

The Shipbreakers*

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At Alang, in India, on a six-mile stretch of oily, smoky beach, 40,000 men tear apart half of the world's discarded ships, each one a sump of toxic waste. Environmentalists in the West are outraged. The shipbreakers, of course, want to be left alone -- and maybe they should be.

SHIP Captain Vivek A. Pandey thought he could have been a fighter pilot. Because his father had flown for the British before Indian independence, Pandey felt he had flying in his blood. When he was a young man, he took the Indian Pilot's Aptitude Test and astonished the examiners with his spatial orientation, his instinct for flight instruments, and the sureness of his reactions. They saw what he already knew -- that he was born with the cool. So when he then went to sea, he was not running away but making a choice. He explained it to me with a rhyme, "from aviation to navigation," as if the two were nearly the same. For seventeen years afterward Pandey ploughed the oceans in cargo ships and tankers, under many flags. He became a captain and lived aboard his vessels in master's quarters, some of which seemed to him as luxurious as hotel suites. He visited Norfolk, Savannah, Long Beach, and all the big ports of Europe. He liked the tidiness and power of a ship's command, but eventually he got married and felt the pull of domesticity. And so, nine years ago, after the birth of a daughter, he settled in the state of Gujarat, on India's far-western shore.

I found him there last winter, in the black hours before dawn, on a beach called Alang -- a shoreline strewn with industrial debris on the oily Gulf of Cambay, part of the Arabian Sea. I'd been warned that Pandey would resent my presence and see me as a meddling Westerner. But he gave no sign of that now. He was a sturdy, middle-aged merchant captain wearing clean khakis, sneakers, and a baseball cap. Outwardly he was a calm, businesslike mariner with a job to do. He stood among a group of diffident, rougher-looking men, some in traditional *lungis* and turbans, and accepted offers to share their coconut meat and tea. He checked his watch. He looked out across the dark sea.

A high tide had raised the ocean's level by thirty feet, bringing the waterline a quarter mile inland and nearly to the top of the beach. In the blackness offshore two ships lay at anchor, visible only by their masthead lights. The first was a 515-foot general-cargo vessel named the Pioneer 1, which hailed from St. Vincent, in the Caribbean. Pandey raised a two-way radio to his lips and, calling himself "Alang Control," said, "Okay, Pioneer One, heave up your anchor, heave up your anchor."

The Pioneer's captain acknowledged the order in thickly accented English. "Roger. Heave up anchor."

To me Pandey said, "We'll start off." He radioed the ship to turn away from the coast and gather speed. "You make one-six-zero degrees, full ahead. What is your distance from the ship behind you?"

"Six cables, six cables."

"Okay, you make course one-six-zero, full ahead."

The masthead lights began to creep through the night. When the captain reported that the ship was steady on the outbound course, Pandey ordered hard starboard rudder. He said, "Let me know your course every ten degrees."

The answer came back shortly: "One-seven-zero, Pioneer One." The turn was under way.

"One-eight-zero, Pioneer One." I had to imagine, because I could not see, that great mass of steel trembling under power and swinging toward the shore in the hands of its crew. The captain called the changing courses with tension in his voice. I got the impression he had not done this before. But Pandey was nonchalant. He gazed at silhouettes of sheds that were at the top of the beach. He sipped his tea. The radio said,

"One-nine-zero ... two-zero-zero ... two-one-zero."

Pandey began talking about the Pilot's Aptitude Test that he had taken years before. He said, "It's a test for which you can appear only once in your lifetime. Either you have the aptitude to be a pilot or you don't, so it is a one-time course in a lifetime. And very interesting ..."

"Two-two-zero."

On that test, using mechanical controls, Pandey had kept a dot within the confines of a 1.5-inch moving square. Now, using a hand-held radio, he was going to ram the Pioneer, a ship with a beam of seventy-five feet, into a plot on the beach merely ninety-eight feet wide. It was presumptuous of him, and he knew it. I admired his cool. The lights of the ship grew closer. The radio said, "Two-three-zero." Pandey said, "Okay, Captain, you are ballasting, no?"

"Yes, sir, we are ballasting. Ballasting is going on."

"Very good, please continue."

The numbers counted up. At "three-one-zero," with the Pioneer now close offshore, Pandey finally showed some emotion. Raising his voice, he said, "Okay, make three-two-zero, steady her. Okay, now you give maximum revolution, Captain! Give maximum revolution!"

I went down to the water's edge. The Pioneer came looming out of the darkness, thrashing the ocean's surface with its single screw, raising a large white bow wake as it rushed toward the beach. I could make out the figures of men peering forward from the bridge and the bow. Now the sound of the bow wave, like that of a waterfall, drowned the drumming of the engine. A group of workers who had been standing nearby scattered to safety. I stayed where I was. Pandey joined me. The Pioneer kept coming. It was caught by an inshore current that carried it briefly to the side. Then the keel hit the bottom, and the ship drove hard onto the flooded beach, carried by its weight, slowing under full forward power until the rudder no longer functioned and the hull veered out of control and slid to a halt not a hundred yards from where we stood. Anchors the size of cars rattled down the sides and splashed into the shallows. The engine stopped, the lights switched off in succession from bow to stern, and abruptly the Pioneer lay dark and still.

I know that a ship is an inanimate object, but I cannot deny that at that moment the Pioneer did die. It had been built in Japan in 1971, and had wandered the world under various owners and names -- Cosmos Altair, Zephyrus, Bangkok Navee, Normar Pioneer. And now, as I stood watching from the beach, it became a ferrous corpse -- in Indian law as well as in practice no longer a ship but just a mass of imported steel. The seamen who lingered aboard, probing the dead passageways with their flashlight beams, were waiting for the tide to go out, so that they could lower a rope ladder, climb down the side, and walk away on dry ground. The new owner would have his workers start cutting the corpse in the morning.

I asked Pandey if he found this sad, and he answered emphatically that he did not. He was a powerful state official in a nation of powerful officials: he was the port officer of Alang, a man who rode in a chauffeured

car with a state emblem on the hood, and it was important to him to appear rational at all times. But the truth, I thought later, might even be that he enjoyed these ship killings. He told me that during his tenure he had personally directed every one -- altogether several thousand by now -- and he took me along to his next victim, a small cargo vessel also from the Caribbean, which he had already sent speeding toward its destruction. He was proud of his efficiency. He mentioned a personal record of seven ships in succession. He was Pandey the ace, a champion executioner.

Then dawn spread across his gargantuan landscape -- Alang, in daylight barely recognizable as a beach, a narrow, smoke-choked industrial zone six miles long, where nearly 200 ships stood side by side in progressive stages of dissection, yawning open to expose their cavernous holds, spilling their black innards onto the tidal flats, and submitting to the hands of 40,000 impoverished Indian workers. A narrow, roughly paved frontage road ran along the top of the beach, parallel to the ocean. It was still quiet at dawn, although a few battered trucks had arrived early, and were positioning themselves now for the day's first loads of steel scrap. On the ocean side the frontage road was lined by the metal fences that defined the upper boundaries of the 183 shipbreaking yards at Alang. The fences joined together into an irregular scrap-metal wall that ran intermittently for most of the beach, and above which the bows of ships rose in succession like giants emerging from the sea. Night watchmen were swinging the yard gates open now, revealing the individual plots, each demarcated by little flags or other markers stuck into the sand, and heavily cluttered with cut metal and nautical debris. The yards looked nearly the same, except for their little offices, usually just inside the gates. The most marginal yards could afford only flimsy shacks or open-sided shelters. The more successful yards had invested in more solid structures, some of concrete, with raised verandahs and overhead fans.

