In *The Great Hanoi Rat Hunt: Empire, Disease, and Modernity in French Colonial Vietnam* (Oxford University Press 2018), historian Michael G. Vann tells the darkly humorous story of how the French colonial state unsuccessfully attempted to impose its vision of modernity upon the colonial city of Hanoi, Vietnam, focussing on a long-forgotten episode that took place in 1902, in the context of the third global plague pandemic. A hybrid scholarly volume and graphic novel—with one hundred pages in the comic format beautifully drawn by artist Liz Clarke—the book offers a praiseworthy case study in the history of imperialism, highlighting the racialised economic inequalities of empire, colonisation as a form of modernisation, and industrial capitalism’s creation of a radical power differential between ‘the West and the rest’. Unforeseen to the author at the time of writing, it now also offers valuable parallels and lessons regarding the current Covid-19 pandemic and its fallout in terms of disease control, surging nationalism, and anti-Asian racism.

Michael Vann: I originally published a journal article on Hanoi’s rats and the Frenchmen who wanted to kill them in 2003. I assumed a few dozen colleagues read the piece and kind of forgot about it until I got a phone call from the producers of *Freakonomics* in 2012. They asked me if I would come on the show to speak about my research as it illustrated the principle of ‘perverse incentives’, a concept totally new to me at the time! After talking with them and doing the interview I found my article was being cited by quite a few economists and business journalists. I then decided to expand the piece into a...
monograph. But as I revived my rat research, I wanted to reach a larger audience than a traditional academic monograph and I remembered that Oxford had this series that takes unusual and quirky historical research and puts it into comic form. I knew my project would be a great fit as it is a pretty quirky story.

But there were other reasons for publishing *The Great Hanoi Rat Hunt* as a graphic history. The book engages urban history, the history of disease, and world historical patterns of imperialism, economics, and migration. These are all topics that really need illustrations. Most editors at academic presses cringe when authors ask to include large numbers of images, but graphic histories are based on images. Working with the amazing artist Liz Clarke, I designed maps showing the spread of disease, Chinese migration, and colonial expansion. We also developed pages that could contrast the Vietnamese sections of Hanoi with the new French neighbourhoods. As sewers play an important role in the story, we also illustrated them and created pages with cross sections’ of buildings to show the urban infrastructure. Perhaps most importantly, Liz Clarke was able to create the feel of the city. Her art is really just gorgeous.

**IF:** Did you face any pushback or criticism from other historians?

**MV:** Yes, I did get a few raised eyebrows and some sceptical remarks. But, hey, I’m a full professor! What’s the point of tenure if you aren’t taking a few risks? But more seriously, I think anyone who reads the book will see that the historical research that went into it is serious and understand that *The Great Hanoi Rat Hunt* could have easily been a traditional academic monograph. Fortunately, the vast majority of the responses have been very positive, including rave reviews in several leading journals.

**IF:** In the preface, you describe your book as a ‘fascinating case study that illustrates the ironic and tragic ways in which modernisation projects can have unintended consequences’ (xiv)’ How did you come across this unusual history?

**MV:** What I have come to call the ‘Great Hanoi Rat Hunt’ was a hilarious but very insightful bit of history I discovered in the French colonial archives in Aix-en-Provence, France. My encounter with it was entirely by chance. While doing my doctoral research on the urban history of Hanoi under French colonial rule in the mid-1990s, I lived in Aix. On the one hand, I’m lucky to have my main archival collection located in such a beautiful and fun town. One the other hand, it is really depressing to walk past the charming Cours Mirabeau with its cafés and past the lovely fountains and parks that fill Aix to go sit quietly inside the Centre des Archives Section d’Outre-Mer.
Far too many afternoons I found myself not focussing on the archival documents but staring out the window at the beautiful Provençal sunlight. In order to keep myself entertained—and in the archives—on lovely spring days I would call up strange or humorous-sounding files. I would save these as a little ‘pick me up’, an amusing diversion to keep me going.

