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NTFP-EP

Leaf Litter

Spring Equinox Issue

March, 2023



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The Language Factor

Madhu Ramnath

Some time in 1871, in the *Descent of Man*, Darwin observed that ‘the formation of different languages and of distinct species, and the proofs that they have both been developed through a gradual process, are curiously parallel.....’. Over the years the term *gradual* has been interpreted differently, some languages such as the Creoles, forming due to sudden confrontations between races and cultures, whereas some, like the Indo-Aryan, had the luxury of time to take shape. Whatever the case, the linking of language and biological species is valid.

Both biodiversity and species loss have received more attention from environmentalists, than language has. Language loss is more subtle and, though it happens under our very noses, few people are aware of the implications. Each of the world’s languages and dialects could be seen as a particular way of experiencing the world, and expressing it. Human beings spread across the world and occupied specific niches, which then became vantage points from which they perceived and experienced the world, and described it. The threats to, and the extinction of, biological species are akin to that faced by languages that also become endangered, or die when they are no longer spoken.

Setting this in context, of the 300 or so Native American languages there are only about 175 spoken at present; of these only 8 have more than 10,000 speakers, and 142 are spoken by less than 1000 people, mostly the elderly. The languages spoken by a majority in the Americas are English and Spanish, and Portuguese; increasingly

there is a presence of Chinese and Khmer. Of the estimated 7168 languages spoken in the world a quarter (approx. 1700) have less than 1000 speakers and are on their way to extinction. In India, the 21 Indo-European languages are spoken by 78% of the people, and the 17 Dravidian languages are spoken by about 20% of the people. However, there are 80 languages of the Tibeto-Burmese group, mainly in the north-eastern part of the country, spoken by only 2.12% of the people! We see a high diversity of spoken languages among a small section of the people; each of these languages are spoken by small populations and face the obvious threat of being overrun by the dominant tongues in their vicinity. In contrast, large sections of people speak few languages: English is now spoken by about 15% of the population, many of these by the economically upward moving classes.

One sees that language, food, cultures and biodiversity are all linked. And the trend suggests a homogenization of foods and cultures, and a decline in linguistic and biological diversity. Indigenous languages are a case in point. As their cultures are threatened – mainly due to shrinking territories – and many of the daily activities curtailed, words pertaining to such actions are no longer used. Such cultures often borrow words from the dominant societies that engulf them. These new words are usually embedded in a substratum or grammar of the mother language and, as loan words increase in a language, there is little left of the older original ‘culture’. It is easy to see the effects of biodiversity loss but the implications of language loss is equally great.

Looking at the 6000 odd plants cultivated globally for food, we find fewer than 200 contribute to the global food output. And of these 200, only 9 account for 66% of the crop production in terms of weight. These are sugarcane, rice, maize, wheat, cassava,

potato, sugar beet, soya, and oil palm. Among wild foods, of the 4000 species of recorded foods 24% are decreasing in status. In forest villages in central India with a tradition of wild foods consumption, people collect upto 400 species through the year. However, these numbers are decreasing for various reasons ranging from (again) shrinking ancestral territories to the influx of fast commercial foods. An added but unseen factor is the lack of time, as most wild foods imply an investment in time to harvest, process and cook them in specific ways; it was found that even in places where several food species were available they remained under-utilized as people could not afford the time!! This too will be a cause of certain foods dropping off their cuisines and, over time, their lexicon.

It is necessary to realize the intricate connections between these various facets of our lives that include languages, the food we grow or collect from the wild, and the biological diversity. Each of these aspects impact the other and the decline of one inevitably forbodes the decline of the other. And all of these require a certain amount of *time* to be done properly. We cannot negotiate that.



Pandemic Healing

Felix Padel

The pandemic lockdowns were a cessation of ‘normal life’ that affected every one of us – each person, in each country. Many people’s mental health was severely affected, by fear, isolation, and cutting of social ties, with suicide rates soaring, and health workers under enormous stress. Every region experienced this in different ways, and varied too in how polarised opinions became about Covid-19 and its vaccines. In some countries, this polarisation affected every person, and brought many into a profound ‘cognitive dissonance’: a real mental and emotional challenge from trying to make sense of the conflicting scientific theories and their political expression. This article asks, how could this dissonance be healed?

For a sociologist or anthropologist, a key question is: How did the pandemic affect social relationships? This applies at many levels. Many people were separated from loved ones by the lockdown. People who became ill faced unprecedented challenges and so did their near and dear ones, especially when someone died in isolation. Opinions became extremely polarised on the nature and origins of Covid-19; around the fear of getting Covid, and around policies, strictly enforced in many countries, of lockdown, masks, and treatment; especially over the issue of vaccines and vaccine mandates.

This polarisation is worth looking at closely, to start to assess how the fractures it caused in social relationships could be healed. One key feature of the pandemic was fear: fear of the virus, as well as fear of people who viewed the virus and the vaccine differently; fear of getting infected by the unvaxt, or (for the unvaxt) of getting

infected by vaccinated people shedding the effects of the vax – either way, fear of people who had a different vax status and different beliefs.

Another fundamental question the pandemic raises for a social scientist is: What is the place of science in society? ‘Science’ comes from Latin *scientia* and refers to knowledge in the sense of what can be known by application of observation and rationality. According to Karl Popper’s *Logic of Scientific Discovery* (1935/1959), the principle of falsifiability is at the centre of scientific progress, meaning that no theory can be definitively proved: the nearest a scientist can come is to try to prove a theory false. If you think a theory may fit the facts, you show this respect by trying to disprove it. Science therefore progresses by a constant questioning of received theories, and constant debate, based on experiments.

From the start of the pandemic, one heard the exhortation, ‘Follow the Science!’ But if the essence of science is to question, where was the space for this questioning? Those scientists and doctors who have questioned the current scientific theory as relayed by government health authorities and media have been rapidly deplatformed. Debate was stifled, extremely fast, by what seemed a new kind or degree of censorship. Doctors, scientists, nurses, alternative health experts among many others who questioned the received theory began to be censored from the mainstream media, as ‘conspiracy theorists’, spreading dis- or misinformation that could lead to ‘vaccine hesitancy’.

In such a context, what *is* science? If it is defined socially by the global community of people trained as scientists in universities and hospitals, who are ‘practising science’ professionally, one key factor is membership of professional associations. So if a professor or doctor is sacked or deregistered, this affects their standing, even if they have achieved a lifetime of productive work within the scientific community. The question of

funding is vital too. Where does most funding for medical research come from? If a large part of it comes from or in association with the big pharmaceutical companies who profit from this research (as seems to be the case), how independent is it? Obviously, the threat of de-funding a research scientist or doctor who ‘blows the whistle’ is a major deterrent against speaking out; and this applies to many other professions too.

Thousands of people have been injured by long Covid, or by Covid vaccines. Compounding this injury, and the mental health challenges, is a collective scar on the fabric of society and the cohesion of relationships, stemming from the polarisation. At its most extreme, the two sides are far apart indeed. The side that largely got vaccinated generally believes the ‘official’ version: that Covid-19 arose from a coronavirus that mutated naturally from bats, that the vaccines were largely safe and effective as advertised, and that those questioning this are deluded conspiracy theorists, whose spreading of disinformation forms another level of contagion that should be strictly controlled. The side that resisted vaccination, at its most extreme, believes that Covid was developed through ‘gain of function’ research in labs, that vaccines are a ‘bioweapon’ causing injury and death on a mass scale that the main media outlets are concealing, as well as reducing fertility, with the overall eugenic and transhumanist aims of reducing and genetically modifying the human population.

Such divergent views seem as hard to reconcile as different religious beliefs – a new version of Protestants v Catholics, or atheists v believers, but centred around science.

So can we begin to look more closely at the evidence? In what follows, the emphasis is on hearing a wide spectrum of voices and opinions. This involves highlighting widely circulating views of experts who have been censored, since even supposedly ‘neutral’ search engines such as

Google are systematically marginalising publications deemed to promote vaccine hesitancy.

The first event that needs explaining is ‘Event 201’, a meeting about a simulated coronavirus pandemic held at the John Hopkins Center for Health Security, New York, in collaboration with the Bill and Melinda Gates Foundation and the World Economic Forum, on 18 October 2019. Video recordings show great emphasis on rapidly establishing media control of the narrative, as occurred in reality 4-5 months later. And why the visible presence of military personnel?

Debate on the origins of Covid-19 was steered from the outset by an article in *The Lancet* by 27 doctors in February/March 2020, supporting the initial Chinese response, that labelled the idea of a lab origin as a conspiracy theory. It emerged that the architect of this letter was Peter Daszak, whose EcoHealth Alliance had funded research on bat coronaviruses at the Wuhan Institute of Virology to the tune of over \$60 million, over \$40 million of which came from the US Department of Defense (Sharri Markson: *What really happened in Wuhan*: 213). Put at the head of a UN enquiry into the origins of Covid, Daszak was eventually removed due to this obvious conflict of interest, and on 1st March 2023 the FBI joined the US Department of Energy in coming round to the view of a lab origin as most likely.

As Covid-19 spread to other countries, lockdown policies were implemented in most from around March 2020, transforming people’s work and social contacts. The term ‘lockdown’ was taken from emergency protocol in prisons that confines prisoners to their cells, raising questions of whether the pandemic was a cover for new methods of social control. Use of masks was also extremely controversial, regarding their effectiveness and impacts on human relating.

Huge controversy arose over treatment of those with Covid. In India, many died due to lack of oxygen cylinders. Many hospital deaths in the West were of those put on oxygen ventilators. No other treatment was offered by mainstream medicine at first, with orders to wait for the rollout of vaccines that were being rapidly researched and manufactured. Many doctors, such as Peter McCullough and Vladimir Zelenko in USA, questioned this approach and developed protocols based on combinations of Hydroxichloroquine or Ivermectin supplemented by zinc, vitamins C and D and other medicines, which they claimed saved thousands of lives. These treatments were ridiculed in corporate media and banned by most government health authorities, on the basis of trials that (according to McCullough and others) used much too high dosages, without vital counteractive supplements.

One medicine that was approved in the US and then EU and other countries in mid-2020 was Remdesivir. Research by Bryan Ardis among others brought evidence that this has catastrophic impacts on the kidneys, causing overall organ failure, and is to blame for a large proportion of Covid hospital deaths from late 2020 onwards.

Other controversies during 2020 included the effectiveness of PCR tests, and how Covid deaths were counted: in many deaths counted as ‘with Covid’, Covid seems to have been only a secondary cause. Its presence was largely defined through PCR tests, whose originator had warned stringently against this test’s reliability for diagnosis.

The rollout of vaccines from December 2020/January 2021 was supremely controversial, especially when mandates started to be enforced, making it compulsory for everyone in certain age-groups or categories of health or government service to be vaxt.

