A REPORTER AT LARGE

COUNTDOWN

Why can't every country have the bomb?

BY AMITAV GHOSH

PHOTOGRAPH BY RAGHU RAI

George Fernandes, India's Defense Minister: An atom bomb is morally unacceptable. But why should the nations that have nuclear weapons tell India how to behave?

On May 11th, the Indian government tested several nuclear devices at a site near the small medieval town of Pokharan, on the edge of the Thar Desert, in the western state of Rajasthan. I travelled to the area three months later. My visit coincided with the fifty-first anniversary of independence, the start of India's second half century as a free nation. As I was heading toward Pokharan, the Prime Minister, Atal Bihari Vajpayee, was addressing the nation from the ramparts of Delhi's Red Fort—an Independence Day tradition. Driving through the desert, I listened to him on the car radio.

Vajpayee belongs to the Bharatiya Janata Party (the B.J.P., or the Indian People's Party), which is the largest single group in the coalition that now rules India. The B.J.P. came to power in March, and the Pokharan tests followed two months later. The tests occasioned outpourings of joy among the B.J.P.'s members and sympathizers. They organized festivities and handed out sweetmeats on the streets to commemorate the achievement. There was talk of sending sand from the test site around the country so that the whole nation could partake of the glow from the blasts. Some of the B.J.P.'s leaders were said to be thinking of building a monument at Pokharan, a "shrine of strength" that could be visited by pilgrims. Nine days after the first tests, the Prime Minister flew to Pokharan himself. A celebration was organized near the crater left by the blasts. The Prime Minister was photographed standing on the crater's rim, looking reverentially into the pit.

But now, three months later, speaking at Red Fort, the Prime Minister's voice sounded oddly subdued. The euphoria had faded. On May 28th, Pakistan had tested its own nuclear devices. This had had a sobering effect. In the following weeks, the rupee fell to a historic low, the stock-market index fell, prices soared. The B.J.P.'s grasp on power was now none too secure.

I was travelling to Pokharan with two men whom I'd met that morning. They were landowning farmers who had relatives in the town. A friend had assigned them the task of showing me around. One man was in his sixties, with hennaed hair and a bushy mustache. The other was his son-in-law, a soft-spoken, burly man in his early forties. Their Hindi had the distinctive lilt of western Rajasthan.

It was searingly hot, and the desert wind chafed like sandpaper against our eyes. The road was a long, shimmering line. There were peafowl in the thorny trees, and the birds took wing as the car shot past, their great tails iridescent in the sunlight. Otherwise, there was nothing but scrub to interrupt the view of the horizon. In the dialect of the region, my guides told me, this area was known as "the flatland."

In Pokharan, my guides were welcomed by their acquaintances. A town official said he knew exactly the man I ought to meet. This man was sent for. His name was Manohar Joshi, and he was thirty-six, bespectacled, with a ready smile. He'd grown up in Pokharan, he told me. He was twelve in 1974, when a nuclear device was first tested in the district. The Prime Minister then was Indira Gandhi.

"In the years after 1974, there was a lot of illness," Joshi said. "We had never heard of cancer before. But after the test people began to get cancer. There were strange skin diseases. Sores. And people used to scratch themselves all the

time. If these things had happened anywhere else in the country, in Bihar or Kashmir, people would rise up and stop it. But people here don't protest. They'll put up with anything."

Growing up in Pokharan, Joshi had developed a strong interest in nuclear matters. His family hadn't had the resources to send him to college. After high school, he'd started to work in a shop. But all the while he'd wanted to write. He'd begun to send opinion pieces to Hindi newspapers. One of them had taken him on as a stringer.

On the afternoon of May 11th, he was preparing for his siesta when the ground began to shake, almost throwing

A celebration was organized near the blast crater. There was talk of sending sand from the test site around the country so that the whole nation could partake of the glow.

him off his cot. He knew at once that this was no earthquake. It was a more powerful jolt than that of 1974. He recognized it for what it was and called his paper immediately. This, Joshi said proudly, made him the first journalist in the world to learn of the tests.

Joshi told me about a village called Khetolai. It was just six miles from the test site, the nearest human habitation. The effects of the 1974 tests had been felt more severely there, he said, than anywhere else in the district.

We drove off into the scrub, along a dirt road. The village was small, but there were no huts or shanties: the houses were sturdily built, of stone and mortar.

Khetolai was an unusual village, Joshi explained. Its inhabitants were reasonably prosperous—they made their living mainly from the tending of livestock—and almost everyone was literate, women as well as men. Many were Bishnois, members of a small religious sect whose founder had forbidden the felling of trees and the killing of animals. They thought of themselves as the world's first conservationists.

We stopped to look at a couple of buildings whose walls had been split by the tests, and we were immediately surrounded by eager schoolchildren. They led us into a house where three turbaned elders were sitting on charpoys, talking.

On May 11th, at about noon, they told me, a squad of soldiers drove up and asked the villagers to move to open ground. People who owned refrigerators and television sets carried them out-of-doors and set them down in the sand. Then they sat under trees and waited. It was very hot. The temperature was over 120 degrees Fahrenheit.

Some three and a half hours later, there was a tremendous shaking in the ground and a booming noise. They saw a great cloud of dust and black and white smoke shooting skyward in the distance. Cracks opened up in the walls of the houses. Some had underground water tanks for livestock. The blasts split the tanks, emptying them of water.

Later, the villagers said, an official came around and offered them small sums of money as compensation. The underground tanks had been very expensive. The villagers refused to accept the money and demanded more.

Party activists appeared and erected a colorful marquee. There was talk that the B.J.P. would hold celebrations in Khetolai. By this time, the villagers were enraged, and the marquee was removed, for fear that the media would hear of the villagers' complaints.

"After the test," a young man said, "the Prime Minister announced that he'd been to Pokharan and that there was no radioactivity. But how long was he here? Radioactivity doesn't work in minutes." Since 1974, he said, some twenty children had been born with deformed limbs. Cows had developed tumors in their udders. According to the young man, calves were born blind, or with their tongues and eyes attached to the wrong parts of their faces. No one had heard of such things before.

