

THE GREY FOREST in the Western Ghats



THE GATE at the entrance to the Dhonavur Fellowship at Naraikadu.

The Naraikadu Forest managed by the Dhonavur Fellowship in the Western Ghats is a classic case of unconventional citizen-government cooperation.

Text & photographs By IAN LOCKWOOD

IN the myriad stories of natural history conservation in India, be they the familiar tragedies or rare successes, the case of the Dhonavur Fellowship's Naraikadu forest stands unique. The "grey forest", as it is known in Tamil, is a small privately managed property surrounded by one of India's most important protected areas, the Kalakkad Mundanthurai Tiger Reserve (KMTR). Here, a unique effort that began 100 years ago illustrates the merits of unconventional citizen-government cooperation to achieve conservation goals.

The tale of Naraikadu goes back to the early 20th century when entrepreneurs were experimenting with a variety of commercial plantation crops on the slopes of the Ashambu Hills. The terrain in these southernmost ranges of the Western Ghats near Kanyakumari is rugged and contrasts sharply with the surrounding plains. The high ridges of the Ashambu Hills are covered in dense evergreen forests, grasslands and granite outcrops that are blessed with heavy rainfall from both the south-west and north-east monsoons. Where the mountains meet the plains, a belt of thorny scrub and dry evergreen forests delineates the mountains from the mostly parched plains in the eastern rain shadow. The forested

hills feed the east-flowing rivers, notably the Tamiraparani, that water the productive rice fields of Tirunelveli. Like so many other locations in the Western Ghats, mountains with intact natural vegetation are the lifeline for farming communities on the plains.

A little over a hundred years ago, planters were looking for commercial rewards in the forested slopes of the Western Ghats. Cardamom, black pepper and other spices had been grown in the lower hills of Travancore (Kerala) and Tamil Nadu for centuries. With the introduction of large-scale estate plantations in the 19th century, the impact on the natural ecology changed. There was wealth to be made in the trade, and in colonial India, estates gobbled up land that had experienced relatively little human intervention prior to this point. Planters in the Ashambu Hills were following in the footsteps of individuals and companies who had established expansive tea and coffee estates in the Nilgiri Hills (1830s) and High Range (1870s) and Ceylon (1867). The largest tea estates to be established in the Ashambu Hills were carved out of evergreen rainforest at the Kakachi, Oothu and Nalmukh areas relatively late (in the 1920s) by the Bombay Burmah Trading Corporation (these are now "organic" tea estates that offer important employment opportunities but their presence in a biodiversity-rich forested area has been marred by controversy and conflict with wildlife and forest managers).

THE DHONAVUR FELLOWSHIP

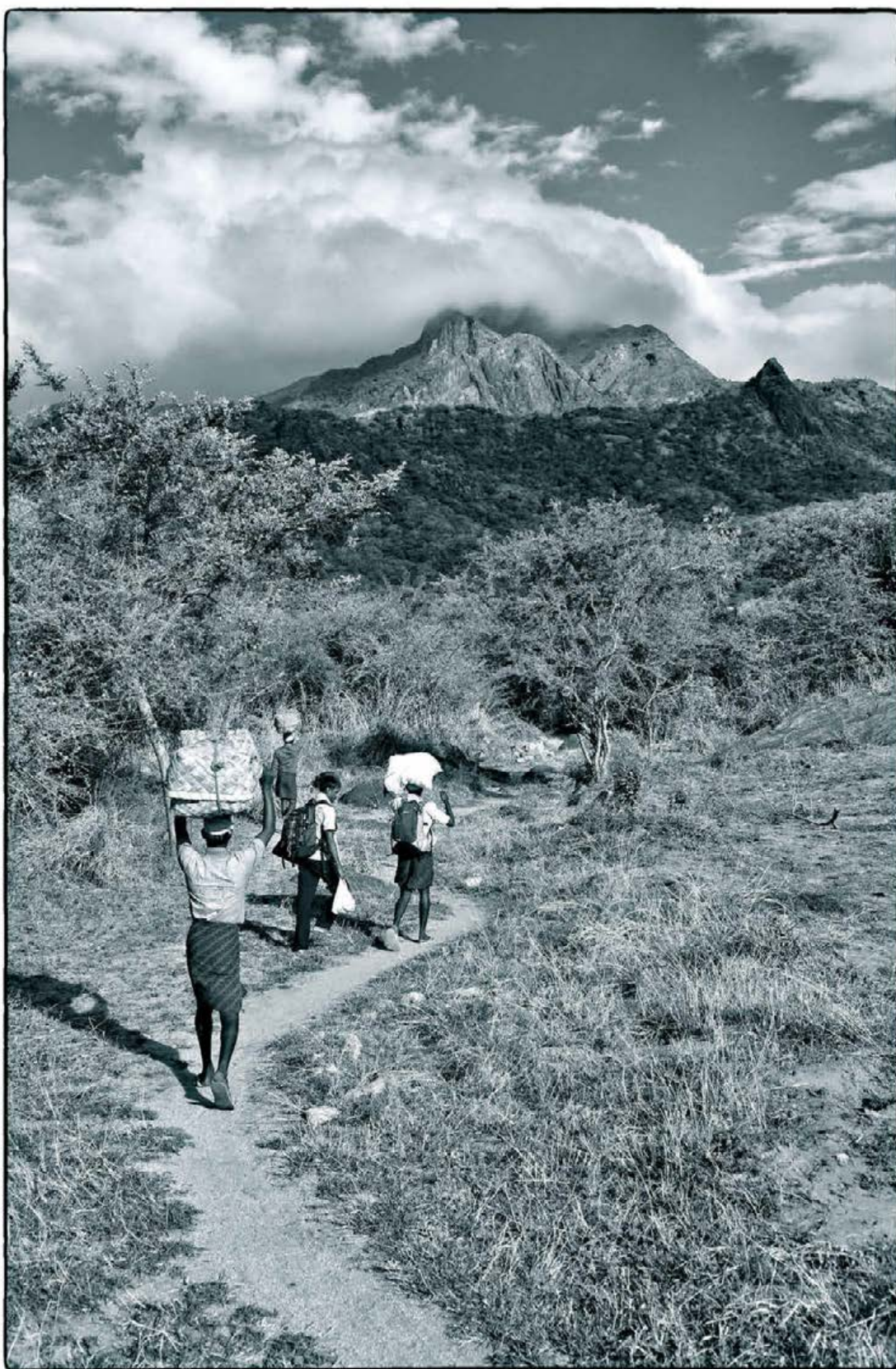
Amidst this rush to seek economic advantage in the mountains of the Western Ghats emerges a very different story and ecological paradigm far ahead of its time. The existence and protection of Naraikadu is thanks to the efforts and vision of a remarkable woman of Irish ancestry who was a devout but unconventional Christian missionary. After spending time in East Asia, Amy Carmichael came to the Tirunelveli area in 1901 where she founded the Dhonavur Fellowship. She found a calling in setting up homes and providing for escaped *devadasis* (temple girls) and children from less fortunate circumstances.

