ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/291332840

Putz, F.E. and N.M. Holbrookg. 1988. Tropical rain-forest images. Pages 37-52 in, Denslow, J.S. and C. Padoch (editors) People of the Tropical Rain Forest. University of California...

Chapter · January 1988

CITATIONS
2

READS
41

2 authors, including:

F.E. Putz
University of Florida
330 PUBLICATIONS **21,006** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Project Call for paper: Special Issue "Natural Forest Management in the Tropics: Questing for Sustainability" View project

Project Responses from tropical rain forests to logging: new perspectives for forest management in the Amazon - GUIAMAFLOR View project

All content following this page was uploaded by F.E. Putz on 20 January 2016.

The user has requested enhancement of the downloaded file.

PEOPLE OF THE TROPICAL RAIN FOREST

Edited by
JULIE SLOAN DENSLOW
and
CHRISTINE PADOCH

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY LOS ANGELES LONDON
in association with
SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE
WASHINGTON, D.C.

UNIVERSITY OF FLORIDA LIBRARIES

University of California Press
Berkeley and Los Angeles, California

University of California Press, Ltd.
London, England

Copyright © 1988 by Smithsonian Institution

Library of Congress Cataloging-in-Publication Data

People of the tropical rain forest.

Bibliography: p.
Includes index.
1. Human ecology—Tropics. 2. Ethnology—Tropics.
3. Rain forests. 4. Tropics—Social conditions.
5. Tropics—Economic conditions. I. Denslow, Julie
Sloan. II. Padoch, Christine.
GF54.5.P46 1988 304.2'0915'2 87-30173
ISBN: 0-520-06295-7 (cloth)
ISBN: 0-520-06351-1 (paper)
Alkaline paper

Printed in Japan

1 2 3 4 5 6 7 8 9

PAGE 2–3: A meander of the Ramu River twists through mature tropical rain forest near Madang in Papua New Guinea.

PAGE 6–7: The Transamazon Highway of Brazil stretches over 5,400 kilometers from east to west.

PAGE 11: This computer-generated map of Costa Rica documents the decline of intact forest coverage between 1940 and 1977. The NASA computer images are based on interpretations of aerial and satellite photographs done by Costa Rican scientists. Despite a high deforestation rate, Costa Rica has safeguarded over 10 percent of its land area in forest preserves.

PAGE 14–15: This cluster of houses is situated along a tributary of the Amazon River at the edge of the forest in Brazil.

2

TROPICAL RAIN-FOREST IMAGES

FRANCIS E. PUTZ
AND
N. MICHELE HOLBROOK

> Under the trees . . . the number of lovely parasites everywhere illustrated the kindly influence of light and air. Even where the trees were largest the sunshine penetrated, subdued by the foliage to exquisite greenish-golden tints, filling the wide lower spaces with tender half lights, and faint blue-and-grey shadows. . . . How far above me seemed that leafy cloudland into which I gazed!
>
> W. H. Hudson, *Green Mansions,* 1904

> And in the midst [of the giant trees] the merciless creepers clung to the big trunks in cable-like coils, leaped from tree to tree, hung in thorny festoons from the lower boughs, and, sending slender tendrils on high to seek out the smallest branches, carried death to their victims in an exulting riot of silent destruction.
>
> Joseph Conrad, *Almayer's Folly,* 1895

More than any other geographical province or landscape, tropical lands fascinate the artists who portray them. The idea of a winterless land filled with fantastic and unknown plants and animals evokes a landscape and rhetoric of superlatives and excesses. Powerful and often conflicting images typify portrayals of tropical rain forest. Well-known works such as W. H. Hudson's novel *Green Mansions,* Henri Rousseau's painting *The Dream* (1910), and John Huston's film *The African Queen* (1951) are evidence of the fascination with tropical nature. These works in turn represent the visual and emotional cords that bind European culture to the equatorial zone.

Say the word *jungle* and one conjures up a vision of riotous impenetrable vegetation, drenched with steam and mist, teeming with wondrous, unfamiliar, and perhaps dangerous beasts. Say the word *jungle* again and the view shifts to an idyllic setting of palm trees and jewellike flowers in which the gentle inhabitants live in harmony with their surroundings. A third time and now the tropical forests form the backdrop for scenes of adventure, conquest, and discovery. The visual and literary arts give substance to these images; paintings, novels, comic strips, and films are the primary avenue of contact between the torrid regions and the safe confines of the Western mind.

It is important to emphasize that the social and political climate in which most Europeans have entered the tropics has been one of exploration and exploitation. During the five hundred or so years in which Westerners have ventured into the equatorial zone, their primary role has been laying claim to and exploiting the resources of the region. Viewing themselves in the context of conquerors, colonists, and custodians, their perception of the tropical environment, including native peoples, has been colored by the arrogance associated with their assumed superiority. These attitudes in turn work to establish and maintain a sense of distance and unfamiliarity between Western and tropical ways. Artists are not exempt from prevailing views; the social, religious, and economic rationale for the northern presence in the tropics forms an underlying theme in many artistic portrayals of the equatorial region.

