

## **China, Namibia and a Uranium Mining Dispute**

Spectral Infrastructure and the Movement of Memory in Revolution

### **Introduction**

On 15 April 2021 in *New Frame*, a social justice media publication based in Johannesburg, South Africa, Anna Majavu, a journalist studying for a PhD at the University of Auckland published an article, “New mine owners trample on Namibian workers’ rights: a state-owned enterprise from China bought a huge stake in the Rössing Uranium Mine and immediately began downgrading working conditions before dismissing union leaders.” Majavu documents how in July 2019, China National Nuclear Corporation Rössing Uranium Limited (CNNC RUL) bought a 68.62% stake in the Rössing Uranium Mine from Anglo-Australian mining giant Rio Tinto Zinc. Interviewing one of the dismissed union leaders of the Mineworkers Union of Namibia’s Rössing branch, Johannes Hamutenya, Johannes states how the MUN had spent ‘decades negotiating excellent collective agreements and policies for its 780 members.’ He had held concerns when he heard CNNC RUL “wanted to buy into the mine because the company had no experience in dealing with independent trade unions, which are not permitted in China.” Hamutenya’s perception of the operating conditions of mines in China begins a critical case study into a story of transnational encounter, difference and memory.

This paper examines a recent episode of labour unrest in Namibia’s uranium mines. In *Developmental Fusion: Chinese Investment, Resource Nationalism, and the Distributive Politics of Uranium Mining in Namibia*, Meredith DeBoom examines two key questions: ‘1) how are Namibian leaders engaging with Chinese investments in mining in the context of renewed calls for resource nationalism? 2) What implications do these engagements have for relationships between the state, natural resources, and development in Namibia, including the distributive politics of mining?’ (DeBoom, 2018, p. 18). This paper draws from DeBoom’s scholarship into a question of memory and its movement through Namibia’s uranium mines.

In locating elements of a recent transnational labour dispute in a Namibian uranium mine, this paper draws on AbdouMaliq Simone's concept of infrastructure as a technological and spectral assemblage. Simone writes of how 'infrastructure operates as weak, gestural interventions into spectral matters, reflecting the recognition that a multitude of operations, metabolisms, algorithms, and forces converge in a particular space. This convergence produces unforeseen implications and potentials. Infrastructure contains, enfolds, channels, protects, and defends. But just as the workers who build it are exposed to deleterious conditions, infrastructure is also always already exposed, its surfaces open to both anticipated and unanticipated flows, wearing, tensions, extreme weather and feedback loops' (Simone, 2012).

Thinking through the anxious trajectories of the pandemic, falling and rising global market conditions of uranium prices, sentiments of social unrest; continuities of unemployment and inequality; perceptions of elites as divergent from the public interest or falling back into reiterative patterns of dependency; geographic differences between the city and the countryside, Windhoek and Erongo; land and historical memories of labour activity, activism and independence struggle, union work; financial logics of international management and logistics; linguistic and cultural difference and transnational modes of working and dispute resolution, Namibia's uranium mines operate as weak gestural interventions into spectral matters, with surfaces that are always already open to anticipated and unanticipated flows. This paper focuses in particular on the movement of memory and sentiment as material and agential substances that like water often condition the transnational encounter of uranium mining.

This paper emerged out of the Center for African Studies at Peking University where the spring months were spent studying a broad series of critical perspectives and avenues of future collaborative research on China-Africa relations, African development and the prospects of socially embedded scholarship within the diverse and manifold histories, possibilities and futures of the continent. With Professors Liu Haifang, Xu Liang, Cheng Ying, Lian Chaoqun and Wang Jinjie, a

focus on complexity, diversity, specificity, method, dialogue and multiplicity emerged. Youth as a category was closely explored vis-a-vis future paths of industrialisation in a world economy undergoing a fourth industrial revolution in technology and automation. In a seminar on the proposition of 'Africa rising' we examined the reemergence of economic linkages between Asia and East Africa (here the focus extends to southwestern Africa and its connections across the Indian Ocean); in a seminar on language, politics and identity, we examined North Africa and the Arabic-speaking Maghreb as language formed a key terrain and site of struggle in debates of independent nation-building and identity; we examined the psychological dimensions and legacies of colonialism on modes of decolonial thought, on modes of writing about and imagining Africa and on thinking through identity, futurity and difference as expressed in the works of Ousmane Sembene, Chinua Achebe, Ngũgĩ wa Thiong'o and others.

In Namibia, Joseph Diescho's 1988 novel, *Born of the Sun*, follows its protagonist Muronga through the struggle for independence, from his quiet village along the Kavango river in northern Namibia, moving through a dizzying landscape of mine compounds, jails, transport vehicles, through Rundu, to Botswana, South Africa, his political awakening in a mine in the Transvaal, returning finally home, toward a dream of independence from the Afrikaner metropole. This paper hopes to locate the centrality of memory to moments of transnational encounter and of spectrality as a mode of thinking through the dispute as a confluence of flows of capital, signals, targets, dust, water, minerals, tailings, uranium, rains, droughts, with movements of sentiment, memory, and historical feeling toward and from the earth, as a home of ancestors and struggle.

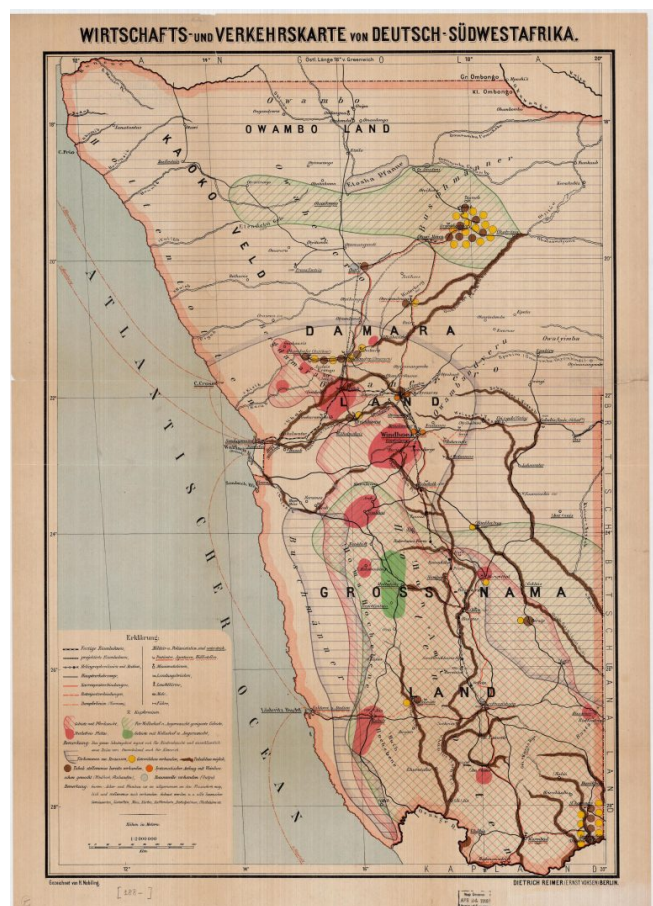
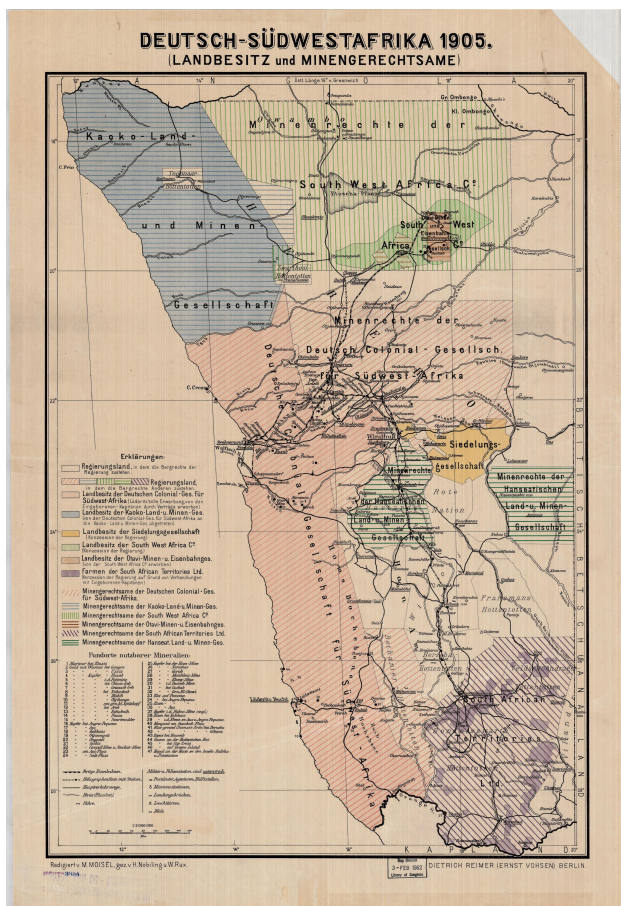
## **Literature Review**

### **Occupations**

Namibia is located on the southwest coast of Africa. It is bordered to the west by the Atlantic Ocean, to the north by Zambia and Angola, to the east by Botswana and to the south and southeast by South

Africa. The Namib and Kalahari deserts run 1200 miles along the Atlantic coasts stretching from Angola through Namibia to the Western Cape of South Africa. The Namib is thought to be one of the oldest deserts in the world, having endured arid or semi-arid conditions for 55–80 million years. Namibia has been inhabited by San, Damara and Nama people since early times. In the 14th Century, Bantu people from central Africa emigrated to the region. From the 18th Century, Oorlam people from Cape Colony in today's South Africa moved into the area of southern Namibia. Moving north, the Oorlam collided with the OvaHerero, Gobabis and Okahandja people leading to the Nama-Herero war in 1880 (Wallace, 2011, p. 12).