Amy Carmichael had virtually no funds and little official sanction, but her faith and determination led her to sympathetic benefactors who helped her realise a vision of helping others. The Fellowship and its mission grew over the years, and a community sprouted on the dry, red-earthed plains that lie within clear sight of the rugged granite horsts to the Ashambu Hills. The focus at Dhonavur was on health and education for the underserved with special attention on children, traditional areas of need that Christian missionaries addressed in the 19th and 20th centuries.

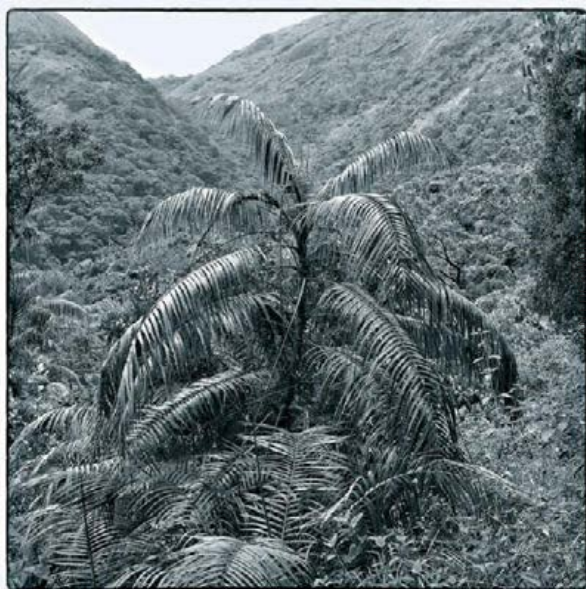
In 1917, while much of the world was at war, Amy Carmichael purchased a small cardamom estate nestled in a valley above in the mountains to the west. She had been to the Nilgiri Hills and valued the rejuvenating aspect of mountains when visited from the blisteringly hot plains. Ooty and other hill stations were too far, and more likely too snobbish, to take the children of the



AMY CARMICHAEL. She came to Tirunelveli in 1901 and went on to set up the Dhonavur Fellowship as a home for children from less fortunate circumstances.



BEGINNING THE WALK into Narai kadu through a dry deciduous scrub forest.



GROWING WILD at Naraikadu.

Dhonavur Fellowship to. But at Naraikadu, they could escape the pre-monsoon heat of April and May. The estate gave the children a chance to commune with nature as an integral part of spiritual development. Her vision of how to manage the property was unique: she wanted to change as little as possible and let nature be. In India's other hill stations, ornamental plants were introduced and landscapes were changed to resemble distant homes in Europe (even today, 70 years after Independence, there is a tendency in private and government properties to "beautify" by propagating exotic vegetation). Naraikadu has had minimal changes and the native forest was allowed to take over the cardamom estate.