The workers lived just across the frontage road, in a narrow shantytown with no sanitation, and for the most part with no power. The shantytown did not have a name of its own. It stretched for several miles through the middle of Alang, and had a small central business section, with a few small grocery stalls and stand-up cafés. It was dusty, tough, and crowded. Unemployment there was high. The residents were almost exclusively men, migrants from the distant states of Orissa and Uttar Pradesh. They toiled under shipyard supervisors, typically from their home states or villages, who dispensed the jobs, generally in return for a cut from the workers' already meager pay. The workers chose to work nonetheless, because the alternatives were worse. In the morning light now, they emerged from their shacks by the thousands and moved across the frontage road like an army of the poor. They trudged through the yards' open gates, donned hard hats, picked up crowbars and sledgehammers, and lit crude cutting torches. By eight o'clock, the official start of the workday, they had sparks showering from all the ships nearby, and new black smoke rising into the distance along the shore.

ALANG is a wonder of the world. It may be a necessity, too. When ships grow old and expensive to run, after about twenty-five years of use, their owners do not pay to dispose of them but, rather, the opposite -- they sell them on the international scrap market, where a typical vessel like the Pioneer may bring a million dollars for the weight of its steel. Selling old ships for scrap is considered to be a basic financial requirement by the shipping industry -- a business that has long suffered from small profits and cutthroat competition. No one denies that what happens afterward is a dangerous and polluting process.

Shipbreaking was performed with cranes and heavy equipment at salvage docks by the big shipyards of the United States and Europe until the 1970s, when labor costs and environmental regulations drove most of the business to the docksides of Korea and Taiwan. Eventually, however, even these entrepreneurial countries started losing interest in the business and gradually decided they had better uses for their shipyards. This meant that the world's shipbreaking business was again up for grabs. In the 1980s enterprising businessmen in India, Bangladesh, and Pakistan seized the initiative with a simple, transforming idea: to break a ship they did not need expensive docks and tools; they could just wreck the thing -- drive the ship up onto a beach as they might a fishing boat, and tear it apart by hand. The scrap metal to be had from such an operation could be profitably sold, because of the growing need in South Asia for low-grade steel, primarily in the form of ribbed reinforcing rods (re-bars) to be used in the

construction of concrete walls. These rods, which are generally of a poor quality, could be locally produced from the ships' hull plating by small-scale "re-rolling mills," of which there were soon perhaps a hundred in the vicinity of Alang alone. From start to finish the chain of transactions depended on the extent of the poverty in South Asia. There was a vast and fast-growing population of people living close to starvation, who would work hard for a dollar or two a day, keep the unions out, and accept injuries and deaths without complaint. Neither they nor the government authorities would dream of making an issue of labor or environmental conditions.

The South Asian industry took about a decade to mature. In 1983 Gujarat State proclaimed Alang its shipbreaking site, when it was still a pristine shore known only to a few fishermen, without even a dirt road leading to it. Twenty-two shipbreakers leased plots and disposed of five small ships that year. The following year they disposed of fifty-one. The boom began in the early 1990s, as the richer countries of East Asia continued to withdraw from the business.

Today roughly 90 percent of the world's annual crop of 700 condemned ships now end their lives on the beaches of Pakistan, India, and Bangladesh -- and fully half of them die at Alang. With few exceptions, the breakers are not high-born or educated men. They are shrewd traders who have fought their way up, and in some cases have grown rich, but have never lost the poor man's feeling of vulnerability. They have good reason to feel insecure. Even with the most modest of labor costs, shipbreaking is a marginal business that uses borrowed money and generates slim profits. The risk of failure for even the most experienced breakers is real. Some go under every year. For their workers the risks are worse: falls, fires, explosions, and exposure to a variety of poisons from fuel oil, lubricants, paints, wiring, insulation, and cargo slop. Many workers are killed every year. Nonetheless, by local standards the industry has been a success. Even the lowliest laborers are proud of what they do at Alang. There is no ship too big to be torn apart this way. More important, the economic effects are substantial -- Alang and the industries that have sprung from it provide a livelihood, however meager, for perhaps as many as a million Indians. Imagine, therefore, their confusion and anger that among an even greater number of rich and powerful foreigners, primarily in Northern Europe, Alang has also become a rallying cry for reform -- a name now synonymous with Western complicity and Third World hell.

CAPTAIN Pandey by daylight was less in control than he had seemed at night. He appeared tired, even fragile. We stood on the beach among the immense steel carcasses. I brought up the subject of the international campaign, led by Greenpeace in Amsterdam, to reform the process of ship scrapping worldwide. Although global in theory, the campaign in practice is directed mostly against the biggest operation -- the beach here at Alang. I had been told that Pandey took the campaign as a personal attack -- and indeed, at the mention of Greenpeace he struggled visibly to maintain his composure. His face grew tight and angry. He spoke emphatically, as if to keep from raising his voice. Very clearly he said, "The purposeful propaganda against this yard should be countered. You come and look at the facts, and I'm proud of what I have done over here. So there is nothing to hide." He sounded secretive anyway. He implied that a cabal of shadowy forces was conspiring against Alang, and that the real purpose of the environmentalists' campaign was to take the shipbreaking business away from India. He said, "I can show them ten thousand other places outside India, point them out, which are in even worse condition than this. Why should they talk about my country alone?"

Pandey had given his squadron of uniformed guards strict orders to turn away any foreigners trying to enter the yards through the main gate. But determined foreigners kept slipping in anyway. They worked for environmental and human-rights groups and took photographs of black smoke and red fire, and of emaciated workers covered in oil -- strong images that, Pandey felt, did not represent a balanced view of Alang. The moral superiority implied by these missions was galling to many Indians, especially here on the sacred ground of Gujarat, the birth state of Mahatma Gandhi. Recently Greenpeace activists had painted slogans on the side of a condemned ship. Pandey must have taken a special pleasure in running that ship aground.

He was a complex man. He claimed to know that he couldn't have it both ways, that he couldn't invite the world's ships to Alang and at the same time expect to keep the world out. Yet he insisted on trying. After the sun rose, he took me to his office, because he wanted to stop me from wandering through the yards, and then he escorted me away from Alang entirely, because he wanted to make sure I was gone. I did not mention that I had already been at Alang for more than a week, or that I knew a side road to the site and intended to return.

Shipbreaking, American Style

THE controversy over Alang started on the other side of the world and a few years back, in Baltimore, Maryland, along the ghostly industrial shoreline of the city's outer harbor, where old highway signs warn motorists about heavy smoke that no longer pours from the stacks. Early in 1996 a Baltimore Sun reporter named Will Englund was out on the water when he noticed a strange sight -- the giant aircraft carrier Coral Sea lying partially dismantled beside a dock, "in a million pieces." Englund looked into the situation and discovered that the Coral Sea was a waterfront fiasco of bankruptcy, lawsuits, worker injuries, toxic spills, and outright criminality. Of particular interest to Baltimore, where thousands of shipyard workers had been disabled by asbestos, was evidence of wholesale exposure once again to that dangerous dust. The U.S. Navy, which still owned the hull, was guilty, it seemed, at least of poor oversight. Englund's first report ran as a front-page story in April of 1996. The Sun's chief editor, John Carroll, then decided to go after the subject in full. He brought in his star investigative reporter, Gary Cohn, a quick-witted man who had the sort of street smarts that could complement Englund's more cerebral style.