In 1882, a German merchant, Adolf Lüderitz, requested protection for a station he was building on the Namibian coast, from Chancellor Otto Von Bismarck. A settlement would soon follow renaming the area Lüderitz (Hammer, 2008). In 1884, the area was transformed into a naval base under the protection of an Imperial Germany nervous of encroachments by other European powers. At Walvis



Bay, the main port for Namibia's uranium exports today, a British settlement had been established in 1878 from the British colony on the Cape of Good Hope.

Germany declared Namibia a German colony in 1884 naming the region German South-West Africa (*Deutsch-Südwestafrika*). From 1904 to 1907, German government officials instigated a genocide of the OvaHerero and Namaqua people who had resisted the colonial project, systematically killing an estimated 10,000 Nama and 65,000 Herero. The survivors from the concentration camps were subjected to a policy of dispossession, deportation, forced labour, racial segregation and discrimination in a system that echoed much of the later apartheid system established in South Africa in 1948. Several historians have argued the Herero and Namaque genocide would also incubate methods later adopted and developed by the Nazis in Eastern Europe (Madley, 2005).

Two German produced maps of 1905 now held at the U.S. Library of Congress are documented above. The map to the left discloses 'observations of the colony's mines of gold, copper, marble, iron, manganese, topaz, cobalt, and guano. After their confiscation, the lands of the original inhabitants had been divided into two imperial estates and twelve corporate concessions for mining.' The map to the left documents South-West Africa's transportation and agricultural potential, demarcating completed and projected railroads, heliograph lines and stations, highways, postal routes, steamship routes, lighthouses, and piers alongside the location of post offices, mission stations, local agencies, and aid stations to assist settlers (Klein, 2019).

After the First World War, the League of Nations mandated South Africa to administer the territory of Namibia. Following World War II, the League of Nations' successor the United Nations instituted a Trusteeship system to bring all of the former German colonies in Africa under UN control. South Africa objected arguing that a majority of the territory's people were content with South African rule. In 1966, the UN General Assembly declared that South Africa had no further right to administer the territory, and that henceforth South West Africa was to come under the direct



responsibility of the UN. In the same year, the military wing of the South West Africa People's Organisation (SWAPO and the People's Liberation Army of Namibia (PLAN) would begin guerrilla attacks on South African forces from bases in Zambia fighting for independence from South Africa and its apartheid laws which had prevented black Namibians from having any political rights, restricted social and economic freedoms, and enabled South African white elites to exploit the mineral resources of Namibia (SWAPO, 1990).

The conflict, referred to variously as the South African border war, Namibian War of Independence and Angolan Bush War lasted for 24 years to 1990, claiming the lives of an estimated 25,000 people. The conflict drew in United States support toward South Africa whose white apartheid government sought a containment programme against perceived Soviet expansionism into the strategic Cape trade route between the south Atlantic and Indian oceans. The South African Department of External Affairs observed that the region was the world's principal source of uranium and 'on this account alone, should be protected.' (Berridge, 1992). Today a large literature in South Africa and the Afrikaans language explores this period known as *grensliteratuur* ("border literature") (Cock and Nathan, 1989). In 1988, Kevin Harris, a South African filmmaker, would

produce the documentary film "Namibia - No Easy Road To Freedom" documenting the harsh realities suffered by Namibia's civilian population under South African military occupation. The film would be seized by the South African Security Police. The stills above are excerpts from it.

The Soviet Union and Cuba would provide significant amounts of aid to the People's Liberation Army of Namibia (PLAN) with many of the SWAPO movement receiving guerrilla training in the Soviet Union. In 2018, Uranium One, a subsidiary of the Russian state-owned nuclear energy corporation, would receive eight licences for uranium exploration in southern Namibia in an area of eight thousand square kilometers. On 21 March 1990, Namibia would be declared independent. In a ceremony attended by Nelson Mandela, who had been released from prison the previous month, and representatives from 147 countries, Sam Nujoma was sworn in as Namibia's first president. Walvis Bay would remain under South African control until 1994 following the first multiracial elections in South Africa. In March, fireworks and torches would light the sky at Walvis Bay as the South African flag was lowered and the Namibian flag raised.

Nujoma's party, the South West Africa People's Organisation (SWAPO) had started as a movement in 1960 and was built out of the Ovamboland People's Organisation, holding its base among the Ovambo people of northern Namibia who made up nearly half of the population. A different party, SWANU, South West Africa National Union, was formed a year earlier in 1959 with largely a Herero following. SWANU would initially be the only one of the two parties formally represented in the All African People's Conference, the Afro-Asian People's Solidarity Organisation, and the Anti-Apartheid Movement and had established a political headquarters in Dar es Salaam, Tanzania and political offices in Accra and Cairo (Dobell, 1998, p. 28). In 1962 as the Sino-Soviet split progressed, a rift emerged with SWANU aligning closer ideologically with China and SWAPO with the Soviet Union. It would not be until 1966 and a refusal by the leader of SWANU to commit to armed struggle against South Africa, that SWAPO gained control and formal recognition by the Organisation of African Unity (Müller, 2012, p. 37). SWAPO has held power in Namibia to this day.



An important work of scholarship on *State Formation in Namibia* would be published in 2004 by Hage Gottfried Geingob. At the time a PhD student at Leeds University in England, Geingob would describe the dynamics leading up to Namibian independence as a constellation of events undergirded by outside forces seeking to maintain their economic interests. Geingob had already served as Prime Minister of Namibia from 1990 to 2002 but returned to the SWAPO Politburo in 2007 and would become President of Namibia in 2014, a position he holds today. In his thesis he writes:

‘it is argued that the international actors' role in the process of state formation in Namibia was driven by their desire to ensure their continued influence in Namibia for their own benefit. Self-interest of the West in Namibia was driven by the geopolitical imperatives of the cold war, and preserving western economic interests. In Namibia, which was a settler colony, self-interest also gained a racial dimension as the West sought to protect the interests of white settlers. The case is made that impetus to resolve the Namibian question had to await a number of streams coming together - the disintegration of the Soviet Union changed the complexion of geopolitics; deeper involvement of the Cubans in Angola threatened South Africa; Constitutional Principles put forward by the Western Five





(U.S.A., the United Kingdom, Germany, Canada, and France) ensured continued protection of the economic interests of the West and the protection of the interests of the settlers; and success of Namibians' struggle at the international fora and on the battlefield catalysed the coming together of various streams. This constellation of events ensured Namibia's independence in 1990' (Geingob, 2004, p. 8).

### **SWAPO and China**

China and SWAPO would establish revolutionary ties in the early 1960s. Sam Nujoma before he became Namibia's first President would visit China in the 1960s, receiving supplies for SWAPO's revolutionary activities in exile and developing plans to send troops for military training and to build friendships with Communist Party of China leaders (Taylor, 2009). As Meredith DeBoom documents, in 1969 at the SWAPO Consultative Conference in Tanzania, after which Namibia's armed liberation struggle intensified, SWAPO leaders explicitly thanked the CPC for its moral and material support. Nujoma would visit China seven additional times in the 1970s and 1980s. In 1990, China would be one of the first countries to recognise Namibia's independence and would support SWAPO's post-independence efforts providing concessional loans, preferential export buyer's

credits and funding for infrastructure, hospitals, and the establishment of the Namibian Defence Force.

In the 2004 election, the CPC would donate campaign materials. Following the Forum on China-Africa Cooperation in Beijing in 2006, celebrating 50 years of China-Africa diplomatic relations, Chinese President Hu Jintao would visit Namibia to sign the Trade and Economic Development Agreement and the Reciprocal Protection of Investments Agreement. China would fund and build the new Namibian State House in the capital of Windhoek. As part of a Joint Trade and Economic Development Committee, yearly tours of Namibian mining sites for Chinese government officials would follow alongside political trips and workshops in China, and scholarships for Namibian students to study in China. From 2003-2010, DeBoom writes, Namibia-China trade increased tenfold to more than double U.S.-Namibia trade, a representative at the Chinese embassy of Namibia estimated there were 50+ Chinese companies and more than 600 retail shops operating in Namibia, generating over \$1 billion in annual revenues. A prominent theme in Namibian political statements stresses China as a long-term loyal friend to Namibia.