On the one hand, this reignited strong controversies about vaccines in general, and whether the use of aluminium

and other toxic ‘adjuvants’ (vital for making the vaccine effective in entering the cell structure) has caused autism and other vaccine injuries. In the UK this debate revolved around Dr Andrew Wakefield, whose article about the MMR vaccine in the *British Medical Journal* in 1998 ignited a furore that led to his deregistering as a doctor. In the USA, Wakefield continued his research into autism and directed an influential documentary, *Vaxxed: from cover-up to catastrophe* (2016). Among many other voices, this highlighted William Thompson, a whistleblower from the CDC (Center for Disease Control), who claims he was among a handful of executives who, under pressure, suppressed evidence of a causal link between vaccines and autism.

This introduces the whole question of ‘regulatory capture’: the institutions that are supposed to regulate the pharmaceutical and vaccine industries appear to be serving their interests, with ‘revolving doors’ offering many regulators lucrative employment in the industries they were supposed to regulate, and serious improprieties in funding.

But are Covid mRNA vaccines really vaccines at all? Many experts question whether this new technology isn’t genetically modifying the human genome, and since mRNA vaccines are based on genetic models of a virus, and certain aspects of the new technology have not been tested properly, they refuse to call them vaccines and refer to them as experimental gene-therapy.

Related to this is debate about whether Covid vaccines have caused widespread injuries and deaths. ‘Sudden adult death syndrome’ has come to the public notice through videos of several hundred sportsmen and media presenters dropping suddenly into a coma or death; and airline pilots dying mid-flight without warning. Are Covid vaccines a cause, or not? VAERS (Vaccine Adverse Event Reporting System) statistics about injuries from the Covid vaccines in the USA exceed officially recorded statistics from all

previous vaccines together, and other countries reporting systems seem to show similar patterns. Cases of pericarditis and myocarditis seem to be far more widespread, concordant with censored medics' as well as undertakers' understanding of impacts of the spike protein and/or other ingredients in the Covid vaccines on the arteries, and evidence from insurance companies (Dowd 2023). Far from being 'safe and effective', many medics and scientists now believe that Covid vaccines spread the spike protein and undermine the immune system.

The Indian government recently admitted that India's vaccines have caused negative side effects, allowing compensation claims to go ahead. Aseem Malhotra, a UK doctor who promoted the Covid vaccine in 2021 but changed his view mid-2022 to regarding it as more dangerous than Covid, has claimed that the India-made vaccine Covishield, based on Astra Zenica, is even more dangerous than the mRNA vaccines.

Huge corruption around the pandemic has been reported, from trials by Pfizer and other companies that were cut short or misrepresented data, to contracts for equipment going to political allies of the UK government, among dozens of other issues in many countries laid forth in *Forbes* magazine and by Transparency International. India's complete lockdown declared on 24th March 2020 stranded several million migrant workers, who were often treated abominably as they struggled to get home, and a large but unrecorded number died.

Impacts on fertility are another particularly contentious topic, with thousands of reports of pregnancy and women's periods compromised. Francis Boyle, one of the world's leading experts on containing biowarfare, declared Covid-19 a bioweapon early in 2020; which is how many scientists now regard the Covid vaccines. Evidence from pharmaceutical whistleblowers, including Sacha Latypova, highlight the role of the US Department of

Defense in controlling deals with the vaccine companies along with the whole pandemic narrative.

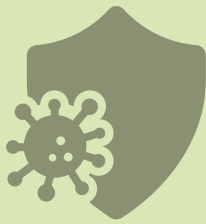
'Fake news', and accusations of misinformation have become so common that many refer to our current age as one of 'post-truth', with some journalists even questioning whether objectivity is a proper aim now. Intelligence agencies exert huge control over the main corporate media outlets, which have close financial and ownership ties with the pharmaceutical industry. Rockefeller Foundation philanthropy established this connection from the 1910s-20s, and the Gates Foundation has similar parallel investments in media and medicine. 'Cognitive warfare' by NATO involves a 'battle for your brain' through ultra-sophisticated propaganda.

One aspect is the character assassination of anyone who questions the orthodoxy - not least in Wikipedia, which appears in this sense as a tool of intelligence agencies and big pharma. Anthony Fauci and Francis Collins agreed to orchestrate an attack on the Great Barrington Declaration in October 2020 – a key moment when debate was suppressed, according to an article in the *Wall Street Journal*. The Great Barrington Declaration was signed by approximately 50,000 doctors and scientists and 800,000 members of the public. As Ray Bhattacharya has said, one of its three co-authors, this attack created an illusion of scientific consensus that was highly deceptive.

Can we return to a culture of open, respectful debate, and healing between those who have taken such divergent views? If so, starting to write and speak inclusively for the vaxt and the unvaxt seems a starting point, which also means for people who follow government health authority lines and for those who see a tendency towards conspiracy all around. The biggest blinker is probably fear, unleashed through media – on one side the terrifying possibility that there really may be an overall conspiracy to cause harm involving propaganda and mass censorship;

on the other, fear of this censorship and character assassination that silences people speaking out from what they know or experience. Can we hear and have compassion for other people's truth, even when it contradicts what we think we know?

Felix Padel is a writer and activist



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Adaptation to climate change: a Bobbing Forest

Wiert Wiertsema

At the end of last summer in the southern hemisphere we saw reports of dramatically higher levels of sea ice melting around the Antarctic continent. In the absence of sea ice, the glaciers of Antarctica get the opportunity to slide much more quickly into the surrounding ocean waters. The magazine Nature

(<https://www.nature.com/articles/d41586-023-00459-6>) recently reported on research done at the Thwaites Glacier, a fast-moving block of ice — roughly the size of Kerala and Tamil Nadu together — in the West Antarctic.

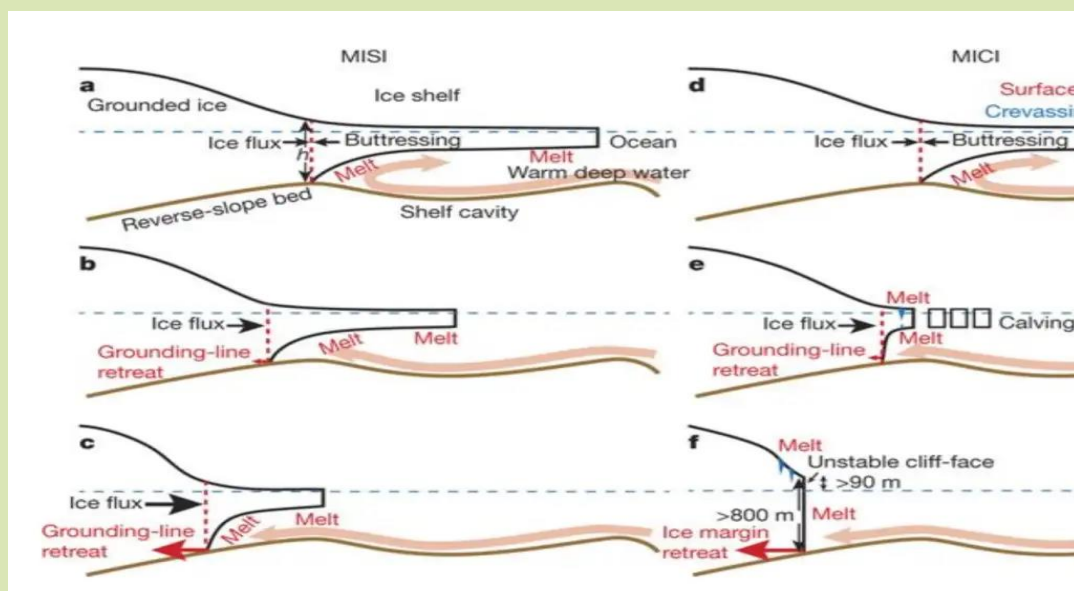
Satellite studies have shown that it's 'grounding line' — where ice attached to bedrock transitions to ice floating in the sea — has shifted 14 kilometres inland since the late 1990s, and some parts of it are retreating as fast as 1.2 kilometres per year. As the grounding line moves inland, it levers up more, ever-thicker ice to float on the sea. This, in turn, raises the sea level and makes the glacier move faster. This process can lead to accelerating collapse, as the erosion of the coastal ice allows many kilometres of ice behind it to flow more rapidly out to sea.

Source illustration:

<https://www.nature.com/articles/d41586-023-00459-6>.



Schematic illustration of floating ice shelves, and the underlying ice sheet. As the ice shelves break off, the calving and melting of the ice sheet also increases. Source: <https://www.nature.com/articles/nature17145>.



Though it may be too early to present accurate predictions of what will happen to Antarctic ice and global sea levels, scientists clearly raise alarm bells that the disappearance of sea ice can have cascading effects in Antarctica and beyond (<https://edition.cnn.com/2023/02/21/world/antarctic-sea-ice-record-low-climate-intl>). The latest official measurements for the Netherlands already show that the sea level rise in the North Sea coast is 1,5 times faster than it was in the last century (<https://www.knmi.nl/over-het-knmi/nieuws/zeespiegel-nederlandse-kust-stijgt-sneller-door-klimaatverandering>).

Obviously these kind of news reports raise many serious concerns for low lying coastal areas around the globe. The Netherlands is preparing for various new rounds of climate adaptation measures. Significant investments are due for coastal protection against rising sea levels, which include the strengthening of dams, dikes and beaches. More basins are earmarked and prepared for the storing of peak levels of fresh water coming with the various rivers that flow into the Dutch delta. Similarly, much higher levels of precipitation in short time spans require drastic adjustments in the spatial planning of already fairly densely populated areas.

Adaptation to climate change is serious business, involving several public agencies, financiers and private dredging and construction companies. It is no coincidence that the Global Commission on Adaptation – a group of global leaders from political, business, multilateral, and scientific worlds – was launched in The Hague (<https://gca.org/about-us/the-global-commission-on-adaptation/>). Following the Climate Adaptation Summit of 2021, the work of the commission is now being taken forward by the Global Center on Adaptation (<https://gca.org/>).

We all know that the best way to prevent further climate change is to stop emitting

greenhouse gases in the atmosphere at an industrial scale. For that we need to enhance concentrated efforts on keeping fossil fuels in the ground. At the same time, however, it is necessary to generate further public awareness about the risks extreme weather can pose to peoples' immediate surroundings. Such awareness is required to ensure the involvement of people in all decision making for effective climate adaptation measures, well before any trouble happens.



Flooding in July 2021, the Netherlands, source:

<https://cdn.nos.nl/image/2021/07/21/765368/1024x576a.jpg>

The generation of such public awareness is the objective of a peculiar Dutch adaptation project: the “*Bobbing Forest*”. This is an urban landscaping art work, a park in the water, or if you wish, a floating forest. The installation, designed by three members of the Rotterdam art collective Mothership (<https://www.enterthemothership.com/en/het-dobberende-bos/>), was established in 2016 in the port city of Rotterdam. In the down-town environment of Rotterdam dominated by housing, roads and traffic, the Bobbing Forest catered for some very welcome extra greenery.