One day I opened a file called ‘Destruction of Animals in the City’, which I chose because of its morbid title. This dossier was unlike anything else I found in the archives. It contained about one hundred identical forms listing the numbers of rats killed in the first and second arrondissements (districts) of Hanoi. The dates started in April 1902 and finished in July. In the first few days the files reported a few hundred rats killed, but the numbers quickly jumped into the thousands. It was not uncommon to see between 7,000 and 14,000 rats killed in a single day. On the worst day for Hanoi’s rodent residents, over 20,000 rats were reported killed. Yet, after slaughtering hundreds of thousands of rats, the death toll dropped. One day it was a few thousand, the next day a few hundred, then a few dozen. On the last page of the dossier it reported no rats killed. And there was nothing in the dossier to explain any of this information. At the time, the spring of 1995, I did not know what this all meant, but I decided I would try to solve this mystery. I had a historian’s hunch that this event could serve as a micro-history to explore the larger issues at play in colonial Vietnam. This led to me to over two decades of research on this campaign to kill Hanoi’s rats. After combing through the colonial archives in Aix, visiting various collections in Paris, and then a series of research trips to Hanoi between 1997 and 2014, I was able to piece together the story, a story which revealed the important power relationships of this colonial city.

**IF: What did you find out?**

**MV:** The short version of the Great Hanoi Rat Hunt is as follows. When the French seized the city in the 1880s, they immediately set about rebuilding it. Pagodas and temples were torn down to make space for a new French city of straight and wide avenues, home to large office buildings for the new colonial administration and spacious villas for the newly arrived colonists. In sharp contrast to the French Quarter’s European ambiance, the so-called Old Quarter, a neighbourhood of 36 streets, was preserved as the domain of the city’s Vietnamese and Chinese communities. There, roughly 90 percent of Hanoi’s population was crammed into one-third of its surface area. The French Quarter and an administrative and military district to the west made up the other two-thirds of the city but only housed some 10 percent of its residents. The result was a classic...
colonial dual city. Following the imperialist logic of the *Mission Civilisatrice*—the French analogue of the White Man's Burden—the colonial authorities justified their urban renovation as essential to combatting disease. In the 1890s, the French put in state-of-the-art sewers and a freshwater system. However, colonial Hanoi was a classic dual city with a racial divide between white and Asian access to the benefits of the city’s new urban infrastructure. While French villas had running water and flush toilets, most of the Vietnamese and Chinese residents of the Old Quarter had to collect water from public fountains and pre-dawn night-soil collectors removed human waste in buckets. This part of the city really only had gutter drains, not proper sewers.

While these moves helped fight cholera, a disease brought to Hanoi by the French expeditionary forces coming from Algeria, the new sewers created a different health crisis. At the same time that the French were rebuilding Hanoi, a Bubonic Plague epidemic in Yunnan made its way to Canton and Hong Kong. From there it struck British India. American troops brought it to Manila when they invaded the Philippines in the Spanish-American War. It struck Honolulu, leading to the burning down of Chinatown, before hitting San Francisco, where municipal authorities quarantined that Chinatown and discussed a ‘Honolulu Solution’. French researchers such as Alexandre Yersin in Hong Kong and Paul-Louis Simond in Bombay made crucial discoveries about rat fleas being the vector in the spread of the plague bacillus. As fate would have it, Governor-General of French Indochina Paul Doumer ordered Yersin to Hanoi in 1902 to found a medical school. Yersin and other medical experts in the city were concerned about the plague arriving from southern China on the newly established steamship lines and the railway to Yunnan.

The situation became more serious when French residents reported an infestation of rats in the French Quarter. It seems that brown rats arrived on ships and trains from China. This invasive species discovered that the new sewers were an ideal ecosystem and quickly colonised the colonisers’ urban infrastructure. The situation was so bad that there were reports of rats climbing up the outflow pipes and then out of toilets in French homes. This was unpleasant enough, but the realisation that these rats could be carrying plague threw the public health officials into a panic. Using their new knowledge, the colonial public health officials began a campaign of rat eradication. I guess we could call it e-rat-ication.
IF: Unable to convince the municipal workers to go down into the sewers, in April 1902 the colonial authorities announced a bounty on every dead rat. Where did it go wrong?

