

WATER AND CANE SUGAR

In 1929, Sir Halford Mackinder gave a talk before the International Congress of Geography at Cambridge. He upheld the supremacy of water over all the elements that one must consider in the study of a region and its land. "The hydrosphere," Sir Halford said, "should be considered as the central theme in geography." There is nothing more important in the study of man than his relations with water—with sea water, river water, the condensed water in clouds, with rain or thaw, with subterranean water, the water that flows through plant sap or circulates in the arteries and veins of animals; even with the water content of blood, man's very life. Thus he expressed an almost mystical attitude toward water.

In our country,¹ Arthur Orlando, one of the most energetic publicists of his generation, underlined the importance of water—the water one absorbs and which has such a great influence on man's life, as well as the river and ocean waters, which play such an important role in civilizations. It is true that water appears to be the dominant factor in the life of the land, in its physical as well as its cultural existence. This does not mean, however, that we must think of it mystically, as Sir Halford does.

In the sugar-cane country of the Northeast, water has always been, and

1. The northeastern part of Brazil.

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still is, everything. Without it, cultivation, which depends so rigidly upon rivers, streams and rains, could not have flourished from the sixteenth century to the nineteenth. Water adapts itself admirably to rich and humid soil and to the sun as well, to an average temperature of 26.5 degrees at Pernambuco, where there is an annual average of one hundred and seventy-six days of rain, as well as to a climate saturated with humidity.

Windmills could never entirely replace river or stream waters in the cultivation or milling of sugar cane. The wind, good as it is, is an unreliable element compared to the small but constant river waters. These waters, except, of course, during truly terrible droughts or occasional floods, are the constant servants of country people in their work of tilling the soil; they do not behave as capriciously as the wind.

The wind, to be sure, has been the friend of farmers and of the sugar-cane civilization in the Northeast—not so much because of the regularity of direction of its breezes as because of its extreme mildness, even in its most tempestuous moments. The wind blows the strongest in August at Pernambuco and yet its average maximum velocity is only 15.97 meters a second. Although it never attains great violence, there is almost always some wind; complete calm is as rare as a storm. This balance might explain a certain moderation in the attitudes and manners of the Pernambucans who live in the sugar zone.

The cultivation of sugar cane in the Northeast, and, one might add, in Brazil, seems to have begun in the land of Itamarca on the banks of fresh as well as salt water—sometimes a little of each simultaneously. Later, the cultivation became more stabilized under Duarte Coelho when it developed upon “land near rivers.” Jérôme d’Albuquerque’s patriarchal windmill was erected near Olinda, close to water. In the middle of the sixteenth century, Vasco Fernandez de Lucena, it appears, was milling cane sugar at Igayaçù. This land was irrigated and the cane sugar could be brought to the mill in small boats.

The first donatary granted “the land of Beberibe” to Diogo Gonçalves; it contained a small but reliable river that very quickly grew to be invaluable as an aid to the agrarian colonization of the region. Diogo Gonçalves married Dona Isabella Froes and built a mill on the right bank and then a house, quite close to the river bank. Between the two, a little to the west, he constructed a chapel, so that “if one were to run a line from one building to another,” says a chronicler, “one would have a perfect triangle.” And these triangles have assumed, in the life of Brazil, not only an economic, but a political significance as well. They very soon became

classical: mill, master's house with *senzala*² and chapel. They broke the virgin lines of the landscape which was mainly one of curves around river banks even when these banks were peopled by native villages. And they introduced into this chaotic landscape new features of order and regularity: the geometry of agrarian colonization.

Although the Portuguese colonizer was not fanatic about order, as were the Spanish, English and Dutch, it nonetheless fell to him to be the first in the Northeast to think about building living quarters and even an entire village (*recife*) according to a geometrical plan of urbanization. It was, moreover, he who gave to the landscape of these regions its characteristic elements of order: building blocks, which represent a method or a system of conquest, of economy and colonization, of control of the water and of the brush; he put an end to a series of fortuitous and capricious adventures in building.

The rural triangle—mill, house, chapel—was imposed upon the Northeastern land of *Massapé* as its first feature of European order. The river and stream waters of the region were subordinated to a new system of relations between man and the land even though they preserved their winding bends and their caprices. For these waters did not allow themselves to be militarily disciplined into rigid canals as Dutch waters did.