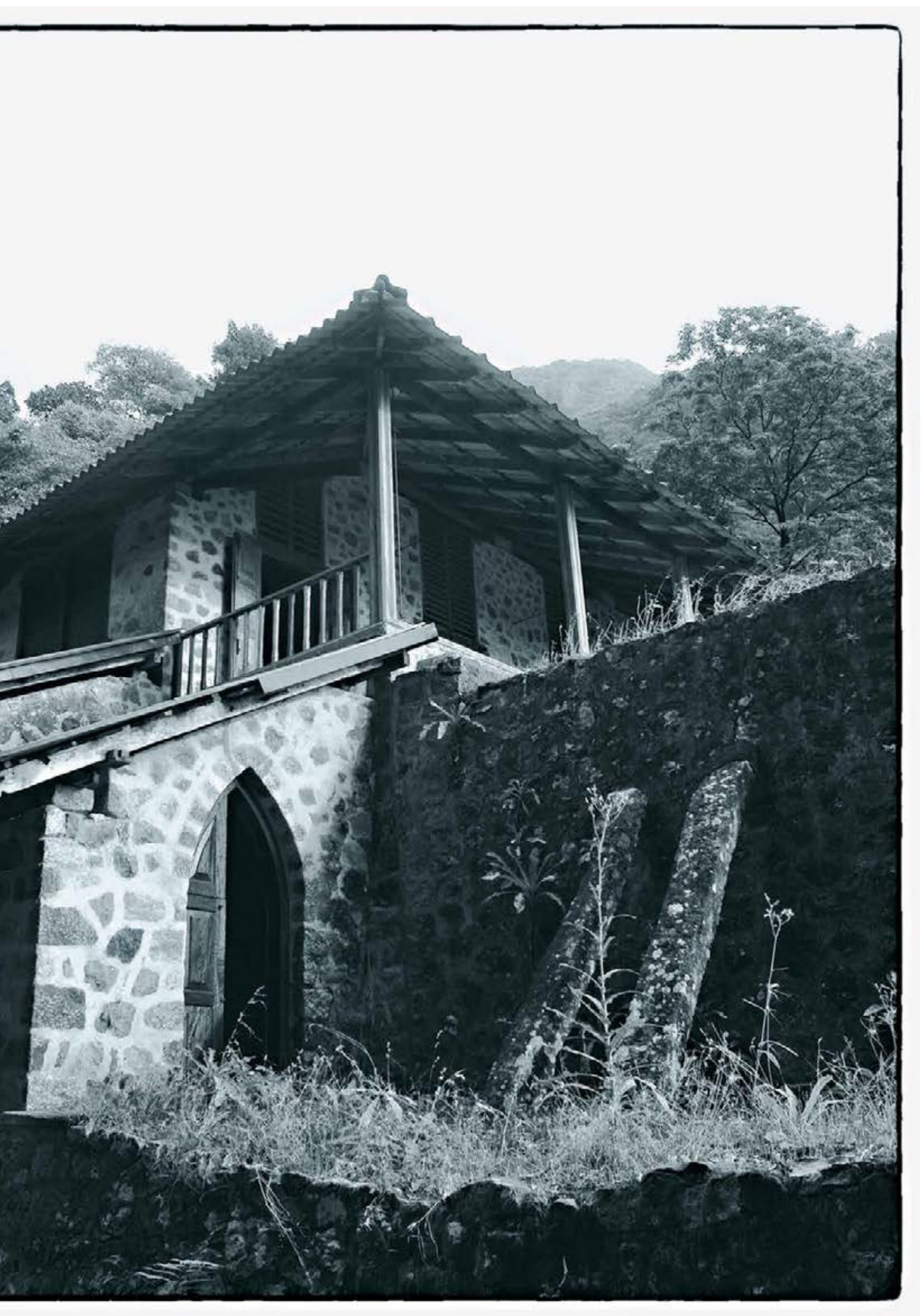
By the end of the 20th century, when the KMTR was notified as a tiger reserve, A.J.T. Johnsingh and other distinguished scientists drew attention to the remarkable example of Naraikadu's protection (see the references). He highlighted the fact that the valley hosted some of the finest, unpoached examples of cane in the entire Western Ghats. Because of its exemplary efforts to protect the valley, the Dhonavur Fellowship was allowed to maintain its ownership and management of Naraikadu despite being surrounded by a tiger reserve.