The recent work of Jason Dittmer in *Diplomatic Material: Affect, Assemblage, and Foreign Policy* might be further drawn into Abdou-Maliq Simone's concept of spectrality. Dittmer suggests that rather than seeing the diplomatic field as over-structured or historically determined, it operates dynamically, less as a coming-together of states than a convergence of media, things, people, memories, and practices. In this sense, elite statements of historical friendship between Namibia and China might be analysed more deeply as gestural interventions into spectral matters and the movement of memory rather than mere surface phenomena.

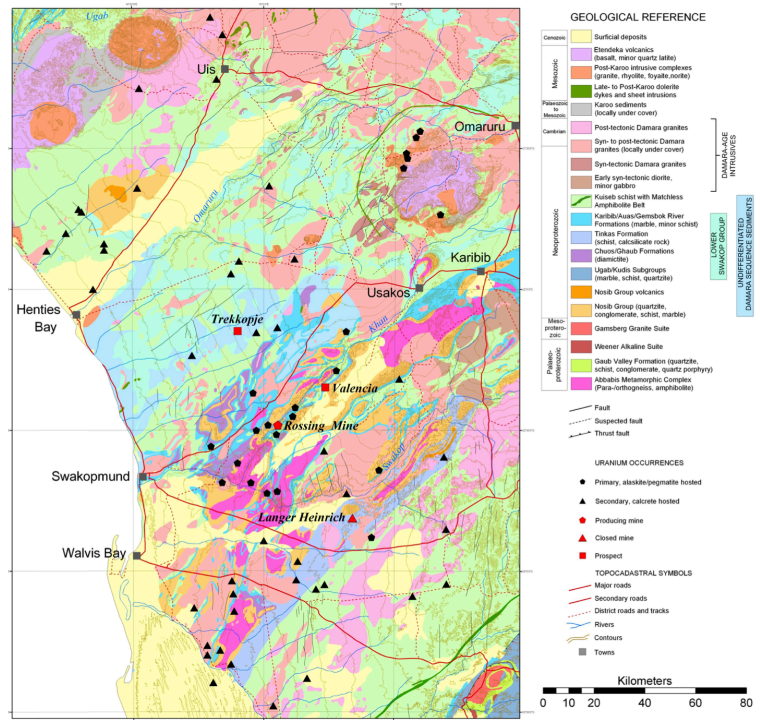
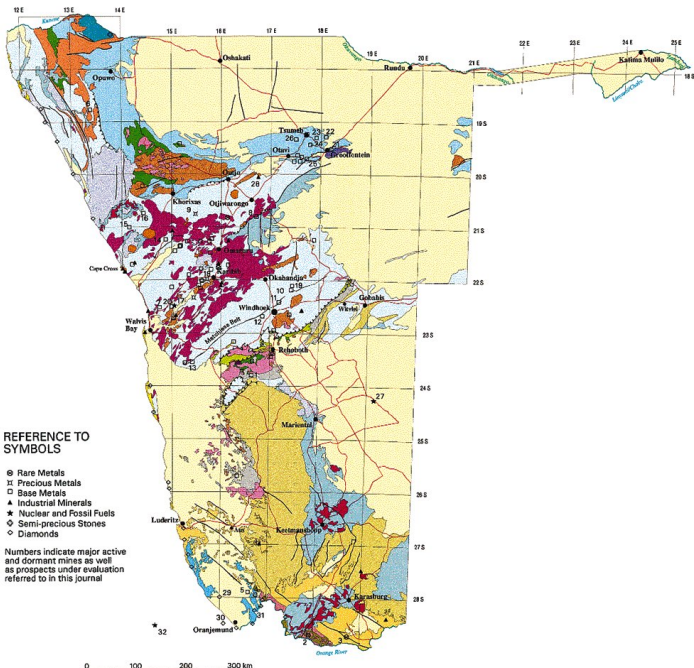
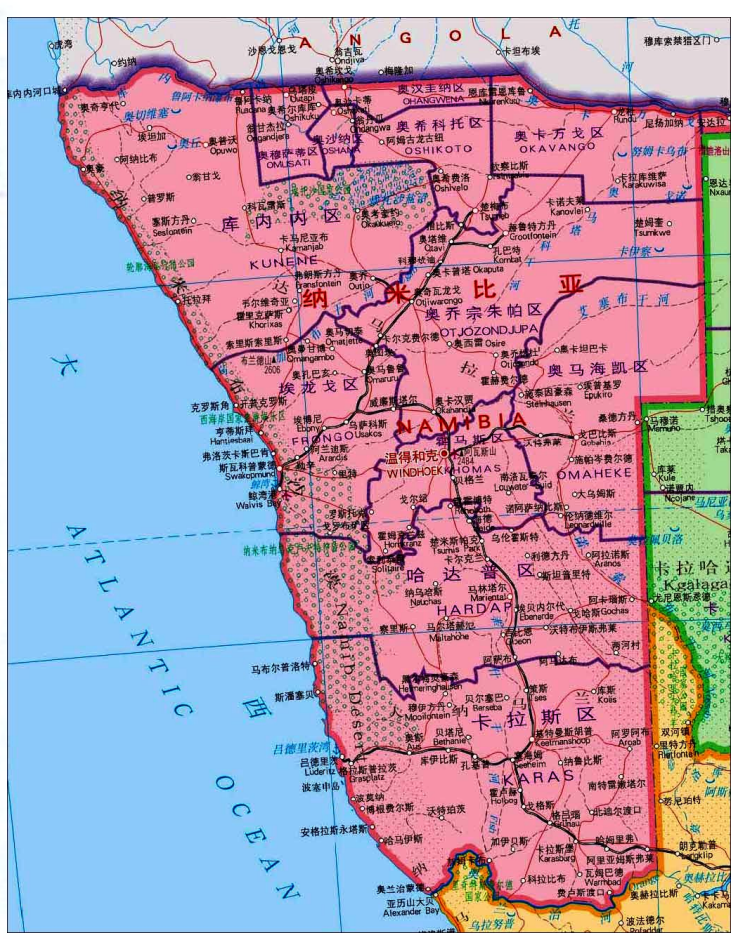
At the 2015 FOCAC Conference in Johannesburg, Geingob would describe the 'partnership with China as one built on long lasting and historic solidarity, as well as mutual respect. Geingob expressed the Namibia-China relationship as an 'all-weather friendship' and the Chinese

development model as a compelling model for Namibia as a resource rich country to imitate. At the same conference, he would speak of how ‘it is offensive when we are lectured by certain nations and warned about the so-called Chinese colonisation of Africa. It is ironic that those who warn us are the same nations who sat around the table at the Berlin Conference in 1884 and carved out colonies in Africa with the sole intent to develop their countries with our mineral resources and the blood and sweat of our forced labor.’ (Geingob, quoted in DeBoom, 2018, p. 31-32).

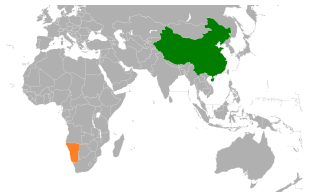
### **Prominence of Mining in the Namibian Economy**

Namibia is Africa’s fourth-largest exporter of non-fuel minerals, including uranium, diamonds, copper, zinc, cobalt, gold, fluorspar, phosphate (marine), pyrite, lithium, and semi-precious stones. Mining accounts for approximately 60 percent of Namibia’s export earnings, 25 percent of government revenue, and 13 percent of GDP (GRN 2017). Namibia is the largest uranium producer in Africa and the fourth most important global player after Kazakhstan, Canada and Australia. Uranium mining is predominantly focused in the Erongo region, known in Namibia as the ‘uranium province.’ The Rössing and Husab mines are located in Erongo, east of Swakopmund. Erongo is sparsely populated due to being located in the Namib Desert. Most of its 180,000 residents live in the coastal cities of Swakopmund (population ~50,000), which serves as the headquarters for most uranium mines and exploration companies, and Walvis Bay (population ~70,000), which is Namibia’s second-largest city and the country’s largest and only deep-water port for transporting uranium.