The young man held a clerical job for the government. He was articulate, and the elders handed him the burden of the conversation. In the past, he said, the villagers had coöperated with the government. They hadn't complained and they'd been careful when talking to the press. "But now we are fed up. What benefits do we get from these tests? We don't even have a hospital."

Someone brought a tray of water glasses. The young man saw me hesitate and began to laugh. "Outsiders won't drink our water," he said. "Even the people who come to tell us that everything is safe won't touch our water."

My guides were subdued on the drive back. Even though they lived in the neighboring district, it had been years since they were last in Pokharan. What we'd seen had come as a complete surprise to them.

I spent the rest of the day in the town of Bikaner, about a hundred miles away. That evening, I walked around its royal palace. It was vast, empty, and beautiful, like a melancholy fantasy. Its pink stone seemed to turn translucent in the light of the setting sun. The palace was of a stupefying lavishness. It was built around the turn of the century by Maharaja Sir Ganga Singh of Bikaner—a luminary who had cut a very splendid figure in the British Raj. He had entertained viceroys and sent troops to Flanders. He was a signatory of the Treaty of Versailles. There were photographs in the corridors showing Maharaja Ganga Singh in the company of Churchill, Woodrow Wilson, and Lloyd George.

In New Delhi, many people had talked to me about how nuclear weapons would help India achieve "great power status." I'd been surprised by the depth of emotion that was invested in that curiously archaic phrase "great

ILLUSTRATIONS BY OWEN SMITH

power." What exactly would it mean, I'd asked myself, if India achieved "great power status"? What were the images that were evoked by this tag?

Now, walking through this echoing old palace, looking at the pictures in the corridors, it occurred to me that this was what the nuclearists wanted: treaties, photographs of themselves with the world's powerful, portraits on their walls. They had pinned on the bomb their hopes of bringing it all back.

THE leading advocate of India's nuclear policies is K. Subrahmanyam, a large, forceful man, who is the retired director of the Institute for Defence Studies and Analyses, in New Delhi. Subrahmanyam advocates an aggressive nuclear program based on the premise that nuclear weapons are the currency of global power. "Nuclear weapons are not military weapons," he told me. "Their logic is that of international politics and it is a logic of a global nuclear order." According to Subrahmanyam, international security has been progressively governed by a global nuclear order made up of the five nuclear-weapons powers—the United States, Russia, China, Britain, and France. "India," Subrahmanyam said, "wants to be a player and not an object of this global nuclear order."

I had expected to hear about regional threats and the Chinese missile program. But, as Subrahmanyam sees it, India's nuclear policies are only tangentially related to the question of India's security. They are ultimately aimed at something much more abstract and very much more grand: global power. India could, if it plays its cards right, parlay its nuclear program into a seat on the United Nations Security Council and earn recognition as a "global player."

Subrahmanyam told me a story about a film. It was called "The Million-Pound Note" and it featured Gregory Peck. In the film, Peck's character uses an obviously valueless piece of paper printed to look like a million-pound note to con tradesmen into extending credit.

"A nuclear weapon acts like a million-pound note," Subrahmanyam said, his eyes gleaming. "It is of no apparent use. You can't use it to stop small wars. But it buys you credit, and that gives you the power to intimidate."

Subrahmanyam bristled when I suggested that there might be certain inherent dangers to the possession of nuclear weapons. Like most Indian hawks, he considers himself a reluctant nuclearist. He says he would prefer to see nuclear weapons done away with altogether. It is the nuclear superpowers' insistence on maintaining their arsenals that makes this impossible.

Issues of safety, he told me, were no more pressing in India than anywhere else. India and Pakistan had lived with each other's nuclear programs for many years. "It was the strategic logic of the West that was madness. Think of the United States' building seventy thousand nuclear weapons at a cost of $5.8 trillion. Do you think these people are in a position to preach to us?"

Subrahmanyam, like many other supporters of the Indian nuclear program, sees little danger of the deployment of nuclear weapons. In New Delhi, it is widely believed that the very immensity of the destructive potential of nuclear weapons renders them useless as instruments of war, insuring that their deployment can never be anything other than symbolic. That nuclear war is unthinkable has, paradoxically, given the weapons an aura of harmlessness.

I went to see an old acquaintance, Chandan Mitra, a historian with an Oxford doctorate. I had come across an editorial of his entitled "Explosion of Self-Esteem," published on May 12th. At Delhi University, when I first knew Chandan, he was a Marxist. He is now an influential newspaper editor, and is said to be a B.J.P. sympathizer.

"The bomb is a currency of self-esteem," Chandan told me, with disarming bluntness. "Two hundred years of colonialism robbed us of our self-esteem. We do not have the national pride that the British have, or the French, the Germans, or the Americans. We have been told that we are not fit to rule ourselves—that was the justification of colonialism. Our achievements, our worth, our talent have always been negated and denied. Mahatma Gandhi's endeavor all during the freedom movement was to rebuild our sense of self-esteem. Even if you don't have guns, he said, you still have moral force. Now, fifty years on, we know that moral force isn't enough to survive. It doesn't count for very much. When you look at India today and ask how best you can overcome those feelings of inferiority, the bomb seems to be as good an answer as any."

For Chandan, as for many other Indians, the bomb is more than a weapon. It has become a banner of political insurgency, a kind of millenarian movement for all the unfulfilled aspirations and dreams of the last fifty years.

The landscape of India teems with such insurgencies: the country is seized, in V. S. Naipaul's eloquent phrase, with "a million mutinies now." These insurrections are perhaps the most remarkable product of Indian democracy: this enabling of once marginal groups to fight for places at the table of power. The bomb cult represents the uprising of those who find themselves being pushed back from the table. It's the rebellion of the rebelled against, an insurgency of an élite. Its leaders see themselves as articulating the aspirations of an immeasurably vast constituency: more than nine hundred million people, or "one-sixth of humanity," in the words of the Indian Prime Minister. The reality, however, is that the number is very much smaller than this and is dwindling every day. The almost mystical rapture that greeted the unveiling of the cult's fetish has long since dissipated.