MV: Right, problems began almost immediately. First, the Vietnamese sewer workers refused the unpleasant task of hunting rats in sewers and went out on strike. When the city officials put out a bounty on rats, paying a few cents for each rat tail delivered to the police station, hundreds of thousands of rats seemed to be killed. However, after three months of this programme they discovered the local community was farming rats, cutting off their tails to collect the bounty, and then letting them go free to breed more rats. They also found a smuggling network bringing rats and other rodents from all over Tonkin to the city of Hanoi. In the end, the French authorities realised that very intense and invasive public health measures such as quarantining the sick in lazarets, burning the belongings and often homes of the sick, and seizing corpses were more effective. However, these measures angered the local population.

IF: Why is rediscovering this episode so important today? What relevance does it have to our current pandemic?

MV: The relevance of this case study in the Covid-19 era is threefold. First, large cities and industrialised transportation will lead to disease outbreaks. Our modern infrastructure creates the potential for epidemics. We see this with the growth of Chinese cities and the way in which they push into wetlands that are a seasonal home to migratory birds. Many of these birds encounter influenza in Siberian ponds and lakes in the summer and bring it back to central and southern China and Southeast Asia in the fall. As many industrial poultry production centres are near these wetlands, it is easy for zoonotic diseases like influenza to jump from animal hosts into the human population. Dramatic breakthroughs in transportation—be it the Pax Mongolica on the Silk Roads, cholera on nineteenth-century British shipping, or low-cost air travel today—allow for such diseases to spread through human communities around the world, becoming a pandemic. The Bubonic Plague, SARS, and Covid-19 are all zoonotic diseases that arose from human contact with animals.

Second, public health measures are always disruptive and unpopular. The people of Hanoi hated seeing their belongings and homes destroyed and their loved ones, be they ill or deceased, taken by the French authorities. Today we see cantankerous Americans resisting sound public health measures such as wearing masks as a threat to their freedom. But let me say that I have much more sympathy for colonial
IF: Rats are one of the main characters in your book. You explain that while these animals are often reviled and associated with filth, they can be considered the ‘totem animal of modernity’ and a ‘symbol of the era of imperialism’ at the dawn of the twentieth century (80). How is that the case? And how does the negative image of the rat during that period relate to that of the much-reviled bat today?

MV: Rat and human histories are closely intertwined. Any discussion of the Anthropocene should consider the symbiotic relationship between rats and people. Rats, especially brown rats, made use of the global changes in human infrastructure at the turn of the twentieth century. If industrialisation changed the world for human beings, it also created new opportunities for their furry neighbours. Expanding cities and long-distance trade networks offered rats new habitats and new ways to travel distances far greater than they could with just their stubby little legs. As with humans, these technological changes resulted in a demographic explosion. I'm not sure if we breed like rats or they breed like people. It is impossible to know the exact rat population, but scientific estimates indicate that these rodents currently outnumber human beings by several billion. I find it fascinating that as humans went through an unprecedented population boom from 1800 to the present, rats, which most people consider a pest, increased in number as a direct consequence of human actions.

Hanoi during the French colonial occupation (1884–1954) is an excellent case study for illustrating the relationship between humankind and its rodent neighbours; maybe roommates is a better term. Hanoi’s rat problem frustrated French colonial administrators, who believed that Western modernity with its emphasis on science would solve supposedly backwards Asia’s alleged health problems. Ironically, with European imperialism facilitating the spread of the plague. The French created an entirely new public health crisis in the streets of Hanoi, with rats playing a central role. Just as Europeans invaded and colonised Southeast Asia, brown rats that stowed away on Western steamships and railcars also invaded and colonised the region, begging the question of who the real invasive species was. When crafting *The Great Hanoi Rat Hunt* as a graphic
history, I took inspiration from Art Siegelman’s *Maus*. While I refused to anthropomorphise the rats, they serve as a metaphor not only for French colonisation but also Vietnamese resistance.