In addition to these two cities, DeBoom notes, Arandis, a former privately owned Rio Tinto Company town created in the 1970s has a population of 8,000. While most of the higher level managers in Namibia’s uranium mines live in Swakopmund, lower level workers live in Arandis. The low population density of Erongo mirrors the broader demographics of the country (DeBoom, 2018, p. 134). With a population of 2.5 million, Namibia is the world’s second-least densely



Recent	Quaternary / Cenozoic / Neogene / Palaeogene / Mesozoic / Palaeozoic / Cambrian / Precambrian
Sand, gravel, calcare, coastal salt pans	Granitic rocks of various ages
Post-Karoo dolerite/anorthogitic complexes	Sinclair Sequence (quartzite, conglomerate, shale, basalt, rhyolite, minor quartz porphyry)
Karoo Sequence (shale, sandstone, tillite) Etendeka/Kalkrand Basalt	Namaqua Metamorphic Complex (gneiss, granitic and ultramafic rocks)
Nama Group (shale, sandstone, minor limestone)	Alberta Mafic Complex (ortho-amphibolite, anorthosite, serpentinite)
Damara intrusives (granite, granodiorite, diorite)	Rafoboth Sequence (quartzite, schist, phyllite, basalt, rhyolite, minor conglomerate)
Gaiep Complex (dolomite, shale, schist, basal felsite)	Khoabandus Group, Okapuka and Eilim Formations (rhyolite, basalt, andesite, amphibolite, green-schist, quartzite, phyllite, limestone, gneiss)
Otavi lithologies (dolomite, quartzite, phyllite, minor volcanic rocks)	Other metamorphic complexes (paragneiss, metasedimentary rocks)
Swakop lithologies (schist, quartzite, marble, minor volcanic rocks)	Grootfontein Mafic Body
	Violsdrif Suite (granodiorite, granite, minor gabbro)
	Halb Group (andesite, dacite, rhyolite)
	Epupa Complex (gneiss)/Kunene Anorthosite Complex
	Major faults/thrusts

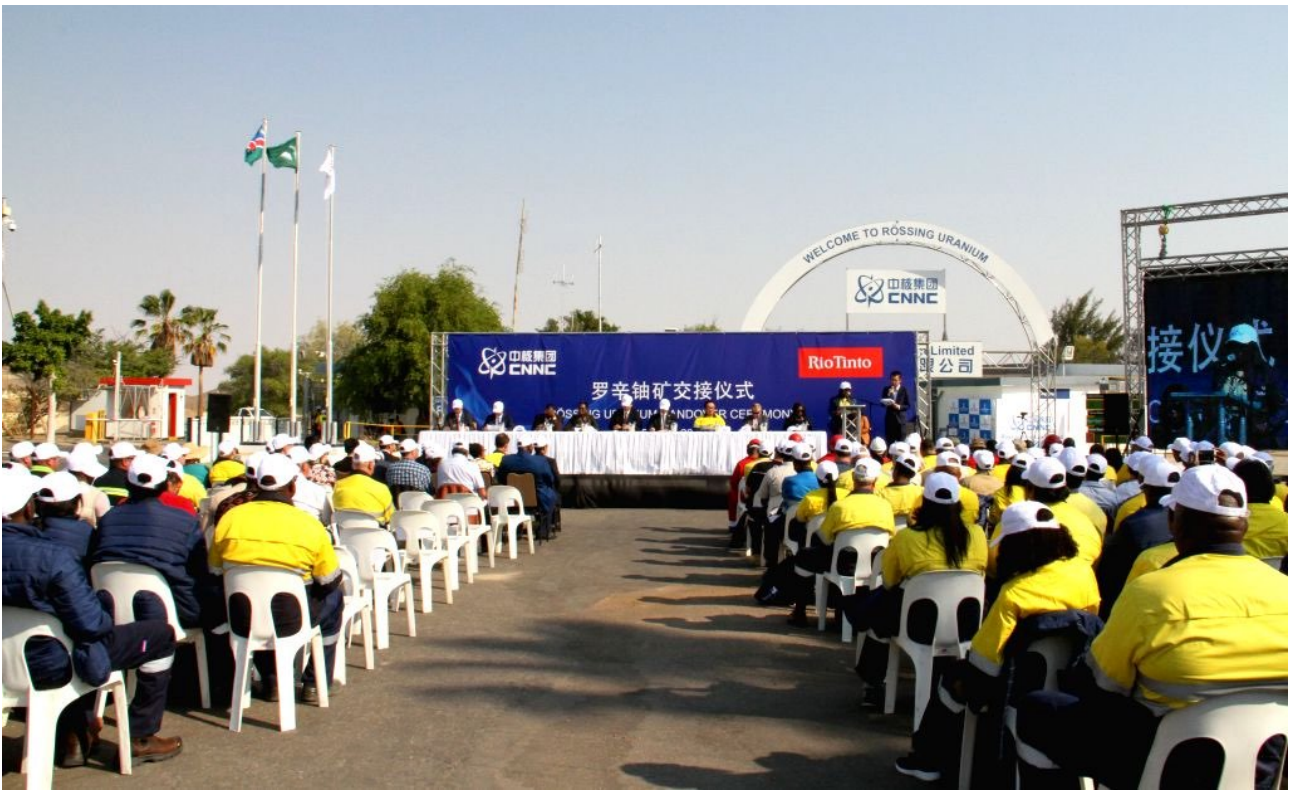


populated country after Mongolia. Namibia's small population also means, however, that 'Namibians have high expectations for what mining revenues can accomplish' (DeBoom, 2018, p. 35).

### **A New Era of Chinese Investments**

Chinese investments are the largest new investments in Namibia. They include China National Nuclear Corporation (Rössing Uranium Limited mine in Arandis), China General Nuclear Power Group (Swakop Uranium and Langer Heinrich mines in Arandis area), Best Cheer Investment (in the Karibeb area), China Harbour Company or Investment (Walvis Bay port), Cheetah Cement mining (Otjiwarongo), New Era Investment, China Zhengtai and China Jiangxe, China Henan International Corporation Group (construction of Tses-Gochas road in the south of Namibia). In *China's Second Continent: How a Million Migrants Are Building a New Empire in Africa*, Howard French describes visiting the 'transnational outpost' of Oshikango on the border with Angola, where he meets a large group of Chinese businessmen and traders. In the middle of the group, the *hui zhang* of Oshikango, a man named Chen Qingping is sat, he is introduced as the 'Chairman' and describes his arrival in Namibia:

'When I first got here, there were only five hundred people in this town; I mean Africans [...] Back then, I lived in a little tiny place, almost like a tent, and when it rained heavily, even cows and goats would wander in. It didn't matter to me, though, because I had customers all the time from Angola. Angola was still emerging from war, and there was still shooting all the time. But because of the war there, I knew there were opportunities, and I didn't mind taking on debt because I knew how to do business. And after a single year here, I was rich.' Chen, who was from Jiangsu province, near Shanghai, had worked for twenty years as a manager for a manufacturing company there before setting out for Africa. "I never had enough money to buy a house. I had to hand over our profits constantly to the Communist Party. In China, the system is built for the Party and not for the businessman, and whatever else happens, it is always the Party that gets rich.' With that, a weathered, slightly older man who had sidled up to us began to insinuate himself into our



conversation. He had had too much to drink, but his clear aim was to restrain Chen from speaking too freely' (French, 2014, p. 262).

In Windhoek, a gleaming new Chinese embassy compound was built in 2010. In response in May 2020, construction started on a new U.S. embassy that 'will be built by Americans and Namibians together using materials that evoke the Namibian landscape including the red sand dunes of Sossusvlei, the landscapes of the Kalahari Desert, and the sandstone formations of Damaraland' (U.S. Embassy in Namibia, 2019). Namibia's coastal town of Swakopmund further hosts a Chinese satellite tracking station. In 2019, two Chinese astronauts, Liu Yang and Chen Dong, made a visit to Namibia, arriving in Walvis Bay for a five day visit at the invitation of the President. The visit was aimed at 'enhancing communication and cooperation on astronautics between China and Namibia' (Space in Africa, 2019). In a May 2020 hearing on China's strategic aims in Africa in Washington D.C., Paul Nantulya, a researcher at the Africa Center for Strategic Studies at the National Defense University in Washington, describes how:

'a large network of Chinese-built and financed road, rail, and air infrastructure has popped up around major resource extraction sites. In Namibia Chinese state owned

companies are the main investors in Arandis on the west coast. This small town is home to Rössing Uranium Mine, the world's longest open pit uranium mine. China National Uranium Corporation Limited acquired a 69 percent stake in it and is the main user of Arandis airport located south of this town. As part of a targeted infrastructure strategy, Chinese SOEs also provide most of the locomotives for the Trans Namib Railway that connects Arandis to the strategic port of Swakopmund, and the capital, Windhoek. It also links Swakopmund to Walvis Bay (formerly a naval base for apartheid South Africa) where one of China's largest and most expensive port projects is located' (Nantunlya, 2020).

Nantulya suggests that this pattern of infrastructure investment mirrors activity in the mining belt of central Southern Africa consisting of Zambia, Tanzania, and Mozambique. The context of the hearing is China's growing strategic military engagement in Africa. Nantunlya notes there has been speculation that Namibia's Walvis Bay, the site of major Chinese investments in regional land, maritime, and air transport could provide options for a second naval base on the continent. "The two countries have close military ties dating back to Namibia's struggle for independence against apartheid South Africa. The PLA makes regular port calls at Walvis Bay, supplies some of Namibia's most advanced naval assets, and built many of its military facilities including the Staff and Command College which was inaugurated in 2019. The Walvis Bay Development Project, one of the biggest Chinese port developments in the developing world was described by the Chinese ambassador to Namibia as "the most brilliant pearl on the Atlantic Coast of West Africa."