While in New Delhi, I visited the Lok Sabha, the lower house of India's parliament, to watch a debate on foreign-policy consequences of the nuclear tests. Most of the speakers were vociferously critical of the government for permitting the tests. Several of the speeches were ringing denunciations of the B.J.P.'s nuclear policies. Later, I went to see one of the speakers, Ram Vilas Paswan. Paswan is a Dalit—a member of a caste group that was once treated as untouchable by high-caste Hindus. He holds the distinction of winning his parliamentary seat by record margins and is something of a cultural hero among many of the country's two hundred and thirty million Dalits.

Paswan is a wiry man with a close-cropped beard and gold-rimmed eyeglasses. "These nuclear tests were not in the Indian national interest," he told me. "They were done in the interests of a party, to keep the present government from imploding. In the last elections in Pakistan, Nawaz Sharif campaigned on a platform of better relations

with India. For this he was pilloried by his opponent, Benazir Bhutto, but he still won. The people of Pakistan want friendship with India. But how did our government respond? It burst a bomb in the face of a man who had reached out to us in friendship. And this in a country where ordinary citizens don't have food to eat. Where villages are being washed away by floods. Where two hundred million people don't have safe drinking water. Instead, we spend thirty-five thousand crores of rupees a year"—about eight billion dollars—"on armaments."

On August 6th, Hiroshima Day, I was in Calcutta. More than two hundred and fifty thousand people marched in the streets to protest the nuclear tests of May 11th. It was plain that the cult of the bomb had few adherents here, that the tests had divided the country more deeply than ever.

In New Delhi, I went to see George Fernandes, the Defense Minister of India.

I have known Fernandes, from a distance, for many years. He has a long history of involvement in human-rights causes, and when I was a student at Delhi University he was one of India's best-known antinuclear activists.

New Delhi is a sprawling city of some ten million people, but its government offices and institutions are concentrated in a small area. The capital was designed by Sir Edwin Lutyens, in the waning years of the British Raj. Two gargantuan buildings form the bureaucratic core of the city. They are known simply as North Block and South Block and they face each other across a broad boulevard. The buildings are of red sandstone and are ornamented with many turrets and gateways of Anglo-Oriental design. From this fantastically grandiose complex the power of the Indian state radiates outward in diminishing circles of effectiveness.

I was taken to Fernandes's office, in South Block, by Jaya Jaitly, the general secretary of Fernandes's political party, the Samata (Equality) Party. The idea of my striding into the Defense Ministry was no more unlikely than the thought that these offices were presided over by George Fernandes, that perennially indignant activist.

At the age of sixteen, Fernandes, who had harbored ambitions of becoming a Catholic priest, joined a lay seminary. At nineteen, he left, disillusioned (he remembers being appalled that the rectors ate better food and sat at higher tables than the seminarians), and went to Bombay, where he joined the socialist trade-union movement. For years he had no permanent address and lived with members of his union on the outskirts of the city. Disowned by his father, he did not visit his home again until he was in his forties.

Fernandes still considers himself a socialist. In India's most recent elections, last February, the Samata Party won a mere twelve seats out of a total of five hundred and forty-five. There was a time when the Congress—the party of Mahatma Gandhi—regularly commanded a decisive majority. But today no single party controls a sufficient number of seats to form a stable government. The country has gone to the polls twice in the last three years. Last February's elections gave the B.J.P., with a hundred and eighty-one seats, a slight edge over the Congress. For the first time, the B.J.P. was able to form a government, but only after fashioning a coalition with smaller parties. (The Samata Party entered on very advantageous terms, securing two positions in the Cabinet, Fernandes's included.) The B.J.P.'s program is based on an assertive, militant Hinduism. In 1992, members of the B.J.P. were instrumental in organizing the demolition of a sixteenth-century mosque that stood upon a site that they believed to be sacred to Hindus. In the aftermath, there were riots across the Indian subcontinent and thousands of people died.

We went up to Fernandes's office in the Minister's elevator. A soldier in sparkling white puttees and a red turban pressed the buttons.

Fernandes is sixty-eight but could pass for a man in his mid-forties—lean, with a full head of curly graying hair. He always dresses in long, handwoven cotton kurtas and loose pajamas. He wears leather sandals—no socks or shoes—and washes his clothes by hand.

Two officers marched in, and Fernandes turned to talk to them. It was clear at a glance that, despite Fernandes's sandals and rumpled clothes and the officers' heel-clicking starchiness, there was a genuine warmth between him and the soldiers. It occurred to me that Fernandes, too, wore a kind of uniform. It was a statement of simplicity.

The room was large but dank. Two pictures hung high on a wall. One was a portrait of Mahatma Gandhi; the other was a photograph of the ruins of a church in Hiroshima. It was probably here, at this desk, under these pictures, that Fernandes had deliberated on the tests of May 11th.

I thought back to India's first atomic test. I was eighteen, in my second year at Delhi University. The voices of dissent were few: all the major political parties, right and left alike, came out in support. Fernandes was one of the very few political figures who openly criticized the test. For those such as myself, people who were opposed to nuclear armaments in an instinctive, perhaps unreflective way, Fernandes became a kind of beacon.

It was lunchtime, and Fernandes led the way to a spiral staircase. I spotted a small, simian figure observing us from a landing. I stopped, startled. It was a monkey, a common rhesus, with a muddy-brown mantle and a bright-red rump. The animal stared at me calmly, unalarmed, and then went bounding off down a corridor.

"Did you see that monkey?" I said.

Fernandes laughed. "Yes. There's a whole troop living on this staircase."

"Sometimes," one of his aides whispered, "they attack the generals."

At lunch, I said to Fernandes, "Are you comfortable with the recent nuclear tests? I ask you this because I have read your antinuclear writings and seen you at peace marches."

"I was opposed to the bomb from Day One till the nineteenth of July, 1996," Fernandes said. On that day, the Lok Sabha was debating the Comprehensive Test-Ban Treaty banning further tests. "In these discussions there was one point of unanimity: that we should not sign this treaty. I went through deep anguish—an atom bomb was morally unacceptable. But why should the five nations that have nuclear weapons tell us how to behave and what weapons we should have? I said we should keep all our options open—every option." The implication was that, even then, he hadn't been able to endorse nuclear weapons.