The two reporters worked on the story for more than a year. Their investigation centered on the United States, where shipbreaking had become a nearly impossible business, for the simple reason that the cost of scrapping a ship correctly was higher than the value of its steel. The only reason any remnant of the domestic industry still existed was that since 1994 all government-owned ships -- demilitarized Navy warships and also decrepit merchant vessels culled from the nation's mothballed "reserve fleet" by the U.S. Maritime Administration -- had been kept out of the overseas scrap market as a result of an Environmental Protection Agency ban against the export of polychlorinated biphenyls, the hazardous compounds known as PCBs, which were used in ships' electrical and hydraulic systems. In practice, the export ban did not apply to the much larger number of U.S.-flagged commercial vessels, which were (and are still) exported freely for overseas salvage. Hoping somehow to make the economics work, American scrappers bought the government ships (or the scrapping rights) at giveaway prices, tore into them as expediently as possible, and in most cases went broke anyway. As a result of these defaults, the Defense Department was forced to repossess many of the vessels that it had awarded to U.S. contractors. Conditions in the remaining yards were universally abysmal. The problems existed nationwide -- in California, Texas, North Carolina, and, of course, Maryland. Englund and Cohn were surprised by the lack of previous reporting, and they were fascinated by the intensity of the individual stories -- of death or injury in hot, black holds, of environmental damage, and of repeated lawbreaking and cover-ups. Cohn especially was used to working in the underbelly of society, but not even he had imagined that abuses on such a scale could still exist in the United States. Later I asked him if he had been motivated by anger or moral outrage. He mulled over the question. "I don't know that it was so much anger. I think we discovered a lot of things that were wrong and needed correcting. But I wouldn't say that we walked around angry all the time." Nonetheless the subject became their obsession.

At the same time that Cohn and Englund were investigating the story, the Navy and the Maritime Administration, faced with a growing backlog of rotting hulls, were pressuring the EPA to lift its export ban. They wanted the freedom to sell government ships for a profit on the South Asian scrap market. Englund and Cohn realized that their investigation required a visit to the place where many of these ships would end up if the ban were lifted -- a faraway beach called Alang.

The Sun hired an Indian stringer to help with logistics, enlisted a photographer, and in February of 1997 sent the team to India. Alang was still an innocent place: the reporters were free to go where they pleased, to take pictures openly, and to pay no mind to Captain Pandey. The reporters were shocked by what they saw -- to them Alang was mostly a place of death. And they were not entirely wrong. Soon after they left Alang, sparks from a cutting torch ignited the residual gases in a tanker's hold and caused an explosion that killed fifteen workers -- or fifty. Alang was the kind of place where people hardly bothered to count.

The Sun's shipbreaking report hit the newsstands for three days in December of 1997. It concentrated first on the Navy's failures inside the United States and then on Alang. A little storm broke out in Washington. The Maryland senator Barbara A. Mikulski promptly pronounced herself "appalled" and requested a Senate investigation into the Navy's conduct. She called simultaneously for the EPA's export ban to stay in place and for an overhaul of the domestic program to address the labor and environmental issues brought up by the Sun articles. Though Mikulski spoke in stern moral terms, what she apparently also had in mind was the creation of a new Baltimore jobs program -- involving the clean, safe, and therefore expensive disposal of ships, to be funded in some way by the federal government. The Navy had been embarrassed by the Sun's report, and was in no position to counter Mikulski's attack. It answered weakly that it welcomed discussions "to ensure [that] the complex process of ship disposal is conducted in an environmentally sound manner and in a way that protects the health and safety of workers." Mikulski shot back a letter to Secretary of Defense William Cohen: "Frankly, I was disappointed in their tepid comments. We don't need hollow promises and clichés. We need an action plan and concrete solutions."

Her opinion was shared by other elected officials with struggling seaports. The Maryland representative Wayne T. Gilchrest announced that his maritime subcommittee would hold hearings. The California representative George Miller said, "I feel strongly that contributing to the pollution and labor exploitation found at places like Alang, India, is not a fitting end for these once-proud ships." Miller also argued that since the Navy was paying the cleanup costs at its old bases, it should pay for the scrapping of its old ships as well. It made sense. Certainly the U.S. government could afford it.

In the last days of 1997 the Navy surrendered, declaring that it was suspending plans to export its ships. Reluctantly the Maritime Administration agreed to do the same. The government had a backlog of 170 ships awaiting destruction -- with others scheduled to join them. Faced with the continuing decay of those ships -- and the possibility that some of them would soon sink -- the Defense Department formed an interagency shipbreaking panel and gave it two months to report back with recommendations. The panel suffered from squabbling, but it dutifully went through the motions of deliberation.

During a public hearing in March of 1998 the speakers made just the sort of dull and self-serving statements that one would expect. Ross Vincent, of the Sierra Club, said, "Waste should be dealt with where it is generated."

George Miller said, "A global environmental leader like the United States should not have as a national policy the exporting of its toxic waste to developing countries ill equipped to handle it."

Barbara Mikulski said, "We ought to take a look at how we can turn this into an opportunity for jobs in our shipyards."

Stephen Sullivan, of Baltimore Marine Industries, said, "We have a singular combination of shipbuilding, ship-conversion, and ship-repair expertise."

And Murphy Thornton, of the shipbuilders' union, said, "Those ships should be buried with honor."

In April of 1998 Englund and Cohn won the Pulitzer Prize for investigative reporting. That same month the shipbreaking panel issued its final report -- a bland document that reflexively called for better

supervision of the domestic industry and wistfully maintained the hope of resuming exports, but also suggested that a Navy "pilot project" explore the costs of clean ship disposal in the United States. By September of last year an appropriation had moved through Congress, and the future finally seemed clear: the pilot project included only four out of 180 ships, but it involved an initial sum of \$13.3 million, to be awarded on a "cost plus" basis to yards in Baltimore, Brownsville, Philadelphia, and San Francisco -- and by definition it was just the start.

This was Washington in action. A problem had been identified and addressed through a demonstrably open and democratic process, and a solution had been found that was affordable and probably about right. Nonetheless, there was also something wrong about the process -- an elusive quality not exactly of corruption but of a repetitive and transparent dishonesty that seemed to imply either that the public was naive or that it could not be trusted with straight talk. Even the Baltimore Sun had joined in: in September of 1998, when Vice President Al Gore went through the motions of imposing another (redundant) ban on exports, an approving Sun editorial claimed that the prohibition "especially benefits the poorly paid and untrained workers in the wretched shipyards of South Asia." Patently absurd assertions like that may help to explain why shipbreaking reform, despite all the trappings of a public debate, including coverage in the national press and even ultimately the Pulitzer Prize, actually attracted very little attention in the United States. The people who might naturally have spared this issue a few moments of thought may have had little patience for the rhetoric. Or maybe the subject just seemed too small and far away. For whatever reason, the fact is that the American public did not notice the linguistic nicety distinguishing the government ships in question from the much larger number of commercial U.S.-flagged ships, which would remain untouched by the reforms. So an argument about double standards, which should at least have been heard, was expediently ignored. Seen from outside the United States, the pattern was hard to figure out. India, of course, paid attention to the controversy. At Alang, where plenty of American commercial vessels still came to die, people couldn't understand why the government's ships were banned. I could never quite bridge the cultural gap to explain the logic. How does one say that the process had simply become an exercise in democracy from above? A subject had been tied off and contained.

Pollution's Poster Child

TIED off and contained in America, that is. As it turned out, the Sun's exposé did affect Alang, but in a way that no one in Washington had anticipated. The surprise came close on the heels of the Pulitzer Prize, when the hellish image of Alang landed hard in Scandinavia and the countries of the Rhine, where it ignited a popular movement for shipbreaking reform. If it seems unlikely that ordinary people would genuinely care about a problem so abstract and far away, nevertheless in Northern Europe millions of them did. In The Hague a typically progressive Dutch official explained to me that his countrymen had less-frantic lives than Americans, and could spare the time for altruism.

The campaign, which continues today, was led from Greenpeace's global headquarters, in Amsterdam, by plainspoken activists who started in where American reformers hadn't ventured -- going after the big commercial shipping lines. By this past spring the activists had muscled their way in to the maritime lawmaking forums and had begun to threaten the very existence of Alang.