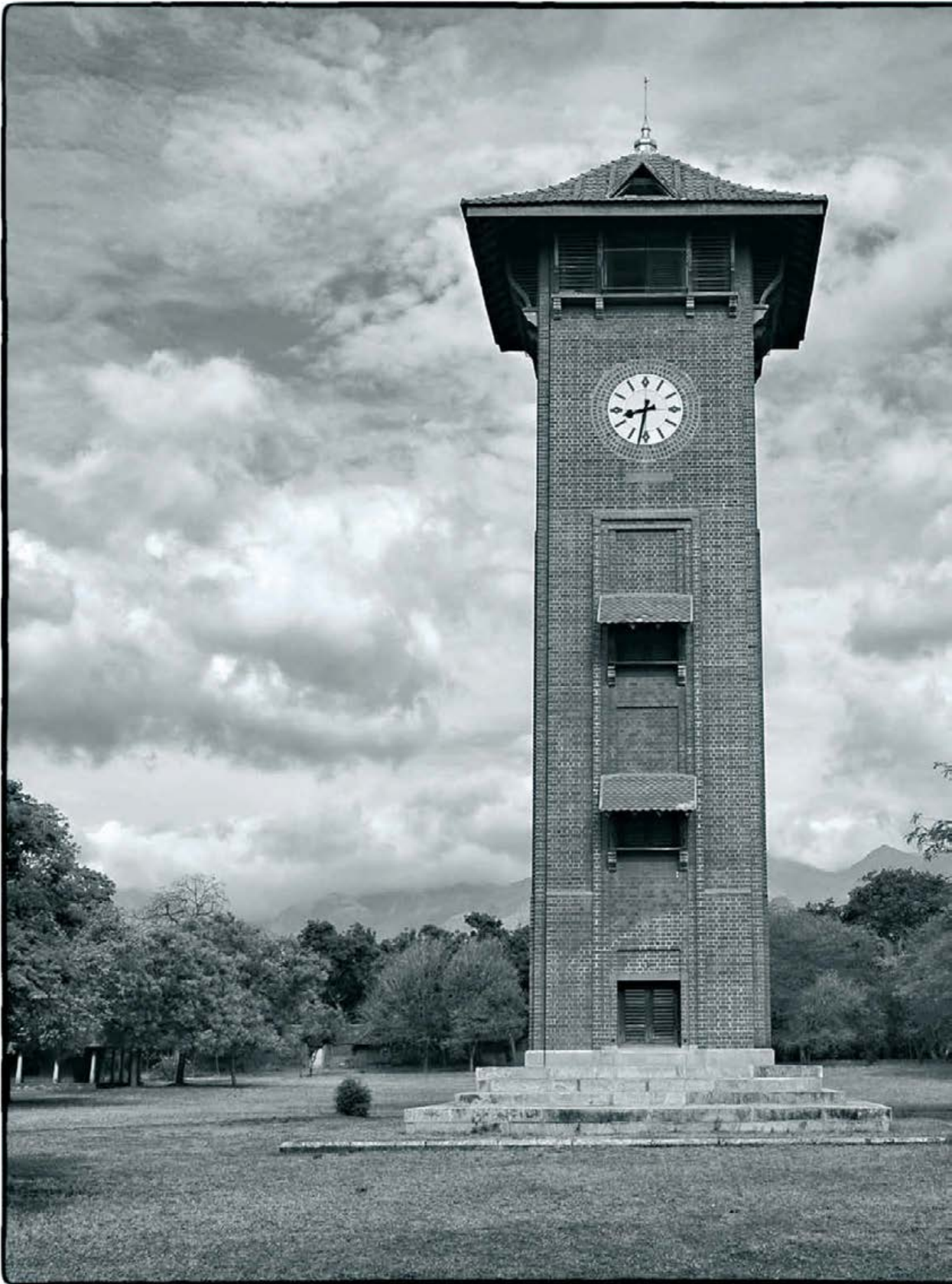
THE LONG WALK TO DHONAVUR

Where most other high points in the Western Ghats have modern paved roads or jeep tracks, Naraikadu is a destination that rewards only those who are willing to walk. The path up the valley is reminiscent of what visitors to Kodaikanal, Yercaud and Ooty would have experienced before roads and railways provided a convenient, less

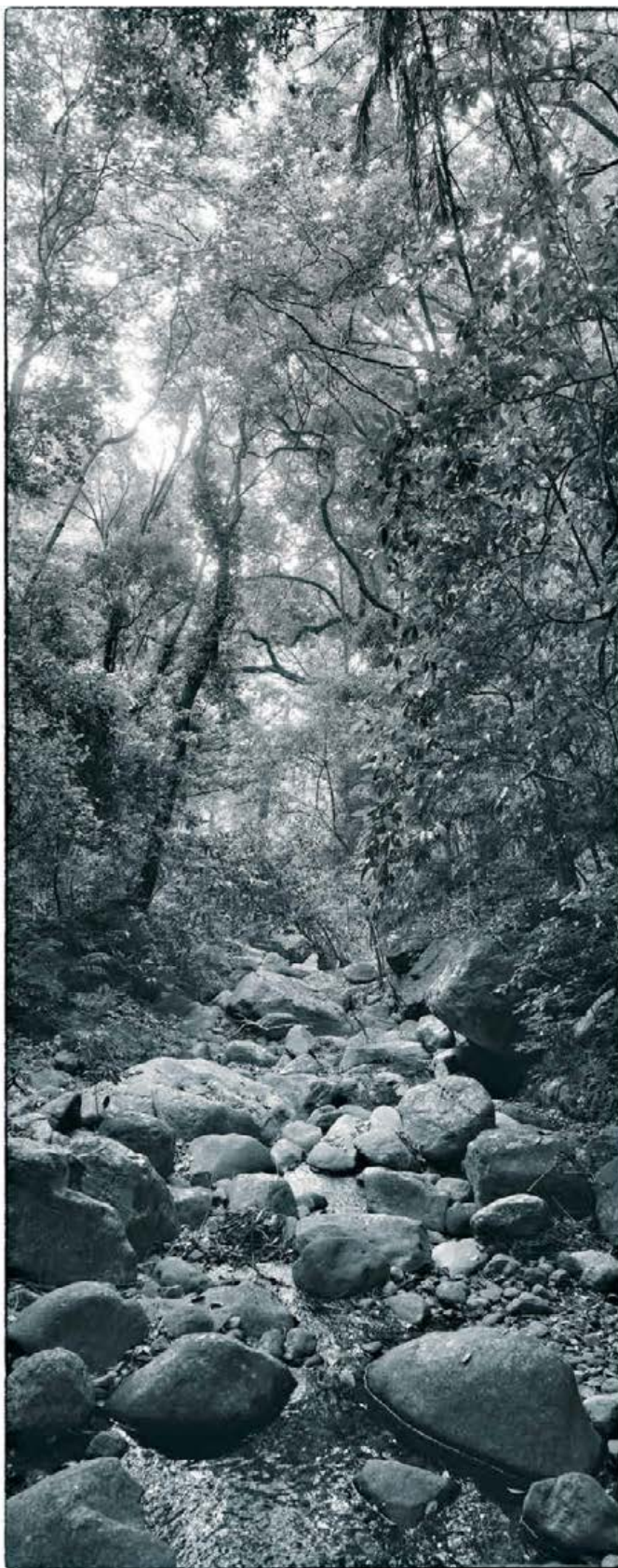
JEWEL HOUSE in Naraikadu.



