



Environmental History: A Malaysian Personal Reflection

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Introduction

Traditional history has been heavily focused on documenting wars and human conflicts as history gradually asserts itself to be a specialized field in documenting human affairs. These can be seen, for example, in the early work of historians such as Herodotus, who gave us an account on the Greco-Persian Wars using oral sources as his main materials to construct his writing.¹ But since Herodotus, history as a field has evolved in its methodologies and scope. No longer is history confined to the narrow subject of human conflicts. It has proliferated and covers a wider scope of human activities, including economics, social aspects, education and others.

Recently, I was introduced with another branch of history called environmental history in a special lecture by David Biggs, a visiting professor at Universiti Sains Malaysia (USM), Penang from the University of California, Riverside, US, with a Ph.D in history with concentrations in modern Southeast Asia.² The lecture was refreshing as Biggs explored how we can study the effect of human activities on the environment, recording the changes and make sense of it. I did some pre-reading before the lecture and understood that Biggs had done some research in Vietnam on the impact of the Indo-China War on the population.³ This led me to wonder whether Biggs had studied the effect of Agent Orange, a chemical compound used by the US troops in their war in Vietnam.⁴ We discussed this topic in the question-and-answer session, which I find very fulfilling.

After the lecture, I was interested to read more about this topic and contacted Professor Biggs to ask whether he brought with him some of his books in physical copy. I had a hard time reading lengthy materials electronically, especially with two kids around the house. The day after the lecture, I dropped by his office in USM to discuss further on the lecture's topic. To my surprise, it was a splendid discussion that lasted more than 2 hours. We discussed topics from the Mekong River up to the world of academia in California. Although I did not manage to get the book that I intended, Professor Biggs gracefully lent me another book, titled *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence* written by James Bridle. To this book I will cast my focus next.

¹ Oswyn Murray, "Herodotus and Oral History," in *The Historian's Craft in the Age of Herodotus*, ed. Nino Luraghi (Oxford: Oxford University Press 2001): 16-44.

² David Biggs, "Special Lecture: Towards an Environmental History of Southeast Asia," Universiti Sains Malaysia (via Webex), April 1, 2024.

³ David Biggs, *Footprints of war: Militarized landscapes in Vietnam* (US: University of Washington Press, 2018).

⁴ I first read the account of American chemical warfare in Vietnam with the use of material such as napalm and Agent Orange from a book by Noam Chomsky years ago. The book was co-authored by Edward S. Herman, titled *Manufacturing Consent: The Political Economy of the Mass Media*.

Ways of Being

The book started at Epirus, Greece, where the global oil giant, Repsol SA, was using artificial intelligence (AI) to exploit the oil reserves located beneath the soil of the forest and villages. Bridle contended that the use of the word “intelligence” is somewhat ironic, as he cannot fathom the effect that this intelligence will have on the environment.

What sort of intelligence actively participates in the drilling, draining and despoliation of the few remaining wildernesses on earth, in the name of an idea of progress we already know to be doomed? This is not an intelligence I recognize.⁵

I very much agreed with Bridle on this; for too long, humans have used their creativity and intellect to destroy and kill. Just think of the organized industrialized killing today; how precious life can be taken before their time just by a click of a button. Thousands of children lost their future in horrible wars in Ukraine and Gaza. It reminds me of the words of the late Carl Sagan after he looked at the image of earth taken by Voyager 1 at a distance of 3.7 billion miles (6 billion kilometers) from the Sun.⁶ From that distance, the earth is just a small speck of pale blue dot. The image, Sagan contended, should make us more humble with one another, and it should make us seek peace instead of spilling rivers of blood. The image later became an inspiration for the title of his book; in it, Sagan discussed how future humans can settle into another planet, terraforming and re-engineering the planet to make it habitable.⁷ In some sense, Sagan may have just discussed the future of environmental history, the scope of which includes the cosmic environment.

The underlying engine, in my view, of the creative and intelligent destruction of the planet is economics. Bridle touched this when he said that the destruction happens because we wanted “to maintain our current rate of growth, at whatever cost necessary.”⁸ This was largely enabled by the underlying ideology in economics that more growth is a good thing. The need to reform the economic model has long been discussed in literature. One way of doing it, according to David Orrell, is to include ethics in the economic equation.⁹ Growth cannot be our primary objective while discarding everything else; economics must be guided with sound ethics to make it sustainable. As we strive for endless growth, we must always bear in mind that the resources we have in the environment are finite.