Since the advent of printing, northern peoples have had an insatiable appetite for jungle tales. *The Travels* of Marco Polo, which introduced fourteenth-

century Europe to many of the wondrous plants and products of tropical Asia, was one of the first books to be available for general readership; Juan Diego de Valdez's tale "The Lost City of Zinj" fascinated seventeenth-century Portuguese readers with accounts of tail-bearing men having carnal knowledge of native women in the tropical forests of Africa. Thousands of Americans in the mid-nineteenth century lined up to pay twenty-five cents to see Frederic E. Church's tropical landscape *The Heart of the Andes* (1859), making it the most viewed American painting of its day. In our own century we have had appetite sufficient to consume more than one thousand jungle novels and hundreds of jungle movies. Even though nearly all these books probably would be excluded from a compendium of great literature and some of the films represent all-time cinematic lows, it is certain that they inspire and are in turn inspired by the jungle's powerful image.

Reference to "tropical regions" has exotic and wonderful connotations, but the "torrid zone" (from the Latin *torrere,* to roast, also, to be highly passionate, ardent, zealous) captures a more vivid image. Many tropical biologists object to calling the tropical rain forest "jungle" because both the popular image and etymological roots of the word *jungle* suggest a misconception. The word is derived from the Hindustani word *djanghael* or *jangal,* meaning wasteland or uncultivated ground. With the imposition of British colonialism the use of the word became generalized from the land itself to the vegetation occupying such untended areas. Although the original application of this term was to dry, scrubby thickets, *jangal* soon came to refer to any wild, luxuriant tropical environment. British colonial officers, when transferred from regions of *djanghael* to other parts of the empire, brought this exotic term with them, while such popular nineteenth-century accounts of discovery and exploration

as David Livingstone's *Narrative of an Expedition to the Zambesi* introduced the term to temperate-zone readers. Rudyard Kipling's *The Jungle Books* (1894–95) forever linked the word *jungle* with the exotic inhabitants of the tropical forest.

The mystique of a region so vastly different and more diverse than the temperate zone fascinates artist and audience alike. In the minds of distant artists the concept of the unknown jungle is subject to continual change. Exotic tropical landscapes, more than familiar scenery, act as free vessels in which the social, political, and religioscientific concerns of the day can book passage. Even as an artistic matrix, however, the tropical environs are never quite passive. Artists who venture into the equatorial zone bear the mark of a direct experience with the jungle. The portrayal of tropical nature in Western art, literature, and film has created enduring images of the tropical rain forest as the original paradise, source and progenitor of evil, an arena for adventure and discovery, a region of vast wealth, and as a treasurehold of biological diversity.

The Garden of Eden: A Tropical Vision

> Time writes no wrinkle on thine azure brow,
> Such as creation's dawn beheld, thou rollest now!
> J. E. Warren, "The Romance of the Tropics," *Knickerbocker Magazine* (June 1849).

The idea of a lost golden age in which peace, harmony, and immortality prevailed is a myth shared by many cultures. Characterized by perpetual spring and an absence of fear or need, lands of primal innocence are removed in space and time and thus unattainable without divine intervention. The tropics provided a ready source of inspiration for paradise. Homer's Elysian Plains, a land "where life is easiest for men," is also without snow or great storms, while Virgil transformed Arcadia from what had been a rough and rural

land of rustic, familiar folk to a landscape of luxuriant vegetation and perpetual spring. The Cardinal Pierre d'Ailly, whose book Columbus was to use as a major reference in planning his voyage, reported the existence of a race of people at the equator who never die except when they become bored with their happy existence and throw themselves into the sea.

With the onset of the Age of Exploration and the reality of global travel, paradise became transformed from something distant in time to something perhaps distant only in space. That early expeditions believed in the possibility of discovering paradise on earth has been well documented. Christopher Columbus wrote Queen Isabella that he had indeed discovered the Garden of Eden in the West Indies. Other explorers and settlers shared this impression; the first European children born on the island of Madeira were aptly named Adam and Eve. Lush tropical vegetation harmonized with earlier notions of the golden age. Furthermore the tropics were by far the largest portion of the world unknown to Europeans at that time and thus provided the most probable location for the lost Garden of Eden. Sir Walter Raleigh devoted the entire first book of his *History of the World* (1614) to questions regarding paradise. Drawing on his travels in the tropical regions of Spanish America, he wrote,

> That if there be any place upon the earth of that nature, beauty, and delight that Paradise had, the same must be found within . . . the Tropicks . . . so many sorts of delicate fruits, ever bearing and at all time beautified with blossom and fruit both green and ripe, as it may of all other parts be best compared to the Paradise of Eden.