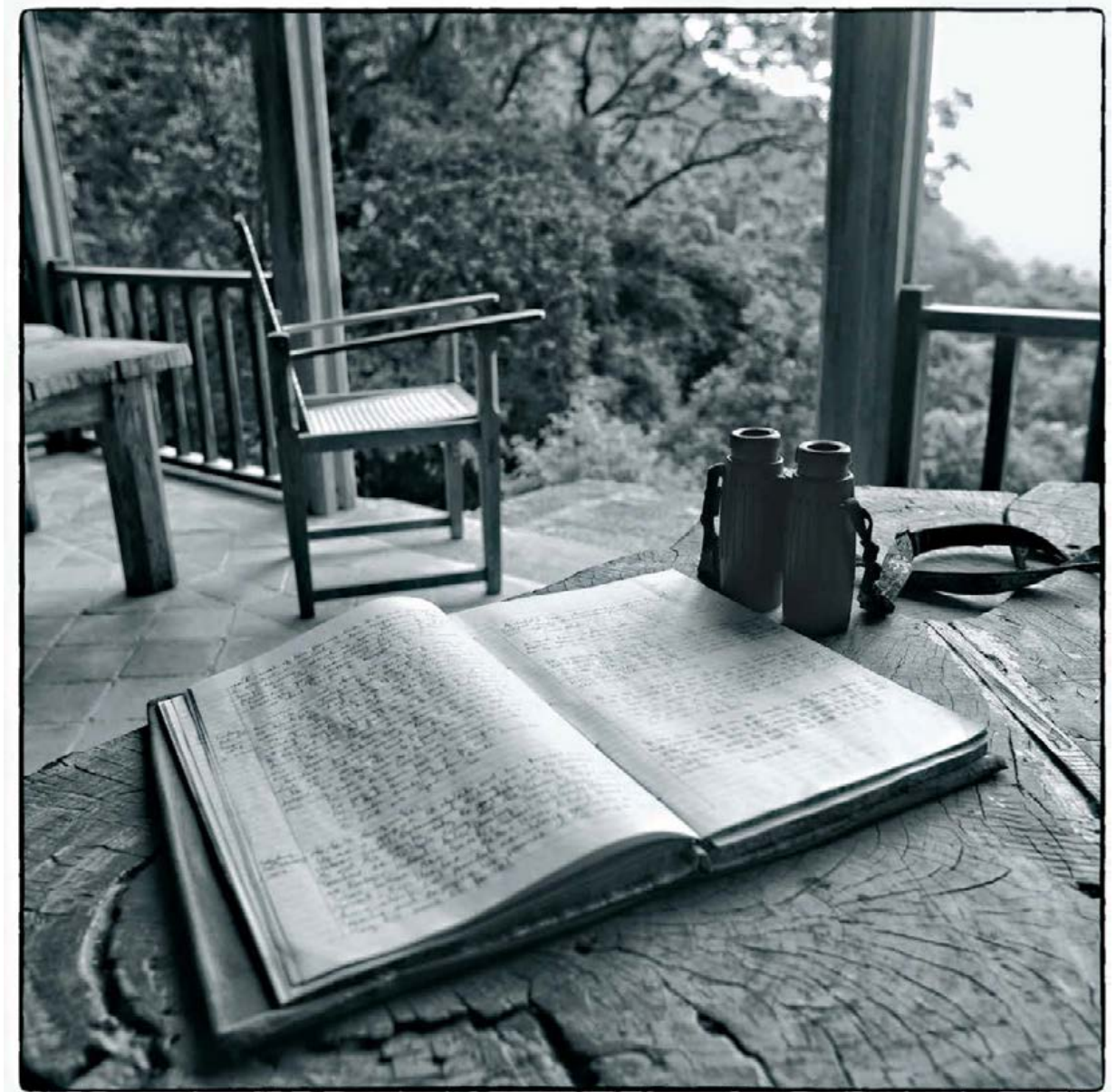




CLOCK TOWER on the Dhonavur Fellowship's campus, part of a unique architectural aesthetic.