As for bats, well I won’t make a *Dark Knight* joke, but they can also play an important metaphoric role in helping us understand humanity’s relationship with the animal world during the Anthropocene. My father was an immunologist at the University of Hawai’i medical school. He was also a very adventurous traveller and quite the gourmand. When I first started going to Southeast Asia in 1990, he told me to try every food I could find except for bats and monkeys as they were potential disease vectors. He also warned me not to explore caves with bat colonies and not to get bit by monkeys. In my 35 years in Southeast Asia, aside from an unfortunate encounter with a flying fox inside our villa in Yogyakarta, I’ve kept my bat exposure to a minimum, but I have been bitten by three monkeys. While the origins of Covid-19 remain a bit of a mystery, it is likely a zoonotic disease that jumped from an animal reservoir into the human population. Thus, yes, there are some clear analogies to rats and their fleas spreading the plague over a century ago. As we are coming close to eight billion people on this small planet, we are increasingly encroaching on animal habitats. While this is disastrous for our fellow species—Richard Leakey warned us in the 1990s that we are entering into a sixth
mass extinction event—it is dangerous for us as well, as seen in the increase in zoonotic disease events. Mike Davis has termed the threat of pandemic diseases coming from our pressures on the natural world ‘the monster at the door’. While bats and rats are kind of scary to most of us, we should be truly terrified of the pathogenic threats they might be carrying.

IF: Racism, and in particular Sinophobia, is a central topic in your book. Sun Yat-sen makes a brief appearance in your story, as he was in Hanoi for most of 1902 and into 1903, trying to set up a chapter of his Revive China Society. When you portray him you have two anonymous French colonists—a recurrent presence throughout the book—commenting: ‘Sure, he can wear a suit but I don’t trust him …’ ‘We all know these people are the source of disease in Asia’ (65). On the following page, your alter ego says: ‘While the colonial troop movements of the French invasion and pacification campaigns were a primary culprit in moving diseases around Asia and around the world, it was more politically expedient to blame vulnerable Chinese coolies.’ These words are extraordinarily relevant today—for instance, I remember how some scholars, without any evidence whatsoever, blamed the arrival of the virus in north Italy on the influx of workers from China. In the book you also describe how, when the disease appeared in Hawaii in 1900, the white supremacist government blamed the Chinese community, sealed off Chinatown, and set fire to the homes of the infected, eventually burning down the entire neighbourhood, as they could not control the flames (75). How did this Chinese association with disease come to be uncritically accepted at that time and, in your opinion, why is it that this discourse remains so strong to this day?

MV: I’m very happy you picked up on that. I tried to do a number of things with *The Great Hanoi Rat Hunt*; the graphic format is very well suited for including sub-plots and references. I find Sinophobia to be one of the great cultural forces of the past two centuries and it is a force alive and well today.

It is more than an understatement to note that the West has a very complicated relationship with China. In this book, I noted that it was the wealth of China that lured France into Asia. Vietnam, Cambodia, and Laos were seized in several stages as the French looked for a backdoor to China, specifically a river route to Yunnan, which was imagined to be an El Dorado with silk instead of gold. As fate would have it, by the time the French established a rail link from Yunnan to Hanoi to the port of Haiphong, the demand for silk had waned. But Yunnan was also a source of opium production and under the leadership of Governor-General Paul Doumer (1897–1902), French Indochina played a crucial role in supplying opium to the French Concession in Shanghai. Doumer essentially created a narco-state and put the colony’s previously precarious finances firmly in the black. However, all this was predicated upon the French empire’s economic interdependence with China. Chinese goods, Chinese merchants, and Chinese labourers were really the life blood of the French Indochinese Federation. The Gallic
conquerors knew this and hated it. Some mused that neither they nor the Vietnamese ran the colony. Others called the Chinese ‘the Jews of Asia’—and in the era of the Dreyfus Affair this was no compliment. They were also very nervous about Chinese revolutionaries, be it Sun Yat-sen’s Guomindang or the Chinese Communist Party after 1921. When I found out Sun was in Hanoi during the rat hunt, I had to include him in the story, if only because we are both graduates of ‘Iolani high school in Honolulu, Hawai‘i.