The Bobbing Forest in Rotterdam (2016), source:

<https://ecobnb.com/blog/2016/07/rotterdam-floating-forest-trees/>

The Bobbing Forest consists of 20 Dutch elm trees that are put up in a similar number of recycled buoys that in a previous life span were posted in the North Sea. The forest is a mono-culture as it appeared that only the Dutch elm tree could survive in the floating buoys. Reportedly other tree species suffer from seasickness due to the buoys constantly moving in the wind on the ripples in the water. While trees are used to their branches moving in the wind, having moving roots as well seems to be a different story.

Since Rotterdam has an open connection to the sea, unfortunately, the water in which the trees were floating appeared to be too brackish to survive. So the Bobbing Forest had to move to a different place with fresh water only. That place was found at the horticultural Floriade World Expo held in 2022 near the city of Almere. First moved on to a boat, then on to a truck and then back into the water, the trees survived their 110km trip.



The Bobbing Forest on the move (2021),

source:

<https://www.hortipoint.nl/deboomkwekerij/dobberend-bos-neergestreken-op-floriade-in-almere/>



Following the closure of the horticultural exposition last year, the Bobbing Forest finally found a new location across from a lake – the Weerwater – close to the city center of Almere. As Almere is 5-6 meters below sea level, this is a good place to make people think about their surroundings. It remains the privilege of human beings to decide if and when the Bobbing Forest will move on.

The Bobbing Forest in the Weerwater of Almere, foto by author



Wiert Wiertsema works with BothEnds, Amsterdam

The Adivasi and the Tiger: a perspective from northern Sahyadris

Vijay Sambare

The Kalasubai - Bhimashankar landscape is part of the northern Western Ghats, situated in the Pune & Ahmednagar districts respectively. The Mahadev Koli are a major Adivasi community in this terrain; the Thakar, and other forest-dwelling communities, also lived in the same villages & hamlets.



Animal worship (or zoolatry) refers to rituals involving animals, such as the glorification of animal deities. When a god is respected or worshiped by means of a representative animal, an animal cult is formed. Perhaps, early humans observed an animal with a unique trait and the inexplicability of this trait would appeal their curiosity. Wonder resulted from human observation of this distinctive trait, encouraging respect. Tiger worship among many adivasi communities of Maharashtra could be due to similar reasons.

The Warlis communities from the Nashik and Thane districts of Maharashtra consider the tiger a god. When a Warli person hears a tiger roar, or spots tiger pug marks, s(he) will shout "Pahuna Aala",

meaning the guest has come. Then s(he) will break a coconut over the pug mark and smear it with 'gulal'. The presence of a tiger heralds a good harvest.



Likewise, the Mahadev Koli and Thakar people consider the tiger very auspicious. They worship the tiger god called 'Waghya Dev' which they regard as a forest deity responsible for maintaining the balance of the forest ecosystem. Tigers are known as 'Laxmi', goddess of wealth, and it is believed that a tiger residing in the village forest brings good farm and forest harvests. In most villages in the Kalasubai-Bhimashankar landscape, the Mahadev Koli community have a tradition of conserving a forest patch in the name of the tiger god (*Waghya Dev*). Such forests are known as conserved forests, *Devrai* or *Ban*. Almost every village has a wooden sculpture of *Waghya* on its periphery. In the village Talemachi there are wide and big sacred groves of *Waghya* to this day.

There is a unique tradition of the Mahadev Koli adivasi community which has a wooden sculpture of *Waghya* for one generation. About 18 sculptures tell the story of nature and human relationships. Each year local people celebrate *Wagh Baras* (Tiger festival) in this landscape. The pastoral youth group, who herd the Dangi cattle breed,

organize the tiger festival with a feast of sweets, games and songs. If, during this time, a tiger hunts any cattle or other livestock, the people take it very lightly and appreciate the occurrence, as the tiger has a right to livestock.

The local community observes the relationship between tigers and wild boars. If tigers decline in a specific terrain, the pig population increases. The presence of the tiger is crucial to sustaining the local ecosystem.

When we travel through this landscape, we find respect, love and a cultural relationship between the local adivasi community and the tiger; I think it's a unique tradition and heritage in the context of human and wildlife conflict. The Vidarbha region of the Maharashtra has a large tiger population. Compared to other parts of the state, the north of Western Ghats and the Sahyadri landscape has a smaller population. But some tigers migrate through their habitual corridors, traveling back and forth.

Chandrapur and Yavatmal districts have a big population of tigers; wildlife statistics say that more than 60% of tigers are found in just these two districts. So the conflict between locals and tigers are ongoing for the past two decades. In the last 10 years more than 26 tigers and 123 humans have died in this conflict. The government has declared some of these forests as Tiger Reserves or Critical Wildlife Habitats. And there is a tension between the local communities and the wildlife department. Local people treat tigers as enemies. Consequently, local people hate forests, wildlife and protected areas. In this scenario how can we develop a community-centric management of wildlife?

I think a solution could be found in the wisdom of the 'ecosystem people' (the local adivasi) and their organic

relationship with the forest, wildlife and the overall ecosystem. It may possibly be found in the small patch of northern Sahyadris. Dr Vartak and Dr Gadgil are senior scientists who pioneered the work on Indian conservation rituals in various scenarios. They mention their work in the Sahyadris and their appreciation of the organic relationship of the Mahadev Koli and Kunabi with the forest. They say that *India has rich folk traditions of the conservation of biodiversity and the sustainable use of natural resources, to which at least its 'ecosystem people' still stay to varying degrees.'*

The protection of whole communities of sacred ponds and groves is a remarkable feature of the Indian subcontinent. One of the most widespread traditions in India is the protection given to trees of the genus *Ficus*, which dot the countryside and are often the only large trees in the midst of towns and cities.

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Adivasi women from Kalasubai-Bhimashankar landscape have a big collection of traditional songs. A special Marathi song of women about the tiger goes.....

देवु वाघ राजा, तुला मानाची आरती
गावाच्या येशिला तुही चंदनी मुरती ॥
देवु वाघ राजा तुही रावदे सावली
चांदण्याराती तुयी सवारी पायली ॥
देवू वाघ राजा उभ्या रानाचा राखन
तुह्याविना देवा आमची कसाई राखन ॥

(God tiger king, we worship you. Please come to our village...welcome. We will sculpt your sandalwood statue and set it on the entrance of the village. We live in your shadow. You look so beautiful in the moon light. Only you can protect our landscape. Otherwise our behavior with nature is like that of a butcher)



Traditional Ecological Knowledge (TEK) of Bhyans and Juangas

Pravat Mishra

The Bhuyan and the Juang of Keonjhar district are referred to as Particularly Vulnerable Tribal Groups (PVTGs). They practiced shifting cultivation but now-a-days they cultivate vegetables and even rice cultivation in low lands. They understand natural phenomena and animal behaviour well enough to predict rain. Accordingly, they prepare for ploughing, sowing and taking other decisions regarding cultivation. Certain elders in the community, known as 'disharie' also help in weather prediction; they are said to be spiritually endowed. Such knowledge is now fading out. However, such knowledge, accumulated and passed on through tradition plays an important role in the conservation of landscapes, especially in the context of climate change and increasing human population and pressure.

Ecologists, usually aim to conserve the commons (Land, Water and Forest), and it's biodiversity through research, action and advocacy in partnership with local people. Such work is focused mainly, though not limited, to conservation measures alone, like controlling forest fires or, in the present times, CFR area management, etc.

Rural life is a web that links many areas of ecological concern. For instance, traditional farming did not use chemical inputs and now goes by the name of organic farming. Farming has a part of human culture for thousands of years; rearing cows and bullocks, adding manure in the soil, planting trees, conserving water, protecting the environment, and

domesticating animals, and revering some wild animals have all been a part of our religious values. People are aware that any human interference with nature and natural resources is based upon the quid pro quo principle. Overexploitation of nature results in unsustainable development. Juang and Bhuyan Pidha agricultural practices, when compared to modern agriculture, brings these differences into sharper focus.



The traditional tools and equipment that most Adivasi peoples use are very simple. For instance, the fish traps used do not kill all the fish in the water bodies; indeed, when a fish is found with eggs it is set free in the water. Likewise, NTFP collectors have sustainable harvesting practices. A portion of whatever they collect is left unharvested in order that other creatures who depend on that resource may also live, and perhaps spread the seed!! It is unfortunate that competition and market forces destroy these noble qualities in the people, replacing need with greed. Without using the words, Adivasi communities seemed to have understood the interdependency between the lithosphere, hydrosphere, biosphere and atmosphere. They followed the method of soil conservation through different methods, water conservation through excavating big tanks (muda, kata, bandha, sagar, tanks) that lasted through the year, and forest and wildlife protection and

conservation. There were no governments and its laws; the community had its own laws and rules that were strictly adhered to violations were dealt with appropriately.

The degradation of the commons can be attributed to weak tenure rights, erosion of local institutions, and the misplaced belief that local communities are ineffective managers of their shared natural resources. The Gramsabhas and other community institutions support communities secure tenure over their commons. Where the Forest Rights Act applies, communities are supported to claim rights over their commons, such as the community forests. Where there are wastelands, local institutions help village communities acquire long-term leases and increase pasturelands. Many civil society groups enable local communities map their common lands (wastelands and pastures) and register them in the Prohibitory Order Book or Panchayat Asset Register, to limit them being diverted to other uses. For good local forest management:



1. A community can prepare Biodiversity registers to document the Flora and Fauna of their village jurisdiction and monitor this over time.
2. The community can take the help of elder people and traditional healers to document the rare, endangered, threatened and extinct species of both flora and fauna.

3. Intellectual Property Rights of the communities need to be documented and preserved so that they do not drop out of the community.

4. Environment and Forest Department, Government of Odisha has promoted Medicinal Plant Conservation Board to promote in-situ conservation of medicinal plants that were specifically identified by Traditional healers and now protected by Van Surakshya Samitis.

All traditional ecological knowledge of the community is an asset. The new generation is not giving importance to it as alternatives are available in the market. However, such knowledge and skill should be revived, documented, stored and utilised at the community level in order that the coming generation could know practice it.

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Is tourism a curse to the landscape?

Hemalatha Nalla

Vanjangi is an adivasi Gram Panchayat headquarters in the Paderu Agency, Andhra Pradesh. It has recently become popular as a hill station. It's famous for its breathtaking views, of clouds covering the hilltops, and mesmerizing sunrises. The best time to visit the place is between November and January. The few surrounding habitations like Kottha Vuru, Goppulapalem, Korruputtu, Bakkalapanuku are being impacted both positively and negatively by the tourism in the area.