THE UPPER PARTS of the Naraikadu stream in the dry season.



A LOG BOOK at Jewel House. The logs are an invaluable record of citizen conservation and science in the Western Ghats.

taxing way to reach the highlands. Naraikadu's trail is much more than a physical act of exertion to get to a pretty destination. On the contrary, binding both the tangible and metaphorical realms, the visitor transitions from the ordinary, flat and dusty landscape to an ever-green, cool, life-rich mountain retreat where the spirit soars.

The ecological transition through different vegetation and climatic zones in a relatively short transect is remarkable. Visitors start their journey to Naraikadu on the dry Tirunelveli plains. Small-scale peanut farms with thickets of thorn boundaries and palmyra trees dominate this landscape. Hamlets of human populations live near

paddies that are dependent on the monsoon or tanks for water. There are electric fences and concrete pillars demarcating the KMTR boundary located along the contour at the base of the lowest hills. The idea is to keep the wildlife in and the poachers out. Poaching in the Naraikadu valley is thought to be low because Dhonavur members visit frequently and report back any issues to the KMTR field director. Entry into the valley requires permission from both the KMTR and the Dhonavur Fellowship.

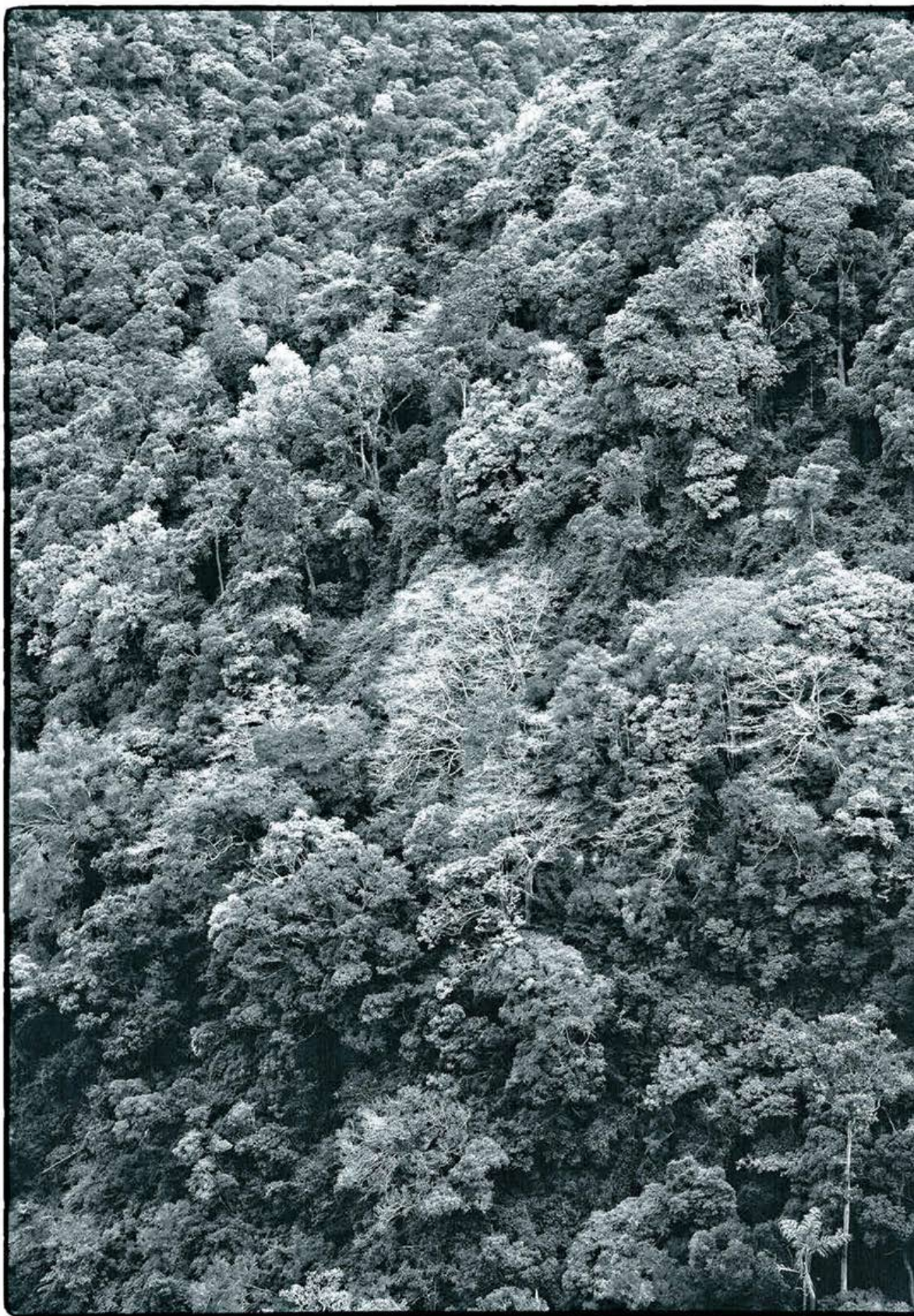
Once inside the protected area, the path is wide and composed of weathered stones placed by pioneering generations of visitors. A sambar stag bounds away into a



