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THE ROLE OF INDIGENOUS PEOPLES IN THE ENVIRONMENTAL CRISIS: THE EXAMPLE OF THE KAYAPO OF THE BRAZILIAN AMAZON

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As increasing numbers of people have become aware of the imminence of the destruction of the world's tropical forests and the probable consequences for the atmosphere and climate of the planet, voices have increasingly been heard drawing attention to the need for concern with human populations of forest dwellers, as well as with the floral and faunal components of the ecosystem. This has been motivated in part by humanitarian concerns, in part by more specific concerns for indigenous political and legal rights, in part by an awareness that native forest peoples may possess valuable knowledge of their environments, and also at times by a realization that the traditional adaptive activities of such peoples may make important functional contributions to the ecosystems in which they live. Whatever their specific point of departure, however, advocates of native forest peoples have tended to proceed on the assumption that the recognition of the rights and contributions of the native inhabitants of the forests, as well as their physical and cultural survival, would depend, like the salvation of the forests themselves, upon them. That native forest peoples themselves, many of whom number among the most primitive and remote human societies on earth, should come to play an important role as allies and even leaders

in the world struggle to save the forests, is a prospect so apparently remote as to seem only a little less improbable than that Martians might arrive to lend a hand. Yet this is precisely what has been happening in the last few years, nowhere with more impressive scope and success than in the case of the Kayapo Indians of the Brazilian Amazon.

I. THE KAYAPO: ETHNOGRAPHIC AND HISTORICAL BACKGROUND

The Kayapo are a nation of Ge-speaking Indians who inhabit the middle and lower reaches of the valley of the Xingu River, one of the major southern tributaries of the Amazon. Their total population is currently around 2,500, divided among 14 mutually independent communities. The largest of these communities, Gorotire, has about 800 inhabitants, but several others are little more than hamlets. Kayapo country is a mixture of forest and savannah land, with rather more forest than open country around most of the villages. The total area covered by Kayapo communities and their associated land-use patterns is about the size of Great Britain.

The massive destruction of the Amazonian environment represented by the cutting and burning of the forest, the cutting of roads, and the soil erosion and river pollution caused

by mining and the building of giant hydroelectric dams, have had a shattering impact on the environment and way of life of many forest Indians of the Amazon. Even groups whose lands have not yet been reached by these activities, or are just beginning to be affected by them, now live in the permanent shadow of the threat. To understand the meaning of this threat for indigenous peoples like the Kayapo, one must stand in a Kayapo village under the dense clouds of smoke that now darken the sky over Kayapo country at the end of every dry season, as Brazilian squatters and ranchers burn off vast stretches of previously forested land to the east and south, rapidly approaching the traditional borders of Kayapo territory along a 700-mile front. It is to feel one's world burning, with the ring of fire drawing ever tighter.

For members of modern industrial societies, one of the most difficult points to grasp about the relation of native tropical forest peoples to their environment, as articulated through their modes of subsistence production, is that the relationship is not felt or conceived to comprise a separate, "economic" sphere in our sense. Rather, it forms an integral part of the total social process of producing human beings and social life. The threatened annihilation of such a society's environmental base of susbistence is therefore not felt merely as an "economic" threat, nor one that can be located and confined in

an external, "environmental" sphere. It is a threat to the continuity and meaning of social life as such. An understanding of this point is essential not only to an appreciation of the traumatic effects of wholesale ecological devastation on traditional societies of subsistence producers like the Kayapo, but also the nature of their political response and resistance to such threats.

A. The relation of thew Kayapo to the enviroment through subsistence production; The social division of labor.

For the Kayapo, like most other contemporary Amazonian native peoples, traditional patterns of subsistence adaptation are still the basic way of life. The Kayapo produce their means of subsistence by a combination of slash-and-burn horticulture, hunting, fishing, and foraging. According to the division of labor by gender and generation, men engage in all productive pursuits incompatible with the care of young children, while women perform those which can be carried out while caring for children. This means that men hunt, fish, do the heavy and dangerous work of clearing gardens, and gather certain wild forest products which grow at great distances, requiring overnight journeys. Women do the planting, weeding and harvesting of gardens, cut firewood, cook the food, build traditional shelters (now done almost exclusively in trekking camps), forage for such wild products as can be found within a day's round-trip walk from the village or camp, and care for children. Girls begin to

help their mothers with household and garden chores while still children, but boys do little productive labor until they are inducted into the men's house, a batchelors' dormitory and men's club which stands apart from the family houses in the middle of the round village plaza.

Kayapo gardens must be cleared from fresh forest land and produce for about three years for most crops. The Kayapo raise an impressive variety of garden produce: manioc (both the bitter and sweet varieties), maize, bananas, yams, sweet potatoes, fava beans, squash, cissus (a leafy creeper that is a unique domesticate of their own), tobacco, urucu (used to make red body paint) and cotton (used to make string, but not woven). In recent years, many Kayapo have added Brazilian-introduced crops such as papaya, rice, various species of beans, pineapples, watermelon, avocado and mango. Most families maintain about three gardens in production at any one time, and clear a new one every year. After a garden is abandoned, it requires about 25 years for reforestation to render it ready for reuse. A sizeable village therefore needs an extensive area of forest land for the rotation of its garden plots.