Later in the seventeenth century John Milton described in *Paradise Lost* a land of eternal spring, where "Blossoms and Fruits at once of golden hue / Appeared," where "palmy hillock" and "Flowers worthy of Paradise" make up a "Nature boon / Poured forth profuse on Hill and Dale and Plain." Depictions of Eden, such as that by Jan Breughel, bring together tropical and temperate nature in a peaceful and lush rendering of the golden age, while others such as Henri Rousseau's fabulous jungle scenes and *Expulsion from the Garden of Eden* by the nineteenth-century American painter Thomas Cole are wholly tropical. Many artists, probably influenced by the biblical phrase "the tree of life, which bear twelve manner of fruits, and yielded her fruit every month" (Revelation 22:2), captured the idea of an eternal spring by painting both flowers and fruit on the same tree. Eden was pictured as a tropical paradise not only because it is lush and peaceful but because it is also perceived to be unchanging and seasonless. In depicting a tropical Eden these artists represented not just spring, fruitfulness, and abundance but an eternal spring, unfailing fruitfulness, and endless abundance. If paradise has been lost to humankind, its timeless aspect suggests it remains to be regained.

Artistic views of the inhabitants of the equatorial regions shared in this association of Edenic innocence. J. H. Bernardin de Saint-Pierre's *Paul et Virginie,* a late eighteenth-century romantic novel set on a lush tropical island, draws the parallel between the two children and their Edenic counterparts. In Herman Melville's 1846 novel *Typee* the natives exist in a state of original grace; their life on the idyllic islands of the Marquesas is reminiscent of the Garden of Eden.

> The penalty of the Fall presses very lightly upon the valley of Typee. . . . I scarcely saw any piece of work performed there which caused the sweat to stand upon a single brow. As for digging and delving for a livelihood, the thing is altogether unknown. Nature has planted the breadfruit and the banana, and in her own good time she brings them to maturity, when the idle savage stretches forth his hand and satisfies his appetite.

The jungle is also the land of dreams, a place where dreamlike realities hold sway. The painter Rousseau wrote of his experiences in the tropical greenhouse at the Jardin des Plantes in Paris (the closest that he ever came to the real jungle) that "when I enter these hothouses and see these strange plants from exotic countries I feel as if I have stepped into a dream." His painting *The Dream* depicts a young woman reclining on a settee amidst a tropical setting. She dreams of the forest and becomes transported among its lush vegetation.

Not satisfied with visits to botanical gardens and hothouses, many nineteenth-century American painters such as Frederic E. Church, Martin Johnson Heade, and George Catlin traveled to the tropics to capture its fascination firsthand. When Church's first large tropical landscape, *The Heart of the Andes,* was exhibited in 1859, it was an immediate success. Flanked by black velvet curtains, surrounded by potted tropical plants, and lit by gaslights, this painting was more than just another canvas. Spectators were advised to bring opera glasses, schoolchildren were given instruction in front of it, and interpretive pamphlets were written to guide the viewer through its many marvels. There in exquisite detail and clarity, tropical nature is displayed in all its diversity and harmony. Theodore Winthrop, in his 1859 pamphlet, wrote:

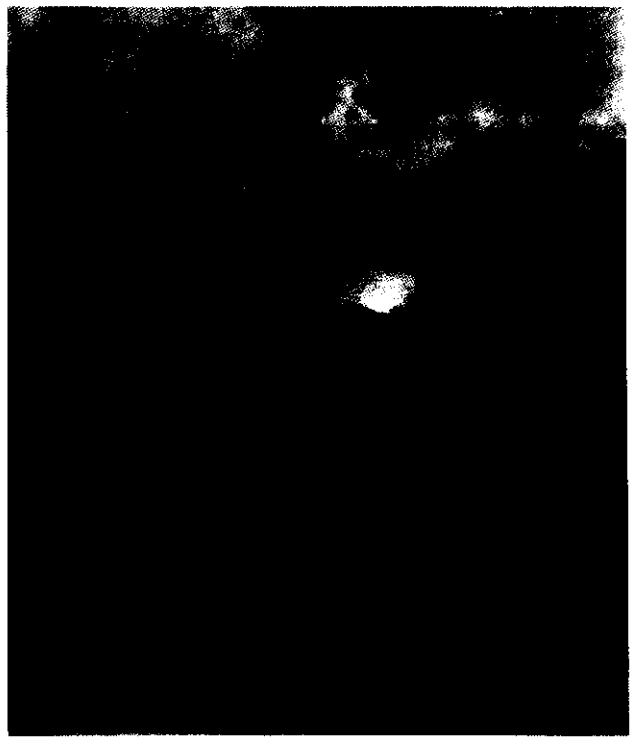
> No one calls for quinine after seeing his pictures, or has nightmares filled with caymans and vampires. . . . Llamas may feed there undisturbed by anacondas. No serpent hugs; no scorpion nips; never a mosquito hums over all this fair realm. Perpetual spring reigns. . . . Life here may be a sweet idyl.

Church's contemporary, Martin Johnson Heade, cast tropical images with a dreamy, shadowy presence.

Although best known for his illustrations of tropical hummingbirds, his landscapes retain the possibility of unlimited potential and thus create an image of the tropics without destroying a vision. They partake of the romance of the tropics as well as its Edenic associations. In his *South American River* (1868), for example, it is not the overwhelming fullness of tropical nature but the mystery of the unknown that dominates. Substituting shadow for clarity and atmosphere for detail, such vaporous and dreamy portrayals of tropical rain forests present a seductive and persistent image, one reflecting the myths and dreams of the age.