After lunch, as he was rising to leave, Fernandes told me that he was scheduled to visit military installations in the embattled state of Kashmir. From there, he planned to fly farther north, to Ladakh and the Siachen Glacier, in the Karakoram Mountains. Across these snows, at altitudes of up to twenty-two thousand feet, Indian and Pakistani troops have been exchanging fire regularly for fourteen years. The trip was to be a tour of inspection, but Fernandes would also address some political meetings. If I wanted to join him, he said, I should tell his office.

On the morning of August 24th, I boarded an Indian Air Force plane with Fernandes and his entourage. The plane was a twin-engine AN-32, an elderly and unabashedly functional craft of Soviet manufacture.

We stopped for lunch at a large military base in eastern Kashmir. I found myself sharing a table with several major generals and other senior officers. I was interested to learn these senior officers' views of the nuclear tests, but I soon discovered that their curiosity exceeded mine. Did I know who was behind the decision to proceed with the tests? they asked. Who had issued the orders? Who had known in advance?

I could no more enlighten them than they could me. Only in India, I thought, could a writer and a tableful of generals ask each other questions like these. It was confirmation, at any rate, that the armed forces' role in the tests had been limited.

The views of the military personnel were by no means uniform. Many believed that India needed a nuclear deterrent; some felt that the tests had resulted in security benefits for both India and Pakistan—that the two countries would now exercise greater caution in their frequent border confrontations.

But others expressed apprehensions. "An escalation of hostilities along the border can happen very easily," a major-general said to me. "It takes just one officer in the field to start it off. There's no telling where it will stop."

None of the generals, I was relieved to note, appeared to believe that nuclear weapons were harmless icons of empowerment. In the light of my earlier conversations, there was something almost reassuring in this.

After lunch, we went by helicopter to Surankote, an Army base in the neck of territory that connects Kashmir to India. It was set in a valley, between steep, verdant hills. The sunlight glowed golden and mellow on the surrounding slopes. We were whisked off the landing pad and taken to the base. I found myself riding in a vehicle with a young major.

"What's it like here?" I said.

"Bad." He laughed. "Bordering on terrible." The Pakistani front lines were just a few miles away, he explained. It took just a day to walk over the hills.

At the base, there was a crowd of a few hundred people. Fernandes had mounted a podium with several other politicians and local dignitaries. Behind them were green hills, capped by clouds.

The major pointed at the hills. "While we're standing here talking,

Nawaz Sharif, the Prime Minister of Pakistan. He wanted better relations with India.

there are half a dozen operations going on in those hills, right there."

He led me aside. "Let the politicians talk," he said. "I'll show you what's happening here if you want to know." We went into a tent and the major seated himself at a radio set. "This is where we listen to them," he said. He scanned the wavelengths, tuning in to several exchanges. "Listen," he said, turning up the volume. "They're speaking Punjabi, not Kashmiri. They're mercenaries who've signed up on two-year contracts. They're right there, in those hills."

The voices on the radio had a slow, dreamlike quality; they were speaking to each other unhurriedly, calling out cheerful greetings in slow-cadenced rural Punjabi.

As we were leaving the tent, the major darted suddenly into a group of journalists and took some rolls of film from a photographer. "I don't know what they've taken pictures of," he said. "I can't trust anyone here."

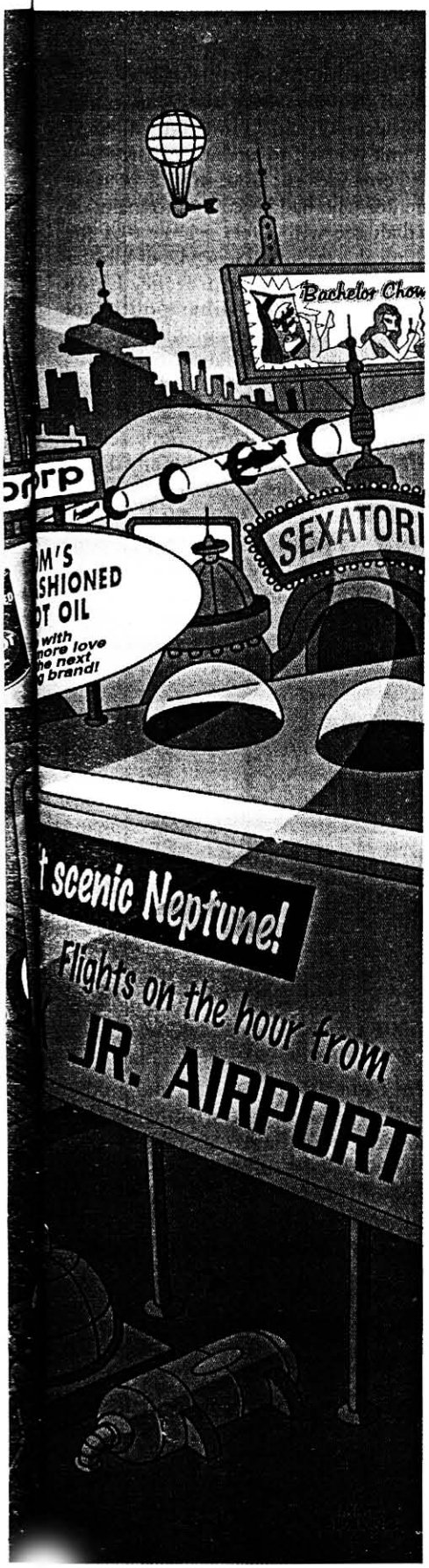
We walked back to listen to the speeches. "The politicians talk so well," the major said. "But what we have is a war. Does anyone know that? Does anyone care?"

The next day, we flew to Leh, the principal town in the Himalayan region of Ladakh. Ladakh is only a few hundred miles from the valley of Kashmir, but near Leh, in the east, it is a world apart, a niche civilization—a far outpost of Buddhist culture which has flourished in a setting as extreme, in climate, altitude, and topography, as that of Tibet.