The Kayapo supplement their horticultural diet with large quantities of fish and game. Included among the latter are wild pig, tapir, deer, monkey, tortoise, armadillo, and various

species of birds and rodents. Gathered wild produce is also seasonally important, and includes babassu coconuts (used for body- and hair oil), piki, tucum, and brazil nuts, honey, palmito, acai, bacaba, and a variety of less important fruits. Hunting or fishing for the men, and gardening for the women, are more or less daily activities while the community is settled in its base village. For considerable periods of the year, however, the Kayapo abandon their base villages and go off on collective semi-nomadic treks through the surrounding forest and savannah. These may last from one to three months, and may take one of several forms. Individual age-sets (most frequently, the male batchelors' set) may be sent out to gather seasonally ripening nuts or fruits; the whole village may go together; or the individual senior men's societies may trek as separate groups, each with its associated women, children, and batchelor dependents; or only part of the village may go on trek to gather food for a ceremonial feast, while the rest remain behind in the village. A community may go on two or three such treks per year, so that at least some of the village may spend as much as half the year on trek. Large areas may thus be covered by all the treks undertaken by the members of a single village in a given year. In spite of the low population density of Kayapo country, therefore, most of the area is actually used by the mobile trekking groups which continually sally forth from the widely scattered base villages.

The regular alternation between trekking and base-village occupation thus appears to be an integral aspect of Kayapo social organization. Why this should be so is not immediately apparent. Trekking by large collective groups is a relatively inefficient way to exploit the wild floral and faunal resources of an area. Only the adult men of the camp do any hunting. The batchelors and younger boys are typically occupied either with clearing the trail to the next day's campsite and the campsite itself, or bringing up horticultural produce from the village gardens, while the women occupy themselves with pitching or breaking camp, cutting firewood, preparing food, and tending children. The camp is moved every one or two days, but usually only for a distance of one or two kilometers, about a 15-minute walk. More game could doubtless be captured by small groups of men working alone, free to move more rapidly over greater distances. Hunting and fishing are routinely done in this way while the community is residing in the base village, and it is certainly no less productive than the hunting done on trek. Trekking by whole communities or large groups, in other words, cannot be accounted for as the most efficient available method of acquiring needed protein or other foodstuffs.

A similar question arises over the frequency with which Kayapo bands moved their village sites in the days before peace-

ful relations were established with the Brazilians. There is in fact no ecological reason why Kayapo villages as large as 2,000 would ever need to move as a group from their permanent village sites to remain supplied with the foods they require. Notwithstanding this fact, Kayapo villages before pacification tended to move as often as every two, or more usually five to ten years. A given community would have as many as a dozen village sites, and occupy most of them over a twenty-year period. This frequency of movement, again, cannot be accounted for simply as a result of material necessity. In common with trekking, it seems part of a dynamic inherent in Kayapo social organization.

B. The social meaning of "production": subsuming the production of physical subsistence as part of the production of persons and society

The essence of this dynamic, in both cases, is the assertion by the senior men's associations which meet in the men's house of their solidarity and authority over village society, which in its settled, base-village state assumes the form of a collection of female-centered (matri-uxorilocal) extended-family households. Frequent movement of the village community, whether in the form of semi-nomadic trekking or movement of the village site itself, under the direction of the men's associations, gives the society an aspect of male-centeredness, a sort of collective patri-virilocality, which serves to counterbalance the centrifugal effect of the female-centered domestic households as

foci for male social attachments. The high mobility of Kayapo society, and the large amounts of territory it requires in consequence, thus cannot be understood, as some have attempted to do, as the result of nutritional deficiencies in the soil or lack of protein or other nutrients in the faunal or floral environment. They are, rather, the corollaries and effects of the organization of Kayapo society, with its central tension between female-centered and male-centered forms of social grouping. These forms themselves, however, are articulated in terms of their complementary roles in production, although this is production understood in the Kayapo sense of the social production of human beings and social relations, understood as including, but not as reducible to, that of material subsistence. This notion of social production is thus essential to an understanding of the Kayapo relationship to their natural environment as to their society <u>per se</u>, and calls for a more extended exegesis.

Kayapo patterns of environmental adaptation and subsistence production are intricately interwoven with their ways of producing human individuals. This process of human production includes what we call "socializing" children, but continues through the life cycle and the final rites of death. This individual process, in turn, is treated by the Kayapo as an integral part of the process of reproducing collective social units like extended-family households, age-sets, and ceremonial organiza-

tions, and thus of society as a whole. As I have already indicated, the division of labor in the production of material subsistence is defined in relation to the division of labor in the production of social persons and relations, with women specializing in the socialization of children. It must be clearly understood that this is not simply a natural result but a culturally imposed social pattern. Women who do not happen to be raising young children nevertheless do not go hunting and fishing. At a higher level of organization, the nuclear family forms the social unit of cooperation in the production and consumption of material subsistence, but as a social unit it owes its form primarily to its role in producing new social persons, not its functions in expediting subsistence activities. Subsistence production thus finds its place as an integral part of the global process of social production, which also includes the socialization of children, the recruitment and reconstitution of families and collective groups, and the celebration of the great communal ceremonies. In these two-to-four month long symbolic dramas, all of these levels of activity are performed in an orchestrated pattern that asserts their essential interdependence as parts of a single whole.

