The Common Property Resource Digest

NO. 45 QUARTERLY PUBLICATION OF THE INTERNATIONAL ASSOCIATION FOR THE STUDY OF COMMON PROPERTY MAY 1998

CONTENTS

Letters, announcements, and other submissions for the July 30 issue of the CPR Digest will be accepted until July 10. Please send to: Editor, CPR Digest, Department of Environmental Science, Policy and Management, U.C. Berkeley, 145 Mulford Hall, Berkeley, CA 94720 USA.

For CPR Digest business, contact: Editor, CPR Digest, Department of Environmental Science, Policy and Management, U.C. Berkeley, 145 Mulford Hall, Berkeley, CA 94720 USA.

For membership, dues, back issues, and missing copies, contact IASCP Secretary Treasurer, Workshop in Political Theory and Policy Analysis, Indiana University, 513 N. Park, Bloomington, IN 47408 USA; iascp@indiana.edu

For questions about IASCP papers and research, contact Charlotte Hess, Information Officer, IASCP, Workshop in Political Theory and Policy Analysis, Indiana University, 513 N. Park, Bloomington, IN 47408 USA iascp@indiana.edu.

CPR FORUM
COMMENTARY

Mapping the Commons: The Social Context of Spatial Information Technologies

JEFF FOX

Director, Program on Environment

East-West Center, Honolulu, Hawaii

Spatial information technologies include everything from simple sketch maps and three-dimensional models to complex remote sensing image-analysis software, global positioning satellites (GPSs), and geographic information systems (GISs). Sketch maps can be drawn with a stick in the sand, with pencil and paper, or with blood on boards; three-dimensional models add a third, topographic dimension; and images—aerial and satellite—are now used to define space. Survey maps are spatially accurate but labor intensive and expensive. More recently, GPS systems for surveying remote places and GISs for integrating the various layers of information into seamless pictures of reality have made it possible to explore spatial relationships in wholly new ways. Given the variety of forms, especially image representations, that maps can take, spatial information is a more accurate generic term for these systems of recording, analyzing, and presenting spatial data.

For centuries mapmaking has been a tool for recording and controlling space. The eminent cartographer, J. B. Harley, calls mapmaking the "science of princes." Maps, on paper or in the mind, however, have also been used by traditional peoples for thousands of years for defining the boundaries of their homes. At the turn of the century, for example, a Russian cartographer, Bruno Adler, compiled fifty-five maps drawn on wood, paper, and skin originating from native societies and drawn prior to contact with European explorers. More recently, anthropologists and geographers have been using spatial information technology for helping indigenous peoples defend their customary rights against the incursions of newcomers. In his book *Maps and Dreams*, Hugh Brody presents "map biographies" for Ojibwa, Yukon, Inuit, Naskapi-Montagnai, and Dene groups in the Canadian Northwest. These biographies were developed by asking hunters, trappers, fishermen, and berry pickers to map out all the land they had used in their lifetimes, for each species marking gathering locations and campsites. Brody's "map biography" method has become virtually the sole method used in Canada for documenting officials claims to ancestral lands because of the ease and straightforwardness of documentation, the visual effectiveness of the composite map, and the aura of scientific objectivity derived from the survey methodology. In the Americas, Mac Chapin, director of Native Lands, a program of the Tides Foundation that works to secure indigenous land rights in Central America, claims "maps by Indians are the first cut on creating effective strategies to

The Common Property Resource Digest

Published with support from the Rockefeller Brothers Fund

Editor-in-Chief
Nancy Lee Peluso

Managing Editor
Julie E. Greenberg

Readers who would like to comment on the issues in this forum may send a letter of no more than 350 words to:

Editor, CPR Digest
Department of Environmental Science, Policy and Management
University of California, Berkeley
145 Mulford Hall
Berkeley, CA 94720 USA
E-mail: cprdiges@nature.berkeley.edu

preserve indigenous homelands and their biodiversity." The journal *Cultural Survival* devoted its April 1995 volume to presenting examples of projects using spatial information technology to map indigenous territory. Case studies included the Embera, Wounann, and Kuna peoples in the Darien region of eastern Panama and the Yuqui people in lowland Bolivia.