DHONAVUR PRIMARY SCHOOL doorway showing the influence of Chinese design.

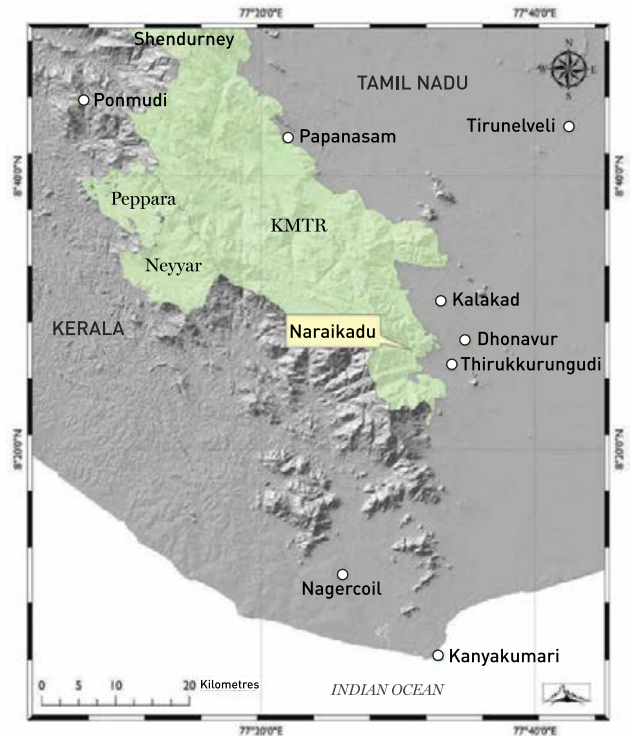
thicket of dry vegetation. Occasionally, *Euphorbia* trees, with their cactus-like bark, emerge from rocky edges. A male paradise flycatcher chatters in the branches above the pathway. The gradient at this stage is not steep and the path ascends the valley under a closing ring of towering, cathedral-like peaks. The sounds of the Naraikadu stream gurgling through an otherwise arid scrub landscape brings relief early. At Murray's Pools, the path ascends weathered granite faces before forging the stream on a beautifully engineered steel-and-wood bridge. It is one of the few signs of humans thus far—no litter, concrete or structures mar the pathway to Naraikadu.

Depending on the time of the day and one's personal fitness, the journey can become demanding as heat and the strain of walking with a backpack take their toll. Soon after the bridge, the path leads away from the soothing sounds of the stream. There are signs of the forest transitioning from deciduous to evergreen, and it is not surprising to encounter noisy Nilgiri langurs in the canopy beside the path. There are signs of wildlife—scat on the ground, bits of dried snakeskin and skinks ducking into rock crevices. The Dhonavur men have stories of encountering king cobras mating on pathways that they cross. The path meanders on for what seems like a long time. This is an opportunity to let the mind free and take in the





NARAIKADU VICINITY



serenity of a forest while getting a little closer to the destination. Finally, there is the sound of water flowing over rocks again and one is reunited with the stream at “Rest River”.

In the final part of the journey, the path ascends in a zigzag up a steep slope with semi-evergreen forests and, notably, ficus trees. Every corner and rock outcrop seems to have a story associated with Amy Carmichael and past generations of Fellowship members. By the time one enters an invisible boundary into the Dhonavur Fellowship property, the tree canopies tower far above the path. There is an understorey of *Strobilanthes* shrubs, ferns and epiphytes. The sounds of great pied and Malabar grey hornbills are not uncommon. The first bungalows have solid stone walls covered in moss and lichen with the occasional growth of ferns. They do not look neglected, but the structures blend in with the dark hues of the forest. A pathway leads to “Amma’s Falls”, the source of much happiness for the children who stay at the “Forest Bungalow”. A further 20 minutes up the path, the valley closes in, and the last bungalow, Jewel House, has a commanding view over the valley. From this elevated refuge, one can look back to the distant plains over the emergent layer of the rainforest.

One of the most important contributions of the Dhonavur community’s efforts at Narai Kadu has been to keep a meticulous record of weather patterns and rainfall

THE EVERGREEN FOREST canopy.



THE RIPARIAN FOREST and the Naraikadu stream.

