The interconnectedness of environment and behavior, Pisanu said, is part of why dealing with rats is so delicate. It can be hard to extract them from the ecosystems of the cities in which they live. Rat control, he noted, can have unintended side effects. Chemicals used to kill rats can harm nearby animals or pollute the water. One study on American bald eagles found rat poison in 83 percent of the dead birds. To fully get rid of rats, Pisanu told me, you would have to have a very dismal city: no more soil, no more parks. Bringing back greenery and nature to cities means living with the animal world, even in undesirable forms.

Other cities have found that simply focusing on eliminating rats did very little to reduce their numbers. In Canada, the Vancouver Rat Project determined that launching a “war on rats” rarely gets cities the outcomes they hope for. In some cases, eliminating rats made the populations that endured sicker and so possibly more dangerous to humans.

New York City’s rat enforcers have encountered similar setbacks. In 2017, announcing the \$32 million plan that involved killing rodents with dry ice, former mayor Bill de Blasio called for “more rat corpses.” But by 2019 rat sightings were already back up, and recently rats have reentered the mayoral agenda. “I’ve made it clear I hate rats—and

we're gonna kill some rats," Adams said in November, while signing new trash pickup legislation. "New York may be famous for the Pizza Rat," Adams's rat czar, Kathleen Corradi, said, "but rats, and the conditions that help them thrive will no longer be tolerated." She promised a science-based approach to "sanitation, health, housing, and economic justice."

Adams himself has taken a different tack. At the Inner Circle charity show in April, he announced a "new technique" for fixing the problem. He "revealed a massive hammer aptly named BAH—or 'big ass hammer,'" the *New York Post* recounted. Then he and an actress wearing a rat costume "bashed the 'rats'—which appeared to be actually eggs—with the mallet onstage."

Will his administration's war on rats have any effect? Most of the problems that lead to urban rats are ones our species has created: bad sanitation, poorly constructed buildings. Studies dating as far back as 1909 show that rat populations increase with garbage and corroding infrastructure. As long as food and shelter are unavailable, the rat population stays manageable, but rats return as soon either reappears. Catching and killing them does little in the long term.

Kaylee Byers, a self-proclaimed "rat detective" who has worked on the Vancouver Rat Project, told me that rat populations are usually symptomatic of another problem: "You're getting lots of complaints about rats from one neighborhood. And you go and you chat with people and you find out, well, actually, it's because waste management has been stalled for like two weeks." Cities, she suggested, should spend more money thinking about things like sanitation pickup and housing rights. Rat management is "integrated, or could be integrated, within multiple levels of the city, from housing to waste management, or urban planning, and green spaces. And yet we come at it with a very simple response. Trap, kill."

Rats are, in this sense, intertwined with the problems humans cause. As one scholar wrote in the eighteenth century, "Rats provide the historical genre the most beautiful subject in the world; they have to do with everything, everything has to do with them."

Deep into my rat research, I went to an event hosted by the Library of the Hôtel de Ville, at a large glass-covered gallery that looked like an oversized version of a gentleman scholar's den. The library had prepared for the event by pasting little paper rats along a long winding staircase that brought visitors up to a two-story reading room with skylights. A librarian holding a small stuffed rat introduced the evening's main event: a conversation with Vergopoulos and the historian Emmanuelle Cohen, who runs the Paris Sewer Museum. I had managed to persuade a friend to join. She had hesitated; she was afraid of rats.

Vergopoulos went over the history of the city's rat population. Cohen recalled conversations with sewer workers about the extra money they used to earn killing rats. The discussion was scientific and serene. Then questions began. "I would like to know if rats' very bad reputation is justified," asked one woman. "If the sewers are their paradise, why they are so happy to leave them in the evening?" asked another woman. "And not only at night!" offered another member of the audience. A woman asked how many rats there are in Paris. "It's impossible to say," replied Vergopoulos. "There are those...who say that there are more rats than people, that there are twice as many rats as people, three times as many rats. We don't know."

A man raised his hand: "I would like to know if the City of Paris has a policy toward the rat population. It seems that there are attacks by rats in parks. Is this a danger for children? Is there a policy or not?" When the answer did not satisfy him, he got up and left. Vergopoulos and Cohen answered the questions calmly, but the audience did not seem to get the answers it sought.

Later that night, the friend who had accompanied me sent a text message. "That talk has jinxed me," she said. On her way home, she had seen a rat.

Madeleine Schwartz

Madeleine Schwartz is the Editor of *The Dial* and a regular contributor to *The New York Review*. She is based in Paris. (August 2023)