Nineteenth-century painters such as Paul Gauguin and John La Farge left the Industrial Revolution behind in search of tropical natives whose lives lay closer to what they believed was the original innocence of the human spirit. The romantic works of this tradition present an idyllic, peaceful setting and capture the essence of Eden in their portrayal of a life free from toil, struggle, or care.

While twentieth-century artistic depictions of rain-forest peoples are decidedly less romantic, the perception that the tropical rain forest can absorb and absolve the evils of modern civilization remains. A familiar theme in literature and folklore is that of a lost child accepted and sheltered by the jungle and raised in an original state of innocence. These children develop into wild but morally superior beings who, in turn, frequently become the saviors of the true natives of the forest. Mowgli, of Kipling's *The Jungle Books,* is an early example of this pattern, followed by Rima in W. H. Hudson's *Green Mansions,* and Tarzan in Edgar Rice Burroughs's *Tarzan of the Apes* (1914). The same story line is followed in such movies as *The Blue Lagoon* (1980), *Sheena, Queen of the Jungle* (1984), and *The Emerald Forest* (1985). So manifest and compelling was the concept of a soul of tropical innocence that in London's Hyde Park a bird sanctuary and statue were dedicated to Rima, the heroine in *Green Mansions.*



The Jungle as the Source of Evil

> "It is just as it was in Paradise," said our pilot, an old Indian of the Missions. . . . But in carefully observing the manners of animals among themselves, we see that they mutually avoid and fear each other. The golden age has ceased; and in this Paradise of the American forests, as well as everywhere else, sad and long experience has taught all beings that benignity is seldom found in alliance with strength.
>
> Alexander von Humboldt, *Personal Narrative of Travels to the Equinoctial Regions of the New Continent, during the Years 1799–1804* (1807–33)

A negative image of the tropics existed even before actual and sustained contact had been made with the equatorial region. Thomas Aquinas, following Aristotle, supposed the equator to be uninhabitable due to its proximity to the sun. Sir Thomas More located *Utopia* (1516) in the New World but placed it in the south temperate zone, believing the equatorial belt to contain only "greate and wyde desertes and wylderneses . . . intollerable heate . . . wyld beastes and serpentes." Nineteenth-century explorer H. M. Stanley, whose enormously popular book *Through the Dark Continent* (1878) influenced many later novelists, found the tropical rain forest to be a "region of horrors," a place where it was difficult to "accustom myself to its gloom and its pallid solitude. I could find no comfort for the inner man nor solace for the spirit." Even the seasonless and timeless character of the tropics could be perceived in a foreboding manner. Herman Melville, in "The Encantadas" (published in *The Piazza Tales,* 1856), writes of the "special curse" of these equatorial islands, "that which exhalts them in desolation . . . is that to them change never comes; neither the change of seasons nor of sorrows."

The overwhelming complexity and disorder of the natural vegetation and landforms is evidence to some of the darker side of tropical nature. In *The Emperor of the Amazon* (1977), Marcio Souza writes,

> Someone in Belém once told me that you become mute in the face of the Amazonian setting. Not so . . .you become humiliated, by the blinding intuition of absolute prehistory. An experience which made me feel profoundly uneasy. As a son of the sea of Cádiz, I had

> already known the crushing power of nature. But the sea is classical-implacable perhaps, but without obfuscation. The jungle is reticent, Muslim: no tides, no waves, no sun on the back of emeralds and foam.

Recent works, such as *Jewelled Jungle* (1958) by American painter Mark Tobey and *The Jungle* by Cuban painter Wilfredo Lam (1943), give visual form to this image of the jungle as labyrinthine and chaotic.

The inability to comprehend the tropical rain forest causes some people a sense of alienation and places the jungle outside the realm of human reason. The jungle landscape provides fertile ground for the deepest suspicions of the nature of man. Another contemporary South American writer, Gabriel García Márquez, confirms this is his book *One Hundred Years of Solitude* (1967):

> Then, for more than ten days, they did not see the sun again. The ground became soft and damp, like volcanic ash, and the vegetation was thicker and thicker, and the cries of the birds and the uproar of the monkeys became more and more remote, and the world became eternally sad. The men on the expedition felt overwhelmed by their most ancient memories in that paradise of dampness and silence, going back to before original sin, as their boots sank into pools of steaming oil and their machetes destroyed bloody lilies and golden salamanders.

Along with its incomprehensibility, the irresistible, seductive nature of the jungle is an important theme in twentieth-century Western portrayals. While natives appear to move easily through the jungle with little resistance, northerners are thwarted at every step. Antithetical to the realm of reason and order to the outsider the jungle seems to emit a force that acts to reclaim and destroy any structure that is foolishly placed within its grasp. For Western explorers this often means that direct return is impossible as their freshly cut trails "close up with a new vegetation that seemed to grow right before their eyes" (*One Hundred Years of Solitude*). For residents in tropical lands it signifies that constant vigilance is needed to preserve one's shelter lest one return to find it "literally burst apart by the force of the plants that had grown into it, pushing up the roof, cracking the walls, turning to dead leaves, rot, what once had been the materials of which a home was made" (A. Carpentier, *The Lost Steps,* 1956). Kipling's tale "Letting in the Jungle," which appears as part of *The Jungle Books,* treats directly this primal urge to reclaim and destroy the structures of human civilization. Whole villages have little hope against this onslaught, which leaves only the "roaring jungle in full blast on the spot that had been under plough not six months before." The story culminates in a paean of the jungle against the lives and structures of the villagers.