In his introduction, Bridle also touched on the “anthropocene,” which described the current time in which human activity actively shapes the environment and the planet itself.¹⁰ I first was introduced to the concept by Prof. Biggs in his first lecture. But Bridle put forward a different thinking: instead of just humans affecting nature, it is also the other way around; nature and environments are affecting us. In fact, he argued that this binary thinking is not the correct way of perceiving our reality: there is no us and nature, in ecological terms; we are nature, we are part of the planet and the changes within it.

Another interesting point discussed by Bridle is the nature of intelligence. Bridle argued that intelligence was not uniquely human; the work in biological and behavioral sciences, he argued, has opened up the understanding of different and non-human intelligences.¹¹ Reading his take on intelligence makes me wonder whether he took this idea from one of the books that I had read by Rupert Sheldrake. A quick glance at the bibliography did not register Rupert’s name, but it is interesting to find that his son, Merlin Sheldrake, was listed. Sheldrake (the father) was a dissident scientist. He, in my view, takes the matter deeper. Intelligence presupposed

⁵ James Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence* (UK: Picador, 2023), pp. 6.

⁶ NASA/JPL-Caltech, *The Pale Blue Dot*, 1990, <https://science.nasa.gov/resource/voyager-1s-pale-blue-dot/>.

⁷ Carl Sagan and Ann Druyan, *Pale Blue Dot: A Vision of the Human Future in Space* (US: Ballantine Books; Reprint edition, 2011).

⁸ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, p. 7.

⁹ David Orrell *Economys: 11 Ways Economics Gets it Wrong* (UK: Icon Books, 2017).

¹⁰ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, p. 16.

¹¹ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, p. 10.

consciousness. Sheldrake in his discussion challenged the materialism point of view about the nature of consciousness and went to discuss consciousness in nonbiological matter, including in the atoms.¹²

According to Bridle, different forms of intelligence arise as a result of different *umwelt* acting on the being.¹³ This means that the environment has conditioned every certain being for a certain set of behavior.¹⁴ Consequently, different forms of intelligence must be judged differently; it cannot be judged using the basis of human intelligence. This human bias will blind ourselves to other forms of intelligence as we see them to be intelligent only if they can imitate what a human can do. Apart from *umwelt*, each animals have individuality and personality, according to Bridle, so they can behave differently for the same set of experiments.¹⁵ They are not an exact clone copy. This conclusion, in my view, is parallel to other previous studies on animals. For example, Jane Goodall, who studied the chimpanzee, noted that they have “a unique personality and each has his or her own individual life history.”¹⁶ To illustrate his point, Bridle discussed the various aspects of intelligence found in apes, elephants and cephalopods.¹⁷ In a way, he wanted to dispel the notion that intelligence is exclusive only to humans. Reviewing the scientific literature, he went further: not only humans and animals have a form of intelligence, Bridle also discussed how intelligence was found in plants. This form of intelligence includes a plant’s ability to hear, communicate, collaborate and store memories without a brain.¹⁸ Plants also were observed to be migrating according to the changing climate condition.¹⁹ We as humans always perceived intelligence using our human bias; we fell into the trap of anthropocentrism and anthropomorphism, which makes us view intelligence as the ability of other beings do what humans can do. This view, according to Bridle, is the mistaken view of perceiving intelligence. It will blind us from other forms of intelligence and other forms of worlds around us.

After exploring the intelligence in animals and plants, Bridle explored the intelligence of our human ancestors. How we as a species was actually a product of the interbreeding of Sapiens, Neanderthals and Denisovans. He also challenges our perception of our ancestors; instead of ancient savages, they might also have shared many similarities with us, including the appreciation of music. As he explored the lives of our ancestry and visited ancient sites such as Göbekli Tepe, it reminded myself of a documentary by Graham Hancock that challenges the standard narratives of archeology and presupposed the existence of an advanced ancient civilization.²⁰ Although many accused Hancock’s theory as pseudoscience and pseudoarcheology, the fact that the debate exists seems to me that our prehistory is more complicated than we think. Humans are not just a product of interbreeding of different species; we also were made up of viruses. This fact first came up to me in a lecture by Carl Zimmer at the Royal Institution of Great Britain where he said that “our genome has a huge amount of viral DNA in it,” meaning that a part of us actually were viruses.²¹ All of these led to the conclusion that we are not distinct or separate from nature; in fact, we are part of it.