But despite caprice, what natural elements of the region showed greater efficacy in regulating the economic and social life of the colonizers than the small rivers at the extreme northeast of Bahia? These included rivers like the Beberibe, the Jaboaton, the Una, the Serinhaem, the Tambaí, the Tibiri, the Ipojuca, the Pacatuba and the Itapua. Along their banks and along those of the streams of the lands of *Massapé*, the first windmills were installed. These rivers were sometimes ugly and muddy but they were almost always good and useful, suitable even for washing the dishes of the masters' houses as well as the cooking utensils of the hovels. Man's faith in the rivers was not betrayed, except perhaps by a terrible drought or an unusual flood, or by the "river fevers," or some illness which the slaves brought from Africa, as revenge of a kind against masters who were not always bad.

But these drawbacks did not obliterate the advantages of the extraordinary and faithful waters; sometimes they were so wholesome that the colonizers, ridding themselves of medieval prejudices, would invite Indians and Negroes to bathe with them, establishing a kind of ritual at

2. *Senzala*: the place where slaves were housed, next to the "*Casa-Grande*" or master's house.

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Iémanja³ similar to that of Capibaribe, at the summit of the site where the church, Notre-Dame de Bonne Santé, stands. Many were the times that the river waters healed feverish men and washed away their wounds.

The deterioration of the soil, due to erosion, in many northeastern areas, cannot be attributed to the rivers or to their haste to join the sea, carrying with them the rich part of the soil, but rather and principally to the one-crop system. The forests were devastated because the land was used for the cultivation of just one crop; the rich soil was left to dissolve in the waters and was lost in the sea. Due to the destruction of woods by forest fires and by the cutting down of trees in the interests of the one-crop system, the somewhat constrictive vegetation of the river banks disappeared, although it still resisted water in times of heavy rainfall and the pith of the soil was not carried away. The humus and the strength of the soil were preserved, the *caroubiers* on the banks of certain streams being responsible for this useful function. These banks were transformed into soft sand incapable of holding firm when the shrubbery, which was the sturdiest of its kind in the back country, was devastated. Astringent plants were destroyed in order to allow sugar-cane plantations to flourish everywhere; they were also destroyed by goats.

Alberto Löfgren observed devastated areas in the interior of the North-east "where the water no longer stops and where the strong currents ceaselessly remove the earth until there is a complete stripping of the land. . . ." Zones stripped of their trees and even of their most tenacious vegetation have been transformed by the hand of man in the most appalling fashion.

To blame the northeastern rivers for this devastation which, in reality, is the work of human beings, is empty rhetoric. These streams of water were the thieves of fertile soil only at men's behest. The great "thief of the land," Bennett wrote in his study on land erosion in the United States, is the one-crop system. Not only does it exhaust the fertility of the fields for the benefit of a single crop, but even worse, it allows this fertility to dissolve in the river and to be lost in the ocean.

We have already sung the praises of the small rivers and emphasized their importance in the rural organization of Brazil. In a recent study, the famous French geographer, Pierre Monbeig, concurred with our conclusions. The importance of these rivers is most apparent precisely in the extreme northeastern zone of "the brush" and in the *Massapé* land of "Recon-

3. *Iémanja*: goddess of the waters in cults of African origin, parts of which were preserved in the Northeast, and in Bahia particularly.

cavo”—the areas where the cultivation of cane sugar has penetrated the farthest and where the rivers are constant and dependable. These are rivers in the manner of Sancho Panza, not the Don Quixote exuberance of great waterways. And so they lend themselves to the good offices of sedentari-ness and stability, to patient but in nowise empty tasks, to the familiar agricultural routine.

The acres of land granted by Duarte Coelho and his successors are situated at Pernambuco, on the low plains of the river banks with Igarauçu, Olinda, Beribe, Casa-Forte and Varzea as the first settlements and the cultivation of cane sugar as their basis. They extend along the banks of the Capibaribe in the direction of Pau-D’Alho and also along the banks of the Ipojuca; they penetrate deeply into the clayey lands and then go on to drier surfaces in the central area where the rivers struggle to go down to the brush and into the sea.

But it was in the “Varzea” or the low plain of Capibaribe that sugar cane was first grown in the Northeast, a cultivation that was to bring Duarte Coelho so much acclaim as its leader. A little later than the middle of the sixteenth century, one already spoke of the “people of the Varzea of Capibaribe” as the real nerve-center of the colonial population, and we can say that it was here that the first Brazilian aristocracy of the “masters-of-the-mill” took root. They required both the low river plain and the profusion of lake water to develop stability and endogamy.