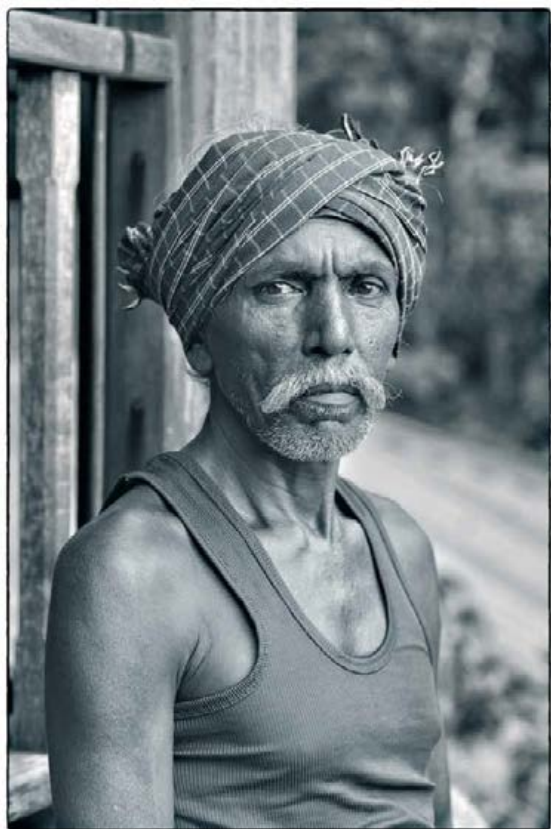
and natural history sightings in the valley. Visitors have religiously written notes in bungalow log books. There are richly narrated anecdotes of encounters with various snakes (several vipers, cat snakes and king cobras, for example) as well as mammals such as the emblematic lion-tailed macaques and the rarely seen tiger. Amy Carmichael counsels her brethren not to harm these creatures and to let them live in peace. Lists of birds seen and colourful praise for the spiritual renewal gained from time spent in the hills are the hallmarks of the log books.

Change has been a key aspect of the observations—the forest has recovered from being a degraded plantation to now hosting a plethora of rare and endangered Western Ghats species. While a few key species such as the Nilgiri tahr went locally extinct, recent records suggest healthy populations of other notable species. Put together, the multiple volumes are an invaluable record of 100 years of citizen conservation and science in the Western Ghats. There are now efforts under way to scan and digitise the Naraikadu log books.

Naraikadu has benefited from several generations of individuals who worked to protect the valley and better understand its natural history. It has been a community effort—nearly all of Dhonavur's inhabitants can speak with in-depth knowledge about species and the ecological aspects of the valley. The missionaries that came from across the seas to build up Dhonavur have long left, and today the community's children go out to other parts of marginalised India to serve. There are still a handful of community members who were raised by Amy Carmichael before her passing in 1951. The children, albeit in



JERRY RAJAMANIAN on new land. He is a third-generation community member.



MICHAEL of Naraikadu.



EZEKIEL Deva Irakkam measuring rainfall.

Small but highly specialised biodiversity



HYLARANA TEMPORALIS.



DRAGONFLY.



PYCNONOTUS GULARIS.



PIT VIPER.



TROIDES MINOS.



YELLOW FLOWER.

smaller groupings, make visits up to Naraikadu in the hot season, and the Fellowship maintains the original bungalows in their basic, original state. Beyond that, the Fellowship assists the Tamil Nadu Forest Department with maintenance work, boundary patrols and wildlife monitoring. It is widely appreciated that the Dhonavur employees know the rugged trails better than anyone in the department. Today, efforts are being led by Jerry Rajamanian, a third-generation community member, with the support of other members of the Dhonavur Fellowship.

CHALLENGES

The challenges in Naraikadu and the wider KMTR protected area in the future will come from a multitude of sources. There are issues with encroachment on the western face of the ranges (in Kanyakumari district) where there are significant human population pressures. The eastern edges of the hills are now facing development pressures as land is bought up for investment with little thought for the ecological impact. Coconut plantations, irrigated with borewells, are sprouting in semi-arid areas. Scrub vegetation has been cleared indiscriminately in these privately owned border areas. Religious tourism in Mundanthurai and Nambi Kovil are delicate issues to manage within a tiger reserve. The issue of the Bombay Burmah tea estates in the heart of the KMTR continue to be controversial. Changes in the rainfall pattern and more frequent droughts, linked to climate change, will certainly challenge all human and wildlife communities in the area. The KMTR remains a well-managed protected area with strong village outreach and eco-development programmes. Several civil society groups have been involved in protection, and science-based conservation organisations such as the Ashoka Trust for Research in Ecology and the Environment (ATREE) have been conducting long-term research to promote conservation.

In wildlife and ecosystem conservation, it is fashionable to spend significant amounts of money on check dams, road construction, watch towers and other capital-intensive projects. Unfortunately, these are often a wasteful use of scarce public funds and are vulnerable to abuse.

The case of Naraikadu illustrates what a small group of committed individuals with a love for a landscape and place can do. Dhonavur community members remind us that empowered citizens can be some of the best agents in protecting India's biodiversity in an age of extreme pressure, scarce funds and climate change. □

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