Speaking about port developments, Joshua Meservey, a researcher at the Heritage Foundation, describes how Namibia, like Tanzania, forms an option for a Chinese naval military port in Southern Africa. Meservey writes: 'Namibia has one of Africa's longest running, and most intensive, relationships with Beijing. It has at least 25 Chinese-constructed government buildings, by far the most on the continent. Beijing's military ties to Namibia date back to support for the



liberation movement there, and include extensive arms sales and trainings for Namibian military personnel. The CCP and Chinese companies lavish the ruling party, SWAPO, with gifts, including direct monetary support. A Chinese SOE recently more than doubled the cargo-handling capacity of Namibia's Walvis Bay port as well. An openly declared base in Namibia would give Beijing the prestige of having an Atlantic Ocean base, and, similar to Tanzania, easy reach to countries of economic importance to Beijing and with large diasporas' (USCC, 2020, p.93). In 2009, it was reported that scholarships to study in China were offered to the sons, daughters or younger relatives of President Sam Nujoma President Hifikepunye Pohamba, the Minister of Home Affairs, the Minister, Deputy Minister and Director in the Ministry of Mines and Energy, the Minister of Justice and the Inspector General of the Namibian Police (Dobler, 2017).

### **China's Nuclear Energy Rush**

In contrast to the geostrategic focus of Meservey and Nantulya, Xi Yi-chong in *The Politics of Nuclear Energy in China* documents the geoeconomic logic of China's uranium investments in Namibia. In China, the government's ambitious nuclear energy plans are driven by the priority of cleaning up China's domestic energy production. At the same conference at which President



Geingob would praise the Chinese development model for drawing hundreds of millions of people out of poverty, several African leaders expressed reservations of China's success story on one exception: environmental management (DeBoom, 2018, p.42). In 2016, a documentary *Blue Skies Over Beijing: Economic Growth and the Environment in China* would be released documenting the perspectives of the rich, middle class, and poor and how they coped with the stresses of pollution. China's project of ecological civilisation has grown since then to form a key lever of China's 14th Five Year Plan.

As Ji et. al (2014) note, seventy percent of China's coal comes from rural north and northwestern China, far from the electricity-demanding southeastern coast. DeBoom notes how 'a 1,000MW coal plant burns over 2 million tons of coal per year' generating huge atmospheric, environmental and health externalities. A similar-capacity nuclear plant, by contrast, uses only 190 tons of uranium yellowcake per year (WNA 2018b). Furthermore where coal transport occupies 40 percent of China's rail capacity and 33 percent of its road capacity, uranium-based nuclear energy reduces the potential for domestic supply disruption and reduces the load on the rail and road network. China is also the world's largest net oil importer today, which is used predominantly for transportation rather than electricity generation, however with plans for major development of electric vehicles, nuclear energy holds the prospects of a stable supply of electricity with a far smaller spatial footprint.

China's 'national champions' model has furthermore invested in two primary nuclear State Owned Enterprises, China National Nuclear Cooperation (CNNC) and China General Nuclear Power Corporation (CGN) - both of whom are engaged in Namibia - to develop next generation reactor designs reliant on cleaner thorium rather than plutonium, and on small modular designs with a lower initial financial outlay to build. Like the Chinese government, many African governments including SWAPO see the potential for nuclear energy. In 2016, sub-Saharan Africa generated the same amount of electricity as Spain, despite having a population 19 times larger. In southern Africa, the prospects of nuclear power generation are closely related to climate change and the drying up of



hydroelectric dams. ‘In early 2020, after water levels fell in Lake Kariba, which provides the majority of the electricity to Zimbabwe and Zambia, the Zimbabwe Electricity Supply Authority had to introduce 18-hour load shedding, leading to severe power outages’ (Matiashe, 2020).

Chinese and Russian nuclear energy companies have emerged at the fore of nuclear energy projects in Africa. In a U.S. policy paper, *Twenty-First-Century US Nuclear Power: A National Security Imperative*, the authors David Gattie and Joshua Massey note how, ‘since 2000, 150 nuclear reactors have been connected to the grid in 22 countries. Of these, 97 are associated with China or Russia in 11 of those countries’ (Gattie and Massey, 2020, p. 4). In a China National Nuclear Corporation powerpoint, CNNC notes how it is ‘currently in export negotiations with Egypt, Algeria, Sudan, Ghana, Nigeria and South Africa.’ Geopolitically, two major events opened space for Chinese and Russian investments. Following the 2008 Global Financial Crisis and the 2011 Japan earthquake and subsequent Fukushima nuclear disaster, demand and public support for nuclear energy projects diminished in Western Europe and the U.S., while they expanded in China, driven by the demand to reduce the nation’s dependence on coal, improve air and environmental quality and secure future energy supplies for a fast developing economy.

## **Methodology**

In the Nama language of Southern Africa, Namib means 'vast place'. The scholarship on 'place' and 'space' forms a prominent terrain in cultural geography. In *Space and Place: The Perspective of Experience*, the Chinese-American geographer Yi-Fu Tuan describes the relation of space and place as a dialectics of experience. Where 'place is security, space is freedom: we are attached to the one and long for the other [...] "Space" is more abstract than "place". The Great Plains look spacious. What begins as undifferentiated space becomes place as we get to know it better and endow it with value. If we think of space as that which allows movement, then place is pause' (Tuan, 1977, p. 3). At night, along the highways of Namibia's uranium mines, the lights of trucks carrying uranium rock gather, power lines hum, stargazing, organised by young local men for white tourists, fall progressively out of place to the mining light and noise.

Namibia as a 'vast place' opens up a tension between this perspective of the experience of space and place. If as geographers have written space is movement, place is pause, then what is a vast place? A simultaneity of movement and pause? A dispersed pause? In *Gravity's Rainbow*, Thomas Pynchon writes of the memory of the Herero and Nama genocide from the perspective of a German soldier two decades later: "Carrying in his kit a copy of the *Duino Elegies*, just off the presses when he embarked for Südwest, a gift from Mother at the boat, the odour of new ink dizzying his nights as the old freighter plunged tropic after tropic . . . until the constellations, like the new stars of Painlessland, had become all unfamiliar and the earth's seasons reversed . . . and he came ashore in a high-prowed wooden boat that had 20 years earlier brought blue-trousered troops in from the iron roadstead to crush the great Herero Rising. To find, back in the hinterland, up in an outstretch of broken mountains between the Namib and the Kalahari, his own faithful native, his night-flower. An impassable waste of rock blasted at by the sun . . . miles of canyons twisting nowhere, drifted at the bottoms with white sand turning a cold, queenly blue as the afternoons lengthened' (Pynchon, 1973, p. 774).



The German expansion into Namibia was driven by a perceived need for lebensraum, *living space*. German urban areas had grown overcrowded due to industrialisation and a population boom. After settlers seized land and cattle, ethnic Herero and Nama people launched a rebellion against the occupiers. German soldiers would retaliate killing tens of thousands, forcing the survivors into the desert and later concentration camps where they were exploited for labor, many dying of disease and starvation, some after being used for medical experiments. In 2011, Germany would send back 20 of the Herero and Nama skulls that had been transported for racial experiments. A decade later in May 2021, the parliament in Germany formally recognised the genocide.

‘Place’, as Yi-Fu Tuan writes, is security, space is freedom. Movement in stillness therefore appears a contradiction in two dimensions. In three however, encompassing the ground and sky, place might begin to hold space for the movement of sentiment, memory and histories as the psychological undertow of communities like a dispersed pause. To draw on the focus of geographers of affect and place, Granata’s suggestion that ‘it is the local reality that determines the total picture, and not the reverse’ opens out into a question of what shape this local reality takes which, rather than a two dimensional surface, here forms a situation with depth and feeling. Limited by the pandemic to a remote program of research, the methodology employed draws on secondary sources from academic papers and books and Namibian newspaper articles.

The primary research material is formed by an archive of YouTube videos compiled by Laborvideo, the San Francisco based labor activist organisation following the worker strikes at the Husab and Rössing uranium mines. Unable to conduct interviews or visit each of the sites, the paper aims to focus on illuminating the shape of a possible collaborative project in the future at the Center for African Studies at Peking University which might draw on some of the conceptual vocabulary of critical geographers and thinkers such as Abdou-Maliq Simone toward a study of the movement of memory, affect and sentiment through Namibian and Chinese worker communities, illuminating the

complex, diverse and manifold experiences of uranium mining and its transnational moments of encounter and difference.