This plain was the first, on the Brazilian social scene, to be peopled with masters’ houses that were sporadic and isolated, yet united; they were linked one to the other by both the river water and by blood, since the colonists intermarried until there was a total endogamy, cousins marrying cousins, nieces marrying uncles. This occurred throughout the entire region, at Cap Saint-Augustin, in the Ipojuca and Una plains, in the “Recôncavo” of Bahia, in the Parahiba basin, at Saint-Antoine-des-Quatre-Rivières. The waters of the small rivers played a major role in this intensive endogamy of the white and “near-white” of houses on the same plain. The result was a physical type altogether characteristic of the sugar-cane aristocracy: the families of the Northeast with well-defined features, vices, and manners of speaking (the Pae Barretto, the Cacalcanti, the Wanderley, the Souza Lion). This was the work of the rivers, uniting several families into a single one and forming, from the many sugar mills, a social, and sometimes an economic, system. Real clans sometimes developed on the banks of these rivers, led by the one household head who

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was more important than the others, more master of the river, the water, and the plain than the rest.

In 1577 the low plain of Capibaribe already possessed the mill of Saint-Pantaléon of Monteiro; in 1593 it possessed the Apipucos mill and in 1598 the Saint-Timèthée mill of Jiquis. These were very large mills which gave rise to smaller ones, like the portion a man gives to his child, then to his grandchildren and his nephews. These mills were fortunate in every respect: land, water, valuable forests, proximity to the sea and to Olinda, and remoteness from the Indians.

Other mills of the Capibaribe plain were erected under the same favorable conditions: that of St. Jean, St. Antoine, St. François, La Madeleine, St. Cosmo and St. Damien. They were all different from each other and almost all were named after the saints who were most beloved by the pious Portuguese. Some of them, however, already had names indigeneous to the river or stream: Apipucos, or the name of a woman, Madeleine, or the surname of an owner, "Curado."⁴ The various types of mill names were rarely altered in New Lusitania during the first century of colonization. Some of the mills, it is true, did have African names like Massangana, and still others were named according to the local trees or fruits: "Melancia" (Pastèque). Then there were names that were actual phrases or exclamations like "Valha-m-Deus!" (God protect me), etc. It is interesting to note that many old mill names in that region evoked an image of water: "Ribeiro-da-Pedro" (Peter's River), "Água verda" (Green Water), "Cachoeira-de-Cima" (High Cascade), "Poço sagrado" (Sacred Well), etc.

One senses in these names a kind of cult and certainly a poetization of water by plantation people and plainsfolk. Water was a noble element in the old northeastern mill country where the factory was destined to defile the rivers. The mill paid homage to water and was not satisfied merely to make use of it.

The fine masters' houses in the interior as well as the fine bourgeois houses in the Madeleine district and in the Rue de l'Aurore at Recife, even the monasteries like the Franciscan one at Sérinhaem, were all erected to face the river. The best stairways all led down to small canoes and barges. The prows of these boats often bore sculptured heads of dogs, dragons or lions. The *yayas* rode in them under parasols, and the gentlemen went also.

4. *Curado*: "protected" by some kind of magic against wounds, serpent bites, etc. (The equivalent of the Moslems' *baraka*.)

People would take barges to pay calls on each other. The river was honored. It was preferred to the mud and dirt of the roads along which, in the olden days, ox teams would trudge wearily from one mill to another; in the nineteenth century, carriages would jog along these roads, their springs creaking with rage and fatigue by the end of the first three miles.

The river complex developed in such a way that it became "chic" among fashionable northeasterners to have French photographers take pictures of them in a canoe or a barge, the young ladies with their hands on an oar, the young men pretending to row. In the state of Pernambuco, or of Bahia or Alagoas, family albums are filled with old photographs that show the ladies and young men of the aristocracy seated in elegant barges.