The Kayapo attitude toward the non-human natural environment must be understood as a part of this same global pattern. The Kayapo do not oppose "nature" to human society as

mutually exclusive, externally related domains; nor can they be said to possess a single, uniform concept of "nature" in our sense. They recognize that the forest and savannah beyond their village clearings are products of forces that are independent of humans and not under social control. They further recognize that they depend upon these natural forces and products for their own social existence, and that social persons are in fact largely "natural" beings, whose physical bodies, senses and libidinal energies are as extra-social in origin as any forest tree or wild animal. Disease, death, shamanic trance, insanity, and periods of transition in life-crisis ritual are seen as moments when the continuity between the internal natural core of human social actors and the external natural environment of the forest and animal world asserts itself, "short-circuiting" and blacking out the interposed, insulating social veneer. At such times, the social person reverts to a "natural" state, here conceived as one of entropic dissolution of social form. At other times, as in the rituals of initiation at puberty or the everyday bringing in of game, gathered nuts or garden produce from the forest, displacing or penetrating the boundary between nature and society has the opposite result: an infusion of energy which, directed into social channels, enables society to exist and renew itself. Human beings and society itself, in sum, are seen as partly "natural" entities, dependent on continual infusions of energy from their natural surroundings. The reproduction of

human society, the reproduction of socialized human beings, and the reproduction of the natural forest and savannah environment are thus interconnected parts of a single great process.

Society and its members, in sum, are essentially seen as special forms of appropriating and channelling natural energy, and thus depend on the ability of the natural world, meaning the forest, animals, birds, rivers, and fish of which it consists, to reproduce itself and continue as a great reservoir and source of the energy society must continually draw upon to live. The destruction of the forest, the killing or driving away of its animals, or the pollution of the rivers and killing of their fish, therefore, are not seen by the Kayapo simply as an attack on "the natural environment" in our sense, but as a direct assault upon themselves as a society and as individuals.

This view, it should immediately be added, is fully compatible with the destruction of trees and animals on a considerable scale for the sake of the appropriation by the Kayapo of the energy stored in their flesh, fruits, or the soil on which they stand. The Kayapo operate with a rough rule of thumb, a sense of the ability of the local environment to accommodate the level of destruction inflicted by their traditional modes and levels of subsistence activity and regenerate itself, derived from millenia of experience. They have no mystical sense

of reverence or respect for individual trees or animals, and feel no hesitations about chopping them down or taking them as game whenever their interests demand. What concerns the Kayapo is nature in the aggregate, or more specifically, the survival and reproduction of a sufficient slice of the natural environment to support their traditional way of life. It was only when they realized that this aggregate capacity for regeneration was threatened by the vast scale of the destruction now being inflicted on the area that the Kayapo became aroused over the fate of the forest environment as such. Similarly, it was only when the realization of the probable consequences of this destruction for the rest of the world's climate and population became general among the peoples of the developed countries, that is, when we realized that our own society's aggregate capacity for reproduction was threatened by what we were doing to the tropical forests, that ecological concerns for tropical rain forests became transformed into urgent political issues in the developed world. Kayapo and First World modes of "ecological" consciousness and concern converged, in short, when, starting from very different premises, the members of both societies realized that the survival of their societies was at stake. The dramatic results of this convergence are the subject of the rest of this paper.

II. THE KAYAPO RESISTANCE AND THE ENVIRONMENTALIST MOVEMENT

The Kayapo area of Southern Para state is a representative microcosm of the destructive processes at work in the Amazon as a whole. Beginning in the late 1960's, the Kayapo have been confronted with virtually every major form of environmental destruction and land depredation found elsewhere in the region.

A. The Kayapo face the end of their world

Since the 1960's there has been constant pressure from small squatters and large ranchers attempting to infiltrate Kayapo areas and clear small farms by burning off patches of forest. Land speculators have attempted to build illegal airstrips, survey and sell off large chunks of Kayapo land to which they did not even hold legal title. In 1971, the Brazilian government built a major road of the Trans-Amazonica highway system through Kayapo country, secretly altering the route so as to amputate the Kayapo area of the Xingu National Park, which it then attempted to sell off to private owners, mostly speculators, would-be ranchers and farmers. The road brought heavy truck and bus traffic carrying settlers and supplies to the new settlements farther west, bringing with them the perils of infectious disease and the potential for conflict with the Indians. Timber companies interested in the large stands of vir-

gin mahogany within the boundaries of the remaining officially delimited Kayapo reserve, the Kayapo Indigenous Area, sought and obtained logging concessions for large tracts from Kayapo leaders in exchange for sizeable money payments and the construction of modern housing and other facilities in Kayapo villages. Most of the money went into communal accounts in banks in neighboring frontier towns. These accounts were either explicitly or tacitly controlled by chielfs or the few literate Kayapo able to keep the accounts. Some of these individuals began to draw heavily on these "communal" funds for personal use, giving rise to tension and resentment by the rest of their communities. Rivalries between competing companies and their respective Kayapo sponsors almost led to war between two Kayapo villages in 1986.

The discovery of gold at the huge mine of Serra Pelada near the eastern border of the Kayapo Indigenous Area led to intense prospecting and exploratory gold-mining activity within the eastern borders of the Kayapo Indigenous Area. This culminated in 1983 with the opening of two large illegal gold mines only ten kilometers from Gorotire village. 3,000 Brazilian miners swarmed onto Kayapo land, and neither the Brazilian Indian Service (FUNAI) nor any other arm of the Brazilian government seemed willing or able to do anything to stop it. Tons of mercury from the mining operations began to pollute the Rio Fresco, the main fishery of several Kayapo communities. Then, in

1986, an even more ominous form of pollution threatened, when radioactive waste from a cancer-treatment facility in the city of Goiania caused two dozen fatalities and the Federal government attempted to dump the material on the western border of Kayapo country.