Lance van Sittert from the University of Cape Town, argues that Western scholarship often makes claims toward African histories while diminishing the existing work of African scholars. van Sittert writes, 'only when African informants' lives amount to more than their names, only when endangered African archives are deemed worthy of urgent rescue rather than opportunistic pillaging, and only when would-be-historians of Africa feel compelled to accord African people and archives the same respect they would show such sources in Europe or America will African histories have attained scholarship.' In this sense, a future project of the movement of memory might locate itself closely with Namibian scholars and members of the union and communities engaged in uranium mining where knowledge-making first moves downward into streams of personal and collective memory rather than sideways searching for the commonalities of a singular story or universal logic of uranium mining in Africa.

This paper only touches on the surface of a deeper, more manifold and polyvocal event. In DeBoom's scholarship, she is cognisant of a major silence in her research concerning the perspectives of Chinese communities of workers in Namibia. She calls for the work of researchers in the future to explore the Chinese side of Namibia-China mining relations. In this sense, memory might also form a key dimension of such a project, exploring movements of memory as diverse, polyvocal and polyspectral for individuals and groups in Namibia as much as for Chinese workers far from home and a diverse plurality of provinces, cities, towns, villages in the vast place of China. A future project in this capacity might further draw together the work of Namibian and Chinese scholars and perspectives across various languages into a polyvocal confluence of stories, hopes, aspirations and longings in and along the production chain of uranium ore from earth to plant.

## **Findings**



The Rössing Mine is a vast place. Dust-filled caverns are worked over by night, water is transported in to suppress the vast tracts of dust. Respiratory conditions like tuberculosis and asthma are common. Older miners dying of cancers and other illnesses adjoin a wider geography of illness in former Rio Tinto mines in west Papua, Madagascar, Mongolia and the US. Though the Erongo region has only 7 percent of Namibia's total population, it represents 15 percent of Namibia's annual water consumption. Four uranium mines, Rössing and Husab two of them, account for roughly 65 percent of the region's water usage. This water usage places stress on the water level of regional aquifers. As DeBoom notes, 'because sufficient water is no longer locally available, Namibia's uranium mines pipe water upwards of 60 miles from regional ephemeral rivers and aquifers and a coastal desalination plant. The desalination plant, Namibia's first, was built by France's Areva in 2010 for the Trekkopje mine. Capable of providing up to 20 million cubic meters of water/year (45 million with expansion), it is southern Africa's largest seawater desalination plant. Most of its water is sold to the new Husab mine' (DeBoom, 2018, p. 140).

In April 2020, *The Namibian* newspaper reported of inconsistent water supply. DeBoom speaks to a young man living in Swakopmund who had relocated from rural Erongo to find work, he "could not see a future there...We wonder where the water disappears? Husab takes from the Swakop River. It never reaches my community." A herder described the threat that water scarcity presents to his community during a focus group in a Nama community. "Water belongs to our culture. The mines are able to build desalination plants when the water runs out, but local communities have no such option. What happens to us when the water here is no more? Government can make money, but they must not make it by taking from us." Inadequate water supplies subsequently led the man's village to turn to water piped in by NamWater. During her research in May 2018, DeBoom noted another community in rural Erongo owing NamWater over N\$60,000 (roughly \$5,000) for water used in the past three years. NamWater had closed several taps in the community until an agreement could be reached to repay the debt (DeBoom, 2018, p. 264).



In April 2020, The Namibian reported how the Husab and Rössing uranium mines were experiencing inconsistent water supply from a French owned desalination plant Orano. The Chief Executive officer of China General Nuclear Power Group that owns Husab mine stated the mine had lost 86 days of operations because of a lack of water since 2018, “in 2018 and 2019, we lost approximately N\$1,2 billion, and so far in 2020, we have already lost N\$670 million in revenue. So, just around N\$1,9 billion in revenue losses in two years.” Cai stated negotiations had been held with the Namibian government to grant Husab a licence to build their own desalination plant, accusations were levied that Namibian government-owned NamWater were protecting Orano by blocking mines from obtaining licences to build their own desalination plants. A spokesperson for Orano stated that water interruptions were a result of the sea’s sulphur levels being higher than normal (Mongudhi and Haufiku, 2020). In a very material sense, water exposed the uranium mining infrastructure of the Husab mine to unanticipated flows of extreme weather.

The pandemic has also generated movements of memory and sentiment through the landscape of Erongo. In July 2021, the BBC reported on how Namibia, with a population of 2.5 million, currently had the world's highest daily death rate, at 22 per million people. A young Namibian footballer, who had represented his country at the 2008 Africa Cup of Nations, described the loss of fifteen relatives, his father, brother, sister-in-law and an aunt since the third wave of Covid hit the southern African nation in June 2021: "you do not know whether the world is ending. You can compare it to a tsunami, you can compare this to a volcano, you can compare it to genocide. I don't know. It's like there is poison in the water, and every drop you take might have it, or might not have it.” The article describes how the Namibian government has built makeshift hospitals to accommodate patients.

‘The new isolation center at the main hospital in the capital, Windhoek, is an unassuming building, like the middle of a car park. Before entering the ward, the nurses have to put on full protective equipment, with multiple layers of masks and gloves, and special boots. It takes 15 minutes. The

nurses are constantly going through this procedure so that they are able to monitor the the oxygen levels of patients, most of whom are sleeping or are in a semi-conscious state' (Granville, 2021). At the Rössing Uranium Mine, John Hamutenya describes how 'employees working with inappropriate PPE in the respective department company have been operating for almost three years and yet a lab technician working with corrosive and flammable chemicals was provided the same PPE as the office employee.' In 2020, Namibia's GDP sharply contracted by 7.2 percent. In the spring of 2021, the government applied for the first time in the state's history for funds from the International Monetary Fund to help fight COVID-19 amidst rumours of a new commodity supercycle and recovering uranium prices. In July 2021 meanwhile, Xinhua Net reported from Windhoek on the arrival of a batch of 250,000 doses of Sinopharm COVID-19 vaccine.

If as Simone writes, infrastructure operates as weak, gestural interventions into spectral matters, sentiments of anger and anxiety among Namibian workers emerge from cross-currents of the pandemic, remuneration, water stresses, and senses of being unconsulted or undervalued as skilled workers. In March 2021, *The Namibian* reported of disquiet among the Mineworkers Union of Namibia at Husab similar to the unrest unfolding at Rössing mine. The union formed against the 'decision of the Chinese management board to contract twenty Chinese engineers for plant development and maintenance without their consultation and who appeared unskilled to undertake the technical work, placing the wellbeing of skilled Namibian workers at risk.' Husab mine employs 1632 people of whom 63 are foreigners (48 of whom are Chinese). Of the approximately 1000 contractors of the mine, 91 are Chinese (including the 20 engineers in question.) 'The workers demanded the immediate removal of the foreigners.

At the Rössing uranium mine, protests began in August 2020 after nine members of the Mineworkers Union of Namibia Rössing branch executive committee were fired. John Hamutenya, described that the Chinese National Nuclear Corporation management team were seeking to change an agreement in place for 33 years and to 'renegotiate the recruitment policy; to remove the union's



Chinese Investors Wage Union Busting War On Namibian MUN Mine Workers

offices, archives and boardrooms at the mine; to do away with safety officers and affirmative action monitors; to renegotiate the performance and conduct procedure as well as the disciplinary code; to reduce annual and sick leave days; and to rewrite the retrenchment policy.’ Reading from notes toward a camera against a blue sky outside the labour commissioner’s office in Swakopmund, a member of the fired board rallies: ‘fellow Namibians, Chinese investments like CNNC are not here to better the lives of Namibians - that is a myth that deserves correction. They are here to exploit Namibian people and its natural resources for the benefit of their nation and government. Chinese leadership and people at all levels all have a duty and patriotism to the Chinese people not to the Namibians.’

The story was picked up by a San Francisco based labor organisation, Labor Video, which began from December 31st 2020 posting videos on YouTube documenting the dispute. Drawing on the transcript function of YouTube, an interview with George Martin, the former secretary of the Rössing Branch on August 07 2021 describes how the union plans to travel across Namibia organising labour activities:

‘We have a budget of three months where we travel throughout the country. From Arandis, which is our area in the Erongo region to the northern region and the southern region which is Orange Moon, and all

those mines are named here. We have the Rössing Mine, Husab Mine, the South Refinery, Navachab, Jumbo, B2Gold, Ohorongo Cement, the estimated kilometres that we will have to travel is about 22,240 at an estimated cost of 160,000 Namibian dollars. We will also be mobilising workers all around the mining sectors and encouraging them to remain and to rebuild their unions and also to fight for their basic rights of pay and benefits and health and safety. It is within the context that the branch executive have conceived of the following program to optimise the results of struggle using the labor tribunal as propaganda platform and we intend to rally mine workers as each at each mine around the country on around the issues of the destruction of union movement implicit in the Rössing conflict and we also intend to rally the rest of the organised working class on the same basis in a united front.<sup>1</sup>

The usage of the word united front is interesting given its multiple meanings and historical trajectories in China. George Martin goes on to describe the movement of historical memory in southern Africa:

“you know from hundreds of years ago colonisers came from Europe and literally plundered vast tracts of lands for minerals during apartheid in South Africa and I know it was the same in Namibia. Working class black men in particular were forced into working in terribly unsafe minds for very very little pay because there were just very few other jobs open to them and thousands of mine workers lost their lives in mine accidents and there still are mine accidents today but you know most of the modern safety standards we have in South African and Namibian mines weren't put in place willingly by the mine owners but they came as a result of very very hard struggle including long and bitter strikes by the mining unions. So if a company like CNNC can simply come along and say to the union we're doing away with safety officers, you will literally have mine workers once again dying on the job in easily preventable accidents.