Although the idea of plants and animals are intelligent is not actually new, one interesting exploration that Bridle had created is throwing machines into the mix; to view man-made machines not as a mechanistic system but part of the environment that is intelligent. The earth was presented by Bridle as alive and self-regulating as in

¹² This interesting discussion can be found in the chapter “Is Matter Unconscious” in the book by Rupert Sheldrake, *The Science Delusion* (London: Coronet, 2013), pp. 107-129.

¹³ The term *umwelt* denotes the environmental factors, collectively, that are capable of affecting the behavior of an animal or individual.

¹⁴ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, p. 33.

¹⁵ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, pp. 40-41.

¹⁶ Jane Goodall. "Chimpanzees — bridging the gap." *The Great Ape Project* (1993): pp. 10-18.

¹⁷ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, pp. 34-56.

¹⁸ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, pp. 59-83.

¹⁹ Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, pp. 123-139.

²⁰ *Ancient Apocalypse*, directed by Marc Tiley, featuring Graham Hancock, aired November 10, 2022, on Netflix.

²¹ “Are Viruses Alive? — with Carl Zimmer” The Royal Institution, published on November 26, 2021, YouTube video, 53:20, <https://www.youtube.com/watch?v=Tryg5UCp6fI>.

the theory of Gaia.²² I think this should at least make us optimistic. If earth really has a self-healing mechanism, the destructions that humans continue to make are actually not destroying the planet, as comedian George Carlin once said, we are destroying ourselves.²³ The planet will be fine; it has endured much worse catastrophes, and just as we displaced the dinosaurs as a dominant species, a new organism will evolve once humans are gone, as the earth heals herself.

Bridle explored how, in our technological advances, with even more high-speed computational power, these technologies have their limitations. One aspect that has been discussed in the book is the failure of computers to generate random numbers.²⁴ To overcome this problem, technologies have to collaborate with nature; they need to take quantitative values from a natural phenomenon, which is truly random. This shows that the separation between machines and nature is a false paradigm. To solve an even more complex problem, humans need to collaborate with his or her environment; these collaborations include other beings — plants, animals and machines.

All these point to a conclusion that we must acknowledge that we are part of this ecology: the world does not consist of humans, as Bridle kept repeating in his writing, the world is a “more-than-human world.” It consists of multiple beings with multiple forms of intelligence. This realization should make us ponder on how we organize our environment, to look closely at our environment and understand its history, so that we can learn from it and build a new environment that is more sustainable. As Edward Carr once said in his book, as humans become conscious of history, he began not only to shape the environment but also himself.²⁵ Thus, in order to become a good shaper of our history, we need to learn and understand our environment and its history.

A Malaysian Personal Reflection

Reading and studying environmental history evokes many memories of the environment when I was growing up. It suddenly makes me aware of the changes that have happened and are happening in the environment all around me. It makes me aware that the changes of this landscape have a history, an environmental history. In this section, I would like to note some of them. A personal reflection of mine.

It has been a custom in Malaysia, at the end of the holy month of Ramadhan, people would travel back to their familial village to celebrate Hari Raya (Eid al-Fitr) with their families. This phenomenon is locally called “*balik kampung*,” which literally means to return (*balik*) to the village (*kampung*). In my own experience, when I was a boy, we alternated between two *kampungs*, between Kampung Changkat Tin, Perak, to visit my father’s side of the family and Kampung Parit Tengah, Bagan Datuk, Perak, where my mother was from.

Kampung Changkat Tin today is a sleepy village, although historically it wasn’t so. The original name of the kampung was Changkat Petaling, but with the advent of the tin mining industry the new name replaced the old one.²⁶ The village was situated at the southern part of Kinta Valley in the state of Perak. During its heyday, Kinta Valley was the main area in which tin mining activities operated. The tin mining industry began to industrialize in Perak around the 1800s, where the local Malay leader at that time, Long Jaafar, brought in Chinese miners to develop local mines.²⁷ It was then further developed and expanded with new mechanical technologies under the British colonial rule. The tin mining industry made a significant impact on the social

²² Bridle, *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, p. 190.

²³ “The Planet is Fine,” The Orchard Enterprises, published on April 30, 2016, YouTube video, 13:37 <https://www.youtube.com/watch?v=sOWgNKGt5tw>.

²⁴ This problem was discussed in chapter 7, “Getting Random,” in Bridle’s *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*, pp. 216-249.

²⁵ E. H. Carr, *What is History* (UK: Penguin Books, 1964), pp. 142

²⁶ My source for this original name is from an oral recollection from the local villager who lived in the area. His name was Said Md Nasir bin Said Ahmad. The recollection was done on April 11, 2024. “*Changkat*” is a Malay word for an elevated area.