The river bath, when it was not a ritual, like that of the "pilgrims of health" or "Poço da Panela," was an occasion for festivity. The Christmas holidays, the New Year and the Day of Kings were celebrated on the river banks. At such times, the stream would receive many languid and mannered young ladies whose mode of life confined them to the boudoir and had rendered them almost tubercular. In the river these young ladies were freed from the darkness and staleness of their sickrooms; they became children again, shrieking and swimming in the nude. The river welcomed their delicate young bodies, as well as those of the urchins who washed away the dirt and perspiration of their work in these waters. It also welcomed the Negroes who came to bathe the horses. In 1855 Doctor Carolino Francisco de Lima Campos recommended river baths in his "Advice about Health" and wrote that "for the good of the body," fresh baths in the river, with soap, besides having an excellent effect upon cleanliness, help to "fortify the tissues."

In the beginning of the nineteenth century, Tollenave saw in the Capibaribe "entire families plunging into the river and spending a part of the day in it, protected from the sun by little shelters made of palm leaves; each house had its own shelter, and near it was a small screen made of foliage for dressing and undressing." The French traveler took unawares, as she was bathing, "a young mother nursing her infant, the grandmother swimming beside her grandchildren, and the young ladies of the house frolicking in the midst of the Negroes, diving with agility and swimming to the opposite bank of the river." He even had the opportunity of glimpsing some of these young women, their legs in the air, veritable "naiads without veils."

But Tollenave's account of the river banks at Pernambuco is not limited to this voluptuous observation. This French traveler writes that it was rare to find more laughing streams than those of Capibaribe. The water was so

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clear that one could see the pure sand bottom “which takes on the color of dark green emerald thanks to the reflection of the foliage, in the midst of which one sees the ‘cacique’ with its overhanging nest, the cardinal dressed in scarlet and a thousand birds adorned with brilliant plumage.” All around the canoe in which he traveled upstream to Poço he saw from time to time “schools of little fish.” He also spoke of “myriads of crabs” crawling along the banks and of “giant armadillos and agouti in the highest places, stationed before their holes.” But he did not see any alligators, nor any of the enormous *cururus* toads which terrify the children and which are used so frequently in certain rites of black magic in the region.

Tollenave noted in the interior some possible advantages which the river offered as regards the transportation of sugar cane from the mills to the seaboard; these were often not utilized. For instance, the stream that flowed near the *Engenho Salgado* irrigated the plantations of twenty other mills, and “more than one hundred and fifty tons” could be shipped by water. But it was not used for the transportation of either sugar cane or the Negroes whom Bento José da Costa imported from Africa to work on his plantations. This was due to the unfounded belief that the Dutch had sunk three ships between Nazareth point and the reefs, thus making the passage impracticable. In actuality, the river was not utilized because of the mill masters’ carelessness.

Although these rivers were not utilized, they were not despised. The greatest pleasure, at Salgado, as well as near Recife, on the banks of the Capibaribe and the Beberibe, was river bathing, at the rate of two or three times a day.

Berberibe, Tambia, and Caxanga were joyous meeting places for river baths. Students bathed there with actresses, the *shepherdesses*, *mistresses* and *counter-mistresses* of “pastoril,”⁵ who came to the banks at dawn. Baths were taken early in the morning, with rum arrack and cashew nuts before the first dive into the cold water. Little Negroes bathed completely nude, which scandalized the modest bourgeois.

It was to the waters of Capibaribe and Beberibe that romantic young men, law students at Recife, confided their loves. More than one impassioned young student recited poems to his beloved, whom he glimpsed in the distance or whose presence he merely surmised behind some balcony or lighted window in the Rue de l’Aurore or the Pont d’Uchoax or the Madeleine—the balcony of a house built in mosaic, or the windows of a

5. *Pastoril*: a popular dramatic game in the Northeast in which the traditional characters are the *Old man*, the *shepherdesses*, the *Mistresses* and the *Counter-Mistresses*.

great house or “chalet” between mangoes and bread trees. And the pale student, dressed in black, wearing a stiff collar and patent-leather shoes, would go downstream on the river in a barge, close to the bank where the young girl lived. In the dusk he would sing:

Wake up, open the window, Stella,

or

*Oh, Maria, Oh, Maria,
How many sleepless nights because of you!
Oh, Maria, Oh, Maria,
Into your arms I long to fall.*

This at the end of the nineteenth century or the beginning of the twentieth. His seniors had sung other love songs: “Ma Nise adorée,” for example, or “Chiquita.”

It sometimes happened that young girls were carried off by barge. Nise, Chiquita or Stella would wake up and perhaps give herself to the young man dressed in black. Maria might open her arms to him, and perchance her brown legs. Thieves, murderers, Don Juans, Cabeleira “Perruque” himself, the great sugar-cane bandit, came to Recife by barge, canoe, or raft, during dark nights. The barge and the canoe were highly prized by thieves; nineteenth-century newspapers are filled with announcements of stolen barges or canoes.