About 8 years ago, some coloured (semi-precious) stones, known locally as 'rangu rallu', were found in the Vanjangi hills, drawing in a host of outsiders and some collateral damage. This interest somehow calmed down and the government intervened to stop the destruction.

Simultaneously, the tourist spot mentioned above became rapidly popular during the last 3-4 years, attracting people from across Andhra Pradesh and elsewhere in huge numbers. As the prime attraction to the place is the unique view of the sunrise, reaching the hilltop by dawn is now difficult. Tourists are forced to spend the previous night camping either in the woods, or in the nearby village to be in time for the sunrise!

On the one hand, this has opened doors to new opportunities for the local people in Vanjangi village. The down side is that many tourists go into the woods at night, causing much noise and pollution to the forest area. The risk of forest fires from the campfire activities have increased.



The livelihood opportunities for the communities in the area is promising, creating jobs and new business avenues, helping strengthen the local economy. The most remunerative opportunity in the area is the hiring of tents. However, this is controlled essentially by the non adivasi outsiders as locally based adivasi people cannot afford the investment.

The rapidly transforming scenario in the landscape is alarming. Concerns from the local people is the fear of losing their traditions and identity, as these are very much connected to the forest and nature. More than a hundred acres are being cleared of all greenery to establish temporary camping sites for tourists, in and around Vanjangi village. Alcoholism, drugs and other associated issues are engulfing the local area, impacting the youth in a negative way.

Some of the hills in and around these tourist places are sacred to the communities for generations; some of the elders won't even wear any footwear out of respect when in the vicinity of these hills. The damage and disturbance caused by the tourism offends the local people, as it disrespects their forest gods. The hills are known as Ammoru

Konda, after the hill goddess, but now, with the new popularity the name is Meghala Konda, The hill of Clouds.

Though some households from Vanjangi and surrounding habitations are benefiting from the small enterprises generated by tourism, the story of a few surrounding villages, like Borramamidi and V. Kottha Vuru is different. Their coffee farms are damaged due to an excess of plastic litter that the tourists throw around; and the noise pollution, even in the middle of the night and weekends is unbearable.

Local community representatives have submitted their petitions to the authorities; in response the Project Officer, ITDA (Integrated Tribal Development Authority), Paderu, has taken a step to limit tourists from going into the forest after 8 pm. This is a small move but still better than nothing! Dismayed at the state of affairs, a community person said, “we don’t want tourism to continue in this area, whatever opportunities it brings!!” It expresses the contempt the people have against the growing tourism industry and the adverse impact it has on their lives. This needs to be addressed thoroughly and immediately, by the government, civil society organizations and activists. We need a good strategy that includes banning plastic immediately, along with other matters that involve local indigenous communities as the key stakeholders, that benefits local cultures and the ecosystem.

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From *Wittgenstein's Silence*

Mark Antrobus

1. Logical positivism then, would be marketplace metaphysics, anti-idealist doctrine—attached to scientific and humanist work: the methodology, the simplified universe of the excluded variable. In a search for clarity and exactitude, we are taken out beyond ourselves, if truth were told.¹

The brain waffles on. Suppresses as much as it reveals. Philosophy cannot bear the silence. It puts it out of a job! Meanwhile, Bertrand Russell—illustrious tutor to an unknown Ludwig Wittgenstein²—approaches reality we want to say with the stubborn subliminal *idea* of *things*: though facts are *not meant to be* things—facts, he says, are about whether it is raining or not, and the distance from London to Edinburgh, things they are, and therefore metaphysical. His way of thinking (*Denkweise*) stands in high contrast to that of his student Ludwig Wittgenstein who was ready seriously to go beyond objects.

¹ “Oddness of hearing metaphysics mentioned in the same breath as logical positivism—what is the excluded variable?” Sorry about that. Better one glide over rather than pick out words. Glide over, let things stand out on their own and review later. Research speaks of the laboratory as the *simplified universe*, where variables are excluded, a play on *the excluded middle*. Logical positivism is (unintentionally and ironically) metaphysical because, despite calls for pragmatism and empiricism, it treats with ideal constants, numbers. Materialism is (unconsciously) metaphysical as Nietzsche rightly sees because it deals in the schema of a thing in-itself: a table as such, a chair, a rock, a house, a tree. Unconsciously metaphysical is the stage-set schema folks take for granted as real. Our world is slowed light (electromagnetism), what physical investigation

He begins on the slick ice of *logicism* from Gottlob Frege, A. N. Whitehead, and Bertrand Russell to derive *all of mathematics* from “laws of thought” with the abstract theory of relations etc. This slick ice *takes him* to a direct, sensual experience of what were ‘correctly’ treatments of abstract philosophy, from which he crosses over to *where angels fear to tread*, in the estimation of *experts* in abstraction. As to *the mystical* in Wittgenstein Russell is caught between incomprehension and obviation, while the Vienna Circle indulge this personal quirk, averting their gaze, while entranced by his analytical prowess fundamental to a new *logical* positivism.

Wittgenstein admires Frege’s quest for *clarity* to “prevent anything intuitive from penetrating here unnoticed.” To do this Frege must “bend every effort to keep the chain of inferences free of gaps,” where he finds: “the inadequacy of language to be an obstacle, no matter how unwieldy the expressions I was ready to accept, I was less and less able, as the relations became more and more complex, to attain the precision required,” and he thus develops logical symbolism as a way out of this

tells us, our senses tell us too through seeing aright. Plato and Kant moot the noumenal sphere where noumena (things in-themselves) exist as ideal forms. Regular everyday concepts of objects place noumena squarely in our concepts around common “mundane” reality. Hakuin’s “This very earth is the Lotus land of purity ...” represents the world made of slowed light—the bounded whole (*begrenztes Ganzes*) under the aspect of timelessness—a whole, rather than many separate things (*qua* noumena) in a stage-set schema of commonly received “realism”. Part Two (§12) explores the relationship further between Russell and LW and a possible origin of “the only correct method in philosophy”.

² UK philosopher, social activist, Nobel prize-winner Bertrand Lord Russell (1872-1970). Austrian-British philosopher Ludwig Wittgenstein (1889-1951).

difficulty.³ One thing Frege notices, which is crucial and which Wittgenstein echoes, is that each symbol has a *use*. We do not seem to be able to stand outside the trap of *use*. This concurs with C. S. Peirce's definition of *pragmatism*: identifying an object we say *what it is for*. Hence we are rounded in a bubble of our own relations with the world around, what Wittgenstein would call the riddle of life in space and time.

What he originally called *Der Satz* (a play on the German for 'sentence' and 'proposition' but also 'set of tools', 'musical passage' and even 'coffee grounds', but most tellingly 'a leap') became in the English version the more lofty *Tractatus Logico-Philosophicus*. Worked on right from learning *symbolism* in Cambridge in 1912 through punishing self-servitude to logic in Norway and then through the War which "saved" his life, his 1922 *Tractatus* includes *the fact* that "logic is transcendental", and finally *the fact* of a timeless and bounded whole (*begrenztes Ganzes sub specie aeterni*). Frege, above all others, garners his respect for his intense tunnelling into 'laws of thought', which then *represent* the logical form of reality and then an ethics of life as she is lived. "It is better to be good than clever," he tells Russell after the War, beseechingly. George Berkeley, who he also admires, a couple of hundred years before said: *percepi est esse*, thought is being—as formulation echoing today in phenomenology and by physics in theories of 'consciousness'.

2. Lord Russell with A. N. Whitehead exhaust themselves over the gruelling *Principia Mathematica* (1910-1913) to show *logically* how $1 + 1 = 2$!—As a champion of positivism, Russell fixes on like logicist matters in a concern called set

theory and, encountering his own paradox: the theory of types where we retreat to one dimension after another (evocative of mathematical string theory in physics in recent times). Set theory arose when, I mean, looking into it, how to demonstrate what, say, the number five (5) actually means? Numbers are dimensionless metaphysical constants. Then? What is five? Well, you count out five (5) goats in a pen and you have a set (or class) of five (5) goats. And this is what 5 means. You organise a tea party with five cups-and-saucers and you have a table set for five and a *set* of five. You can have a set of a pen and a table. You can have an empty set. But what about the set of all sets that does not have itself as a member?

But, first off, simply organising things (or nothing) inside a circle is neither here nor there; it is still an *object* with or without parts. As to the sense of a set Wittgenstein in effect points out that you have still formed a set *in your mind*; there is an inside and an outside. You are the limit of that definition, outside this world not part of it.

3. What cannot be numbered or divided? This was by Russell called *logical atomism*, the reduction of terms to an indivisible element. Here, again, we are left with the pragmatism of an irreducible thing (the *noumenon*), as Democritus devised for atoms as the foundation of our world. But is the world made of noumenal things? The Greek notion itself is split in Pre-Socratic times (Parmenides, Zeno and Heraclitus vis-à-vis Democritus and Epicurus), the quandary down to wave-particle duality. As to a thing-based universe of logical building-blocks building off in an infinity of space and time?—if you want to go all out, concludes Wittgenstein, why not take the

³ German mathematician, father of analytic philosophy Gottlob Frege (1848-1925),

Begriffsschrift, 'Preface', 1879—"did arithmetic derive from logic or facts of experience?"

entire world—(of experience as essence) which is all the facts and everything that is the case (*TLP* §1) and remove time and round it into a bounded whole (§6.45)?—This becomes indeed the inexpressible, it *shows* itself: it is the mystical (§6.522). We cannot show it, it shows itself. Whew!

4. Wittgenstein speaks of the “the philosophical I”—to be distinguished from the body and the soul handled by psychology, set apart too from a *thinking thing*, that illusory subject entertaining ideas—for Wittgenstein the I is central to things, facts, number, logic and thus *our engagement with* physical reality: I am the limit, yet not part of, the world entire (*TLP* §5.641). Does Russell *get* what he has to say?—do the Vienna Circle logical positivists? Do those who laud him as an oracle *really* understand their hometown prophet? For Russell *the whole* is an abstract totality (*Gesamtheit*), an aspect of a theory of types bounded as a set with a mega-set and mega-mega set, as a string into the night. While to Wittgenstein (we want to say) the Night curves the light of knowledge back onto “the I” that is deeply mysterious.⁴

5. With a young mind to *complete* Continental and Insular positivistic logicism—in a search for “crispness and clarity”—Wittgenstein describes *Solipsismus*⁵—the shrinking of self to zero till it coincides with realism (*TLP* §5.64)—that is, when solipsism is carried out

⁴ LW *Notebooks 1916-1914*, §5.8.16.

⁵ In his 1922 ‘Introduction’ to *Tractatus* (xx), revealing ‘dogmatic slumbers’ around the central feature of the ‘I’—*contra* Wittgenstein, Russell claims, “Our world ... has nothing outside it, and in like manner our logical world has no logical boundary because our logic knows nothing outside it. These considerations lead him to a somewhat curious discussion of Solipsism.” Curious—or central to life and logical form?