Leh is at eleven thousand five hundred feet. On landing, we were handed pills to prevent altitude sickness and warned of short-term memory loss. In the afternoon, driving toward the Siachen Glacier, we went over the eighteen-thousand-three-hundred-foot Khardung Pass. A painted sign announced this to be the world's highest motorable road. Ahead lay the Karakoram Range. Among the peaks in this range is the twenty-eight-thousand-two-hundred-and-fifty-foot K2, Mt. Godwin Austen, the second-highest mountain in the world.

The landscape was one of lunar desolation, with electric-blue skies and a blinding sun. Great sheets of glaciated rock rose sheer out of narrow valleys: their colors were the unearthly pinks and mauves of planetary rings and stellar moons. The mountains had sharp, pyramidal points, their ridges honed to fine, knifelike edges. Below, along the valley floors, beside ribbonlike streams, were trees with silver bark. On occasional sandbanks, dwarfed by the vastness of the landscape, were tidy monasteries and villages.

The Siachen Glacier is known as the Third Pole. Outside of the polar wastelands, there is perhaps no terrain on earth that is less hospitable. There are no demarcated borders. Kashmir has what was once called the Cease Fire Line,



FORECAST

FLASH-FORWARD

To Matt Groening, creator of the "Life in Hell" comic strip and of "The Simpsons," the future, like the present, is a dark journey lit by cheap satisfactions. In his new series, "Futurama," airing this January on Fox, a twenty-five-year-old pizza-delivery boy named Fry is accidentally cryogenically frozen in 1999—it could happen—and wakes up in the ruins of Manhattan in the year 3000. There he finds that mankind remains just as greedy and conniving and in thrall to greasy pizza as ever. Earth's villain is an insatiable capitalist named Mom, and even the aliens don't want to conquer us so much as win market share for their addictive soft drink, Slurm. That's all just fine with Fry; alongside his curvy, one-eyed alien sidekick, Leela, he's content delivering packages around the galaxy for Planet Express and cruising for interstellar babes. (There's a lot of sex in the future, though the over-all desirability quotient is somewhat constrained by Groening's animation style, which he terms "big eyes and alarming overbites.")

Fry's learning curve is soothingly low: in a thousand years man has invented nothing that would puzzle Flash Gordon. It's a populuxe world of hover cars, jet packs, ray guns, holographic videophones, a warp-speed option on spaceships ("convenience drive"), even a mad scientist known as the Professor. "This is a future you've seen before," Groening acknowledges. "It's straight out of science-fiction movies from the nineteen-forties to the sixties—my favorite future."

Groening has added a few small, personal innovations. As a child, he suffered recurrent nightmares in which robots sought to kill him. "Futurama" bristles with robots, but they've been humanized: Fry's robot friend Bender dreams of becoming a gourmet chef, if he could only acquire taste buds. Luminaries such as Dick Clark live on as disembodied heads in jars—an apt pickling of celebrities who outstay their welcome. "And the best part about my future," Groening says happily, "is that 'The Simpsons' is still on the air—with new episodes." —Tad Friend

which serves as a de-facto border, but it stops short of this region, ending at a point on the map known as NJ 9842. The line was created in 1949, after the first war between India and Pakistan. At the time, neither India nor Pakistan conceived of needing to extend it into the high Karakorams, beyond NJ 9842. "No one had ever imagined," a Pakistani academic told me later, when I visited Lahore, "that human beings would ever wish to claim these frozen places."

But in the late nineteen-seventies several international mountaineering expeditions ventured into this region. They came through Pakistan and used Pakistani-controlled areas as their trailheads. This raised suspicions in India. It was discovered that maps were being published with lines drawn through the region, suggesting delineated borders where none existed. There was talk of "cartographic aggression."

It was these notional lines, on maps used by mountaineers, that transformed the Siachen Glacier into a battleground. It is generally agreed that the glacier—an immense mass of compacted snow and ice, seventy miles long and more than a mile deep—has no strategic, military, or economic value whatsoever.

In 1984, the Indian Army launched a large-scale airlifting operation and set up a number of military posts. Pakistan responded by putting up a parallel line of posts. There was no agreement on where the posts should be: shoving was the only way to decide. Since that time, the Indian and Pakistani Armies have regularly exchanged artillery fire at heights that range from ten thousand to twenty thousand feet.

On the glacier, we stopped to visit a dimly lighted hospital ward. There were a dozen men inside. None of them had been injured by "enemy action": their adversary was the terrain. They were plainsmen, mainly. In the normal course of things, snow would play no part in their lives. Most of the men were in their late thirties or early forties—family men. They stared at us mutely. One had tears in his eyes.

Every year, a thousand soldiers are injured on the glacier—about the equivalent of an infantry battalion. "We allow at least ten extra men per battalion for wastage," an officer told me.

At some posts on the glacier, temperatures routinely dip to 40 degrees

below zero. At these altitudes, wind velocities are very high. The soldiers spend much of their time crammed inside tents that are pitched on the surface of the glacier or on ledges of rock. Such heat as they have comes from small kerosene stoves, which produce a foul-smelling, grimy kind of soot. The soot works itself slowly into the soldiers' clothes, their hair, their eyes, their nostrils. When they return to base camp after a three-month tour of duty, they are enveloped in black grime.

The Siachen Glacier costs India, I was told, two million dollars a day. The total cost of defending this mass of ice is beyond estimate, but it certainly exceeds several billion dollars.

In the evening, I ate with a group of junior officers. I was interested to note that Indian soldiers always spoke of their Pakistani counterparts with detachment and respect.

"Most of us here are from North India," a blunt-spoken major said to me. "We have more in common with the Pakistanis, if you don't mind my saying so, than we do with South Indians or Bengalis."

The next morning, in a Cheetah helicopter, I followed Fernandes through the gorges that lead up to the glacier. It was cloudy, and the brilliant colors of the rockfaces had the blurred quality of a water-washed print. There was a majesty to the landscape that I had never seen before.

On our return, we drove to the snout of the glacier. A *bara khana*—a kind of feast—had been arranged under an open hangar, in Fernandes's honor. Fernandes left the officers' table and began to serve the other ranks, taking the dishes out of the hands of the kitchen staff. The men were visibly moved, and so was Fernandes. It was clear that in this job—arrived at fortuitously, late in his career—Fernandes had discovered some kind of vocation, a return, perhaps, to the austerity and brotherhood of his days as a seminarian or a trade unionist.