Entire families moved their rosewood furniture by barge from one house to another. The sad Negroes along the river banks suffered the hardships of slaves whose masters were not always kind. When the Abolitionist campaign occurred the Capibaribe became a liberating river for them. Fugitive Negroes streamed down the waters, hidden behind piles of wood, forage, and cane sugar, on small boats that carried sugar from the mills to the seaboard.

Water was brought to the cities in canoes and sold on the wharves. These canoes were exposed to the sun and were so filthy with refuse that Dr. José Enstaquio Gomes denounced them, in 1837, as one of the causes of poor health in Recife. He wrote a memorandum, at the request of the Municipal Chamber, on cases of erysipelas in the city.

For a long time the small boat, the canoe, and even the raft were linked with cane sugar, the Negroes of the mills and the ox teams. This relationship still exists today to a certain extent, just as it did during the time of the water mills. Not so long ago we saw the raft, the Negro, and the ox team united on a beach in the north of Alagoas, just as they were in the North-

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east of 1700. The little boat was almost on dry land on the beach, and between it and the ox team the raft served as a bridge. The *cabras*, half-naked, were loading the sugar. This is 1700 all over again.

The old northeastern mills depended a great deal on the sea and on the rivers. The mistress of the house would send Negro boys to catch crabs, *pitus*, prawn and *siris*⁶ in the lagoons, in the rivers and on the reefs. These fishermen who served the patriarchal house became *jangadeiros*,⁷ as skillful as the Indians in steering rafts and canoes. They also became adept at handling the net of *tucum*,⁸ in chasing alligators, nandus and stags along the river banks. They even modified the brutal manner of the Indians in managing a canoe; in the hands of Negroes, the oar or the raft pole became an almost pleasant instrument, sometimes even the dispenser of a certain kind of masochistic pleasure. Durval Vieira de Aguiar, traveling in the interior north of Bahia and Recôncavo during the last days of the monarchy, met barges that were poled down the river by boatmen who were almost naked, clad only in a loin cloth or a strip of cotton around the waist, with a cap of the same material on their heads. They were described as men "who looked entirely African." "Armed with large steel-tipped poles, they leaned the other end against their hard, unprotected chests, often making it a point of honor to allow the blood to flow from their efforts."

The Negro would sing in cadence as he rowed, just as he sang as he carried the bags of sugar through the streets or Madame's piano or the master's rosewood furniture. Some foreigners speak with wonder of the precision of these Negro boatmen's movements. Henderson saw them coming down the Capibaribe many a time.

The Negro who, in the beginning, worked only in "the green ocean of sugar-cane plantations," afterwards became equally skilled as a worker in that other ocean (the real ocean, full of witchcraft, the ocean of the northeastern coast). He became an oarsman, a *jangadeiro*, a fisherman, the patron of the small craft. Generalizations affirming that "the ocean still belongs to the Indians" seem to us inaccurate. This is true neither of the sea, the river, the canoe, raft or *saveiro*,⁹ nor of the small boat. The newspapers of the first half of the nineteenth century are filled with advertisements of

6. *Pitu*: Large fresh water shrimp; *gayamum*: a species of large crab; *siri*: the word used for several kinds of crustaceans similar to the crab; *sururu*: a shellfish.

7. *Jangadeiros*: Rafts (*jangadas*) of the Northeast are manned by *jangadeiros*.

8. *Tucum*: a species of palm tree whose leaf has a fibre of excellent quality.

9. *saveiro*: a long and narrow barge employed for crossing large rivers.

Negro boatmen. There were many of them. Francisco José de Nascimento, the *jangadeiro* of Ceara, who distinguished himself in the Abolitionist campaign, was a mulatto, an Indian half-breed. He was known later by his war name of "Sea Dragon." And today, in the states of Pernambuco, Bahia and Alagoas, there are hordes of Negro boatmen and *jangadeiros*.

We had the opportunity recently of seeing the boats of colonial style that still continue to bring sugar and salt, wood and cocoanuts to Recife. They arrive from Natal, from Goiana, from Gravata and from Maceio. Almost all of them are blue or white. This seems to us to reflect a certain semi-Christian mysticism of our seagoing people, similar to that of women who are closely attached to the church and who make a vow not to dress their daughters in anything but blue or white as a homage to Notre-Dame. They even go so far as to consider red, so beloved by eyes that are less bound by Christian scruples, as the color befitting a harlot's dress.