⁶ Secondary literature over decades annotates a Zen-Wittgenstein parity:—Wienpahl, 1958;

thoroughly (*streng durchgeführt*), no halfway measures around ego and such: strictly enforced, conducted, executed:—it becomes a *way of sight* interestingly enough one finds in Zen.⁶

□

6. For all his difficulty understanding Wittgenstein in 1922—in 1912, Bertrand Russell reiterates a classical Pythagorean, Neo-Platonist message—

The finite self ... builds prison walls round the infinite part of our nature, and endeavours to restrain it from that free life in *the whole*, which constitutes its being. ... It is the escape from prison that gives some moments and some thoughts a quality of infinity, like light breaking through some greater world beyond. Suddenly beauty in the midst of strife, uncalculating love, or the night wind in the trees, seem to suggest the possibility of a life free from the conflicts and the pettiness of our everyday world, a life where there is peace which no misfortune can disturb. The things which have this infinity seem to give an insight deeper than the piecemeal knowledge of our daily life.⁷

7. Was Russell slumming?—or was a *quality of infinity deeper than the piecemeal knowledge of life?*—“like light breaking through some greater world beyond” of unconditional love, “like the night wind in the trees ... the possibility of a life free from the conflicts and the pettiness of our everyday world ... where

Canfield, 1975; Phillips, 1993; Carl Hooper Roshi (Mysterious Cloud), ‘*Koans: The Philosophical Investigations of Zen*’, PhD Thesis, University of New England, 2007; *The Great Conversation*, Melchert, 2007; Zhangsinong Liu: ‘*Wittgenstein is a Buddha*’, 2018. Each recognises, names, analyses, describes and identifies a *family resemblance* bridging this unique *analytical* western thought and the eastern genius of Zen.

⁷ BR ‘The Essence of Religion (Finite vs. Infinite)’, *The Hibbert Journal*, Vol II, October 1912. *Italics* added.

there is peace ... no misfortune can disturb,”—was it a direct experience?—if so, even while breaking from his lover, the influential Lady Ottoline, friends with T. S. Eliot and Aldous Huxley, must he likewise correct his course?—His 1951 autobiography records he *abandons* “the romantic and the mystical” for mathematics at age nineteen—while still, in 1912, at forty-three, under Ottoline’s sway⁸ this romance—around “beauty in the midst of strife”—retains a redolence.⁹ Russell sought out philosophy, he says, for an answer to religion—and rejects religion for philosophical mathematics, as clarity and *crispness*—making some think him “a cold fish” after all—he admits in a 1952 interview. His 1912 description though on the evidence of its effects speaks for itself; even as a sympathy with *Plotinus* and *Parmenides* pervade his highly popular *History of Western Philosophy* (1946).

8. In his 1912 ‘Essence of Religion (Finite vs. Infinite)’ Russell reiterates Andreas Feuerbach’s *Essence of Christianity*¹⁰, which, in turn recapitulates Florentine Neo-Platonist Mirandola to whom in fact Wittgenstein is attracted;—here we comprise a *higher* and brutish part within our individual nature. Wittgenstein protests Russell’s use of ‘finite’ and ‘infinite’ as vague, senseless even within mathematical logic. We can speak of a *possibility* of going on and on, as an adverb, but to posit a substantive *infinite*!?¹¹ Russell echoes Feuerbach in saying religion fails at its job: when a liar is

telling the truth, who is to believe him?—religion must renounce imposing dogma and fanaticism on the world, on the universe and in Nature—and learn from her instead; let man seek union with “the infinite” through a subordination of an “instinctive” use of the amenities. For Russell religion was bankrupt, then how was one to achieve the infinite?—Feuerbach said, by love. Wittgenstein loved deeply, but never used the word.

9. It is with a mixed sense of bemusement and disappointment that Russell receives a rebuke from his youthful protégé—given pause by its *louche* expression—

Wittgenstein, who had been unhappy about the article, felt that Russell “had been a traitor to the gospel of exactness and wantonly used words vaguely: also that such things are too intimate for print.”¹²

10. A decade on, *Tractatus Logico-Philosophicus* expresses the ‘inexpressible’ what is “too intimate for print” while in his Introduction to *Tractatus* Russell (missing the point entirely) ribs: “Mr Wittgenstein manages to say a good deal about what cannot be said.”

Hence, a bloody “War to End All Wars” (1914-1918) after ‘Essence’ Mr Wittgenstein broadcasts the gospel of exactness culminating in *das Mystische* (TLP §6.45) followed by “the only right method in philosophy”. That is, in a concluding *Satze*—he proposes that we say nothing but what can be said, notably in

⁸ Margaret Moran, ‘Bertrand Russell Meets His Muse: The Impact of Lady Ottoline Morell (1911-1912)’, *russell: The Journal of the Bertrand Russell Archives*, n.s. 11 (winter 1991-1992) 180-92; Alan Schwerin, ‘A Lady, Her Philosopher and a Contradiction’, *russell: The Journal of the Bertrand Russell Archives*, n.s. 19 (summer 1999) 5-28.

⁹ *English aristocrat, society hostess, intellectual* Lady Ottoline Morrell (1873-1938). Avant-garde, free-thinker, pacifist, and deeply religious in a time of sceptics, she exchanged 3400+ letters with

Bertrand Russell as they maintained their friendship till the time of her untimely death.

¹⁰ Ludwig Andreas Feuerbach (1804-72), *Das Wesen Christentums*, (1841), tr George Eliot (1819-80), *The Essence of Christianity* (1854).

¹¹ Wittgenstein explores this in *Philosophical Remarks* (1930), regarding a philosophy of mathematics.

¹² *The Life of Bertrand Russell*, Ronald W Clark, Penguin: 1975, 326.

natural science, nothing to do with philosophy, and when someone wants to say something *metaphysical* to point out to him that he has given no meaning to certain signs in the propositions (§6.53), viz, “infinite”?—and, if he is *not* referring to Russell of ‘Essence’ who then, indeed?—who is that person in *Tractatus* who “would not have the feeling that we were teaching him philosophy”?

□

11. Coming back from war “a changed man” and marked by the spirit (testified to in a surviving journal) he hungers to have his friend Russell follow what he himself had proposed in ‘Essence’.—*The Gospel in Brief* of Tolstoy with him throughout his service gave Wittgenstein “the word”—while, according to Maurice O’Connor Drury, he greatly admires Mirandola—

It shall be in your power to descend to the lower brutish forms of life and you will be able through your own decision to rise to superlative orders where life is divine. We have placed you at the very centre of the world, so that from this vantage you may choose with greater ease and glance round about you on all sides at what the world contains.

The Renaissance Cabala’s view is of the centrality of I to the vertical will: the sunbeam of life, the column of light (*columna lucis*) a *positioning* of self-identity—with faith and love:

We have made you neither a creature of Heaven nor of the Earth, we have made you neither mortal nor immortal so that ye, as the free and proud shaper of your being, may fashion yourself in the form ye might prefer.¹³

¹³ *It shall be in your power ...* Comte Giovanni Pico della Mirandola (1463-94), *De hominis dignitate oratio*, Oration on the Dignity of Man (1486) in *The Art of Florence*, London: Artabras, 1994, 19.

¹⁴ Ray Monk, *Wittgenstein: The Duty of Genius*, London: Vintage, 1991, 210-211. Much of the

Part Two

12. In 1922 they meet (in Innsbruck) for the last time as friends: Russell claims religion comes between them, Wittgenstein at “the height of his mystic ardour” is “too tiresome to tolerate”, while Russell is “at the height of his atheist acerbity”. Wittgenstein, pained at his unbelief, tells him: “better to be good than clever” while Russell thinks relevant that Wittgenstein was “terrified of wasps, and because of bugs, unable to stay another night in lodgings we had found at Innsbruck.”¹⁴ Wittgenstein seems not to have grasped that after Innsbruck Russell cut him off. After *Tractatus* Russell said he felt Wittgenstein had trained himself not to think. Russell understood his own path, survival partly, writing popular works, and ultimately returning (jailed for pacifism during the Great war) to speak truth to power, evinced in the *Russell-Sartre Tribunal* for Vietnam. Wittgenstein would go his own way, walk his own rough ground of “what needs his life”.

□

13. If Russell and Wittgenstein communicated on *Tractatus* before the War between Cambridge and Skjolden and in his nine months internment, Wittgenstein naively responds as though Russell grasps the *Wesen* of his (back then) *compleat* philosophy. Russell, for all his ‘Essence’, seems barely to have a clue beyond the logical prestidigitation, the true / false tables, the adoption and critique of his logicism, etc., blinded perhaps by the light of genius and the notion of an heir. Indeed, Wittgenstein does take analytical logic to an “end of explanation”.¹⁵ As between parent and child, they function at cross purpose. If Plato speaks of Aristotle as “the colt that kicked the mare”—here

biographical material here comes from Monk’s brilliant work.

¹⁵ LW *Philosophical Investigations* (1953): §1 “All explanations come to an end somewhere.”

‘Aristotle’ is the mare and ‘Plato’ the colt: Russell praises science for a world of peace, and Wittgenstein?—“to grasp what is the same”.¹⁶ Like conclusions from different angles?

Back in 1912 Wittgenstein lectures Russell on furniture—“he dislikes all ornamentation that is not part of the construction and can never find anything simple enough.” Said Russell—

I gave him sage advice, not to put off writing till he had solved *all* the problems, because that time would never come. This produced a wild outburst—he has the artist’s feeling that he will produce the perfect thing or nothing.—I explained how he couldn’t get a degree or be able to teach unless he learned to write imperfect things;—this all made him more and more furious—at last he begged me not to give him up even if he disappointed me.¹⁷

However, Russell does give him up ... by the early 1920s—and if their friendship is over because of “religious differences” their philosophical relationship collapses with Russell’s (I want to say) *notoriously* misconstrued Introduction to *Tractatus*. This affords the ever-intense Wittgenstein the sense, as he calls it—despite his “fine style”—of Russell’s “superficiality and misunderstanding” at least where *his* work is concerned. “The future will judge between us,” writes Wittgenstein to Russell in 1919: “Or it won’t—and if it is silent, that will be a judgement too.”¹⁸ 14. This split, we suggest, in divergent ways of seeing, is deeply symbolic. More than mere *ad hominem*—if intrinsic to differences in “normative” Russell and “high-pitched” Wittgenstein—they are each in ourself between abstraction and

immanence: as modes of being-in-the-world. Leaving aside ‘brutishness vs. sublimity’, and ‘finite vs. infinite’ we see an object-to-object (*allocentric*) frame of reference contrasted with a subject-to-object (*I-centric*) way of understanding ourself and reality as a whole.