I was introduced to an officer who had just returned from three months on the glacier. He was proud of his men and all they had accomplished: they had dug caves in the ice for shelter, injuries had been kept to a minimum, no one had gone mad. He leaned closer. While on the glacier, he said, he'd thought of a plan for winning the war. He wanted to convey it to the Defense Minister. Could I help?

And the plan? I asked.

A thermonuclear explosion at the bottom of the glacier, a mile deep. The whole thing would melt, he explained, and the resulting flood would carry Pakistan away and put an end to the glacier as well. "We can work wonders."

He'd just come off the glacier, I reminded myself. This was just another kind of altitude sickness.

The next day, sitting in the Air Force plane, I talked to Fernandes about Pakistan. "Isn't it possible for both sides to disengage from the glacier?" I asked. "Can't some sort of solution be worked out?"

"Does anyone really want a solution?" he said quietly. "Things will just go on like this." In his voice there was a note of despair.

For fourteen years, India and Pakistan have been engaged in a high-altitude war, exchanging artillery fire over a piece of land nobody wants.

I came to be haunted by an image of two desperately poor protagonists, balancing upon a barren mountaintop, each with a pickaxe stuck in the other's neck, each propping the other up, waiting to bleed to death.

IN Leh, late one night in an empty dining room, Fernandes made the cryptic comment "There are no Indians left."

"What do you mean?"

"There are no Indian parties today. There are only groups gathered around individuals."

He was referring to the powerful sectional and regional interests that have prevented any stable government from forming, precipitating the several elections in quick succession.

I asked him about his alliance with the B.J.P. "You were always a secular politician," I said. "How did you come to link yourself to a religious party?"

Fernandes spoke of an old political mentor who had urged him to maintain a dialogue with every segment of the political spectrum. He spoke of a bitter feud with a former protégé, Laloo Yadav, a powerful Bihar politician. Then, suddenly, he cut himself off. "Look," he said, "I'm rationalizing."

He had gone to the B.J.P. as a last resort, he explained. He had tried to reach agreements with various secular left-wing parties. He tried many doors, he said, and "only when all other doors were closed" did he go to the B.J.P.

The causes of Fernandes's despondency were suddenly clear. He had spent a lifetime in politics, and the system had spun him around and around until what he did and what he believed no longer had the remotest connection. I knew that he still possessed a certain kind of idealism and personal integrity. But what had prevailed finally was vanity—the sheer vanity of power.

Fernandes is not alone. This sense of deadlock is an essential part of the background of the nuclear tests of May 11th. To the leaders of the B.J.P., hanging on to power by the good will of a tenuous coalition, the tests must have appeared as one means of blasting a way out of a dead end. But if the B.J.P. bears the principal responsibility for the tests, the blame is not theirs alone: it was Indira Gandhi and her Congress Party who set the precedent for using nuclear

technology as political spectacle. Since then, many other Indian politicians have battled with the same temptation. Two other recent Prime Ministers, Narasimha Rao and I. K. Gujral, resisted, to their great credit, but they both came very close to succumbing. In the end, it is in the technology itself that the real danger lies. As long as a nuclear establishment exists, it will always tempt a politician desperate to keep a hold on power.

That night in Leh, I thought of something Fernandes had said to me earlier: "Someday we will sink, and this is not anything to do with China or with Pakistan. It is because this country is cursed to put up with a leadership that has chosen to sell it for their own personal aggrandizement." This seemed now like an unconscious self-indictment.

THERE are, in fact, many reasons to fear nuclear catastrophe in South Asia.

Both India and Pakistan have ballistic missiles. Their nuclear warheads will necessarily be produced in only a few facilities, because of limited resources. India's nuclear weapons, for instance, are thought to be produced at a single unit: the Bhabha Atomic Research Center, in Bombay. Both sides are, therefore, realistically able to destroy each other's production capacities with not much more than a single strike.

Several major cities in India and Pakistan are within a few hundred miles of each other, so, once launched, a missile would take approximately five minutes to reach its target. Given the short flight time, military planners on both sides almost certainly have plans to retaliate immediately. In other words, if either nation believed itself to be under attack it would have to respond instantly. In moments of crisis, the intelligence services of both India and Pakistan have historically had unreliable perceptions of threat. They have also been known to produce outright faulty intelligence.

The trouble will probably start in Kashmir. India and Pakistan have already fought two wars over the state. In recent months, the conflict has spilled into other parts of India, with civilian populations coming under attack in the neighboring state of Himachal Pradesh, for example. The Indian government once mooted the idea of launching "hot pursuit" attacks across the border, against insurgents sheltering in Pakistani-held territory. In Pakistan, such assaults are likely to be perceived as an invasion. The risks of escalation are very real.

Zia Mian, a Pakistani-born nuclear expert at Princeton, said to me, "There are soldiers on both sides who have a hankering for a grand act of heroic erasure. A day might well come when these people would say, 'Let's get it over with forever, once and for all, no matter what the cost.'"

ON a hot and humid August day, I drove around New Delhi with an old friend, Kanti Bajpai, trying to picture the damage the city would sustain during a nuclear explosion. Kanti has a doctorate in strategic studies from the University of Illinois, and he was among the many antinuclear activists who, on learning of the tests of May 11th, immediately went to work. At the time, the B.J.P.'s cadres were organizing celebrations in the streets of several Indian cities. Opposition politicians looked on in stunned silence, struggling to gather their wits. It fell to citizens' associations to take on the task of articulating a critical response. Kanti came to national attention at this time.

Kanti believes that India, in pursuing a nuclear program, has gambled away its single greatest military advantage over Pakistan: the overwhelming superiority of its conventional forces. In legitimatizing Pakistan's nuclear program, India's military planners have, in effect, rendered their ground troops redundant. Kanti sees no threat from China. There is no history of persistent antagonism. No Chinese emperor ever invaded India; no Indian ever sought to conquer any part of China. In thousands of years of close coexistence, Chinese and Indian soldiers have fought only once, during the war of 1962.