Their task was made easier from the outset by the work of the emotive Brazilian photojournalist Sebastião Salgado, who came upon the story when it was young, in 1989, and captured unforgettable images of gaunt laborers and broken ships on the beach in Bangladesh. In 1993 Salgado exhibited his photographs at several shows in Europe and in his superb picture book *Workers*, which was widely seen. An awareness of shipbreaking's particular hardships began to percolate in the European consciousness, as did the suspicion that perhaps somehow a caring West should intervene. Then, in 1995, Greenpeace had a famous brush with marine "salvage" when it discovered that Shell intended to dispose of a contaminated oil-storage platform, the giant Brent Spar, by sinking it in the North Atlantic. Greenpeace boarded the platform, led a consumer boycott against Shell (primarily at gas stations in Germany), and with much fanfare forced the humiliated company to back down. The Brent Spar was towed to a Norwegian fjord and scrapped.

correctly, an expensive job that continued until last summer. Greenpeace had once again shown itself to be a powerful player on the European scene.

It was powerful because it was popular, and popular because it was audacious, imaginative, and incorruptible. It also had a knack for entertaining its friends. When the drama of Alang came into clear view, Greenpeace recognized the elements for a new campaign. The organization was not being cynical. For many years it had been involved in a fight to stop the export of toxic wastes from rich countries to poor -- a struggle that had culminated in an international accord known as the Basel Ban, an export prohibition, now in effect, to which the European Union nations had agreed. Greenpeace considered the Basel Ban to be an important victory, and it saw the shipbreaking trade as an obvious violation: if the ships were not themselves toxins, they were permeated with toxic materials, and were being sent to South Asia as a form of waste. Greenpeace was convinced that ships owned by companies based in the nations that had signed the accord, no matter what flag those ships flew, were clearly banned from export. It was a good argument. Moreover, the shipping industry's counterargument -- that the ships went south as ships, becoming waste only after hitting the beaches -- provided a nice piece of double talk that Greenpeace could hold up for public ridicule. And Alang, with its filth and smoke, provided perfect panoramas to bring the point home. So Greenpeace went to war.

It was October of 1998, a year and a half after the Sun's visit. Captain Pandey was on guard against trouble, but he must have been looking in the wrong direction. A group of Greenpeace activists got onto the beach by posing as shipping buffs interested in the story of a certain German vessel. They said they wanted the ship's wheel. But they also wandered off and took pictures of the squalor, and they scraped up samples from the soil, the rubble, and the shantytown shacks. After analyzing those samples, two German laboratories quantified what Greenpeace already knew -- that Alang was powerfully poisonous, particularly for the laborers who worked, ate, and slept at dirt level there. Greenpeace issued the findings in a comprehensive report, the best yet written on Alang. The report discussed the medical consequences of the contaminants, and described the risk of industrial accidents, which were rumored to cause 365 deaths a year. "Every day one ship, every day one dead," went the saying about Alang, and although the report's authors admitted that there was no way to verify this, it was a formulation that people remembered.

Greenpeace needed a culprit to serve as a symbol of the European shipping business, and it found one in the tradition-bound P&O Nedlloyd, an Anglo-Dutch cargo line that was openly selling its old ships on the Asian scrap market. In the shadowy world of shipping, where elusive companies establish offshore headquarters and run their vessels under flags of convenience, P&O Nedlloyd was a haplessly anchored target: it had a big office building on a street in Rotterdam, and a staff of modern, middle-class Europeans, altruists who tended to sympathize with Greenpeace and would quietly keep it apprised of P&O Nedlloyd's intentions and movements. Also, because a related company called P&O Cruises operated a fleet of English Channel ferries and cruise ships, P&O Nedlloyd was likely to be sensitive to public opinion. In November of 1998 Greenpeace staged a protest at the company's offices, erecting a giant photograph of a scrapped ship at Alang along with a statement in Dutch: "P&O Nedlloyd burdens Asia with it." The press arrived, and eventually a company director emerged from the building to talk to the activists. He did not appear to be afraid or angry. He said it wasn't fair to single out P&O Nedlloyd, and he made the argument that coordinated international regulation was needed. International regulation was exactly what Greenpeace wanted -- but when the next day's paper came out with a photograph captioned "P&O and Greenpeace agree," Greenpeace denied that there had been any understanding.

The truth was that Greenpeace needed resistance from P&O Nedlloyd, and it would have had to rethink its strategy if the company had submitted to its demands and obediently stopped scrapping in Asia. But of course P&O Nedlloyd did not submit -- and, for that matter, could not afford to submit. After its brief attempt at openness, it went into just the sort of sullen retreat that Greenpeace might have hoped for. Greenpeace staged a series of shipside banner unfurlings, and it dogged a doomed P&O Nedlloyd container vessel, appropriately called the Encounter Bay, as it went about the world on its final errands.

Millions of Greenpeace sympathizers watched with glee. P&O Nedlloyd was so unnerved by the campaign that in the spring of last year it apparently painted a new name on a ship bound for the Indian beach, in order, perhaps, to disguise who owned it. Greenpeace found out and shouted in indignation. When P&O Nedlloyd then refused to comment, it began to look like an old man turned to evil. This made for good theater -- especially against the backdrop of the ubiquitous pictures of Alang. With public opinion now fully aroused, the Northern European governments began to move, introducing the first dedicated shipbreaking initiatives into the schedules of the European Union and the International Maritime Organization -- the London-based body for the law of the seas. In June of last year the Netherlands sponsored an international shipbreaking conference in Amsterdam -- a meeting whose tone was established at the outset by an emotional condemnation of the industry by the Dutch Minister of Transport. It was obvious to everyone there that the movement for reform was gathering strength. It was hard to know what changes would result -- and which shipbreaking nations would be affected. But the reformers were ambitious, and their zeal was genuine. I thought Pandey had reason to be afraid.

IN London last fall I met an affable Englishman named Brian Parkinson, who worked as a trade and operations adviser for the International Chamber of Shipping, an umbrella group of national shipowner associations. Parkinson had a natural appreciation for the anarchy of the sea and an equally natural aversion to the Greenpeace campaign. He said, "Shipping gets blamed for everything. Global warming. Why the British don't have a decent football team." For lunch we went to a dark little pub that should have been on the docks. Parkinson told me that he was near the end of his career and was looking forward to retirement. Meanwhile, however, he was struggling gamely to keep pace with the times. He said, "A ship registered in Panama, owned by a Norwegian, operating in the U.S., and sold in India is not an export -- but we're not making that argument." He said, "Maybe there are things that shipowners can do." First, he had in mind a nice bit of public relations: "We're looking at creating an inventory of hazardous components, a good-housekeeping guide. We want to know how we can present the ship to the recyclers in the best possible way." I complimented him on the word "recyclers," and he said yes, right, it was rather good, wasn't it? But he was toying with something a bit more real as well -- a proposal for voluntary self-regulation, under which the industry would inspect and certify the yards at the Asian beaches and then factor in good behavior when choosing which ones to use. He mentioned that Shell had already sent an inspector to a yard at Alang, and that he was said to have written an in-house report. As evidence of progress, this seemed pretty slim. I asked Parkinson what was to keep his scheme from becoming a two-tiered arrangement, whereby a few image-conscious companies would accept the expense of working with certified yards while all the other shipowners continued with business as usual, selling their vessels to the highest bidders. He said he worried about that too.

At the central train station in Amsterdam a few days later I met Parkinson's opponent, a leader of the Greenpeace campaign, Claire Tielens, a young Dutch woman with a walker's stride and an absolutist's frank gaze. We went to the station café and talked.

I asked her if she had visited India yet, and she said no, but that for several years she had been a reporter for an environmental news service in the Philippines, so she knew about Third World conditions. I said, "Why did you choose Alang? Why does it seem worse to you than the other industrial sites in India?"