In the Asia and Pacific region, the mapping of traditional or culturally specific aboriginal land interests has become one of the mechanisms by which non-aboriginal Australia arbitrates rights to aboriginal land and recognizes the legitimacy of claims made. In the Philippines, the Department of Environment and Natural Resources has begun using GPS technology to fulfill a legislated mandate to map ancestral lands of indigenous minorities and to begin a process of returning usufruct rights to these lands.

Maps of perceived or alternative boundaries are important, but a community's best chance for retaining access to a resource may be to prove that they are managing it. Maps are the most effective, legitimate, and convincing means available to villagers for demonstrating to outsiders that they manage their natural resources and hence for proving claims to their customary lands. Spatial information technology can help demonstrate a close and continuing connection between a community and their land by illustrating the spiritual, economic, and residential dimensions of human-land relations such as ethnohistory, folk taxonomies of flora and fauna and other natural features and processes, place names, myths and legends, etc.

One set of methods which has emphasized mapping as a means both for understanding how communities use space and for empowering communities to resolve resource management conflicts is participatory rural appraisal. Participatory mapping and modeling methods encourage villagers to draw and model their village and resources, deciding what to include, what to delete, and how to modify details. In northern Thailand villagers use large three-dimensional models that show relationships of villages, forests, swiddens, and the water system. Foresters and villagers then collaborate to develop new zonation schemes and conservation and development activities. Resource managers in the Kayan Mentarang Nature Reserve in East Kalimantan, Indonesia, are using oral histories, sketch maps, and GPS and GIS technologies to collect the views of different local groups such as village elders, youths, men and women. These views are then compared and discussed in order to revise village and reserve boundaries, develop a commonly agreed land-use zonation model, strengthen local customary institutions, and raise awareness of nature conservation.

The idea that the location of people in space has profound social and cultural influences is not new. Both anthropologists and geographers have contributed to the formal, cognitive aspects of spatial orientation, in their work on mental maps. Harold Conklin's work with the Ifugao in the Philippines is perhaps one of the best examples of using spatial information

for understanding interrelationships between human society and ecological processes. Conklin demonstrated that aerial photographs and topographic maps are useful in relating indigenous land classifications, farming practices, and tenurial arrangements to locationally precise land units, particularly when they are coupled with detailed ground surveys and information collected from interviews with local inhabitants.

Indigenous peoples in many parts of the world are trying to use spatial information technology to capture their unique relationship to the land while maintaining a scientific objectivity and standardization to ensure the maps are effective tools for communication. The challenge is to record aboriginal land use perspectives, on base maps and in databases that originate from western frameworks, without losing the true picture of how a tribe and their ancestors lived with the land. This is not an easy task, partially because cultural or symbolic spaces are not necessarily the same as natural or cartographic space. Robert Rundstrom, a geographer at the University of Oklahoma, suggests that the epistemological system within which GIS is grounded is largely incompatible with the corresponding systems of indigenous peoples. He suggests, for example, that the four cardinal directions inadequately represent the spatial relations of the Zuni (Ashiwi in the southwestern United States) who add zenith, nadir, and center to create a seven-dimension spatial schematiziation; or the Inuit in Canada who, because of the appearance of the sun's daily and annual cycles in their 'world, have not organized Arctic space around any of the four directions.

Thus while it seems self-evident that space is an important variable in determining how people use land, with few exceptions spatial information technology has not been used for documenting the spatial organization that cultures impose on the landscape. Spatial information technology appears to be most useful for furthering our understanding of the spatial structure of material culture and the relationship between distance and human interactions. Perhaps through uniting spatial information technology with participant observation techniques, as some researchers are beginning to do, we can begin to interpret the patterns cultures impose on their landscapes. The meaning of these patterns, or the "ethnological content of spatial patterns," however, may remain beyond the capability of this technology to capture or interpret.

While spatial information technology provides tools for telling alternative spatial stories, for giving voices to people at the periphery of the developing world, it is necessary to understand the context and implications of these efforts. Maps of customary land are generally created through a series of interviews with local people. On the basis of these interviews and fieldwork, researchers translate an informant's mental map of customary land into a conventional cartographic map. Mental or cognitive mapping is a process by which an individual acquires, codes, stores, recalls, and decodes information about the relative locations and attributes of phenomena in his everyday spatial environment. We must realize, however, that an individual does not passively react or adapt to the environmental forces impinging on him, but brings a variety of cognitive activities to bear. Hence, cognitive maps have been characterized as incomplete, distorted, schematized, and augmented, and suggest that we recognize that both group similarities and idiosyncratic individual differences exist.