Russell, for instance, is ambivalent, and caught between the allocentric and the phenomenological—where he speaks for a *neutral monism* and “a completed science” resolving the dichotomy of matter and mind, while contrariwise declaring “we are faced by the essential necessity of a hierarchy, extending upwards *ad infinitum*, and logically incapable of completion.”¹⁹—Contrast this with Wittgenstein’s absolute value of the transcendental subject-to-object phenomenology—“the I brought into philosophy” because “the world is my world”²⁰—even, of mathematics!

Wittgenstein’s *completion* is closer to us than our jugular vein, just to cite the Q’uran. While Russell’s philosophy seeks salvation from war-mongers, Wittgenstein’s struggles against our *bewitchment* by the resources of our language game²¹—the salvation of human intelligence from superficiality and misunderstanding. Throughout his middle and late period, he works from the I-centre seeing out. Russell’s way?—practical and *relative*; Wittgenstein’s?—salvific and *absolute*. The middle way?—from “the slick ice” of perfectionism to “the rough ground” embracing sides of ourself and the world in the end as one, one whole. Zen’s way, in fact. Ultimately each explores what is inscribed in the forecourt of Delphi: Know thyself. All things in measure. Certainty brings ruin.

□

¹⁶ LW *Philosophical Remarks* (1930), ‘Preface’.

¹⁷ BR *The Life of Bertrand Russell*, Ronald W Clark, Penguin: 1975, 326; [brackets] added.

¹⁸ LW *Notebooks 1914-1916* ‘Appendix III’, (1984), 132. Correspondence of April 20, and May 6, 1920.

¹⁹ BR ‘Logical Positivism’ (1950) in *Logic and Knowledge* (1956), 371.

²⁰ LW *Tractatus*, §5.641.

²¹ LW *Philosophical Investigations*, §97.

15. In their post-war meeting at Innsbruck, Russell speaks of joining or creating a world organisation for peace and freedom. Wittgenstein's response?—institutions hold for him little but horror: one might as well start an "organisation for war and slavery". While "a Communist at heart" he is a non-affiliated "Christian" in the manner of a Kierkegaard, who distrusts the possibility of anything revolutionary coming out of institutions.—The key to Life is at the heart of the individual.—He admits along the way that he is biased, and doing "propaganda" for a certain point of view.

[How] much I am doing is persuading people to change their style of thinking. ... I am in a sense making propaganda for one style of thinking. I am honestly disgusted with the other. ... I can put [something] in a way in which it will lose its charm for a great number of people and certainly lose its charm for me.²²

□

16. Russell experienced *something somewhere*—we know it—but to integrate that subjective *something* with the thinking of logic, that organic algorithm, that disciplinary matrix (*Patañjali* describes as *vitarka*) which must divide, negate, rank, and rule?—to oppose, even use and throw!? Big ask. Can we? Can we at least toggle harmoniously between these native-born modes of being-in-the-world? Russell takes 'reason' and in good faith applies it to work in the "industrialised" world, where science *and* reason can show us a better way. Wittgenstein claims "science sends us to sleep"—and revolutionises analytical philosophy. Russell affords himself the right to change his mind as often as he must, the *duty* of the

philosopher!—is that right?—while Wittgenstein moves on (from *Tractatus*), but grasps what is the same. When called to philosophical work Russell forgets *neutral monism*, dons his *vitarka* thinking cap, and switches to analytic mode—

The whole subject of ethics ... is placed by Mr Wittgenstein in the mystical, inexpressible region. Nevertheless, he is capable of conveying his ethical opinions. His defence would be that what he calls the mystical can be shown, although it cannot be said. It may be that this defence is adequate, but, for my part, I confess that it leaves me with a certain sense of intellectual discomfort.²³

Shown? By us, or to us? Russell's reading of *totality* into "the world as a bounded whole that is the mystical feeling" is evinced in a telling passage—*superimposing* his worldview onto that of Wittgenstein—

The totality resulting from our hierarchy [of totalities, a set of all sets] would be not merely logically inexpressible, but a fiction, a mere delusion, and in this way the supposed sphere of the mystical would be abolished.²⁴

Despite his apprehension over such sensibilities—he admits to being unable to find a flaw in his logic, which remains untouched but for the conclusion (that of the mystical, and the silence) upon which Mr Wittgenstein would curiously lay stress. It is all very curious.

17. Russell's view of the finite and infinite in man is "good enough, as far as it goes," while Wittgenstein finding loose terms on matters of utmost sensitivity offensive, sustains this into *Tractatus*. What he means by *too intimate for print* one gleans from *solipsism* and *das Mystische* in

²² LW *Lectures and Conversations*, ed Cyril Barrett, Berkeley: University of California Press, 2007, 28.

²³ Bertrand Russell, *Tractatus Logico-Philosophicus*, 'Introduction', 1922, xxiv.

²⁴ Bertrand Russell, 'Introduction', *Tractatus Logico-Philosophicus*, 1922, xxiv-xxv. [Brackets] added.

Tractatus, but must seek from his surviving wartime notebooks for deeper meaning of his *ethical* realm—not incompatible with 1912 Russell—more keenly wrought, though, as a key to knowledge. Knowledge “makes happy” despite “the misery of the world”. *Notebooks 1914-1916* reveals startling ramifications, omitted from *Tractatus* proper, indeed, we surmise, the silent teaching he refers to in his correspondence with author and publisher Ludwig von Ficker.—He breaks off from formal logic in the summer of 1916, during the Brusilov massacre on the Russian front, and from his five storey plus-high tree in the role of *sentinel perdue* his *description of the fact* of logical form carries over into the conclusions of *Tractatus*; some things left out, suggestion enough for that “one person who understood” his work—leaving the rest to silence.

My work consists of two parts, the one presented here plus all that I have *not* written. And it is precisely this second part that is the important one. For the ethical gets its limit drawn from the inside, as it were, and I am convinced that this is the ONLY rigorous way of drawing those limits. In short, I believe that where many others today are just gassing [*ferzan*], I have managed in my book to put everything firmly in place by being silent about it. ... For now I would recommend you to read the *preface* and the *conclusion*, because they contain the most direct expression of the point of the book.²⁵

□

18. Wittgenstein’s silence—is it a mere pause?—a break from the serious business of the thinking cap—silence as a variable? Suppose though the *variable* were key? Suppose again we defenestrate the key out into the undergrowth? Then locked into

thought we are as a commitment to *saying* something. Anything!—Is “saying” enough?—Lady Ottoline’s friend T. S. Eliot remarked on the talking ... talking of hollow men, behaving as the wind behaves. “Should I, after tea and cakes and ices, have the strength to force the moment to its crisis?”²⁶ In the simplified universe: suppose the *variable* were instead of the essence, the silent mind of the philosophical I, and when it comes to what is most important in life, the *study of the facts* a secondary element?

Wittgenstein directs his students at Cambridge: “Don’t say, show!” “Don’t think, look!” If Wittgenstein was the *pure* analytical philosopher, does Russell not follow his dictum?—abandoning *saying* (that “muck” he calls it) for *showing*:—in his nineties in freezing weather for the *Aldermaston* marches; and he trades *thinking* for *looking* at the state of the world—to getting into “good trouble”. Silence then is no excuse for capitulation to tyranny and Russell’s heritage noted in the inauguration of the *Belmarsh Tribunal* around Julian Assange’s detention over democratic rights of freedom of speech. Hence, we need both Russell and Wittgenstein:—plain and simple objectivity, while not losing sight of a *deeper* penetration into what Wittgenstein during the First World War calls “the subjective universe.”

Mark Antrobus is with the Palni Hills Conservation Council, Kodaikanal

²⁵ From undated Wittgenstein Letter to Ludwig von Ficker (probably September or October 1919).

²⁶ *US born British poet T S Eliot (1888-1965), ‘The Love Song of J Alfred Prufrock’ (1917).*

The mudflats of Singapore

Satheesh Muthu Gopal



It was early morning. I reached the Sungei Buloh Wetland Reserve situated in the north of Singapore. The mangrove forest welcomes us with the warning "Watch out for Crocodiles". I started walking on the trail, observing birds. There were only a couple of people ahead of me. The place was very calm except for the bird calls and the sound of breeze. I stopped and focused on a grey heron with my camera, looking through the viewfinder with one eye. I felt something big moving next to me and, turning, saw a Smooth-coated Otter.

Smooth-coated Otters thrive in many places in Singapore. They co-exist with human settlements too. The mangrove habitats with a rich prey source help them survive. During my walk, I also found a few Saltwater crocodiles basking on the shore; this species is found across



Southeast Asia and the eastern coastal region of India and north Australia. I had a similar experience of watching crocodiles in a birding spot in the Ranganthittu bird sanctuary, near Mysore, in India. I had taken a boat ride to watch birds and watched freshwater crocodiles basking on the rocks.



As I walked along I saw something small slowly falling down. But it just disappeared before landing on the floor. Was that a bird, or a butterfly, or a dry leaf? I looked around curiously. A perfectly camouflaged Sumatran Gliding Lizard displayed its large yellow throat flap; these gliding lizards glide from one tree to another using their elongated ribs. I have seen a similar species called Western Ghats Flying Lizard in the Palani hills a couple of times.



This Sungei Buloh Wetland Reserve attracts migratory birds from east Asia and Siberia. Considering the east Asian and Australasian flyways, this Reserve is one of the important spots for migratory birds. Some of the migratory birds use this place as a stopover to get energized and fly further; this Reserve plays a major role in birdlife. As part of its research on migratory birds, the Center catches and bands the migratory birds with a green over white flag which is the assigned color for Singapore as per the shorebird flagging protocol. A common redshank with a Singapore tag was found in Qinghai lake in China in 2012. When I went birding I saw the Common Redshank tagged with the Singapore color. Most likely it was tagged previously and returned this year.



Without waiting further, I continued on the nature trail and encountered a Malayan Water Monitor right on the path. I stopped walking and waited for its response. It stopped walking towards me and lay down. I waited for a couple of minutes. A group of local people walked past it keeping a safe distance, and I followed them. This Monitor species is common in Singapore and it seems to be habituated to human presence.



Mudskipper and Telescope snails are evidence of the healthy mudflats in the reserve. The Great-billed Heron is one of the largest birds in Singapore which can be seen in the mudflats. This is a resident bird of southeast Asia and is mainly found in the coastal regions. The complex root system of mangrove trees is a suitable breeding place for many fish species, and I saw an abundant amount of fish in the river and shallow water. Archerfish is one of them which can be seen in this Reserve. They shoot water on bugs to catch them.



It was September. I saw several migratory bird species arrive for winter. Along with many wetland migratory species like the Common Sandpiper, the Pacific Golden

Plover, the Whimbrel, and the Common Redshank, I found a Terek Sandpiper. This species got its name because of its breeding ground in the Terek river. Unlike other sandpipers, they don't migrate inland but choose the shores of Africa, Southeast Asia, and Australia.