George Martin touches on the media aspect of the union activities.

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<sup>1 1</sup> Laborvideo, 07 August 2021

“We found in South Africa, there are a number of Chinese state-owned entities and private capitalists from china who have bought big stakes in mines, but the issue there doesn't get much coverage, it's mainly the business press or the specialist engineering press that covers it so we don't actually have a big picture of the working conditions on the mines because the engineering and business press are not interested in the views of the workers at all in fact they barely ever mention workers unless there's a strike or a major accident

which causes a whole production and a loss of profits. Another thing is is that you probably know there's very few actual labor journalists or journalists who've been around for a long time left in South Africa, which might be the same in Namibia because the mainstream media has gone through different rounds of downsizing and restructuring and convergence over the past 12 years into a lean, mean operation that follows a 24-hour news cycle.

On August 13, 2021, as part of an international day of action, a rally was held in front of the San Francisco Chinese consulate demanding the rehiring of the nine fired union leaders at Rössing Mine.<sup>2</sup> Speakers at the event spoke toward the camera about the need for international solidarity and for an end to the attacks on the Rössing mine union lawyer Hewat Beukes. Namibian police had surrounded his house and shut off his water and electricity threatening him and his family. The description of the video describes how ‘the CNNC has tried to starve the mine union leaders out by trying to manipulate the arbitration system and trying to corrupt the government and judicial system



<sup>2</sup> Laborvideo, August 13 2021

in Namibia.’ A rally was also held on the same day in New York at the Namibian UN Mission offices.

DeBoom writes at numerous points in her thesis how, ‘were it not for Chinese investments, Namibia’s uranium industry would likely have collapsed post-Fukushima.’ One of the Namibian uranium industry representatives she interviews states how Chinese state-owned entities kept Namibian uranium afloat while market conditions shuttered other uranium mines around the world, including Canada’s McArthur River, the world’s largest uranium mine. It was in this context of increased Namibian government dependency on Chinese foreign direct investment into uranium mining that the Husab mine was formulated in 2008, shortly followed by a Strategic Minerals Policy that envisioned the mine as a project of Namibian resource sovereignty through hybrid ownership with China as ‘a willing and loyal foreign partner’ (DeBoom, 2018, p. 159).

Isak Katali, SWAPO’s Minister of Mines and Energy would describe the Husab project as a new chapter in Namibian mining and the ‘child of a Chinese mining company father and a Namibian government mother, delivered by the midwife Epangelo, and devoted to developing all Namibians.’ Epangelo, the Namibian government’s new state-owned mining company, would own 10 percent of the mine, China General Nuclear Power Corporation (CGN), 90 percent, built at an estimated cost of \$5 billion, China’s largest investment in sub-saharan Africa to date, and enabling the Namibian government to draw revenue from the mining venture (DeBoom, 2018, p. 166).

In Namibia’s domestic press at the time of the announcement the mine was described positively: “Husab Mine Could Save Decaying Economy” (*Namibia Economist* 2016); “Namibia Hopes to Double Mining Windfalls by 2022” (focused on Husab; *New Era* 2017a). China’s state-owned *Xinhua* similarly focused on the win-win elements of the agreement, “Chinese-Operated Mine Becomes Big Employer in Namibia” (*Xinhua* 2018) and “Husab Uranium Mine Tops Job Creation List in Namibia’s Mining Industry” (*Xinhua* 2018). Spectrality - the spectre of economic crisis and

unemployment in the Namibian press, the spectre of job creation as childbirth; and largeness and prosperity in Xinhua formed elements of an intricate web of sentiments around the uranium mine and its prospects. In Simone's formulation, the mine was always already exposed to the movement of feeling and human weather, moving unpredictably with shifting global market conditions and the manifold expressions of different social groups connected to the mines at varying levels of closeness. As the pandemic emerged alongside water stresses, labour and capital emerged in a dispute or as Anna Tsing might describe a moment of transnational friction.

The spectrality of infrastructure might also be examined by the differences explored in language between groups. At the Forum on China-Africa Cooperation in Johannesburg in 2015, President Hage Geingob would describe the new Husab uranium mine as a mine 'opened in a desolate area characterised by barren hills and mountains amongst which a modern highway has been built, leading to life. This mine has brought meaning and purpose to the lives of previously unemployed Namibians. We welcome such projects and that's why we have come to participate in FOCAC with the intention to continue building on our relationship with China in pursuit of more win-win opportunities.' Development, from Geingob's formulation here, presents itself as a spacious and life-giving force, 'the generation of life in a vast and desolate area' (DeBoom, 2018, p. 261). DeBoom however visits Erongo province, and interviews individuals and communities whose perspectives on uranium mining, employment, water provision, health and infrastructure operate as counter-currents to this formulation. For many communities, far from a spaciousness, the loss of water to mining very materially diminishes their experience of space.

AbdouMaliq Simone's concept of spectrality further finds resonance in the work of Ching Kwan Lee. In *The Spectre of Global China: Politics, Labor, and Foreign Investment in Africa*. Lee shadows Chinese, Indian and South African managers in Zambia's underground copper mines, interviewing Zambian miners and construction workers, and working with Zambian officials in order to explore the question, 'is Chinese capital a different kind of capital?' Kwan Lee traces the

distinctions between Chinese state capital and global private capital in terms of business objectives, labor practices, managerial ethos, and political engagement with the Zambian state and society, concluding that Chinese state investment presents unique potential and perils for African development.

It is interesting to note how Lee describes her presence as a shadow, illuminating the spectrality of the researcher, always already a shadow, passing through the infrastructural lives of the communities studied. For Lee, spectrality is also often a condition of institutions, in Zambia she recalls going to the National Archive of Zambia to undertake research on foreign investment in the country's copper mines. When she asked for the lights to be switched on in the main reading room so that she could read the files, she was told that all of the fluorescent tubes were malfunctioning and no one bothered to fix them. 'Hauntingly, most of the files, categorised under different ministerial functions, stop around the late 1970s or early 1980s, as if it was the end of history for Zambia. A friend who had worked there explained that the debt crisis and economic slump was the beginning of this insidious vanishing of the state's institutional memory' (Lee, 2017, p. 169). The institutional memory of government mining archives in Windhoek might form part of a future project. On another level, spectrality might be explored as the complex movements of memories. The questions asked by researchers are often already spectral, aiming forward toward a thesis while always moving backward through the complex psychological, economic and social histories of individuals and communities.

On the outskirts of Windhoek, in the Auas Mountains, *Heroes Acre* built by a North Korean state company 'Mansudae Overseas Projects', was opened on August 26, 2002 in honour of the start of the armed liberation struggle on August 26, 1966. Sam Nujoma, the Founding Father of the Republic of Namibia would speak at the ceremony 'we are writing the history of our country from our own perspective and through our own suffering and sacrifices. The time when colonisers distorted our history is now gone forever.' Instead of statues, graves were chosen so that the





brothers of the struggle of liberation were planted in the ground, fertilising the soil toward a new future yet always deeply connected to the past. In the Herero oral tradition of praise poetry (*omitandu*), graves and the spectral presence of ancestors play a vital role in the claiming of ancestral lands. A future project in this sense might open out the comparative feelings of earth, ancestry and futurity in China and Namibia as excavations of modern archaeology and mining practices elide with memory and collective practices of remembering and forgetting.

## **Conclusion**

In *Tales of Hope, Tastes of Bitterness: Chinese Road Builders in Ethiopia*, Miriam Driessen, an alumni of the Center for African Studies of Peking University studies the experiences of Chinese migrant workers who are ‘routinely portrayed as a homogenous collectives, working in Chinese enterprises as ‘nationally discrete entities with single interests.’ Driessen’s scholarship opens out into a complex, manifold tapestry of agencies, feelings and aspirations. In *Re-enchanting Modernity: Ritual Economy and Society in Wenzhou, China*, Mayfair Yang draws on the work of feminist economic theorists J.K Gibson-Graham to argue that searching for a unified and integrated system or pattern to overseas Chinese investments, follows a similar line of critique once levelled at Euro-American capitalism as a monolithic juggernaut developed by thinkers such as David Harvey, Immanuel Wallerstein and Ernest Mandel which, while not diminishing their critical import, can also often obfuscate the complexity, diversity, difference and genealogical multiplicity of economic and social practices, relations and trajectories that underpin the process in reality.