²⁷ Tarmiji Masron, Hassan Naziri Khalid, Nur Faziera Yaakub, Siti Khatijah Zamhari and Fujimaki Masami, “Tin Mining Activities and Sustainability of Mining-Based Cities in Peninsular Malaysia,” *The Journal of Ritsumeikan Geographical Society* 31 (2019): 27-51.

and demographic conditions of the area. Once a sleepy village, it quickly grew into a vibrant and busy industrial area. My grandfather was one of the Malay laborers working on the tin mine, where he worked on the Southern Kinta's No. 2 dredge operated by Southern Kinta Consolidated Limited until 1969. By 1985, the global tin market began to collapse, and with it the local industry disappeared.²⁸ The village that once became a vibrant industrial area degraded back to its sleepy-state village.

It was a nostalgic and fun ride in the 1990s, as my father drove our family from Kuala Lumpur to Kampung Changkat Tin in our old Nissan Sunny car. We did not have smart phones at that time; the only thing you could do in the car on that long ride was to quarrel with your siblings or gaze at the landscape. I did both, naturally, but as I got older, the landscape took more of my interest. I noticed that there were a number of lakes along the road. I asked my father once, why were there so many lakes around our *kampung*? My father told me that the lakes are the remnants of the old, abandoned tin mines. I asked my father, why didn't they bury the mine after they finished mining the tin? My father had said the company was supposed to do that and restore the area, but they did not have any incentive to do so. In the end, they just abandoned the site. If you look at Kinta Valley on Google Maps, you will directly notice these lakes dotting the area — hundreds of them.

Although this can amount to malpractice in tin mining operation, as the industry disappeared, nature started creeping back into the area. The lakes have now evolved to become their own new environment. This environment also shaped the socioeconomic activities of the villagers. Later research on the abandoned mine (that has now become a lake) found a high concentration of lead in the water, but they also acknowledged that this water can be used as a fresh water supply after treatment.²⁹ Research also found that biodiversity has returned to these artificial lakes. One study recorded eight species of fish and two species of shrimp found in the lakes.³⁰ These former tin mining sites also now have become a natural water catchment area to control the floods and can be developed further as a recreational area for the local population.³¹ The population also has decreased significantly in this area, and increasingly more people are migrating to urban areas. The history of these abandoned tin mining sites for me is very interesting; we can learn how mining changes the soil and water quality. As we learn more about them, if we look closely, we can understand the process of the Gaia healing herself as nature crawls back and restores the area with new species.

My second kampung, located in Bagan Datuk in Lower Perak, sits at the end of the Perak River where the river meets the Malacca Strait. Previously, Bagan Datuk was a small town with many villages that were involved in agriculture and plantation. In 2017, Bagan Datuk was upgraded into a district and became the 12th district in Perak.³² My grandfather is a third generation of “*Orang Banjar*,” which is an ethnic group that migrated to the Malay Peninsula. My grandmother is “*Orang Kampar*”; she migrated to Bagan Datuk before the Malaysian independence with her family from Kuok, Bangkinang (now Indonesia). According to Salleh Lamry, *Orang Banjar* originated from Southern Kalimantan, and many of them migrated at the end of 19th century to the Malay Peninsula. In Bagan Datuk, *Orang Banjar* worked in the coconut plantation industry.³³

²⁸ Mohd Rifzal Mohd Shariff, Esmawee Endut, Ahmad Faisal Alias and NorHaslina Jaafar, "Conservation Strategies on the Abandoned Towns in the Former Tin Mining Towns in Lembah Kinta, Perak," *MAJ-Malaysia Architectural Journal* 4, no. 2 (2022): 22-28.

²⁹ K. U. Orji, N. Sapari, K. W. Yusof, R. Asadpour, and E. Olisa, "Comparative study of water quality of rivers used for raw water supply & ex-mining lakes in Perak, Malaysia," *IOP Conference Series: Earth and Environmental Science* 16, no. 1 (2013), 012072.

³⁰ Ng Wei Lin, "Diversity studies of fish and shrimp species in disused tin-mining ponds of Kampar, Perak," (final year project, Universiti Tunku Abdul Rahman, 2011).

³¹ Mohmadisa Hashim, Nasir Nayan, Yazid Saleh, Hanifah Mahat, Zahid Mat Said and Wee Fhei Shiang, "Water quality assessment of former tin mining lakes for recreational purposes in Ipoh city, Perak, Malaysia," *Indonesian Journal of Geography* 50, no. 1 (2018): 25-33.