In Singapore, epiphytes are common on many tropical trees. When I came out of the Reserve, I saw a group of people taking photographs of epiphytes. I was surprised to know that the Buffy Fish Owl hiding within them. I waited and saw the bird pop out; these plants probably provide good protection, even a possible nesting site.

Though this Reserve is well protected, most of the mudflats and wetlands in the world are under severe threat. The development of nearby areas is a pressure on the wetlands. Mudflats like Sungei Buloh are very important places for migratory birds, providing a stopover place for birds going further south. If such places are destroyed or polluted the bird migration routes that were followed for millions of years will be severely affected. It's like running out of fuel on a highway and the only fuel station that was available is no more.

Satheesh Muthu Gopal is a birder and independent writer.

A Note on the Aravalli mountains

Shailendra Tiwari

Introduction

The Aravallis are reputed to be the oldest and one of the most fragile eco-systems on earth. Unfortunately, however, today no comprehensive baseline survey of the ecological, geological and environmental status of the Aravallis is available to us. It is therefore difficult to understand and analyse the many dimensions of the issue of environmental degradation versus what might have prevailed 75 years ago, during independence, or even more recently over the past 20 or 30 years. The latter, in recent years, has been witness to rapid industrialization, urbanization and growth.



The first requirement before any integrated, people-centric plan for the conservation of the unique and bio-diverse Aravalli range, stretching from the northern borders of Gujarat to the hills of Paharganj, Delhi, is a status report. It is important to understand how things currently are, and what actually obtains on the ground, combined with a realistic assessment of what can be possible given our plural, democratic and often messy social and administrative structures. It also bears mentioning that this range encompasses BPL families of Bhil tribal populations, Sahariyas (a Primitive Tribal Group) in the southern region, as well as marginal and middle-income agriculturists in the central region, to the enclaves of the affluent in NCR, Gurgaon and Delhi on the northern region. While a considerable expanse comprises the dry-deciduous scrubland and low-lying forests of the

desert and semi-desert, there also exist verdant forests, renowned for the richness of its non-timber forest produce. These areas support a variety of flora and fauna, dramatically divergent, not to speak of divergent cultures and rich indigenous traditions. This area is also known for the bounty of its mineral resources and stone mines, the existence of which is ironically one of the reasons for the depletion of the soil cover in hilly areas and large clusters of rolling hills being flattened to satiate the burgeoning demand for construction materials. As the Makrana mines in Nagaur fed into the construction of the Taj Mahal, so too, the innumerable open cast stone mines in the range provide the stone and cladding for urban homes both in India and abroad. The environmental problems are therefore complex and deep-rooted, encompassing the gamut of sectors such as tourism, art and culture to mining, manufacturing and so on, and centering on the basic areas of poverty and livelihoods.

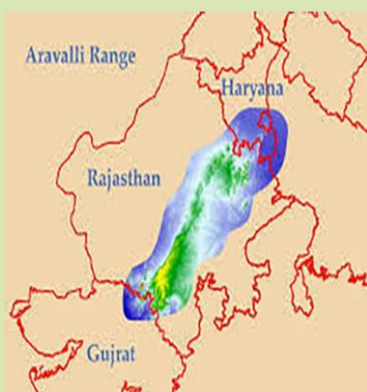


The Aravallis are also the site of conflicting environmental governance norms, an example of which is the FRA, which is only selectively applied to community forests. Similarly, flagrant deviations from construction norms leading to ravaged hillsides and dammed streams are too numerous to enumerate.

Physiography of Aravallis

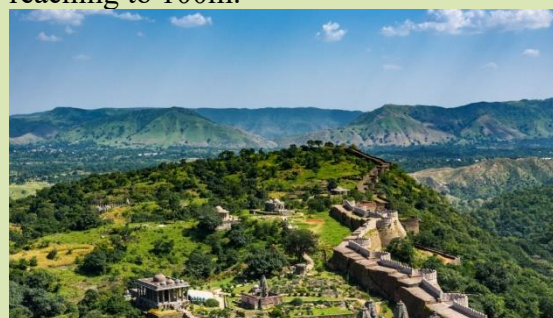
Starting from Delhi (latitude 28°.24' N and longitude 77°.12' E), the Aravallis run across the states of Haryana and Rajasthan

and reach plains of Gujarat Near Palanpur (latitude 23°.20' N longitude 73°.45' E). Physically Aravallis are spread over a length of about 700 Km with their width varying from 10 km to over 100 km. Total area of Aravalli range is 99,771 Sq. Km. (Byaju's, 2023)



In Delhi Aravallis start as low scattered ridges, hardly 30-50 meters above the ground but gradually gain height and take shape of continuous ranges as it moves towards south-west. In the Nuh town of Haryana Aravallis attains a height of 412 meters. In Haryana hills are termed locally as “Mewat hills”. In adjoining areas of Rajasthan, Aravalli hills spread in Sikar, Sri Madhopur, Neem Ka Thana and Khetri with wide valleys. Here, Aravallis gain in height culminating in peak of Ragunathgarh (1055m) while scattered and flattened hill tops form small plateaus. In Alwar and Jaipur The Aravallis splay out into Torawati hills and hills of North east Jaipur with average height varying from 400m to 670m with some peaks attaining height above 700m. Notable among these are Babai (792m), Bairath (740m) and Kho (920m). Near Jaipur, the elevation is reduced to 500m and form a saddle of spurs, some of which are buried or half buried under the wind blown sand. Around Sambhar lake, the topography is comparatively open with isolated hillocks. Further south, ranges open out to form several ridges and gain in height. At Taragarh Ajmer, it attains a height of 873m. Southwest of Ajmer, the hills are squeezed into a strip of about 50 kms width and have several gaps. From this midland of Rajasthan, Aravallis fan out

towards plateau of Sirohi and the highlands of Mewar. In Sirohi district, Aravallis have a distinct feature in the form of an isolated hill mass of “Abu Massif” which is separated from main range by a narrow pass. Mount Abu Plateau is nearly 1200m above sea level. It is surrounded by several peaks and slopes, it is also extremely precipitous. The most striking feature of it are fanciful and weird shapes of gigantic blocks at places molded into caverns & holes resembling the section of a magnified sponge. Most phenomenal of the caverns on the surface is the Nakki lake. Attached to Mt. Abu is Oria plateau which is 60m higher than Abu and lies below the main peak of Gurushikhar with an elevation of 1722m. Gurushikhar is the highest peak between the Himalayas and the Nilgiris. Other adjoining prominent peaks are near the village Ser (1597m) & Achalgarh (1380m). The part of Aravallis located between Gogunda and Kumbhalgarh is locally called the Bhorat plateau. It is the third highest plateau of Aravallis. Bhorat section has high peaks of Jarga (1431m) and Kumbhalgarh (1206m). In Gujarat, the height of Aravallis reduce to a few scattered hillocks hardly reaching to 100m.



Ecological profile

The Aravalli range has a variety of ecosystems and ecological niches. It can broadly be classified as 1) Forest Ecosystem 2) Grassland Ecosystem 3) Agricultural Ecosystem and 4) Aquatic Ecosystem.

Forest Ecosystem

As per classification of Forest types, by Champion and Seth (1968) the forests of

Aravallis could be grouped in following thirteen categories.

2. (5E1) *Anogeissus pendula* forests
1. (5E1/DS1) *Anogeissus pendula* scrub
2. (5B/C2) Northern Dry Mixed Deciduous Forests
3. (5A/C1b) Dry Teak Forests
4. (5A/C1a) Very Dry Teak Forests
5. (5/E2) *Boswellia* Forests
6. (5/E6) Aegle Forests
7. (5 E 9) Dry Bamboo Brake
8. (8A/C3) Central Indian Sub-tropical Hill Forests
9. (5/E5) *Butea* Forests
10. (5 / DS 3) *Euphorbia* Scrub
11. (6 B / C1) Desert thorn Forests
12. (6 / 1 S1) Desert Dune Scrub



A number of ferns, herbs, orchids, climbers and lichens grow on the hills particularly in southern Aravallis. Many NTFPs (Non Timber Forest Products) are collected by local tribal communities. Important among these are Mahua flower and seed, Tendu leaves and fruit, fruits of Mango, Custard Apple, Ber, Jamun, Kahjoor, Karonda etc. Leaves of Palash (*Butea monosperma*) and seed of Punwad (*Cassia tora*). The NTFPs play a significant role in fulfilling livelihood and income needs of the communities. The forest areas also support a large variety of wild animals. Tiger, Leopard and their prey animals like chital, sambar, nilgai & chausingha are found in Aravallis. Other

animals found are sloth bear, wolf, fox, jackal, hyena, civets, mongoose, monitor lizard, python crocodile and various species of small cats, Indian otter, ratel and pangolin are also found here. A variety of birds like peafowl, grey partridge, great Indian bustard lesser florican etc are found. Currently many species are threatened. A number of sanctuaries and National Parks have been notified for protection of wild animals.

Grassland Ecosystem

Some areas in Aravallis especially in southern and central parts, have semi savanna vegetation. They are called grass *Birs*. These areas in past supported good growth of a number of grass species such as *Cenchrus ciliaris*, *Sorghum halepense*, *Dicanthium caricosum* etc. Due to overgrazing and lack of management, most of the grass *Birs* are now infested with thick stands of *Prosopis juliflora* (Vilayati Babul).

Agricultural Ecosystem

A variety of crop and livestock based farming systems exist in Aravallis. The principal Kharif or rainy season crops of the agro-eco region are, Bajra (Pearl Millet), Jowar (Sorghum), Maize, Pigeon Pea, Cluster Bean (Guar) Black Gram (Urd), Green Gram (Mung), Cotton, Ground Nut, Sesame etc. In the winter season (Rabi) Wheat, Barley, Mustard, Chick pea etc. are grown. A number of fruit plants and wild fruits of good nutritive and economic like Mango, Jamun, Guava, Khajur, Custard Apple, Ber, Aonla etc grow in the region.

Animal husbandry is an integral part of local farming systems. Domestic animals provide milk, meat and draught power. The refuse of animals constitutes bulk of organic matter added to agricultural fields which is essential for maintaining fertility of the soil. Many important local breeds of cattle like Haryana, Mewati, Kankrej, Gir,

nagori etc are found in the region. Murrah, Surti and Mehsana are important breeds of Buffalo. Goats because of their hardiness, are reared throughout Aravallis. Jakhrana, Marwari and Sirohi are important breeds of Goat.

3. The Aquatic Eco-system (Rivers and other water bodies)

Aravalli range is one of the main Indian watersheds, separating the drainage of the Bay of Bengal and Arabian Sea. Banas, Bedach merge with Chambal which is a tributary of Yamuna which merges with Ganga to fall into Bay of Bengal while Luni, Mahi and Sabarmati fall into Arabian Sea. Total 17 big and small rivers flow through Aravallis. These are ephemeral and flow only during rainy season.

Around 20 big water bodies (of >100 ha area) are present across Aravallis which recharge ground water and sustain a large number of aquatic flora and fauna.