This created a generalised anxiety about China and the Chinese. When French medical experts and public health authorities realised that Yunnan was the source of the plague epidemic, vilifying China and Chinese bodies came quite naturally. This Sinophobia spread like a virus to the American empire, with Manila, Honolulu, and San Francisco all seeing various manifestations of anti-Chinese sentiments, policies, and violence. The burning of Chinatown in my hometown is the most shocking example, but San Francisco’s Chinatown was quarantined, and city leaders discussed a ‘Honolulu Solution’.

IF: Your story takes place during the third global plague pandemic. The disease started in Yunnan in 1855 and went on to kill over 80,000 people in Guangzhou without raising much alarm abroad. Global panic started only in 1895, when people in British Hong Kong began to get sick. It was then, as you write, that ‘journalists used telegraphs and trans-oceanic cables to report the panicked flight of tens of thousands of Chinese. As British authorities scrambled to enact public health measures and reassure the community, newspapers published photographs of workers hauling bodies through empty streets’ (73). At that point, you say that the race to investigate and find a solution for the plague ‘took on aspects of nationalist competition’ (74). How did that competition play out then and what lessons can we draw from that experience for the current pandemic?

MV: Keep in mind that this was the era of intense nationalism, a toxic nationalism that had already fuelled the absurd and blood-soaked expansion of the colonial empires and would soon lead to the horrors of the First World War. Everything, even scientific research, became infected (pardon the pun) with nationalist rivalries. Patrick Deville covers this in his fictionalised biography of Alexandre Yersin, Plague and Cholera (2012). In Europe, Louis Pasteur and Robert Koch and their students competed with each other. It is no coincidence that one was French and the other German. Nationalist tensions turned scientific competition into something much more serious. That both men founded institutes that trained scores of the world’s leading researchers meant that Franco-German tensions could be exported to the far corners of the world and kept alive in proxy-wars.
We see this in the response to the plague in Hong Kong. As the disease ravaged the city, the French government and the Institut Pasteur sent Alexandre Yersin to join the international team of plague fighters. However, the British authorities in Hong Kong gave Yersin a very frosty welcome and denied him access to their laboratory facilities. Yersin built his own wood and thatch hut and resorted to bribing guards at the morgue for samples from corpses. His ill-treatment can be chalked up to Anglo-French rivalries. That Yersin, Swiss by birth but a naturalised French citizen, had studied with Koch in Germany only to take a position with the Pasteurians aggravated the situation. As fate would have it, the British had brought in a Japanese researcher, Kitasato Shibasaburō, who just happened to have been a Koch protégé who studied in Berlin when Yersin was there. Clearly there was no love lost between these two men. But the truly despicable treatment Yersin received should be understood as part of this international rivalry (homophobia directed at Yersin likely played a role as well). When Yersin discovered the plague bacillus, the British authorities dismissed his findings and promoted Kitasato as the hero of the day. We now know that Yersin was right, but it was not until after his death that the bacteria was named *Yersinia pestis* in his honour. This rivalry continued as Yersin and Paul-Louis Simond studied the plague in Bombay and Karachi. In 1898 Simond identified the role rats and their fleas play in the propagation of the disease. That a French researcher working in the Raj bested British scientists again was embarrassing and led to the English being slow to recognise these important findings.