She answered, "Because here there is a very direct link with Western companies."

"But if it's Western companies at Alang, versus Indian companies somewhere else, what difference does it make to the world's environment?"

"Because those Western companies pretend to us here with glossy leaflets that they are so environmentally responsible. And it is a shame when they export their shit to the developing world."

"But from your environmental point of view," I asked, "what difference does it make who the polluter is,

and whether he's a hypocrite or not? I mean, what is it about shipbreaking? And what is it about Alang?"

I kept phrasing my questions badly. She kept trying to answer me directly, and failing, and going over the same ground. Without intending to, I was being unfair. She should have said, "We needed to make some choices, and so we chose Alang. It was easy -- and look how far we've come." I think that would have been about right. Instead she said, "Even by Indian standards, Alang is bad." But India has a billion people, and it is famously difficult to define.

Dark Satanic Mills

NEW Delhi sprawls on dirty ground under ashen skies. It is an immense capital city, a noisy expression of the Indian democracy, not quite the anarchy that at first it appears to be but a conglomeration of countless private worlds. I found myself there last winter at late-night dinners and garden parties among the city's large middle class -- professionals who drove when they might have walked, and inhabited houses like little forts with guarded gates and shard-topped walls. They worried about crime -- partly, I think, because they could defend against it. The larger assaults on a life in New Delhi were simply overwhelming. A friend of mine with a small trucking company was concerned about the progressive failure of the city's infrastructure and what that meant for his business. He took me to visit New Delhi's chief urban planner, a powerful official who sat defeated at an empty steel desk in a big bare office, and out of boredom and loneliness detained us with small talk and offers of tea. After we escaped, my friend said, "It's incredible, no? I wanted you to see this. It's like he's sitting there at the end of the world."

But to me it was the pollution in New Delhi that seemed apocalyptic. The streams were dead channels trickling with sewage and bright chemicals, and the air on the streets was at times barely breathable. In the heat of the afternoons a yellow-white mixture hung above the city, raining acidic soot into the dust and exhaust fumes. At night the mixture condensed into a dry, choking fog that enveloped the headlights of passing cars, and crept with its stink into even the tightest houses. The residents could do little to keep the poison out of their lungs or the lungs of their children, and if they were poor, they could not even try. People told me it was taking years off their lives. Yet New Delhi was bursting its seams, because newcomers from rural India kept flooding in.

The big port city of Bombay has a reputation for being just as dirty, but on the day I got there, an ocean breeze was blowing, and in relative terms the air was clean. When I mentioned this to Pravin S. Nagarsheth, the shipbreaker I had come to see, he grew excited and said, "Yeah! Yeah!" because relativity was precisely the point he wanted to make to me. Nagarsheth was a nervous little man with a round and splotchy face and some missing teeth. He had been scrapping ships for nearly thirty-five years, first with a small yard here in Bombay, and then in a bigger way at Alang. He was also the president of the Indian shipbreakers' association, and as such he had taken the lead in the industry's defense. He had traveled to the Amsterdam shipbreaking conference to counter the reports of abuses at Alang. In his speech there he said, "All these write-ups, I would say, are biased, full of exaggerations.... One, however, wonders whether such reports are deliberately written for public consumption in affluent Western societies only.... The environmentalists and Greenpeace talk of future generations, but are least bothered about the plight of the present generation. Have they contributed anything constructive to mitigate the plight of the people living below the poverty line in developing countries? ... Living conditions of labor in Alang should not be looked at in isolation. It is the crisis of urbanization due to job scarcity. Large-scale slums have mushroomed in all cities.... The fact remains that workers at Alang are better paid and are probably safer than their counterparts back in the poor provinces of Orissa, Bihar, and Uttar Pradesh. To provide housing and better living conditions ... is financially impractical for a developing country like India, where forty-five percent of the population is living below the poverty line."

We met in the lobby of a shabby hotel in central Bombay. Nagarsheth kept leaning into me, grabbing my arm to punctuate his arguments. He said, "Everybody knows this is bad! It is not a point of dispute! What Greenpeace is saying is even excellent! But their ideology does not provide solutions! This generation

cannot afford it!"

Nagarsheth seemed to worry that I would understand the country in some antiseptic way -- for its computer industry, its novelists, or maybe even its military might. But the India he wanted me to see was a place that related directly to Alang -- an India drowning in the poverty of its people. And so, rather than talking any more about shipbreaking, he insisted on showing me around Bombay. He guided me into the city's slums, which are said to be the largest in the world. Then he led me back toward the city center, for miles through a roadside hell where peasants lived wall-to-wall in scrap boxes and shacks, and naked children sat listless in the traffic's blue smoke as if waiting to die. Nagarsheth said, "Do you see this? Do you see this? You need to remember it when you get to Alang."

He was making a valid point about relative levels of misery. I saw another level a few days later in Bhavnagar, the nearest city to Alang, at a re-rolling mill, where hull plates from the ships were being torch cut, heated, and stretched into reinforcing bars. Bhavnagar is an uncrowded city by Indian standards, with a population of perhaps 600,000 in a physical shell that to a Westerner might seem better suited for perhaps a fourth of that. The re-rolling mill I visited was one of many there. It stood on the north edge of town, on a quiet dirt street wandered by cows, at the end of a crumbling brick wall, beyond the dust and din of the city's auto-rickshaws. The mill had a sagging iron gate. A traveler would normally pass it by, perhaps seeing it as a poor but peaceful scene. But I went inside, past an old brick building where clerks sat idle behind bulky typewriters on an outside porch, and on into the dark heart of the mill -- a large, open-sided shed where perhaps a hundred emaciated men moved through soot and heavy smoke, feeding scrap to a roaring furnace leaking flames from cracks in the side. The noise in there was deafening. The heat was so intense that in places I thought it might sear my lungs. The workers' clothes were black with carbon, as were their hair and their skin. Their faces were so sooty that their eyes seemed illuminated.

The furnace was long and low. The men working closest to the fire tried to protect themselves by wrapping heavy rags around their mouths and legs. They cut the steel plates into heavy strips, which they heaved into the inferno and dragged through the furnace before wrestling them free, red-hot, at the far end. Using long tongs, they slung the smoking metal, still brightly glowing, through a graduated series of rollers, which squeezed and lengthened it incrementally into the final product -- the reinforcing rods, which were piled together and allowed to cool. It was a punishing and dangerous procedure, requiring agility, strength, and speed, and also the calculation of risk. The workers were quite obviously exhausted by it. Some, I think, were slowly starving, trapped in that cycle of nutritional deficit all too common in South Asia, by which a man may gradually expend more calories on his job than his wages will allow him to replace.

On the Beach

I TRAVELED from Bhavnagar to Alang, thirty miles to the south, on a narrow road crowded with jitneys and trucks, choked with blue exhaust, and battered by the weight of steel scrap. The road ran like an industrial artery across plains of denuded farmland, on which impoverished villages endured in torpor and peasants scratched at the parched earth. Along the way stood a few open-air cafés, where truck drivers could stop for soft drinks and food, and a few small factories, where oxygen was concentrated into steel bottles to be mixed later with cooking gas for use in the cutting operations farther south. But otherwise the roadside scenery remained agricultural until several miles before Alang. There, next to a small house on the right, a collection of lifeboats listed in the dirt. The lifeboats marked the start of Alang's roadside marketplace, where specialized traders neatly sorted and resold secondary merchandise from the ships. There were yards for generators, motors, transformers, kitchen appliances, beds and other furniture, wires and pipes, cables, ropes, life rings, clothing, industrial fluids, and miscellaneous machinery. The traders lived among their goods. The buyers came from all over India.