Soils

Soils in the Aravalli ecosystem fall under four broad categories.

1 Aridisols: These are typical soils of dry/arid or desert region. These are found in parts of Alwar, Bhiwani, Mahendragarh and Rewari.

2. Alfisols: These are comparatively mature and clay rich soils. These are found in Gurgaon, Faridabad, Alwar, Tonk, Bhilwara and parts of south Rajasthan.

4. Vertisols: These are clay rich, fine textured soils with low permeability. These soils crack when dry. Vertisols are found in parts of Banswara, Chittorgarh, Dungarpur, Sabarkantha and Banaskantha districts.

5. Inceptisols: These are weakly developed soils & exhibit minimum

horizon formation. Inceptisols are found in Aravallis foothills in the district of Sirohi, Jalore, Pali Rajsamand, Udaipur, Bhilwara & parts of Alwar.

Mineral

Aravallis are quite rich in mineral resources. Important minerals found here include Zinc, Lead, Copper, Silver, Cadmium, Marble, Granite, Limestone, Sandstone etc.

Climate

Aravalli region has three distinct seasons-summer, monsoon and winters. Monsoon season begins in July and ends in September. Average annual rainfall ranges between 500-700 mm. The area therefore falls in semi-arid region of the country. The Summer season starts in March when the temperature progressively rises through April-May-June. Maximum day temperature ranges from 40°C to 50°C while the night temperature ranges between 20°C to 27°C. Winter season starts from November and ends in February with January being the coldest month of the year when the average temperature varies between 4°C to 10°C.

Aravallis because of their location on the fringe of "Thar Desert" are prone to frequent droughts.

Socioeconomic profile

The old time honored, social classification based largely on traditional occupation and in some cases on consideration of caste is still followed in the entire Aravalli eco-region. In northern and central zones of Aravalli, Jat, Rajput, Brahmin, Gurjar, Meo, Ahir, Jain, Muslim, Meena, Sikh, Nai, Khatri, Kumhar, Lohar, Teli, Rebari, Baniya etc. castes, communities or ethnic groups are found. The southern part is dominated by tribal communities like Bhil, Garasia, Meena, Damor, Kathodi. Caste Hindus are

also found in good numbers especially in towns and big settlements.

The southern zone ranks lowest against most of the human development indicators due to concentration of the highest number of below poverty line households. Much of the area falling in the southern region of Aravalli falls under Schedule V area which holds a special constitutional significance towards the local governance in tribal areas.

Current Threats & their visible impacts

Currently Aravallis face an existential threat . Due to expansion of human settlements, mining and industrial areas and due to speedily growing tourism Aravallis are struggling for its survival.

As per a report of Central Empowered Committee (CEC) to the Supreme Court of India, 31 out of 128 hills mapped by the Forest Survey of India have disappeared in the Rajasthan state. An ecological survey conducted in 16 districts falling in the Aravallis range, tells that between 1972 to 1984 almost 40% tree cover was lost. (RGIS Policy Watch 2018).

The decline of the effectiveness of the Aravalli hills as a source of structural control for normal weather and climate can be gauged from the shrinking of the duration of rainy season (from the day of onset of monsoon to the day of its withdrawal)— from 101 days in 1973 to just 25 days in 2009, says Narpat Singh Rathore, former head of department of geography at Mohanlal Sukhadia University in Udaipur, in a 2009 study on the Aravallis. Similarly, the total number of rainy days has declined from 60-80 days per year to 18-30 days.

According to a 2017 (Wild Life Institute Of India) WII report, the hills checked the spread of the Thar Desert towards eastern Rajasthan, the Indo-Gangetic Plains, Haryana and western Uttar Pradesh. But the

2009 report by Rathore, which analysed remote sensing data of 1972-75, 1982-84, 1994-96, and 2005-07, reveals that the desert sand is drifting towards northeastern plains through 12 identified gaps in the Aravallis, extending from Magra hills in Ajmer district to Khetri-Madhogarh hills in Jhunjhunu district and northern-most hillocks in Mahendragarh district of Haryana, totalling 93 km. The study identifies Dungarpur-Banswara gap area on the Aravalli range, Upper Banganga Valley, Magra Area, Girwa-Gogunda tract, Jaisamand Lake area, Daragarh-Banara-Maja-Dariba area, Abu-Sirohi and Chappan hills of South Aravalli as “extremely most vulnerable”.

A serious ecological impact of digging or mining to a great depth is puncturing of aquifers, which disturbs the water flow, results in drying of lakes and popping up of new ones. One such case has been seen in Faridabad, Haryana. The RGICS study says that Bharadwaj lake, apparently named after the contractor who was allotted the contract for red silica in that area, has been observed in the district. “The lake points towards a possibility of illegal mining. The Faridabad mining department, however, claims that no one named Bharadwaj was allotted a mining lease in that area. Several reports have also confirmed the vanishing of rivers like Banas, Luni, Sahibi, Indori and Sakhi, which originated in the Aravallis, says WII.

The denudation of forests along the northern and central Aravalli tracts is also increasing intensity of dust storms. Last year, for instance, several dust storms hit north-west India and were unusual in terms of intensity, frequency and character. While between 1980 and 2003, India saw nine deadly convective storms, which killed some 640 people, in the next 14 years— 2003 to 2017—22 storms were recorded, which left some 700 dead. In 2018 alone, 50 such storms and 500 deaths were reported till July in northeast of Aravallis.

How can we work towards conservation of Aravallis?

We need to formulate a comprehensive and sustainable conservation and development plan for the Aravallis. This is a greater challenge given the fact that this area also is home to major industries based on finite, exhaustible resources (stones, minerals etc), national and international tourism, often lake-based as well as forest and monument based, and is home to several craft and textile traditions which are vigorous and expanding, in addition being home to several heritage sites and zones of historic and architectural complexity. In addition, the state is traversed by both the north-south and east-west highway corridors, bringing in its wake a large number of subsidiary and ancillary micro-enterprises and service outlets, such as hotels, *dhabas*, etc, often built on landfills and erstwhile water-ways.

To move forward, we need to have a multidisciplinary and comprehensive assessment in the Aravalli region. Basically, we propose an assessment by the local communities with the help of subject matter experts. The assessment has to be conducted following a consortium mode in which a range of agencies like the government departments, academic & research institutions, representatives of mining, tourism and other business sectors, Community Based Organizations (CBOs) and Non Government Organizations (NGOs) work together with various citizen groups to carry out the exercise.

This exercise could also envision advocating for setting up an authority at the government level. This authority can act upon the issues highlighted by the assessment. This proposed authority can broadly ensure regulated utilization of the natural resources and carry out periodical monitoring of its environmental status in Aravallis.

The proposed Authority may

- Suggest a comprehensive conservation and development plan of the Aravalli eco-region.
- It may set priorities of sustainable development across different sectors.
- Issue guidelines for judicious utilization of natural resources.
- May initiate or take action against violation of guidelines.

The approach

This is proposed to be a community centred assessment. It will therefore ensure that opinion of the community gets a paramount importance in the assessment as well as in the action thereafter.

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Shailendra Tiwari was with SEWA Mandir for many years and based in Udaipur, Rajasthan

Nature Notes: Sal in Spring



A closer look at the bloom and first flush



The forest from within



A sal tree in bloom



Sal leaf litter with sal petals



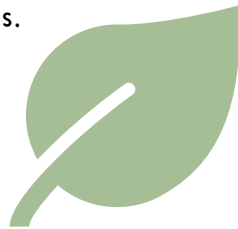
A young 40-year-old sal forest from afar

BUBBEI

Leaf, Grass & beyond

Brand products are made from several forest products of Odisha and brought to you by Swabalambi Producers Company Limited, a community-based enterprise. The eco-friendly products are made from bamboo, leaf, sabai grass, and crafted by the skilled hands of Odia artisans. Possessing BUBBEI products ignite a sense of satisfaction among buyers for their right choice towards a sustainable lifestyle and contribute towards the cause of environmental protection and the well-being of artisans.

LEAF PRODUCTS



Sal (*Shorea robusta*) is a large tree and Siali (*Bauhinia vahlii*) is a giant liana found in the forests of central and eastern India. The leaves of Sal and Siali occupy a significant place both in the ecology and economy of the *adivasi* communities. Platters and leaf cups are fashioned from the leaves. Leaf products (cups, platters and bowls) are prepared by stitching leaves together with bamboo splinters, and then plates and bowls of varying sizes are prepared by moulding machines. Our cups and plates are transported to all major cities in the country and the products are used in eateries, temples and in ceremonies. Sal leaves are believed to have therapeutic properties, and eating off is said to be beneficial. We customise plates and cups for functions at home. We have developed packaging solutions from leaves and can be used for packing bakery products and sweets. The biodegradable leaf plates and cups are helpful in minimizing the hazards of non-degradable garbage in the cities and tourist places of India.

BAMBOO



Bamboo Handicrafts are one of the oldest crafts known to human civilisation. This is a craft found in varied regions of India. BUBBEI presents both bamboo craft as well as bamboo furniture. High quality bamboo is harvested and treated by Vacuum Impregnation for long durability of the products. Hundreds of trendy craft and furniture are prepared by the artisans. Bamboo art has not only significantly contributed to the varied culture of Odisha but also to the livelihoods of the artisans. High quality treated bamboo is also available with us for construction and decorative purposes.

SABAI GRASS



Sabai Grass (*Eulaliopsis binata*) looks like any other grass, which in many ways it is. It is mostly found in the northern Odisha, and the thin and long grass is flexible and strong enough to be weaved into ropes. A wide range of rope-based utility items like mats, foot mats, bags, serving trays, flower vase, holders, bowls, baskets, boxes and other decorative items are made from sabai grass. It is believed that during the colonial era, the British army found the grass strong and durable to fashion ropes for military use. Mayurbhanj district in Odisha is famous for Sabai Grass artistic products and is a source of livelihood for thousands of women. Door & window screens, yoga mats, conference folders, bags and other utility items are also available, prepared by weaving the grass and cotton and other forest fibres.

BUBBE!

Leaf, Grass & beyond



Wall decors: prepared from Sabai grass and cotton rope



Oval table mats: prepared from Sabai grass and date palm leaves



Roti basket:
made from Sabai grass and cotton rope
(height 4in x dia- 8 in)



Tea coaster square: prepared from Sabai grass and date palm leaves



Square basket: prepared from Sabai grass and date palm leaves (length 8in x width 8in)



Bamboo stool:
frame made from Bamboo & sitting area woven by Sabai rope (11in height & 14in x 14in sitting area)

*If interested please contact- Swabalambi Producer Company Limited,
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NON-TIMBER FOREST PRODUCTS EXCHANGE PROGRAM NETWORKING FORUM, INDIA

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Special thanks to Elly Oenema for proof reading and to
Shakuntala Ramnath for the design and layout