Along with a number of other academics, Kanti has been trying to assess the consequences of a nuclear war in South Asia. A friend of his, M. V. Ramana, a research fellow at the Center for Energy and Environmental Studies at Princeton University, had recently computed the possible effects of a nuclear attack on Bombay. It was one of the first such studies to be done of a South Asian city. Ramana's findings caused some surprise: the casualty rates that he cited, for instance, were lower than expected—about two hundred thousand. This was because in his calculations Ramana assumed that neither India nor Pakistan would use bombs much greater than what was dropped on Hiroshima—with a yield of about fifteen kilotons.

We set out on our journey through New Delhi armed with a copy of Ramana's seminal paper. Kanti wanted to apply the same calculations to New Delhi.

We drove up Rajpath, the grand thoroughfare that separates North Block from South Block. Ahead lay the domed residence of the President. This was once the palace of the Imperial British Viceroy; it is now known as Rashtrapati Bhavan. The palace looks down Rajpath toward a monument called India Gate. In the distance lie the ramparts of the Purana Qila, a sixteenth-century fort.

Ground zero, Kanti said, will probably lie somewhere near here: in all likelihood, between North and South Blocks.

On detonation, a nuclear weapon releases a burst of high-energy X rays. These cause the temperature in the immediate vicinity to rise very suddenly to tens of millions of degrees. The rise in temperature causes a fireball to form, which shoots outward in every direction, cooling as it expands. By the time it reaches the façades of North Block and South Block, it will probably have cooled to about three hundred thousand degrees—enough to kill every living thing within several hundred feet of the point of explosion. Those caustics, on open ground will evaporate; those shielded by the buildings' thick walls will be incinerated.

South Block and North Block, and this many of the ceremonial rooms in convinced New Delhi, are made primarily of nuclear program Rajasthan sandstone. In Hiroshima of the future. Nagasaki, granite surrounds the weapon with tiles up to several feet thick. the subcontinent the explosion melts whatever is ahead. considerably less durable of nuclear weapons in façades of these buildings is the moral equivalent melt like candles. The targets the rulers have in mind and walls are, in the end, their own people. ♦

possibly even a portion of India Gate.

As the fireball expands, it generates a shock wave called the Mach front, which delivers a massive blow to everything in its path. This, in turn, is followed by an enormous increase in air pressure and very high wind velocities. The pressure of the air in the wake of the Mach front can reach several thousand pounds per square inch: it's like being inside a pressure cooker, but with many thousands of times greater pressure. The shock can generate winds that blow at speeds of more than two thousand miles per hour.

"Human beings will become projectiles," Kanti said. "If you're here and you're not incinerated immediately, you will become a human cannonball."

We drove toward the Jamuna River, passing the enormous circular building that houses India's parliament. Everyone here, Kanti said, will be either incinerated or killed by the radiation.

We proceeded to the National Archives and the vast bureaucratic warrens that house the government's principal administrative offices. These, too, will be destroyed. The recorded basis of government, Kanti said, will vanish. Land records, taxation documents—almost everything needed to reconstruct a settled society—will perish from the blast.

The changes in pressure caused by the explosion, Kanti explained, even a small one, will make your lungs burst. You won't necessarily die of burns or poisoning. "Your internal organs will rupture, even if you survived the initial blasts and flying objects."

Later, I asked Gautam Bhatia, a New Delhi architect, about the effects of the blast on the city's buildings.

Many of the landmark buildings of British-era New Delhi, he wrote me, have very thick walls and are laterally buttressed with cross walls. These are capable of withstanding great pressure. But many of the city's contemporary public buildings, like some of its five-star hotels, have glass curtain walls. "Such structures have a poor rating for withstanding pressure, poor facilities for egress, and virtually no fire-fighting equipment."

New Delhi's newer residences will fare very badly. Most of the buildings are designed to withstand winds of about a hundred and sixty kilometres per hour: in the event of a nuclear explosion, they will face wind speeds of up to twenty times that. "The walls would be blown away instantly; if columns and slabs remain, the pressure will rip the building out of its foundations and overturn it."

In Indian cities, many households use cannisters of liquid petroleum gas for everyday cooking. For about a mile around ground zero, Ramana estimates, these cannisters will explode.

Kanti explained to me that the geographical spread of New Delhi is such that a single fifteen-kiloton nuclear explosion could not destroy the whole area. He estimated that the casualty figures for New Delhi would be much lower than those which Ramana had cited for Bombay: as low, potentially, as sixty thousand. Only the central parts of the city would be directly affected. "The city would continue to function in some way," Kanti said, "but its municipal, medical, and police services would be in total chaos. The infrastructure would disappear."

Fatalities, however, will account for only a small part of the human toll. Several hundreds of thousands of people will suffer burn injuries.

In New Delhi, I met with Dr. Usha Shrivastava, a member of a group called International Physicians for the Prevention of Nuclear War. She told me that over the past few decades, while New Delhi's population has more than doubled, the total number of hospital beds in the city has increased only slightly. She estimated that there are only six to seven thousand beds in the government-run hospitals that serve the majority of the city's population. These hospitals are already so crowded that in some wards two or three patients share a single bed.

But the major hospitals—including the only one with a ward that specializes in burn injuries—are all within a few miles of the city's center, and they will not survive the blast anyway.

In the event of a nuclear explosion in New Delhi, Dr. Shrivastava said softly, "the ones who will be alive will be jealous of the dead ones."

When it's over, millions and millions of people will be without homes. They will begin to walk. The roads will soon be too clogged to accommodate cars or buses. Everyone will walk, rich and poor, young and old. Many will be nursing burn wounds and other severe injuries. They will be sick from radiation. There will be no food, no clean water, and no prospect of medical care. The water from the mountains will be contaminated. The rivers will be ruined. Epidemics will break out. Hundreds of thousands will die.