> I have untied against you the club-footed vines,
> I have sent in the jungle to swamp out your lives.
> The trees—the trees are on you!

The house-beams shall fall,
And the *karela*, the bitter *karela*,
Shall cover you all!

The jungle is equally destructive of human willpower and resolve. Dreams, madness, and a regression to infantile behaviors constitute the "logic" of the jungle. In both Vladimir Nabokov's "Tierra Incognita" (1931) and Ernest Hemingway's "The Snows of Kilimanjaro" (1935) tropical illness leads to fever-crazed madness that renders the protagonists unable to avert their inevitable demise. Outside the domain of human will, the jungle is beyond the reach of Christianity and prayer as Peter Matthiessen notes in *At Play in the Fields of the Lord* (1965):

> In the dark tunnels of the rain forest the dim light was greenish. Strange shapes caught at his feet, and creepers scraped him; putrescent smells choked his nostrils with the density of sprayed liquid. He fell to his knees on the rank ground and began to pray, but instantly jumped up again. He had wandered into a cathedral of Satan where all prayer was abomination, a place without a sky, a stench of death, vast somber naves and clerestories, the lost cries of savage birds—he whooped and called, but no voice answered.

The most potent metaphor, however, is the association of the jungle with the unconscious mind. Envisioned as a powerful, uncharted, and untamed region beyond the control of will or order, twentieth-century views of the unconscious form nearly a point for point correspondence with earlier fantasies of the jungle. Lack of order, intense fertility, and nearly overwhelming power are characteristics of both the jungle and the inner mind. Each is also a place where dreams, madness, and infantile behaviors reign.

The idea of a journey is central in novels and movies that explore this relationship between the jungle and the mind. A journey deeper and deeper into the irresistible, yet unforgiving tropical forest parallels a journey into the mind's hidden depths. Joseph Conrad draws on this in *The Heart of Darkness* (1902).

> It was like a weary pilgrimage amongst hints for nightmares. . . . Going up that river was like travelling back to the earliest beginnings of the world, when vegetation rioted on the earth and the big trees were kings. . . . I tried to break the spell—the heavy, mute spell of the wilderness—that seemed to draw him to its pitiless breast by the awakening of forgotten and brutal instincts, by the memory of gratified and monstrous passions.

The darkness of Conrad's forest, its wild and savage character, is made all the more terrifying by the "dim suspicion of there being a meaning in it which you—you so remote from the night of first ages—could comprehend." Civilization, culture, religion, and will stand opposed to this dark and subliminal side, reinforcing the idea of the jungle as something to be overcome, subdued, exterminated.

Jungles Filled with Danger and Adventure

Far-off and poorly known tropical lands have long inspired curiosity and aroused the imagination. Three thousand years ago travelers returning from the torrid zone fascinated Egyptian courtiers with tales of monkeys and tiny humans in much the same way as accounts of new species and complicated interactions among species fascinate people today. Predominant in later visions of life in tropical rain forests is the concept of violent struggle; nowhere is nature portrayed as being more "red in tooth and claw" (as Tennyson wrote). Such jungle safari stories as R. M. Ballantyne's *The Gorilla Hunters* (1862), M. Reid's *The Tiger Hunter* (1875), and Richard Connell's *The Most Dangerous Game* (1924) have greatly influenced the popular image of tropical rain forests. Hungry lions, wounded buffalos, poisonous snakes, and rampaging bull elephants are everywhere abundant on the pages and celluloid of tropical fiction. Peculiar to this fiction is the image of danger from above; big cats, snakes, and snipers add a vertical dimension to fear. Professor Challanger and his associates in Sir Arthur Conan Doyle's *Lost World* (1912) even had to deal with both man-eating plants and huge dinosaurs presumed extinct for more than one hundred million years. The overall impression is that to survive in the jungle one must be agile, heavily armed, and constantly aware of the nearest climbable tree.

Some of the creatures taken from the rain forest might better have been left where they were. Larger-than-life jungle creatures and modern civilization often have trouble coming to terms with one another. The best-known example is King Kong (from *King Kong,* 1933). Typical of many of his jungle brethren, Kong was a gentle sort, an admirer of beauty, and morally superior to many of his human captors. His brutish inclinations only emerged when confronted with civilization. Kong was better off in the jungle that spawned him, and certainly only the jungle could contain him.