As if all this were not enough, the Kayapo began to hear rumors that the Brazilian government was planning to build a series of hydroelectric dams along the Xingu and its tributaries, which would result in the flooding of large areas of Kayapo land and the end of the value of most of the river system as a fishery. The scheme was to be funded by loans from the World Bank. Repeated attempts to learn the truth about the government's plans were met with stonewalling and denials that any such plan existed. The rumors persisted, however, and construction sites began to be cleared at certain points along the river. The Kayapo were as outraged by the government's disregard for their political and legal rights to be consulted about a project which would so heavily affect their lands and livelihood as they were concerned about the ecological effects in themselves. While Kayapo leaders strove unsuccessfully to penetrate the government's cover-up about the dam project, however, they were confronted by an even more direct threat to their legal and political rights, as Indians, to challenge governmental or private Brazilian infringements of their land rights, resources, or

communal interests. At the convention called to draw up the new Brazilian constitution, a measure was introduced calling for the redefinition of any Indian who demonstrated the capacity to bring a legal action in a Brazilian court as an "acculturated" person who could no longer be considered an Indian, and therefore could no longer represent or bring an action on behalf of an Indian community in court. This "catch-22" provision would have destroyed the possiblity of any legal or political resistance by native peoples against abuses of their rights, persons, lands, or environments within the terms of the Brazilian legal and political process.

This daunting array of threats to the Kayapo environment, communal lands and resource-base, political and civil rights is a representative sample of the human face of the environmental crisis in the Amazon. The Kayapo confronted this apparently overwhelming onslaught beginning in the early 1970's as a still largely monolingual people of Ge-speakers scattered over a vast area in 14 mutually autonomous and politically uncoordinated settlements. In most of the villages, some of the men (but almost no women) spoke Portuguese, and a handful had learned to read, write and do simple arithmetic. A few leaders had obtained some experience of Brazilian administrative and political ways through working in the Indian Service or as members of Brazilian expeditions to contact other tribes. They had

a few contacts with the outside world through anthropologists and indigenous advocacy groups, and the Brazilian Indian Service (FUNAI) offered some support, although it could not be counted upon to represent the Indians' interests against the more threatening forms of economic development mounted by government or powerful private interests. Aside from this slender array of assets, the Kayapo had no political resources with which to defend themselves and their forest beyond their own largely intact tribal institutions and culture. These, however, were to serve them well in the trials that lay ahead.

B. The Kayapo resistance

This is what they did. The two western communities whose land had been severed by the road began an unrelenting campaign of armed attacks on all Brazilian intruders who attempted to open ranches or settle in the separated area. After 15 years and perhaps 50 Brazilian dead, with no Kayapo casualties, no Brazilian settler remained in the entire area. The leaders of the two Kayapo groups meanwhile carried out a campaign of diplomacy, making repreated trips to Brazilia to pressure the government to return the stolen land and thus end the violent stand-off in the area. The government capitulated in 1985, returning the area to the Kayapo and ceding an additional area immediately to the north of the old area (this became the Capoto Indigenous Area).

The two communities of the region joined again into a single large village, and have resolutely banned all Brazilian mining, timber, and agricultural interests and settlers from their reclaimed areas.

Also in 1985, the two illegally opened gold mines were assaulted and captured by 200 Kayapo, armed with a mixture of firearms and traditional weapons. The larger mine was accessible only by air, so the Kayapo seized and blockaded the landing strip, confronting the Brazilian government with a choice: either cede title and administrative authority over the mines to the Kayapo, together with a significant percentage of the proceeds (10% was the amount initially demanded), and legally demarcate the boundaries of the Kayapo Indigenous Area (thus making the government unambiguously responsible for the defense of the area against any further such incursions), or the Kayapo would allow no more planes to land or take off, either to supply or evacuate the 3,000 miners at the site. After a tense ten-day stand-off, the government gave in to the Kayapo demands.

The leaders of Gorotire, the nearest and largest Kayapo village, used the first income from the mine to purchase a light plane and hire a Brazilian pilot. They put the plane to use to patrol their borders from the air to spot intruders and would-be squatters. If any were seen, patrols were dispatched to expel

or eliminate the invaders. Within a year, invasions effectively ceased. They have also used the plane to fly to other Kayapo villages and to Brazilian cities to purchase goods and bring people out for medical assistance. In the nearest town of Redencao, and the State capital of Belem, they have bought houses for the use of Kayapo travellers and shoppers, and in the former they have established a tribal office to deal with their bank accounts and official relations with the local office of FUNAI.