The marketplace continued for several miles to Alang's main gate. But the best way to the beach for a Westerner, given Captain Pandey's concerns about foreigners, was a small side road that branched off a

few miles before the main gate and wandered again through rural scenery. I passed a boy herding cows, three women carrying water, a turbaned farmer hoeing. The heat was oppressive. The air smelled of dung and dust. For a while it was almost possible to forget that the ocean was near. But then the road made a turn, and at the far end of a field an immense cargo ship rose above the trees. Behind it, fainter and in the haze, stood another. The ships seemed to emerge from the earth, as if the peasants had found a way to farm them.

My base at the beach was Plot 138. It was a busy patch of ground, bounded at the top by one of the standard sheet-metal fences. I threaded through piles of sorted scrap, past the smoke of cutting crews, past chanting gangs carrying heavy steel plate, past cables and chains and roaring diesel winches, to the water's edge, where the hulk of a 466-foot Japanese-built cargo ship called the Sun Ray, once registered in the Maldives, was being torn apart by an army of the poor. Four hundred men worked there, divided into three distinct groups -- a shipboard elite of cutters and their assistants, who were slicing the hull into multi-ton pieces; a ground crew of less experienced men, who winched those pieces partway up the beach and reduced them there to ten-foot sections of steel plate; and, finally, the masses of unskilled porters condemned to the end of the production line, where, piece by piece, they would eventually shoulder the entire weight of the hull, lugging the heavy plates to the upper beach and loading them into trucks -- belching monsters painted like Hindu shrines -- which would haul the scrap away. And that was just for the steel. Everywhere I looked stood the piles of secondary products awaiting disposal -- the barrels of oil and hydraulic fluid and all the assorted equipment destined for the roadside marketplace. In either direction I could look down the coast at a line of torn ships fading into the smoke of burning oil.

Alang at first is a scene of complete visual confusion; it begins to make sense only after about a week, when the visual impact fades, and the process of breaking a ship by hand sorts itself out into a series of simple, brutal activities. The first job is to shackle the ship more firmly to the ground. Using motorized winches and a combination of anchor chains and braided steel cables looped through holes cut into the bow, the workers draw the hull as high onto the beach as the ship's draft and trim allow, so that ideally the bow stands on dry ground even at high tide. The winches are diesel-powered machines each the size of a small bulldozer, staked firmly to the ground about halfway up the beach. The stress on the cables during the winching operation is enormous. They groan and clank under the load, and sometimes they snap dangerously. The workers are ordered to stand clear. Nonetheless, some winch operators sit unprotected by safety cages, and gamble that a broken cable will never recoil directly back at them. It's easy to imagine that sometimes they lose.

After the initial dragging is done, the crews climb aboard with ladders and ropes and begin to empty the ship's fuel tanks: they pump the good oil into barrels for resale, and slop the residual sludge of no commercial value onto dry ground, where it is burned. The empty tanks continue to produce volatile vapors, and pose a risk of explosion until they are aerated -- a tricky process that often involves cutting ventilation holes. The most experienced cutters are used for this work, because they are believed to have developed noses for dangerous vapors. Even so, there are explosions and fatalities -- though fewer now than before, because of slowly improving safety standards. On some ships the tanks can be sliced off whole, dropped into the water, and winched above the tide line for dissection and disposal. Cutting on hard ground is easier than cutting on the ship, and because the workers are therefore more likely to do the job right, it is also safer. But either way, the yard must demonstrate to Gujarat officials that the fuel tanks have been secured and neutralized before they will give the final authorization to proceed with the scrapping.

With the risk of explosion diminished, the breakers turn their attention to the ship's superstructure, the thin-walled quarters that typically rise five or six levels above the main deck, and in which, because of combustible wiring and wood paneling, the chance of a deadly fire cannot be ignored. The superstructure is like a ghost town, still full of the traces of its former inhabitants. Scattered about lie old books and magazines in various languages, nautical charts from faraway oceans, company manuals, years' worth of ship's logs, newspaper clippings, national flags, signal flags, radio frequency lists, union pamphlets,

letters, clothes, posters, and sometimes a much-appreciated stock of liquor, narcotics, or pornography. The scrappers spread through the quarters like hungry scavengers, quickly removing the furniture and galley equipment, tearing into the wood paneling and asbestos insulation to get at the valuable plumbing, stripping out the wires, electronics, and instruments, and making a special effort to save the ship's bell, always in demand for use at Hindu temples. These treasures are roped down the side and hustled to the top of the beach by ground crews.

Then the cutting begins. It is surprising how few men are needed to handle the torches: by working simultaneously on the port and starboard sides, a dozen competent cutters, backed up by a larger number of assistants, can demolish an entire superstructure within two weeks. Gravity helps. Starting with the overhanging wings of the bridge, the cutters slice the superstructure into big sections. There is an art to this, because every ship is different. The decisions about where to cut are made by the yard's owner and the all-important shipboard supervisor. Within the logical demolition sequence (which with variations runs roughly from front to back and from top to bottom) the general idea is to cut off the largest section that can be cleared away from the ship by the shore-based winches. The height and geometry of the superstructure is a crucial consideration, because it affects the way the sections fall. If the work has been done right, when the final cut on a section is made, it falls clear of the hull. It lands on the tidal flat with a dull thump. The ground crew walks out to it, attaches a cable, and winches it higher onto the beach to carve it up. Meanwhile, the shipboard crews may already have dropped another section. At this early stage it can be gratifying work. If the superstructure is flimsy, the crews can make the metal rain.

But the work slows when they come to the hull, where the steel is heavier and harder to cut. At that point, even for veteran workers, there must be a moment of hesitation at the audacity of the business. Using little more than cooking gas and muscle power they will tear apart this immense monolith, which towers above the crowds on the sand. It will take six months or a year to finish the job; men will be injured, and some may die. Almost all will to some degree be poisoned by smoke and toxic substances -- and more seriously, no doubt, than they would have been on the streets of India's cities. Nonetheless, the poor cannot afford to be timid.

They go after the hull by cutting off the forward section of the bow, opening the ship's cavernous forward hold to the outside, and making room for an expanded force of shipboard cutting crews. Half of them continue to cut at the forward section, slowly moving aft; the other half burrow directly back through the ship, cutting away the internal bulkheads, until they come to the engine room, near the stern. The ship's engine is not usually saved, because generally it is worn out, and in any case it is often too large to be removed whole. The crews open ventilation holes through the sides of the hull, unbolt the engine, disconnect it from the shafts, and cut it apart crudely on the spot. They drag the pieces forward through the length of the ship with the help of small winches placed aboard for that purpose.

To understand why it is important to remove the engine early in the process, consider that the ship continues in part to float throughout the scrapping process, and that high tides lift it, allowing the progressive winchings by which, as the hull is consumed, it is drawn onto the beach. From the start the ship's trim is a consideration. If the angle at which the keel is floating does not match the slope of the ocean floor, the ship may hang up offshore. The trick is not to get the bow to ride high, as one might assume, but, rather, to keep the stern of an unladen ship from riding too low. The stern naturally rides low because of the weight of the superstructure, the engine, and the machinery installed there. Once the scrapping is under way, the correct trim can be maintained only by the judicious removal of weight. Cutting away the superstructure and removing the heavy bronze propeller does not fully compensate for the subsequent loss of the bow section, whose weight, because it lies so far forward of the ship's center of gravity, has a disproportionate effect on the trim. That is why the breakers must go in from the opened bow and take out the engine. Afterward the demolition proceeds so predictably, from bow to stern, that it is possible to mark its conclusion precisely when the ship's rudder lies at last on dry ground, submitting to the torches. The workers do not celebrate the achievement, because if they are lucky, the next ship has

already arrived.