The most enduring figure in jungle adventure is Tarzan, the King of the Jungle. Born of English nobility and raised by giant anthropoid apes, this scantily clad denizen of the jungle left his own indelible impression of tropical rain forests on readers and moviegoers. Tarzan's creator, Edgar Rice Burroughs, based his rather sketchy descriptions of tropical rain forests on Stanley's *In Darkest Africa* (1890). In reading the twenty-four novels in the Tarzan series (translated into more than thirty languages) few descriptions of the forests are encountered. Burroughs left much to the reader's imagination. In the first book of the series, *Tarzan of the Apes* (1912), only two pages of the long novel contain any description of the jungle at all. Apparently even early in the twentieth century the public had enough of an image of the tropical rain forest that a sentence like "From a great mass of impenetrable foliage a few yards away emerged Tarzan of the Apes" was enough to conjure up a fabulously exotic setting, a landscape suitable for a hero like Tarzan. In 1918, six years after the creation of Tarzan, the first of an estimated one hundred movies featuring the King of the Jungle was released. Filmed primarily in Louisiana, the first *Tarzan of the Apes* capitalized on the presence of palms, Spanish moss, and large grapevines to create the fantastic landscape that the jungle required.

For Tarzan the jungle is home. Although he faces threats almost every day, Tarzan is part of the system: he hunts and is hunted. As in Kipling's *The Jungle Books,* however, evil enters the tropical rain forest in the form of other humans. The jungle itself is envisioned as only a setting for danger not as a source of treachery and corruption.

> Men were indeed more foolish and more cruel than the beasts of the jungle! How fortunate was he [Tarzan] who lived in the peace and security of the great forest!

In line with the prevailing views of Western superiority, Burroughs portrays natives in his books as evil, stupid, or both, while the Europeans who enter the forest do so under duress, to escape capture by the law, or to steal something. The forest generally thwarts these evildoers, allowing Tarzan to rid his home once again of human corruption.

Jungle quest and jungle escape stories invariably include a scene in which the protagonist fights, chops,

swings, or crawls through a miserable tangle just before the treasure is discovered or the captor eluded. Although in real life the understory of most tropical rain forests is sufficiently open to allow normal foot travel, the adventurers that people the pages and films of the tropics are invariably separated from their goal by impenetrable masses of spiny, snake-ridden tangles of vegetable matter. One scene that has left a particularly vivid impression of the extreme difficulties of travel in the tropics is Humphrey Bogart pulling the *African Queen* through the leech-infested swamps of central Africa, almost a relief after the swarms of insects biting with such ferocity that Rose Sayers (Katharine Hepburn) is driven to temporary hysteria.

The true dangers and difficulties of passage through tropical rain forests were brought to public attention during the 1800s by those who chose a transisthmian passage on their way to the California gold fields. Diseases such as yellow fever and malaria struck down many as did other dangers of travel. The Chagres River, which formed an integral part of the Panamanian passage, inspired the following poem by J. S. Gilbert (1905):

> Beyond the Chagres River
> 'Tis said—the story's old—
> Are paths that lead to mountains
> Of purest virgin gold;
> But 'tis my firm conviction,
> Whatever tales they tell,
> That beyond the Chagres River
> All paths lead straight to hell!

In spite of the difficulties, several of those successful in the gold fields later commissioned artists to capture their memories of the tropical passage.

The reputation of Central America as a hellhole of organic corruption was sealed by those who built railroads through the forests and worked on the Panama Canal. In *Cabbages and Kings* (1904), a rather humorous account of the lives of jungle railroad workers, O. Henry captures a widely held image of the tropical rain forest.

> T'was a sort of camp in a damp gorge full of wildness and melancholies. . . . The trees was all sky-scrapers; the underbrush was full of needles and pins; . . . ye stood knee-deep in the rotten water and grabbled roots . . . surrounded by a ragin' forest full of disreputable beasts . . . waiting to devour ye. The sun strikes hard, and melts the marrow in your bones. Ye get similar to the lettuce-eaters the poetry books speaks about. . . . 'Tis a land, as the poet says, "Where it always seems to be after dinner."

Powerful images of tropical rain forests are also derived from the hundreds of jungle war novels and films. Involvement in jungle wars has resulted in a vivid and distinctly unfavorable impression of tropical rain forests in the minds of temperate-zone soldiers, readers, and moviegoers. The ever-present

threat of ambush, the heat, and almost inevitable diseases and internal disorders might very well diminish a soldier's love of the forest. In Tim O'Brien's novel of the Vietnam War, *Going after Cacciato* (1975) the author succinctly summarizes much of what is to be loathed and feared in the jungle.

> It was jungle. Growth and decay sweating green, the smell of chlorophyll, jungle sounds and jungle depth. . . . Itching jungle, lost jungle. A botanist's madhouse.

Tropical vegetation for the Western soldier impedes progress and further hides an enemy that somehow seems naturally camouflaged. Exposing the enemy seems to necessitate destroying the forest, which is the cloak and shield of the enemy. The forces of modern technology are overwhelmed by the jungle's onslaught as Norman Mailer points out in *The Naked and the Dead* (1948).