³² Shamsul Kamal Amarudin and Shaarani Ismail, "Bagan Datuk secara rasmi daerah ke-12 Perak". *Berita Harian*, January 9, 2017.

³³ Salleh Lamry, "Madam ka Banua Urang: Migrasi dan Perubahan Sosial dalam Kalangan Orang Banjar di Malaysia," *Kertas kerja dibentangkan di Konferensi Internasional: Transformasi Sosial dan Intelektual Orang Banjar Kontemporer*, Banjarmasin, Indonesia (2016).

The potential commercial plantation of coconut in Lower Perak was recognized circa 1910. Before independence, the British government encouraged local population to be involved in the coconut plantation; by 1948, 45,608 hectares of land was used in Lower Perak for coconut plantation with Bagan Datuk as the main hub producing the largest yield.³⁴ After independence, the government continued to encourage local planters to expand the coconut plantation with more land being opened. The government also helped the locals by giving them capital support. By 1966, the plantation area has grown almost double, covering 83,586 hectares.³⁵ So what effect does this coconut plantation industry have on me as a kid going back to my *kampung* during Hari Raya?

Apart from the vast coconut plantation that can be seen all over the *kampung*, another glaring landscape in my *kampung* is the vast network of irrigation waterway that was known as “*parit*.” Almost all of the village houses have a *parit* in front of them; usually a wooden bridge will connect the houses to the main road. This *parit* played a significant part in my relation to the *kampung*. As a kid, this *parit* was at the center of my experience in *kampung*. My mother used to tell me that during her time as a child, the *parit* was well maintained; it is constantly dredged and deepened. The water was crystal clear. She and other village children used to swim and bathe in them. Sadly, by the time I came into the scene, many of this *parit* had fallen into disuse. They were not well maintained and many parts of the *parit* were clogged with rubbish. The industry was changing in Lower Perak at that time, coconut was no longer profitable and a new crop was spreading in Malaysia, which was palm oil.

As the industry changed, so does the environment. Although the *parit* was disused commercially, nature has been busy in the *parit*. During the breeding season, the *parit* landscape turned pink. I was very curious about this color; the pink color turned out to be the eggs of freshwater snails called *pomacea* (locally known as “*siput gondang*”). It turned out to be an invasive species from South America that became a significant pest in the paddy fields.³⁶ As a kid, apart from the bright color of their pinkish eggs, these snails did not interest me much. The disused *parit* was rich with aquatic life including many fishes. Catching these fishes was the main agenda for me and my brother as soon as we disembarked from my father’s old Nissan Sunny. We had a great time catching these fishes; among the most abundant at that time was *haruan* (*channa striata*), *puyu* (*anabas testudineus*) and *sepat* (*trichogaster*). These catches were later brought to our aquarium in Kuala Lumpur.

As I grew older (and hopefully wiser), I came to realize that the landscape I encountered as I was growing up has a history. This history was a blend of the environment and human activities. It was also shaped by technology; for example, in the case of tin mining in Kinta Valley, the introduction of mechanical dredger (locally known as “*kapal korek*”) made a significant impact on the production of lakes now dotting the map. To be aware of this history, and to understand the environment, for me is very important, as it informs us of our place in the world and the role we can play to shape it for the better.

³⁴ Nurul Asyikin Dzulkifli, Mohamad Khairul Anuar Mohd Rosli and Norasmahani Hussain, "Pembangunan Pertanian Komersial Di Hilir Perak, 1900–1973: The Development Of The Commercial Agricultural In Lower Perak, 1900–1973," *Asian Journal Of Environment, History And Heritage* 7, no. 2 (2023).

³⁵ *Ibid.*

³⁶ Mohd Irwani Hafiz Sahid, Fhaisol Mat Amin dan Khalisanni Khalid, “Kandungan pemakanan siput gondang (Nutritional composition of the apple snail),” *Buletin Teknologi MARDI* 6 (2014): 99-105.

Conclusion

Environmental history is a very interesting topic to explore. It studies not only human activities, but also the intersection of human activities with nature. As we understand from the writing of James Bridle, this intersection does not mean that humans and nature are two separate beings. Our approach to studying nature and our environment is not to conquer and dominate them. Instead, we are part of nature; our environment is a mesh between humans, animals, plants and machines. As humans progress further, the need for humans to work with nature becomes ever more critical. As I reflect on environmental history with my own experiences, I notice that there are many interesting areas to explore in Malaysia. There are many landscapes shaped by previous human activities that are worthy of closer inspection. These inspections will inform us about our environmental past and help us build a better future.

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