All timber concessions on Kayapo land were suspended by the Indian Service (FUNAI) at the end of 1987, at the urging of the most influential Kayapo leaders, Payakan and Ropni. Some concessions, however, were surreptitiously continued by a few other leaders who have lined their own pockets with the fees paid by the companies. Still other communities and leaders not previously involved with lumbering companies are under great pressure from the companies to grant new concessions. Meanwhile, resistance to any new concessions continues strong, and one community (A'Ukre) has declared its part of the Kayapo Indigenous Area an "extractive reserve" closed to all ecologically destructive forms of timber and mineral exploitation. This remains a conflicted issue, with the ultimate outcome in doubt. Meanwhile, a substantial area of the Kayapo Indigenous Area has been clear-cut. The fate of the captured gold mines has also proved a divisive issue. Not only have the Kayapo not closed them down,

as they originally said they would do within two years of taking them over, but some Kayapo have opened a couple of small new mines on their own land. Other Kayapo vigorously oppose this, and have strictly prohibited all mining activity, whether by Brazilians or Kayapo, from their areas of the reserve. Meanwhile, five Gorotire Kayapo have become wealthy enough from the gold and timber revenues to buy private houses for themselves in Redencao, where they live for much of the time, keeping Brazilian servants and in two cases acquiring large ranches outside the reserve. This phenomenon has been paralleled by the chief of the village of Kikretum, who owns an airplane, houses and a hotel in the neighboring town of Tucuma. The rise of this embryonic "new class" has already given rise to significant tensions within Kayapo society, and is a factor in the unresolved conflicts over the future form of accommodation between Kayapo society and the Brazilian economy.

Most of the other threats posed by the enveloping national society proved less divisive, and the Kayapo were able to mount concerted, well organized responses to them without internal dissension or conflict. When the government's plan to dump the radioactive waste on traditional Kayapo land was announced, the Kayapo sent a hundred men to Brasilia to demonstrate against the plan. Suitably painted and feathered, they staged a sit-in in the President's palace. Nothing like this had happened in

Brazil in the twenty years since the coup d'etat that established the military regime that was then in the process of relinquishing power. The initial incredulity and indignation of the authorities, however, gave way to acquiescence to the Kayapos' demands, and the dumping plan was abandoned. Pressing their advantage, the Kayapo next sent a deputation of some 50 chiefs and leading citizens to the Constitutional Convention, to lobby for the defeat of the "catch-22" acculturation clause and other provisions injurious to Indian interests. Presenting themselves as always in traditional paint and feathers, and carrying traditional weapons, they patiently attended the weeks of debates on the sections bearing on indigenous peoples' rights, gave press conferences, and lobbied the deputies. When the acculturation clause was defeated, and surprisingly strong safeguards of indigenous rights, lands and resources were adopted by the Convention, the Kayapo received much of the credit in the Brazilian press.

In 1988, two Kayapo leaders were invited to the US to participate in a conference on tropical forest ecology. From there, they traveled to Washington, met with members of Congress, and spoke with World Bank officials about the effects of the proposed Xingu dam scheme on the peoples and environment of the area. They were able to obtain copies of the entire dam project, the very existence of which the Brazilian government had

continued to deny, from the Bank. Shortly after the Kayapos' visit, the World Bank announced that it was deferring action on the Brazilian loan request. Enraged, elements of the Brazilian national security and political establishment had criminal charges brought against them and their American interpreter under a law prohibiting participation in political activity in Brazil by foreigners. The charges were ridiculous in strictly legal terms, since the actions in question had taken place in the United States, the American had been acting in his own country, and the Kayapo were not in any case foreigners. The transparent attempt at legal terrorism boomeranged, as NGO's, anthropologists, and the Congressmen whom the Kayapo had met on their tour organized an international outcry.

When one of the Kayapo leaders came to Belem, the capital of the state of Para, where the charges had been brought, to be arraigned, the Kayapo organized a massive protest demonstration. More than 500 Kayapo men and women danced through the streets and massed in the square before the Palace of Justice to support their kinsman and denounce Brazilian political repression. The defiance turned to ridicule when the judge refused to allow the Kayapo leader to enter the courthouse for arraignment until he changed his paint and feathers for "civilized" (Brazilian) clothes. The Kayapo refused, and told the judge he would have to come to his village Gorotire if he wanted another chance

to arraign him on the charges. Meanwhile, Kayapo orators unrolled the map of the Xingu dam scheme obtained from the World Bank in Washington on an easel erected in the square and explained the entire secret project in Kayapo and Portuguese for the benefit of the many Brazilian onlookers, who included reporters and TV crews. The government never again dared to try to arraign the Kayapo leader, and eventually dropped all the charges.

With the World Bank still actively considering the Brazilian government's request for a loan to enable the building of the Xingu dams, the proposed multi-dam hydroelectric scheme in the Xingu River valley now appeared to the Kayapo as the greatest threat, not only to their environment, but to their political and legal control over their lands and resources. Since the government still refused to disclose its plans to build the dams, the Kayapo resolved to force it to reveal its intentions, and to receive, before an audience of national and world news media, their criticisms of the human and environmental effects of the dams, as well as of its deceit in attempting to conceal and deny its plans. To accomplish this, they decided to convene a great congress of Amazonian peoples at the site of the first of the dams the government hoped to build: Altamira, near the mouth of the Xingu. To the meeting would be invited representatives of the Brazilian government, representatives of

the World Bank; representatives of the national and world news media; non-governmental organizations active in the environmentalist, human rights, and indigenous peoples' support fields; delegates from as many indigenous nations of Amazonia as possible; and as many Kayapo as could be transported and accommodated. At the meeting, the government representatives would be asked to present their plans, to give an account of their probable effects on the environment and the human inhabitants of the region (Brazilian as well as native), and to explain why they had tried for so long to keep their plans secret from those who would be most effected by them.