Plot 138, the yard that I settled into, was the domain of Paras Ship Breakers Ltd., a company owned by a man named Chiman Bai, who began his career as an errand boy in the ancient Bhavnagar market and rose to become a shopkeeper selling rice and wheat. Bai got into the shipbreaking business in 1983, when he responded to an obscure notice in the newspaper about the availability of plots at Alang. I never met him, I think because he felt awkward with foreigners; it was said that he still worked from a back office in the market and that he presided over an extended family of thirty-five, all of whom lived in a single house in Bhavnagar and ate their meals together in the traditional way, sitting on the kitchen floor. His younger brother, Jaysukh Bai, ran the shipbreaking operation day to day. He was a square-jawed, gray-haired man with a Hindu cloth bracelet and a diamond ring. He did business at an office in Bhavnagar every morning, and in the afternoon made his way to Alang, where he sat among his sons and nephews on a porch overlooking the yard. I sat with him sometimes, drinking the Indian cola called Thumbs Up, breathing the acrid smoke from the final cutting of ship parts, some of which was done nearby. Jaysukh Bai did not seem to notice the smoke. One of his nephews figured that I did. He distrusted me, and repeatedly made that clear. Once he said nastily, "The question I want to ask the environmentalists is if you should want to die first of starvation or pollution."

I said, "They say you don't have to make that choice."

He said, "That's bullshit."

In a place like Alang, he was probably right.

Sometimes I wandered across the road, into the crowded shantytown where the workers lived, a place with shacks built of wood and ship's paneling, some on stilts over a malarial marsh that bordered the beach. There were no latrines at Alang, in part because few of the men would have used them. They preferred simply to relieve themselves in nearby bushes, as they had in the farming hamlets from which they came. But of course Alang was much larger than a hamlet, and as a result the air there was filled with fecal odors, which mixed with the waves of smoke and industrial dust to permeate the settlement with a potent stench. People got used to it, as they did to the mosquitoes, and the flies. Discomfort was an accepted part of living in Alang, as was disease. Thousands of workers who were sick, injured, or unemployed lingered in the shantytown during the day, lying on scavenged linoleum floors by open doorways, or sitting outside in the thin shade of the walls. There were almost no wives or children. As in other migrant camps, drunkenness, prostitution, and violence were never far away.

Nonetheless, a semblance of normalcy was maintained. For instance, Alang had a good drinking-water system, a network of communal cisterns supplied by truck, which was Captain Pandey's pride. It also had Hindu shrines, informal cricket fields, and enough spare power for its commercial district to run refrigerators and gay little strings of lights. Each evening when the workday was done, the settlement came to life. The workers cooked outside their shacks in small groups intent on the food, and afterward, feeling renewed, they gathered in the light from the cafés and talked. They laughed. They listened to music. Sometimes they held religious processions. Sometimes they danced. And then on Sundays, when by law all the shipbreaking yards were closed, they washed, dressed up, and strolled among friends, looking fresh and clean-cut.

One evening a small group from Plot 138 invited me to sit with them outside their shack, and one of them went off into the slum and came back with a man who could translate. It was awkward for everyone. The men were formal with me. I asked about their work. They knew it was risky and could make them sick, but they seemed more interested in letting me know they were cutters, and stood high on the scrapyards scale. I asked about their bosses, and they named some of the supervisors who had given them jobs. They said that in other yards some of the supervisors were abusive. They offered no opinions about Jaysukh Bai,

maybe because they had seen me with him.

After a week Pravin Nagarsheth arrived from Bombay to check on his shipyard, a few plots down from Plot 138. A ship lay there half consumed on the beach. Nagarsheth brought his son-in-law with him, a slim city boy in undersized Ray-Bans who slipped carefully around the workers and confided to me, "The first time I came here, I was totally zapped." He meant he was surprised. He seemed a bit precious. But Nagarsheth was not like that, and neither was Jaysukh Bai. They were direct men who walked willingly among their laborers; and though they had grown wealthy on the backs of the poor, they had maintained a connection to them nonetheless. The alternative seemed to be the disengagement I had witnessed in New Delhi and Bombay, where the upper levels of society were floating free of the ground, aided by the airlines and the Internet, as if the poverty in India were a geographic inconvenience. Nagarsheth's own daughter had graduated from the University of Chicago with a degree in computer science, and he was proud of her. But standing beside him on the beach, in the midst of his piles of scrap, I suspected he knew that shipbreakers were unfashionable among the Indian elites. He may even have been able to see himself as they did -- an angry little man with a propensity for mucking around in the world's garbage. In the foreign press I had discerned an undertone of mockery about such things, a vestige of the old colonial amusement at the very idea of native kings. Even the Baltimore Sun had indulged in the fun, quoting an interior decorator from Bombay who ridiculed the flamboyant tastes on exhibit in the shipbreakers' big houses in Bhavnagar. Such public amusement was of course noticed elsewhere in India, especially among the ruling classes, who were so successfully joining the "global" (meaning Westernized) society. Now, in Bombay and New Delhi, a young and soon to be powerful generation was returning from European and American universities speaking the language of environmentalism. And Alang was becoming an embarrassment.

The Future of Alang

ALANG has become a metaphor in the crucial struggle of our time -- that between the First World and the Third, the rich and the poor. Beneath our perspectives on a shrinking world lurks an opposing reality, hidden in the poverty of places like South Asia, of a world that is becoming larger -- and unmanageably so. Do we share a global ecology? On a certain level it's obvious that we do, and that therefore, at last, a genuine scientific argument can be made for the imposition of Western knowledge. But making this argument is difficult, full of political risk and the opportunity for self-delusion. In practice, the world is as much a human construct as a natural one. The people who inhabit it have such radically different experiences in life that it can be almost surprising that they share the same air. This is inherently hard to accept from a distance. Too often we have a view of what is desirable for some other part of the world which is so detached from daily existence there that it becomes counterproductive, or even inhumane. Alang is a typical case. Resentful Indians kept saying to me, "You had your industrial revolution, and so we should have ours." I kept suggesting in return that history is not so symmetrical. But of course they knew that already, and viewed Alang with more complexity than they could express to me, and were using a simplified argument they felt I might understand. On the ship-scraping beach at Chittagong, in Bangladesh, I met an angry man who took the simplest approach. He said, "You are sitting on top of the World Trade Center, sniffing fresh air, and talking about it. You don't know anything."

He was angry about the West's presumptuousness and its strength. He was angry about people like Claire Tielens, at Greenpeace. When I talked to Tielens in Amsterdam, she was unyielding about Greenpeace's demands. She said, "Ships should not be scrapped in Asia unless they are decontaminated and they don't contain toxic materials. New ships should be built in such a way that they can be scrapped safely -- so without hazardous materials if possible. The export of toxin-containing ships from Western countries to developing countries should be stopped. And if possible, ships should be cleaned throughout their lifetime. If they export clean steel, that's fine with us."

I said, "But ships will always contain toxic wastes. Is it economically possible to ..."

"'Economically'? Well, of course that's a very flexible term."

I thought the economics might be less flexible than she believed. One of the twists in this story is that the U.S. government, an entity that Greenpeace has a prerogative to dislike, has become without question the world's most principled shipowner, and as such is leading the way in establishing the real costs of doing things right. I spent an afternoon last winter at an anchorage run by the Maritime Administration on the James River in Virginia, climbing through floating wrecks among the ever-growing number of government derelicts awaiting a proper domestic disposal. On one ship a workman had painted SINK ME! as a way of tempting fate. All these ships were rusting through. The annual costs for routine monitoring, pumping, and patching amounted to an average of about \$20,000 per vessel. That may not seem like much, but many of the hulls were in such poor condition that to keep them from sinking, they would soon have to be dry-docked for million-dollar repairs -- only to be towed back to their moorings to continue rusting. The ships could now be bought for a mere \$10 each, but even at that price there were no takers. At the Maritime Administration's headquarters in Washington, D.C., people recognized the absurdity of the situation and could laugh about it. All they could do was hope for congressional funding to pay for the scrapping of the ships.