Multiplicity similarly opens out onto the complex trajectories and spectralities of Namibian voices. As Hage Geingob, the current President of Namibia writes in his PhD thesis, in order to study Namibian history, historians need to know English, Afrikaans, German, Otjiwambo, Otjiherero, Khoi-Khoi, Gwamb or Damara/Nama, and Finnish. Linguistic complexity further branches into geographic complexity, just as Chinese workers may come from a diverse array of provinces, Namibia's mining industry draws its workforce from diverse regions with different linguistic, social, economic and political histories. This focus on the multiplicity of voices and positions might also however begin obfuscating dimensions of unity in experience. For many Namibians, Namibianness traces its contours to a collective memory of the long struggle for independence from European and South African occupations; experiences of revolutionary struggle; South-South solidarity; the quest for prosperity and ownership of the Namibian earth and its minerals; resource sovereignty.

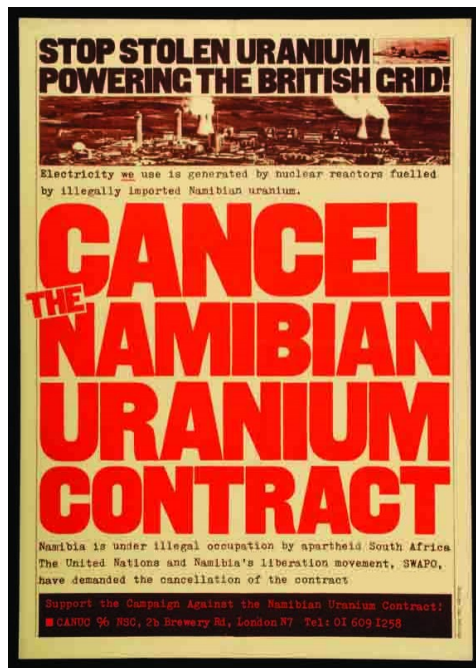
The movement of sentiments transversal to infrastructure might also be drawn into a study of Glissant's motion or Anna Tsing's frictions. For Glissant, 'difference' maps closely to a concept of *métissage*, as an 'encounter and a moment in reality that opens up the possibility of the process of creolisation. If, as Simone writes, 'infrastructure operates as weak, gestural interventions into spectral matters' then it also holds open the possibility of a synthetic of Chinese and Namibian practices. The spectral also opens out a conceptual vocabulary of spectrums, whether in matter, light, colour, or noise. Youth, holding newer memories, are often a lively stream of adaptations. As DeBoom propositions: 'how are domestic politics in southern Africa changing as liberation struggle leaders age out of the system, leave office, or lose political legitimacy? How are both ruling party and opposition leaders (particularly among "born frees") using their interpretations of the "Chinese development model" to advance their political aims? What implications is the political rise of the

“born-free generation” having for political stability, resource governance, and distributive politics, among other areas, in the region and beyond?’ (DeBoom, 2018, p. 291).

The movements of memory of younger generations may altogether hold only loosely onto the memory of revolution. A comparative study of Chinese and Namibian youth might open onto wholly different visions for nuclear energy, technological leapfrogging and distributive politics than the union members of the mines. In this sense, the tenets of a future collective research project in Namibia and China might locate itself as a trans-generational study of uranium mining in Namibia and its transnational gestural choreographies of movement, sentiment, memory and forgetting. Young Namibians studying at Peking University might form one such group to explore the dimensions of such a project with.

The Rössing Uranium Mine was exposed in 2011 to the collapsing tide and subsequent cooling effect of the Fukushima nuclear accident on what had up to then been a global uranium rush from 2007 to 2011. Its exposure plates face onto desert and the Atlantic Ocean. On March 11, 2011, 23.7 kilometres beneath the Pacific Ocean, a huge slip occurred in a southern trench. Multiple regions of the seabed moved simultaneously generating a cataclysmic series of earthquakes. 50 minutes after the initial earthquake, seven high tsunami waves were observed along the Pacific coastline from Hokkaido and Tohoku to the Kanto region. At 15:37, the tsunami hit the Fukushima nuclear plant. Parts of heavy oil tanks, which had stood on the seaside area slammed into the reactor buildings, the waves flooded the basements of the power plant’s turbine buildings disabling the emergency diesel generators for reactor cooling. Water reacting with high temperature fuel resulted in hydrogen generation, this hydrogen then exploded exposing the cores to the intruding Pacific Ocean.

The subsequent tapering back of uranium demand in Europe and the U.S. affected uranium mines globally. In a similar way the pandemic has generated cross-currents that spectrally operate, as very real loss of life and income and more subtly as a generator of currents of rumour, conspiracy and



xenophobia through social groups. Drawing studies of working conditions in the mines closer to vitalist philosophies where memories, infrastructures, technologies, techniques, matter, surfaces, volumes, uranium, dust, water, land, earth, sky constellate around infrastructure, that give a place its vastness as a movement in pause, might open out into a broader field of comparative study of mining labour activism and revolutionary memory between Namibia and north and northeastern China. Ching Kwan Lee's scholarship of protest in China's rustbelt forms one initial opening.

The union activities of the Mineworkers Union of Namibia might further be studied as a series of gestures that radiate into spectral light on the ground and through the wider technological assemblage of the internet. Far distant from the geography of Erongo, protests held in San Francisco or New York illuminate a coming together of technological modes of collective struggle. The union activities also radiate into a spectrum of possible futures, the labour dispute at Rössing mine is live and ongoing. In this sense, this research has already fallen, spectrally, behind events. A focus on the movement of memories of revolutionary struggle might also begin to unearth previous moments of transnational struggle in Namibia's uranium mining industry. In March 1980, *Follow the Yellowcake Road* would be broadcast in the UK by Thames Television, 'investigating the secret contract and operation arranged by British-based Rio Tinto Zinc Corp to import into Britain uranium

(Yellowcake) from the Rössing Uranium Mine in Namibia, whose major shareholders are the governments of Iran and South Africa. This contract having received the blessing of the British government is now compromising the UK's position in the United Nations negotiations to remove apartheid South Africa from Namibia, which it is illegally occupying” (Haseldine, 2014).

At the time, there were fears over the prospect of South Africa developing an apartheid bomb and testing it in the Kalahari desert. Rössing uranium mine would also become enmeshed in the Lockerbie bombing of Pan Am Flight over Scotland on 21 December 1988 in which the United Nations Assistant Secretary-General Dag Hammarskjöld and the UN Commissioner for Namibia, Bernt Carlsson, were killed alongside 259 passengers and 11 people in the town below. In 2013, in London the Hammarskjöld Commission reported significant new evidence of how the plane was sabotaged in order to protect western mining interests in the Katanga province of the Democratic Republic of Congo and possibly in Namibia. Throughout the 1970s and 1980s, activists in Britain, Europe, the U.S. and Africa would keep Rössing mine in the international spotlight via hearings, publications, and demonstrations, repeatedly invoking apartheid conditions and exposing the transnational web of capital and technology that supported the mine (Hecht, 2012, p. 293).

The weight of history in a very material sense returns. Memory operates like the revolution of a wheel. The limitations of this paper are manifold, written as it is many miles from the dispute. At the same time, the hope is that a future project might be developed exploring historical memory and attachments to the hard-fought ground of the Mineworkers Union of Namibia; memories of struggle against European and South African supported apartheid; memories of South-South and Afro-Asian solidarity and collective revolution-making; and the movement of memory through newer modes of transnational capital, encounter, energy futurity, and climatic, operational and labour working conditions. A critical lens in this sense might also be extended to the coincidence in space of the Swakopmund tracking station and the uranium mines. As the Chinese astronauts, Liu Yang and

Chen Dong, visited Namibia in 2019, the story of astronautics in Namibia is one which opens out a parallel story of mining in the earth and mining in the cosmos.

In her novel, *The Old Drift*, the Zambian author Namwali Serpell follows the intertwined histories of three families over three generations in neighbouring Zambia. Serpell touches upon the Zambian space programme of the 1960s, a largely unknown project by a maverick inventor Edward Makuka Nkoloso to send a young woman Matha Mwambwa, to the moon, along with two cats. Nkoloso's Zambia Space Academy, located at an abandoned farmhouse near the capital of Lusaka forms the proposed launching point of a 10-foot oil drum-shaped rocket made from aluminium and copper. Serpell opens up the question of why science fiction is not considered a viable mode for the African novel. In a similar vein, scholarship on Namibia's uranium mining industry might also open out toward its futurisms, tracing together the lives of Namibian and Chinese individuals as crests in the movements of wave-like memory, capital and technology but also imagination operating transversal to the mine.

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## **Images**

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Page 6: Stills from "No Easy Road to Freedom" (1988) dir. Kevin Harris. Accessed at: <https://www.youtube.com/watch?v=b6zNf-cbRVQ>

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Page 8: Photograph of day of Namibian Independence, 21 March 1990. Accessed at: <https://aaregistry.org/story/namibia-gains-independence/>

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