Likewise, customary systems of land and sea tenure are typically fluid and flexible, a characteristic that facilitates adjustments to ecological, economic, and demographic changes. Given the nature of mental maps (incomplete, distorted, schematized, and augmented, with both group similarities and idiosyncratic individual differences) and the nature of boundaries of customary lands (fluid and flexible), the question arises, is it legitimate to translate mental images into cartographic maps to define the boundaries of customary lands? The flexible nature of mental maps makes them ideal for capturing the fluidity of customary boundaries. Problems arise, however, when we use spatial information technology to translate these images into cartographic maps.

J. B. Harley noted that maps impinge invisibly on the daily lives of ordinary people just as the clock, as a graphic symbol of centralized political authority, brought 'time discipline' into rhythms of industrial workers. While both maps and legal tenure instruments (land certificates) change the character of customary systems, the effects of maps may be greater. Customary rights within a bounded area can be left to the local community to define. But cartographic maps define the boundary of a system and destroy the fluid and flexible character of the perimeter. The change may be inevitable, but it should be recognized that when we map a customary tenure system, we change its intrinsic quality.

Another consequence of mapping system boundaries is the potential it creates for conflict within villages and between neighboring villages. As long as boundaries remain fluid and flexible, defined only in each person's mental image of the landscape, conflicts between competing interests (within villages or between neighboring villages) can be minimized. Once boundaries are mapped and legitimatized by the state, however, conflicting images of reality cannot be overlooked any longer and must be addressed. Researchers in Indonesia, for example, noted boundary disputes between the villages they mapped in the Kayan Mentarang Nature Reserve in East Kalimantan, Indonesia, and neighboring villages. In order to minimize conflict, land managers who have continued to map land use in this area no longer map village boundaries. The potential for conflict when customary boundaries are mapped should not be underestimated.

This review suggests that in terms of the small rural communities traditionally studied in cultural ecology, spatial information technology is being used in an attempt to empower local people to map their customary resources. Researchers and resource managers are using spatial information technology to balance the power of maps, giving local people some of the

mapping capability traditionally enjoyed by national governments and elites. This review cautions, however, that while spatial information technology may enable local people to make claims against the state, this power comes with a price—it destroys the fluid and flexible nature of their traditional perimeters. It also cautions that while maps can be an empowering tool, helping a local community define itself in relationship to the landscape and to the political forces that shape and influence it, maps can also be used to disinherit them.

While several authors have questioned the implications of this technology for surveillance and loss of privacy, little has been written in the cultural ecology literature on this question. One exception has been Robert Wavey, a Native American, and member of the Manitoba Northern Chiefs GIS Development Project. Wavey argues that complete indigenous control of traditional land-use information is fundamental to maintaining the proprietary nature of much of the resource and land use information. This suggestion should be taken seriously. The use of spatial information technology in cultural ecology research does pose problems of surveillance and privacy of local informants.

Does spatial technology allow us to go beyond mechanical spatial analyses or to understand the "why of where" questions of human-environment interactions? I think the answer is a qualified yes. This technology does not help us understand the deep structure of consciousness, or what geographer John Pickles in his book *Ground Truth: The Social Implications of GIS* calls "an ontological, existential understanding ... of man's spatiality as the precondition for any understanding of places and spaces." But by relating individuals and groups of individuals to their landscape and to their history in that landscape, this technology begins to help us understand why we are where we are.

Perhaps the greatest frustration researchers have met using this technology to study human-environment interactions, however, has been an inability to readily integrate data from different scales and time periods into a broader understanding of how people have adapted to and modify their environments, and how they regulate and manage resources. Better methods need to be developed for utilizing spatial information technology for linking different data sources. But even with better methods, researchers will be faced with the problem of identifying which social, economic, and political factors are the most important and determining how these factors impact human-environment interactions.

The line between spatial information technology as a potentially liberating policy formulation framework and a technology that serves to reproduce existing power relations can be very unclear. But as Nancy Peluso warned in her article on counter mapping—"given the alternative futures, of not being on the map, as it were, being obscured from view and having local claims obscured," there may be no other choice at all.