> It seemed impossible to maintain any sort of order . . . the jungle offered far more resistance than the Japanese. . . . In the heart of the forest the trees grew almost a hundred yards high, their lowest limbs sprouting out two hundred feet from the ground. . . . Beneath them . . . a choked assortment of vines . . . wild banana trees . . . brush and shrubs squeezed against each other, raised their burdened leaves to the doubtful light that filtered through, sucking for air and food like snakes at the bottom of a pit. . . . Everything was damp and rife and hot as though the jungle were an immense collection of oily rags growing hotter and hotter under the dark stifling vaults of a huge warehouse. Heat licked at everything, and the foliage, responding, grew to prodigious sizes. . . . No army could live or move in it.

In modern times the jungles of giant trees and grasping creepers have given way to those of tall buildings and crowded streets. The urban or concrete jungle carries with it much the same associations of competition and struggle. In Upton Sinclair's turn-of-the-century novel, *The Jungle,* the depiction of a Chicago meatpacking factory and heartless demise of even the best intentioned brings to mind the image of the jungle as a region of brutality and fear.

The Riches of the Tropics

Eldorado—the golden one! How many stories have been told, pages written, and reels of film shot about the pursuit of the elusive hidden wealth of South America? This theme is treated with varying degrees of respect in such modern films as *Indiana Jones and the Temple of Doom* (1984), *Aguirre: The Wrath of God* (1972), and *Romancing the Stone* (1984). To satisfy audiences' cravings for adventure searches for Eldorado are often combined with ones for the fountain of youth and encounters with tribes of fierce but provocative Amazons. Quests, however, generally entail great hardships, and searchers for Eldorado are depicted as suffering their share. The image of the hardships of the quester was captured by Werner Herzog's *Aguirre*; crazed by lust for gold and exhausted by heat, insects, hunger, hostile natives, and mutinous troops, Aguirre sits staring out at his nemesis, the jungle.

The "dark continent" is also depicted as a source of hidden wealth in the form of elephant graveyards and the treasures of the Lost Tribe of Israel. It was a greed for ivory that lured Conrad's Mr. Kurtz and others into the "heart of darkness." Novels and films of tropical adventures all too frequently envision the strong, intelligent, and generally light-skinned northerner sweeping in to "discover" or "rescue" the treasure, presumed to be of little use in such "uncivilized" country. Such exploits, however, are generally fraught with danger and travail as the jungle provides little welcome to outsiders. In H. Rider Haggard's action-packed Victorian novel *King Solomon's Mines* (1885), fierce, cannibalistic natives and ancient curses plague the hero Allan Quatermain. That this story has been committed to film no fewer than five times attests to the power of the tale.

Of all the true and fictionalized accounts of wealth to be gained in the tropics, the story of the rubber boom in South America perhaps brings fact closest to surpassing fiction. Rubber barons actually did light cigars with hundred dollar bills on the steps of the

opulent opera house in Manaus. Like most fortunes, however, the wealth of the rubber barons was accumulated at the expense of tremendous human suffering. Apparently the rubber barons took to heart the fifteenth-century Portuguese proverb "Beyond the equator, everything is permitted." Vast wealth stimulated vast excesses and wild schemes. The idea of dragging a steamboat over a mountain, as in Herzog's movie *Fitzcarraldo* (1982), may not have seemed that preposterous to people who were sending their soiled linen from Brazil to France for proper laundering.

In addition to tales of gold, jewels, fountains of youth, and new species, visitors to tropical rain forests often told, and still tell, of the great agricultural potential of the lands where winter never comes. The implication is that a sturdy and preferably Protestant farmer could get wealthy planting crops and exploiting the apparently fertile soil. This unfortunate fallacy is based on the assumptions that northern farmers and farming methods are far superior to tropical ways and that the luxuriance of the natural tropical vegetation suggests unlimited fertility. For example, in 1853 A. R. Wallace wrote the following in *A Narrative of Travels on the Amazon and Rio Negro*:

> When I consider the excessively small amount of labour required in this country, to convert the virgin forest into green meadows and fertile plantations, I almost long to come over with half-a-dozen friends, disposed to work, and enjoy the country; and show the inhabitants how soon an earthly paradise might be created.

What many people failed to realize and continue to ignore is that exuberant growth is possible only if the natural community and nutrient cycles are left intact.

The story of the Yankee farmer going to the tropics to exploit the agricultural potential is common in real life and in literature and film. The plantation of a steel-willed entrepreneur falls prey to the ravenous appetites of a huge, rampaging swarm of ants in C. Stephenson's "Leiningen versus the Ants" (1938). Even as terrified jaguars, tapirs, and kinkajous fled by his plantation Leiningen made his stand.

> Yes, Leiningen had always known how to grapple with life. Even here in this Brazilian wilderness, his brain had triumphed over every difficulty and danger it had so far encountered. First he had vanquished primal forces by cunning and organization, then he had enlisted the resources of modern science to increase miraculously the yield of his plantation. And now he was sure he would prove more than a match for the "irresistible" ants.