I had always imagined that a nuclear blast was a kind of apocalypse, beyond which no existence could be contemplated. Like many Indians, I associated the image of *pralay*—the mythological chaos of the end of the world—with a nuclear explosion. Listening to Kanti that day as we drove around New Delhi, I realized that I, like most people, had been seduced into a species of nuclear romanticism, into thinking of nuclear weapons in symbolic and mythic ways. The explosion that Kanti was describing would not constitute an apocalyptic ending: it would be a beginning. What would follow would make the prospect of an end an object of universal envy.

My journey would not be complete without a trip to Pakistan. It was to be my first visit, and the circumstances looked far from propitious. The week before, the United States had fired Tomahawk missiles at terrorist camps in southern Afghanistan. Some had landed near the border of Pakistan. There were reports of Indian and American flags being burned in the streets.

At the airport in Lahore, I steeled myself for a long wait. My Indian passport would lead, I was sure, to delays, questions, perhaps an interrogation. But nothing happened: I was waved through with a smile.

When Indians and Pakistanis visit each other's countries, there is often an alchemical reaction, a kind of magic. I had heard accounts of this from friends: they had spoken of the warmth, the hospitality, the intensity of emotion, the sense of stepping back into an interrupted memory, as though an earlier conversation were being resumed. Almost instantly these tales were confirmed—in taxi-drivers' smiles, in the stories that people sought me out to tell, in the endless invitations to meals.

At mealtimes, though, there were arguments about how long it would be before Taliban-like groups made a bid

for power. After dessert, the talk would turn to the buying of Kalashnikovs.

I went to see Qazi Hussain Ahmed, the leader of the Jamaat-e-Islami, the country's principal religious party. The Jamaat's headquarters are on the outskirts of Lahore, in a large and self-sufficient compound, surrounded by a high wall and manned by sentries.

Ahmed has a well-trimmed white beard, twinkling eyes, and a manner of great affability. "Other than the Army," he said, "all the institutions in this country are more or less finished. These are all institutions of a Westernized élite, of people who are corrupt. We are now paying the price of their corruption. All the problems we have now—the economic crisis and so on—are the fruit of their corruption."

I was hearing a strange echo of voices from India.

"We are not for nuclear weapons," Ahmed told me. "We are ourselves in favor of disarmament. But we don't accept that five nations should have nuclear weapons and others shouldn't. We say, 'Let the five also disarm.'"

On one issue, however, his views were very different: the probability of a nuclear war. "When you have two nations," he said, "between whom there is so much ill will, so much enmity, and they both have nuclear weapons, then there is always the danger that these weapons will be used if war breaks out. Certainly. And in war people become mad. And when a nation fears that it is about to be defeated, it will do anything to spare itself the shame."

Almost without exception, the people I spoke to in Pakistan—hawks and doves alike—were of the opinion that the probability of nuclear war was high.

I spent my last afternoon in Lahore with Pakistan's leading human-rights lawyer, Asma Jahangir. Asma is forty-eight, the daughter of an opposition politician who was one of the most vocal critics of the Pakistani Army's operations in what is now Bangladesh. She spent her teen-age years briefing lawyers on behalf of her frequently imprisoned father. Today, she cannot go outside without an armed bodyguard.

"Is nuclear war possible?" I asked.

"Anything is possible," she said, "because our policies are irrational. Our decision-making is ad hoc. We are surrounded by disinformation. We have a

"We are fatalistic nations who believe that whatever happens—a famine, a drought, an accident—it's the will of God."

historical enmity and the emotionalism of jihad against each other. And we are fatalistic nations who believe that whatever happens—a famine, a drought, an accident—it is the will of God. Our decision-making is done by a few people on both sides. It's not the ordinary woman living in a village in Bihar whose voice is going to be heard, who's going to say, 'For God's sake, I don't want a nuclear bomb—I want my cow and I want milk for my children.'"

I OFTEN think back to the morning of May 12th. I was in New York at the time. I remember my astonishment both at the news of the tests and also at the response to them: the tone of chastisement, the finger-wagging by countries that still possessed tens of thousands of nuclear warheads. Had they imagined that the technology to make a bomb had wound its way back into a genie's lamp because the Cold War had ended? Did they think that it had escaped the world's attention that the five peacekeepers of the United Nations Security Council all had nuclear arms? If so, then perhaps India's nuclear tests served a worthwhile purpose by waking the world from this willed slumber.

So strong was my response to the West's hypocrisy that I discovered an unusual willingness in myself to put my own beliefs on nuclear matters aside. If there were good arguments to be made in defense of the Indian and Pakistani nuclear tests, then I wanted to know what they were: I wanted to hear them for myself.

I didn't hear them. What I heard instead was a strange mix of psychologizing, grandiose fantasy, and cynicism. The motivation behind India's nuclear program is summed up neatly in this formula: it is status-driven, not threat-driven. The intention is to push India into an imagined circle of twice-born nations—"the great powers." In Pakistan, the motivation is similar. Status, here, means parity with India. That the leaders of these two countries should be willing to risk economic breakdown, nuclear accidents, and nuclear war in order to indulge these confused ambitions is itself a sign that some essential element in the social compact has broken down: the desires of the rulers and the well-being of the ruled could not be further apart.

I think of something that George Fernandes said to me: "Our country has already fallen to the bottom. Very soon we will reach a point where there is no hope at all. I believe that we have reached that point now." I think also of the words of I. A. Rehman, of the Human Rights Commission of Pakistan: "This is the worst it's ever been. Everything is discredited. Everything is lost, broken into pieces."

I have never had so many utterly depressing conversations, so many talks that ended with the phrase "we have hit rock bottom." There was the college student who said, "Now even Bill Gates will take us seriously." There was the research scientist who believed that, now, his papers would get more international attention. And there were the diplomats looking forward to a seat on the Security Council. Has the gap between the realities of the subcontinent and the aspirations of its middle classes ever been wider? Talking to nuclear enthusiasts, I had the sense that what they were really saying was: "The country has tried everything else to get ahead. Nothing worked. This is our last card and this is the time to play it." I am convinced that support for India's nuclear program is occasioned by a fear of the future. The bomb has become the weapon with which the rulers of the subcontinent wish to avert whatever is ahead.

The pursuit of nuclear weapons in the subcontinent is the moral equivalent of civil war: the targets the rulers have in mind are, in the end, their own people. ♦