The Kayapo leaders who envisioned this project saw that its success would depend on international public opinion, press attention and financial support. Only the attendance of a large number of media and NGO representatives, they felt, would compel the Brazilian government to send its representatives to face certain humiliation at such a meeting. The leader chiefly responsible for the plan, Payakan, therefore embarked on a tour of seven European and North American countries (sponsored and coordinated by Friends of the Earth, the World Wildlife Federation, and the Kayapo Support Group of Chicago) in November, 1988, to publicize the Altamira gathering and appeal for support. At a more general level, Payakan also sought to bring the crisis of the Amazon forest and its native peoples to wider pub-

lic attention, and to lobby government and international development bank officials against supporting economic development projects (such as the Xingu dam scheme) that would irreversibly damage the environment and require the expropriation or destruction of native lands.

Payakan, at the same time, also sought to bring about greater mutual trust, cooperation and unity of purpose among the various kinds of non-governmental organizations and sectors of public opinion involved in supporting the Indians and the environmental struggle. These included human rights-, indigenous peoples' advocacy-, anthropological, and environmentalist organizations. Among the latter were some groups specifically devoted to defending tropical rain forests, others concerned with saving endangered animal species, and still others dedicated to conservation and environmental quality in a more general sense. Payakan, in his dealings with these groups or their representatives had quickly realized that they tended to work in isolation from one another, often mistrusted one another's politics or viewed one another's work as irrelevant to their own concerns. With other Kayapo leaders, Payakan saw this situation as not only damaging the effectiveness of the work of these organizations, but as out of touch with the real interconnections of the issues with which the groups were attempting to deal. For both reasons, they felt, the support of the NGO's was less ef-

fective than it might otherwise be. Payakan therefore devoted much effort on his tour to appealing to these groups, to join forces and recognize that they were really all involved in a single great struggle. As he put it in a speech at the University of Chicago,

> The forest is one big thing; it has people, animals, and plants. There is no point saving the animals if the forest is burned down; there is no point saving the forest if the people and animals who live in it are killed or Driven away. The groups trying to save the races of animals cannot win if the people trying to save the forest lose; the people trying to save the Indians can not win if either of the others lose; the Indians cannot win without the support of these groups; but the groups cannot win either withour the support of the Indians, who know the forest and the animals and can tell what is happening to them. No one of us is strong enough to win alone; together, we can be strong enough to win.

Payakan's message was widely heard. His tour became a concrete example of the inter-group cooperation he preached. For many indigenous advocacy organizations, environmentalist groups, human rights groups, Latin Americanist social scientists and anthropologists, helping to organize Payakan's tour and attending his speeches was their first practical experience of cooperating and coming together around a common set of interests and committments. This experience has been continually repeated since then in a series of cooperative efforts to support the Altamira meeting, aid new organizational initiatives by the Kayapo and other forest peoples in Brazil, and help with subsequent tours by Payakan and other Kayapo leaders. It is generally recognized by

activists of the various support organizations concerned that the Kayapo campaign has become an important catalyst of increased contact and cooperation among them at the national and international level, and that this cooperation has brought increased efficacy in lobbying, fund-raising, and public opinion outreach efforts.

Payakan's tour successfully achieved all its goals. Enough money was raised to defray all the costs of the Altamira gathering (which eventually approached $100,000) without drawing upon any of the funds derived from timber or gold concessions, which Payakan and most of his closest Kayapo supporters opposed. Much publicity and media attention was generated, guaranteeing a strong international media presence at the Altamira gathering itself. The support base of the Kayapo campaign among European and American non-governmental organizations, public opinion, and politicians was greatly strengthened. The stage was now set for one of the most remarkable events in the history of Amazonia, the environmentalist movement, and modern popular protest politics.

From February 19-24, 1989, 600 Amazonian Indians and a roughly equal number of Brazilian and international journalists, photographers, TV crews, documentary film makers, Brazilian and foreign politicians, and representatives of various non-

governmental support organizations converged on the small river town of Altamira. Among the Indians were some 500 Kayapo and 100 members of 40 other indigenous nations, whom the Kayapo had invited to join them in confronting the Brazilian government, and to make their own views on the issues of dams and the destruction of the forest known to the government representatives, the news media, and one another. Five days of meetings, speeches, press conferences, and ritual performances by Kayapo and other indigenous groups were programmed and carried out without a major hitch. This in itself, together with the transportation, lodging, and feeding of the hundreds of indigenous participants, which required the construction of a large encampment with traditional Kayapo shelters outside the town and daily bussing of its inhabitants to the meeting hall in the center, represented an impressive feat of organization and political coordination. Much of the credit for this belongs to the Brazilian indigenous peoples' support organization, The Ecumenical Center for Documentation and Information (CEDI), which effectively cooperated with Payakan and the rest of the indigenous leadership in handling many of the logistical tasks essential to the success of the meeting.

Some elements of the regional Brazilian populace, especially those linked with landowning and commercial interests who stood to gain from the construction of the dams, were hostile to

the Indians and (even more) their Brazilian and foreign environmentalist supporters. There were fears that violent incidents might occur and spread out of control. That this did not happen can be attributed in part to the foresight and discipline of the Kayapo, who carefully sited their encampment far outside of town and refrained from street demonstrations within the city limits, but also in large measure to the presence of so many foreign and domestic media personnel and observers.