Despite modern science and organization, the denizens of the jungle, the irresistible ants, eventually have their way. A further dramatization of the myth of agricultural wealth occurs in Paul Theroux's *The Mosquito Coast* (1982). The attempt by a family of industrious farmers from Connecticut to transplant their temperate-zone way of life into the heart of the Honduran jungle fails miserably; the explosion of their ice factory (itself perhaps a symbol of the north and northern ways) marks the failure of their transplanted cultural system and heralds the onslaught of tropical nature.

The Allure of Diversity

In the eighteenth century hundreds of scientists and natural philosophers set off from Europe to explore the tropical unknown. Distinct from earlier adventurers, conquerors, and pirates, they had as their primary goals the discovery, documentation, and understanding of the diversity and abundance of tropical nature. The figure who best united these scientific concerns with the artistic world was Baron Alexander von Humboldt (1796–1859), explorer, poet, and natural philosopher par excellence. Following his explorations of South America, Humboldt tirelessly traveled among the courts and salons of Europe lecturing on the marvels of the tropics. He was the primary inspiration for European natural historians like Darwin and such artists as Church. Humboldt understood the role artists and particularly landscape painters could have in conveying these images and ideas to the public. He wrote in Volume 2 of *Cosmos* (1849):

> He who, with a keen appreciation of the beauties of nature manifested in mountains, rivers, and forest glades, has himself travelled over the torrid zone, and seen the luxuriance and diversity of vegetation . . . can alone feel what an inexhaustible treasure remains still unopened by the landscape painter.

Factual accounts of tremendous diversity of life-forms piqued the curiosity of biologists living in temperate lands where nature had long seemed somewhat subdued. Nearly every ship returning from equatorial lands brought proof of the existence of previously unanticipated biological diversity. The tropics came to be recognized as the place where discoveries were to be made and where adventure waited around every bend in the river. Naturalists' accounts and illustrations in popular publications gave the public the impression of the tropics as a land teeming with life. Phillip H. Gosse, who never visited the tropics personally, gave the following account of the tropical rain forest in his popular nineteenth-century book *Romance of Natural History* (1860–62).

> Solemn are those primeval labyrinths of giant trees, tangled with ten thousand creepers, and roofed with lofty arches of light foliage, diversified with masses of glorious blossom of all rich hues; . . . the gigantic scale of life strongly excited astonishment in these forests.

Fascination with tropical diversity did not, however, always ensure great accuracy in its portrayal. In the early eighteenth century, when the average person knew somewhat less of tropical biogeography than today, Johann David Wyss in *The Swiss Family Robinson* (1812–13) included hippos and ostriches from Africa, hummingbirds, iguanas, and capybaras from South America, and tigers from Asia all on one small island! This menagerie scurries about in the shade of rubber trees native to South America and talipot palms from southern Asia. Luckily the shipwrecked family found plenty to eat including strawberries, capers, pineapples, oranges, wild rice, manioc, sugarcane, bananas, chestnuts, and coconuts. Other famous biogeographical inaccuracies include the 1981 movie *Tarzania,* in which orangutans from Borneo and chimpanzees from Africa live together and the fabulous floating island of *The Story of Dr. Dolittle* (by Hugh Lofting, 1920).

Biological diversity is one of the true riches of the tropics that has long attracted and rewarded scientists. Many major developments in anthropology, ecology, and systematics are based on discoveries made in the tropics; much remains to be discovered. A common vision of tropical forests is that they are lands of biological marvels, sources of intellectual and sociological insights, and places where scientific reputations can be had for a song and some sweat. The media, including popular science publications and made-for-television documentaries, suggest that legions of missing links, hidden treasures, lost civilizations, new species, strange behaviors, and elaborate species interactions await the open-eyed scientist. The image of tropical naturalists as dedicated, near-sighted, monomaniacal eggheads whose obsession with the discovery and documentation of new species renders them oblivious to all else is captured in Nabokov's story, "Tierra Incognita":

> The unknown won out. We moved on. I was already shivering all over and deafened by quinine, but still went on collecting nameless plants, while Gregson, though fully realizing the danger of our situation, continued catching butterflies and Diptera as avidly as ever.

The nineteenth-century American painter John La Farge mourned the passing of the traditional Polynesian way of life in a letter home, which was published posthumously in *Reminiscences of the South Seas* (1912):

> There will soon come a day when even for those who care, it will be no more; when nowhere on earth will there be any living proof that . . . [it] . . . is not all the invention of the poet—the mere refuge of the artist in his disdain for the ugly in life.

This nostalgia and sense of intangible loss is awakened again today, nearly one hundred years later, as we contemplate the full-scale destruction of the tropical rain forest. This sense of sorrow reflects a cultural legacy that associates tropical nature with the beautiful and the primitive. Tropical rain forests derive value not only as strongholds of diversity but also as repositories of mystery and the romance of the unknown. In *Walden* (1854) H. D. Thoreau wrote,

> At the same time that we are earnest to explore and learn all things, we require that all things be mysterious and unexplorable, that land and sea be infinitely wild, unsurveyed and unfathomed by us because unfathomable.

As an image, jungles embody this charge. Recognition of our cultural debt may help in the campaign to prevent the destruction of the forests from whence such wondrous images have sprung.