Meanwhile, the Navy was proceeding with its four-ship, \$13.3 million pilot project. Docksideside at Baltimore Marine Industries the next day I visited a small frigate named the Patterson that was being meticulously dismantled by a crew of fifty-four specialists working under the close supervision of a former Navy diver, who informed me, when I asked about the schedule and cost, that safety and a clean environment were his main concerns. His ship had space-suited workers, positive-pressure filtered ventilation, sealed hazardous-materials bins, color-coded placards, and micron socks hanging from the scuppers to purify the rainwater that drained from its immaculate decks. I realized I was in the presence of a shipbreaking pioneer. He understood the ethical need to spend millions more on a useless ship than its steel was worth. He consulted with chemists, liaison people, and all sorts of engineers. He shared information openly with his competitors, and expected them to do the same. He enforced a wide range of regulations, and fairly. He worked well with unions. He even took time to respect the memory of the Patterson's sailors. His shipbreaking mission was so righteous it was practically Calvinistic.

That was true of Greenpeace's mission too. But there was a strange reversal. The U.S. Navy for once was concentrating on its own local problem, while Greenpeace was insisting that it had a mandate from "the global society" and "citizens of this planet." Words like those can come across as direct threats of conquest -- all the more so in weak and uncertain places like the impoverished parts of India that are already suffering from the disengagement of the elites.

I don't think Claire Tielens worried about such sensitivities. She told me that she had chosen her path because she wanted to fight injustice. She was a true idealist. But she did not feel reluctant to say "The recycling of toxic waste is such a hazardous activity that you cannot leave it to a developing country to do that. People say 'Why don't we export our knowledge and technology, and they can improve their conditions, and everything will be fine.' But nothing will be fine, because it's not just a matter of know-how and technology. Because to successfully export our environmental knowledge to India, you would also have to export the whole way society is organized." She was right about that, of course. But whereas others might hesitate over the implications of such ideas, she was not about to question the Greenpeace crusade. Her terms were unconditional: if she had her way, India would have to lose.

WHAT Greenpeace wants from shipbreaking must seem in the tidy confines of Holland to be perfectly fair -- essentially, to treat shipping as if it were any other orderly industry, and to hold it responsible for its toxic by-products and the safety of its workers. The problem is that shipping is like the larger world in which it operates -- an inherently disorderly affair, existing mostly beyond the reach of nations and their laws, beyond the dikes and coastal horizons, and out across the open seas. It is not exactly a criminal industry, but it is an amoral and stubbornly anarchic one. And it admits as much about itself: at last June's shipbreaking conference in Amsterdam one of the all-important London-based maritime insurers raised

the fear that if somehow the reforms go through, even assuming they apply only to the most visible European shippers, there will be a corresponding increase in mysterious sinkings.

But others in the business told me that the more likely effect of the reforms, as long as money can be made in Third World scrap, would simply be a new and less direct route to Asia: ships would pass through more hands, would maybe live longer plying faraway waters under new names and flags, and would still end up dying on some filthy beach. Such changes are already happening, though it will be a year or more before Greenpeace's campaign results in any new laws in the European Union and at the International Maritime Organization. There is evidence that some European shippers have begun to find new foreign buyers for vessels that they would normally have sold directly to scrappers, and Shell has recently decided to re-inspect and retain certain aging tankers rather than face the wrath of Greenpeace again. Paradoxically, such policies may lead to an increase in hull failures and spills -- currently a big problem on the oceans. The lovely coast of Brittany will suffer for many years because of the loss of the Erika -- a decrepit Maltese-registered tanker, overdue for scrapping, that broke in two off Brest last winter. Greenpeace protested the lax enforcement of European port controls -- to good effect. But on the scale of the world, shipping is terribly difficult to police.

Few observers seriously believe that as a result of Western pressures, South Asia as a whole will now lose the scrapping business. But this offers little solace to the scrappers at Alang, because there is serious competition within the region, especially from Bangladesh. At Chittagong starvation wages are paid and labor and safety regulations are utterly lacking, so a shipbreaker can send a thousand barefoot men to tear apart a single vessel and scrap even a supertanker in six months. Bangladesh is not so much a nation as a condition of distress, and any attempt to regulate the industry there would obviously be futile. As a result of this commercial advantage, the Bangladeshis can pay top dollar for ships. During my stay at Alang such international competition had forced the bidding level for scrap ships above the price necessary to break even within India, and the scrappers currently acquiring vessels were having to gamble on a significant rise in the Indian metal market. It was a dangerous time.

Pravin Nagarsheth was not sanguine about Alang's prospects. He worried that the Indian beach had been singled out for special criticism, and that the publicity of the Greenpeace campaign was exacerbating the existing competitive pressures. There was evidence, he said, that some of the biggest shippers had begun quietly to shy away from India entirely, and to direct their ships to more discreet beaches. He worried also about the process within India whereby the European campaign seemed to be changing domestic attitudes toward Alang -- a change that in the end may prove more threatening to the work there than the eventual enactment of foreign laws. Either way, Nagarsheth wanted me to know how little it would take to destroy Alang.

Jaysukh Bai, the boss of Plot 138, was a relief to me, because he seemed almost unaware that his work might be considered wrong. He was a simple man, who knew the mechanics of the trade. As if I might not have heard, he said, "There are certain Western lobbies who are interested that shipbreaking not continue." But he never once mentioned any concern for safety or the environment. He never once mentioned his workers. He said, "I am worried about the future. What is important is the turnaround time. If there are too many rules to comply with, we will waste time." It was a statement of fact, hard to argue with. I asked him how many ships he had broken. He counted on his fingers, because he remembered every one. Eventually he answered: thirty-eight. He told me they included the biggest ship ever grounded at Alang, a French supertanker of 52,000 tons. Those were the good old days. With that ship Captain Pandey must have had great fun.

The one here now, the old Sun Ray from the Maldives, was only 15,000 tons, but it seemed very big to me. Jaysukh Bai told me he could do the job on it, start to finish, in a mere four months. That was very fast, and he may have been bragging. But only one month into it the superstructure and fuel tanks had been cut up and hauled away, and the lightened hull was being winched forward on the high tides and consumed with voracious efficiency. Even the birds joined in, pecking through the debris along the

waterline, as alert as any man on the shore to the shreds of opportunity -- a shard of torn plywood, pieces of wire for nest building, splinters of steel. I went down to the ship when I could, past the ground crews who by now had grown used to my presence. At the torn bow I climbed through the broken bilge into the huge forward cargo hold, now open to the sky. The ship was mine to wander -- up precarious ladders to the main deck high above, through passageways and equipment rooms where the peeling paint and rusted steel gave evidence of the years of wandering and hard use, and ultimately of neglect. Nonetheless, I felt a sort of awe, and was never in a hurry to leave. After climbing back down from the main deck into the hold, I sometimes walked deeper still into the depths of the ship. It was eerie and dim on the inside, an immense man-made cavern filled with hoarse warning cries, the hiss of torches, sparks, smoke, heavy hammering, the sound of falling debris. It had paths made of narrow beams with oil-slick footing, and sudden gaping holes that seemed to emerge out of nowhere. If you fell there, you could certainly die. But after the glare and heat outside, it was also pleasantly cool. The workers did not seem to mind my presence, or even to wonder about it. They appeared sometimes like ghosts, moving fast and in file without speaking. They were very dirty. They were very poor. But they lacked the look of death that I had seen on the men in the Bhavnagar re-rolling mill. They were purposeful. Toward the stern, where sunlight streamed through rough-cut ventilation holes and struck the oil-blackened walls, the towering engine room had the Gothic beauty of a cathedral.

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