The event took on the aspect of an international media circus. The Pope sent a telegram of support. The rock star Sting flew in for a day and gave a press conference at the Kayapo encampment, denouncing the destruction of the forest and promoting his own project for the creation of a new Kayapo reserve. No doubt because this project depended on the good will of the Brazilian government, he avoided directly committing himself in support of the Kayapo campaign against the dams. Since this was the whole purpose of the Altamira meeting, his Kayapo hosts roundly criticized him for using their platform for his own project and then skipping off. A British member of Parliament, a Belgian member of the European Parliament, and a half-dozen Brazilian Deputies of the National Congress, however, mounted the platform and gave unreserved support. A final communique was issued, on behalf of all native peoples of Amazonia, condemning the dam project. By the time the conference closed with a dance

from the Kayapo New Corn ceremony (joined in by assorted Indians of other tribes, European and Brazilian activists and media personnel, momentarily giving it the air of '60's hippie love-in), the Altamira gathering had become an international media success of such proportions as to generate serious political pressure against any international funding of the dam scheme, or indeed any attempt to go on with the plan by the Brazilian government. Within two weeks after the end of the meeting, the World Bank announced that it would not grant the Brazilian loan earmarked for the dam project, and the Brazilian National Congress had announced plans for a formal investigation and debate on the whole plan.

The Kayapo have not rested on their laurels since Altamira. One major line of effort has been the drive to get a large area of the west bank of the Xingu demarcated as a third major Kayapo reserve, linking the two largest existing reserves (the Capoto and Kayapo Indigenous Areas) in a continuous area the size of Britain. In this effort, the Kayapo have been supported by Sting and the recently founded Rainforest Foundation, which as of this writing has raised close to two million dollars to support the project. President Sarney of Brazil has made several public statements vaguely in favor of the plan, but in January, when Sting came to Brazil with the money from the Rainforest Foundation to present to the government to start the

demarcation of the reserve, Sarney non-commitally passed the buck by merely extending the official period for administrative decision on the proposal into the new administration of President-elect Collor without taking action. That Sarney felt compelled to announce this bit of political waffling at a full dress press conference with Kayapo chiefs in attendence at least gives some indication of the political heat the Kayapo, and the Rainforest Foundation with its international and Brazilian support, have managed to generate under the issue. Meanwhile, Payakan has established a Kayapo Foundation (the "Fundacao Mebengokre") to administer raise money for the support of a series of programs, including the establishment of an "extractive reserve" within the Kayapo Indigenous Area. This would be an area off limits to all lumbering and mining operations, devoted exclusively to environmentally sustainable forms of forest exploitation such as the gathering of Brazil nuts and other wild forest products. Other programs of the Foundation include the production of a systematic inventory, on video, of Kayapo ecological knowledge and traditional culture, and the training of Kayapo paramedics by a Canadian medical team.

The Kayapo also continue to follow up on the links of solidarity with other indigenous Amazonian peoples forged at Altamira. In November 1989, several Kayapo leaders and a Kayapo video-cameraman flew (in a Kayapo plane) to Boa Vista in the

northern frontier state of Rondonia to investigate an incident in which Yanomamo villagers had been attacked and driven from their land by Brazilian gold miners. The Kayapo denounced the government policies leading to the incident and declared their support for the survivors. The government had banned the area to all non-Indians after the occurrence, attempting to cover up the affair and keep it out of the press. The government was clearly thinking only of local Yanomamo Indians, but the Kayapo, seizing upon the loophole opened up by the wording of the ban and capitalizing on their undeniable identity as "Indians", were able to penetrate the official smokescreen with their fact-finding and support mission. The Kayapo thus appear to be following up the inter-tribal leadership they showed at Altamira by assuming the role of militant spokespersons for native resistance throughout the Brazilian Amazon.

III. WIDER IMPLICATIONS: THE KAYAPO ACHIEVEMENT IN WORLD PERSPECTIVE

A. The impact of the Kayapo on the politics of the world environmentalist movement

At the level of international environmentalist politics, the Kayapo are now an established presence. Within the past year, Kayapo spokesmen have travelled to various European countries, Canada, the U.S.A., and Japan. They have been accorded audiences by heads of state (Mitterand of France), Cabinet Ministers responsible for loans, aid and financial dealings with Brazil, and members of Parliaments and National Assemblies (Canada, France, Belgium, England, and the U.S.A.). They have also

met with numerous indigenous groups and leaders in North America. All of this notoriety and attention has generated for them a measure of immunity from the cruder forms of abuse and exploitation that have so often been the lot of indigenous peoples in Amazonia and elsewhere.

A mere ten years ago, however, they themselves were the targets of many such abuses, as recounted above. They have succeeded, against fantastic odds, in turning the tables on their would-be exploiters and seizing the political advantage, drawing upon the support of international and urban Brazilian public opinion. The strength of this support owes much to the worldwide wave of concern for the fate of the tropical forests, but the Kayapo would not have been able to capitalize so effectively on the general climate of environmental concern without their shrewd grasp of the possiblities of contemporary news and informational media and their effective presentation of themselves and their cause through them. Other factors in the Kayapo successes have been the effective support of numerous non-governmental organizations and the impressive capacity of the Kayapo themselves for mass organization and militant but disciplined confrontational tactics, as exemplified by their bold but non-violent demonstrations in Brasilia, Belem, and Altamira.