Of the one hundred and fifteen small craft that we saw, sixty-three were not named after saints (only nine out of one hundred and fifteen were) but bore the names of women, rivers or mills. Many of the boatmen, like the *jangadeiros*, believe in *Yémanjá*, use the stars to guide their course, are quick to perceive the direction of distant winds, and smoke hashish in order to dream of naked women or pretty girls. But, in any case, their dominant belief, it seems, is a Christian one.

The majority of the boatmen who work in the Northeast—at least in the states of Alagoas, Pernambuco and Bahia—are no longer Indians. One sees a goodly number of *jangadeiros* on the beaches in the south of Pernambuco and in the north of Alagoas. They live in huts that are half native and half African in style. Among these people, who are dominated by the African hashish complex, it is not difficult to find many Negroes, many mulattoes and many half-breeds—not just Indians and whites.

The Indian is no longer the master of the sea, nor of the beach, nor of the raft or canoe; he is only master of what is left of the virgin brush, and even here the Negro has proved to be a serious contender. In the northeastern sugar-cane country the Indian is becoming more and more of a myth, a rhetorical figure of speech: "the spirit of the Indian" of black magic meetings. He is merely "us, the sons of Indians, who expelled the Dutch," the familiar refrain of civic and patriotic speeches, nothing more. A full-fledged or even a predominantly Indian figure is already a curiosity, an exoticism. The half-breed native is called "China" even if he is a university graduate. In the northeastern backwoods, the European and

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African colonizers did to the human scene what the cocoanut tree, the sugar cane and the mango tree did to the vegetation: they dominated it to the point of sometimes seeming more native than certain native elements, like Brazilian wood and the Indian.

Both sea and river fish are numerous in the Northeast. One finds fish in the high seas, in deep water as well as among the rocks. The rock fish, although not the best edible variety, are the ones with the most beautiful and brilliant colors. So lovely are these colored fish that it is hard to believe that they do not taste the best—the red *aguiuba*, the *piraiuna*, red also, the *toucan* and the *budien*, the last two both blue. But since these are not the tastiest, only the poor people eat them, cooking them in manioc farina and serving them in pimento sauce. We have often seen the *jangadas* pulled up on the beach, filled with colored fish that were still alive and wriggling: blue, violet and pink, silver and yellow fish with black spots. “They are nothing but pure beauty,” the connoisseurs say.

The most successful fisherman is the one who brings in his *jangadas* the *cavalle*, nicknamed “young-girl’s-leg,” the *cioba*, the *carapeba*, the *taïgna*—these are the aristocrats of the northeastern waters; acclaim also goes to the Negro who carries large and small lobsters and the *pitus* in his basket. The *pitus* come from the Una River of Pernambuco, and are served by the mill masters of the valley, particularly for their large parties. The Corrente of Bahia is famous for its “fat and tasty” *dorés*. *Pitu* of the Una River, *doré* of the Corrente, fried crabs, *siri*, small shrimp, *gayamum*,⁶ “the old man’s nail,” *populpe* and *sururu* of Maceio, fish boiled in manioc farina, fried fish of the sand banks, *curiman* from the master-of-the-manor’s own pond, fish cooked in cocoanut milk, fish cooked in sauce (*muqueca*, a sauce made from the oil of palm trees from Guinea, cooked in cocoanut milk and pimento)—all of this unites water, sea and river with the housekeeping and the life of the northeastern peoples. Water became a friend of the seacoast and the brush homes, whether opulent estates or hovels, since both kinds were frequently built along the banks of the same river.

Moreover, water seems to have had an aesthetic effect on the northeastern landscape. It helped to propagate, along the seaboard of the region, the cocoanut tree of India, imported, apparently, by Portuguese colonists. This great spread of cocoanut trees was the result of the tides and currents of the sea, which washed up the seeds and deposited them on the sand beaches.

Nonetheless, in the northeastern backwoods, the relations between man and the water were not always idyllic. Man never lacked water for his essential needs because the rivers that form a true part of the brush never

run completely dry, just as the sources of water are never completely exhausted. But sometimes the banks overflow and a real danger ensues. Great floods leave hundreds of unfortunate people without shelter. Sometimes the waters reach the master's house. José Lins de Rezo described in an extraordinary way (one of the strongest statements ever written in our language) what these floods represent for the northeastern mills. Water suddenly becomes the worst enemy of man, beast and plant.