A hundred and twenty years later and we still have similar issues regarding nationalism and scientific research. In March 2020 journalists confirmed that the Trump administration offered large sums of money to Tübingen-based CureVac to make sure any potential vaccine would only go to the United States. The German government and public opinion were incensed at the move, with one member of parliament declaring that capitalism must have limitations. In July, America, Canada, and the United Kingdom accused China of vaccine espionage. In a stunning move, Trump ordered the closure of Houston’s Chinese Consulate. Setting aside Trump’s odious Sinophobia and his deliberately provocative use of the term ‘China Virus’, some of us wondered what exactly was the problem. What was China going to do? Give the vaccine away? Sell it at a discounted price and hurt the profit margins of the American pharmaceutical industry? We are a long way from Jonas Salk, who dismissed patenting and profiting from his polio vaccine with the famous words: ‘There is no patent. Could you patent the sun?’
IF: Another interesting aspect of your book is the use of numbers and statistics. How does this relate to the current crisis?

MV: The French colonial archives are full of reports filled with statistics, all of which should be taken with a grain of salt. On the one hand, Peter Rabinow and others have shown that the French colonial state saw itself as a modern technocratic administration. These bureaucrats, inspired by France’s nineteenth-century engineering triumphs such as the Suez Canal and the Eiffel Tower, sought to become social engineers in the colonies. Urbanists and public health officials saw themselves as manifesting la Mission Civilisatrice. On the other hand, there is the problem of the numbers. Technocrats require data, but the data were unreliable. Everything from the city’s population to the number of plague cases to the daily count of dead rats was really a best guess. Thus, while the French state presented itself as in control, the reality was that the colony was a Potemkinville.

And again, we see similar things happening today. Without reliable systems of widespread testing for both infections and antibodies, epidemiologists are flying blind. We don’t know who has the virus and where the next outbreak will be. Nonetheless, Trump gives interviews and press conferences where he points to charts and cites various statistics. But as with the French colonial bureaucrats, these data are just not reliable.

IF: One last question. In commenting on the aggressive public health measures adopted by the authorities, including forced field-testing of vaccinations on local people, the two anonymous colonists have this conversation: ‘I guess the interests of public health override all other concerns.’ ‘Yes, and fortunately here in the colonies we don’t really have to take public opinion into account. Try to get this done back home in the chaos of the Third Republic. These experts could never overcome the various obstacles. But here in the empire, we can see the modern state in action. Maybe at some point in the future we can bring these techniques of social control back to France’ (93). This fictitious discussion raises some fundamental questions of biopolitics that have gained even more currency these days. Can you tell us more about the debate that took place back then and the lessons we can draw from it for today?

MV: In the French empire, a large number of technocrats found an ideal situation to engage in widespread social experiments. Again, much of this was in the areas of urbanism and public health. They were inspired by the work of figures like Georges-Eugène Haussmann, who served as prefect of Seine (1853–70) under Emperor Napoleon III and completely rebuilt much of Paris. Not everyone was happy with Haussmannisation. His critics called him ‘the demolisher’, as he tore down old neighbourhoods and pushed poor and working-class Parisians out of the city centre. Baron Haussmann was
able to do this because he served the Second Empire (1852–70), an authoritarian regime that embraced technocracy. When the government collapsed and was replaced by the progressive Third Republic (1870–1940), many of these technocrats were frustrated by the new democratic constraints placed upon them. Thus, they often turned to France’s growing colonial empire where their power was not restricted, they did not have to listen to public opinion, and they could use the military to suppress any opposition. Unsurprisingly, when the Third Republic fell during the Nazi invasion, many technocrats from the colonies happily served the quasi-fascist Vichy regime.

The disturbing reality is that authoritarian regimes seem to be better suited to face public health crises. This was true in colonial Vietnam and it is true in today’s Vietnam. After the 1902 rat hunt failed, the French authorities employed very invasive and draconian public health measures that seem to have helped weaken the impact of the pandemic. Today, the Vietnamese Communist Party has a much better track record fighting Covid-19 than the United States. The widespread flaunting of public health measures—often by citizens citing their special freedom as Americans—that we see in the United States would be unthinkable in Vietnam. In terms of biopolitics, personal liberties stand in the way of the collective good. This is a frightening conclusion and I’m not at all happy about the political implications, but it’s where we are at in 2020.