The success of the Kayapo in furthering their own cause, at the same time, has had an important effect upon the politics

of the developed world, and in particular, of the environmentalist movement. The support of environmentalist groups and public opinion has been essential to the Kayapo victories, but it is equally true that the Kayapo have won important victories for the environmentalist movement, and partly as a result have exercized an important influence upon its thinking, strategies and organizational tactics. Perhaps most importantly, in a few short years they have revolutionized the consciousness of many activists and ordinary persons concerned with the fate of the world's tropical forests, to the effect that indigenous forest-dwelling peoples are not just a passive part of the problem, but an active part of the solution. By their own example, they have demonstrated that native forest peoples, no matter how apparently primitive, remote, or numerically insignificant, can become potent combatants and allies in the struggle to avert ecological disaster. In addition, they have helped bring about working relations of mutual trust and collaboration between members of a number of important organizations, scientific specialists, and politicians, who had previously never considered working together, and in many cases mistrusted one another's politics and policies.

Before the advent of the Kayapo on the international stage, many environmentalists had realized that there could be no solution to the problem of saving the forests that did not include the human inhabitants of the forests. Many who had ar-

rived at this relatively enlightened opinion, however, continued to think of aboriginal forest peoples, and even forest-dwelling members of national societies like the Brazilian rubber-tappers, as historical basket cases, with all the capacity for political action in their own behalf of endangered animal species like the black caiman or the Amazonian giant otter. It has been a humbling, disconcerting, but delightful surprise to many of these same good people suddenly to discover that some of these supposedly hapless victims of progress have assumed a leading role in the struggle they had thought (perhaps a tad condescendingly) they were leading, and have even succeeded in bringing to it a degree of unity and effectiveness that had previously eluded its familiar leadership.

B. The rise of ecological resistance in the Fourth World

The Kayapo are not a unique case. Their story, in fact, conforms in its essential features to an emerging pattern of ethnic self assertiveness and ecological militancy on the part of native forest peoples in the Amazon and other parts of the world. It is not new for native peoples (to refer, by this term, to the tribal societies and ethnic minorities comprising the "Fourth World") to attempt to resist the wholesale appropriation of their lands and resources by the peoples and governments of modern states. What is new is the combination of political, eco-

nomic, environmental, and ideological pressures with revolutionary new media technologies that has enabled native peoples to take their case directly to the peoples and governments of the world, and to find a receptive hearing because of the convergence of their cause with the new levels of popular concern over the environment.

One major manifestation of this world-wide pattern is the organization, over the past twenty years, of many federations of native peoples, for the most part consisting of groups speaking the same or related languages. Over 50 such groups now exist in the Amazon alone. They typically unite around a program of defense of native land and resources, respect for civil and political rights, and the assertion of traditional values and cultural identity. These groups are increasingly in touch with one another, and in some areas inter-group coordinating organizations, such as the recently organized Coordinating Group of the Amazon Basin, COICA, have begun to appear.

The rise of these organizations and the political consciousness they express has been catalyzed by many factors. Among them are the extension of modern transportation and communications networks to many previously inaccessible areas inhabited by tribal peoples; improved medical technology and assistance; greater availability of manufactured tools and goods; the extension of effective national government administrative

control over the contiguous national populations; the increase in the strength and effectiveness of non-indigenous, non-governmental advocacy and support organizations; the increased interest and ability of national and international media to publicize abuse of native lands, rights and peoples; the increase in international economic and political interdependence, which has made many governments more sensitive to the repercussions of bad publicity over indigenous issues; and last but not least, the influence of a steady trickle of anthropological researchers, who have helped both to catalyze native groups' awareness of the value of their traditional cultures in the eyes of the outside world and to inform them of the existence of potential sources of support in that world for their struggles to resist economic, political and cultural oppression.

These factors have converged in recent years with a rapid growth in the concern of world public opinion for human rights- and environmental issues, which have favored the causes of native groups struggling to defend their traditonal lands and resource-bases. None of these external factors, however, would have been sufficient by themselves to generate the cultural and social resources, or the political organization and will to act, that have been shown by so many native peoples. This is the part of the story that remains least well known to the world at large. It is important that it become known, as an antidote to the hopelessness induced by apocalyptic but often inaccurate

news stories of "genocide" and widespread romantic cliches like the inevitable disappearance of primitive peoples in the path of progress (the two often have more in common than meets the eye). These myths have had the harmful effect of discouraging support for the struggles of many native peoples with a fighting chance to win. As the Kayapo case shows, such support can make an enormous difference.

That is the rosy side of a picture which is in the main far from rosy. For every indigenous people who have found the courage, leadership, and ability to respond constructively to the threat of despoliation of their ecological bases or the theft of their lands, others have been or are being decimated, dispossessed, or destroyed. In spite of a some shining cases of successful resistance to threats to the ambient life-world, other battles have been, or are being lost. The sheer volume of environmental destruction, and the variety of its forms and causes, make the struggle appear almost hopeless. Nowhere, however, has this been more true than in the Kayapo area of the Amazon. What the Kayapo have managed to do shows that even the most apparently hopeless odds can be faced and overcome.

FURTHER READING

Terence Turner

1989 Kayapo Plan Meeting to discuss Dams, in Cultural Survival Quarterly, Volume 13, Number 1

1989 Five Days in Altamira: Kayapo Indians Organize Protest Against Proposed Hydroelectric Dams, in Kayapo Support Group Newsletter, Number 1, Spring 1989

1989 The Kayapo: Out of the Forest, Michael Beckham, Director. 52 minute video. Granada Television International, Manchester, London, and New York

1990 Cosmology, Ideology, and the Historical Transformation Of Kayapo Social Consciousness, to appear in American Anthropologist