The northeastern African colonizer, although he was intimately and usefully linked with water, seems to have contributed to its contamination. He brought with him, in the opinion of specialists, worms that gave rise to a disease later called the malady of Manson-Piraja da Silva or Schioto-somes Mansoni which was prevalent in some river mills. He made river bathing in certain areas of the region a truly hazardous venture. It was dangerous for a man to run into the larvae of a worm which wantonly traverses his skin and mucous membranes and proceeds to consume his liver, intestines and lungs.

In America the disease is prevalent in sugar-cane zones that attracted much Negro colonization: in the Antilles, in Peru, Venezuela, Colombia and the Guineas; and in Brazil along "the entire coast to Para south of Bahia," the northeastern sugar zone and its rivers. In Bahia, the African disease was studied by a great scientist (Piraja da Silva) who finished the work begun by Manson. At Pernambuco this same disease was studied by his collaborator, Doctor Luis Tavares. The distribution of the disease was determined by Professor Meira Lins and Doctor Fernando Wanderley. The latter found that their patients came from the mill rivers of Goyana, Una, Jabater and Ipojuca.

But what remains pathological today in the relations of man with the northeastern sugar-cane plantation waters is not limited to the contamination of rivers, but extends to the powerful plantation owner's contempt for these river waters. The one-crop system of the Northeast has made a urinal of these rivers, a sewer of filthy factory waters. And these waters poison the fish and dirty the banks. The distilled residues that sugar-cane factories deposit in the river waters each year after the harvest cause a considerable reduction in the spawning of fish in the Northeast. During Christmas week in 1936, the Goyana River at Pernambuco received so much of this residue that the number of rotted fish was enormous and called to mind an Old Testament plague. The sturdiest fish as well as the most delicate all reeked of putrescence. The odor of rotting fish mingled with that of rotting fruit on the dirty banks of the rivers.

There is hardly one river in the northeastern sugar-cane country which

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the factory of some rich plantation owner has not degraded. The houses no longer overlook the rivers; they turn their backs with disgust, with disdain. The young girls and the children bathe no longer in the river but only in the ocean, leaving the dirty river waters to the black urchins and horses. The river is no longer respected by sugar manufacturers, who formerly used it to wash their dishes, but never humiliated it. On the contrary they honored it. They admitted it into their intimate life, they confided to it their disappointments in love; and when they were old, it was to the river that they spoke of their nostalgia for the past. They used the wharves and bridges as special retreats for conversation on moonlit nights in Recife.

These rivers went dry in the dirty northeastern cane-sugar country. Filthy streams flowed in their place, streams without dignity, which the factory owners treated any way they pleased. Thus prostituted, when the rivers rebelled they did so without rhyme or reason, flooding the hovels of those poor people who still lived on their banks and still bathed in their yellowish or rust-colored waters—waters that looked as if the entire world had used them as a depository for its excrements.

Only ghosts, with their romantic shadows, still peopled these unspeakable waters of the Northeast. The ghost of a murdered student whose corpse yet floated on the river's surface, clothed in black, a flower in his buttonhole. Or the ghost of a drowned blond child which the *Siri* had not despoiled, so that the little angel appeared to be intact. . . . Or again, the ghost of the young brunette who threw herself into the river, mad with passion, and whose hair turned green like that of the *Yara*.¹⁰ Few people believe that these northeastern rivers had such a beautiful past and one so closely linked to our sentimental life.

Today the noble waters are the ocean waters, the sea that is so blue in one place and so green in another, as it washes up on the sandy beaches of the northeastern coast. Even *Iemanjá* herself is no longer worshipped by the blacks of the *Shango*¹¹ in the river waters, but principally in the waters of the sea. And yet no more than a century ago these now famous beaches were only heaps of dirt, while more than a century ago they were used as garbage and excrement dumps. Here was where the pagan Negroes were buried and here, too, dead animals were left to rot; it was here that the straw mattresses used by victims of smallpox or the shrouds of the plague-stricken were abandoned.

10. *Yara*: Brazilian "siren" of rivers and swamps.

11. *Shango*: Afro-Brazilian magical ceremony.