CPR FORUM RESPONSE

Mapping Politics

JAKE KOSEK
Department of Geography, U.C. Berkeley
Program Officer, The Mountain Institute

In his commentary "Mapping the Commons," Jeff Fox clearly articulates how "spatial information technologies" have facilitated the exploration of spatial relationships between "cultures" and "their landscapes," and helped some indigenous groups protect their land and resources from competing claims. His thoughtful exploration of the context and implications of these efforts sets the groundwork for further constructive and critical analysis of the use of these technologies. In what follows, I will comment on and add to Fox's discussion in an effort to more closely examine notions of community and the often intensely political nature of mapping. I will also situate the mapping movement within a larger social and political economic context.

CONSTRUCTIVE CRITIQUES OF COUNTER-MAPPING

First, I would like to note that I do not wish to dispute the importance of counter-mapping. I have been involved in community mapping initiatives in Peru and am presently researching struggles between Hispanic communities and the Forest Service over control of and access to forest resources and over the definition of forest borders in northern New Mexico. In this region, as elsewhere, counter-maps have been a critical tool for addressing inequitable access to and control over resources. Nevertheless, surprisingly little critical attention has been given to the potential pitfalls or unintended consequences of counter-mapping. Fox does note three: problems of translation; the tendency of the process to create or exacerbate conflict within and between villages; and the increased potential for surveillance and violation of privacy. These critiques are critical, but they should be accompanied by at least two others. First, counter-mapping projects have too often relied on a notion of community as a bounded, easily definable unit of analysis. Second, the inherently political nature of involvement of researchers, non-governmental organizations (NGOs), and map-makers in the mapping process is too frequently overlooked.

Fox too implies that communities consist of a set category of people associated with a relatively fixed location. I would

argue instead that a community is more accurately defined as a constantly shifting process, one in which people are included or excluded at different times for any number of reasons, such as their class, race, gender and/or their residence within or outside formal boundaries of the community. This notion of a fluid community has fairly radical implications for counter-mapping. It means that a community does not just make a map, but rather that a map helps to make a community, both reflecting and producing social relations. The process of mapping helps naturalize and communicate a dominant idea of who belongs within particular boundaries and who does not, who may make decisions on behalf of the community and who may not. In many of the mapping projects that I have observed, the interests served are invariably those of the relatively more powerful members of a community who would like to maintain particular social relations and who have greater influence on how the mapping process unfolds. This question arises in the Indonesian example Fox cites: what happens when people with potentially different interests (generated by gender, age, and class differences) are asked to give feedback on the mapping project? Do their orderings of spatial relations differ? More importantly, how are these differences incorporated into the process of mapping? If the goals of community- or counter-mapping include protecting or communicating land rights, or planning community development programs within or on behalf of a community or a group of local people, these new maps should not ignore or reinforce the inequities, erasures, and exclusions which inevitably exist within those groups.

Fox also points out that the "potential for conflict when customary boundaries are mapped should not be underestimated." I agree. A great deal is at stake when boundaries are formally defined. But what stands out for me as I read much of the community- and counter-mapping literature is how infrequently researchers and NGOs acknowledge their own involvement in the creation of the conditions for these conflicts. Given the extent to which many researchers and NGOs are involved in the use of spatial information technologies and Rapid Rural Appraisals, and given the significant ramifications of drawing boundaries, a greater exploration into the intended and unintended consequences of our own involvement in the process seems particularly pressing. A reexamination of these roles will, at the very least, bring into question the notion that researchers and NGOs merely offer technical support or somehow play an apolitical role. This is an especially important consideration for those NGOs whose interests and agendas may differ from those of the communities with which they are working. Just as state maps create and limit possibilities and erase or obscure claims, so can community- or counter-maps. For example, many counter-mapping projects have at least partial funding and support from conservation groups and as a result focus on resource conservation. Yet to assume that the goals of indigenous people are always aligned with those of conservationists is dangerous. Among other things, such a strategy runs the risk of treating a complex and dynamic set of relations between people and natural resources as static.

CONTEXTUALIZING COUNTER-MAPPING

The last fifteen years have seen a proliferation of counter-mapping projects around the world. Along with this proliferation has come a plethora of publications and interest in both academic and development circles. In particular, the pioneering approaches of Jeff Fox and Mac Chapin have inspired numerous other efforts— including my own. Community-mapping is often at the center of community mobilization efforts and land rights initiatives world-wide. However, it would be erroneous to see counter-mapping as an entirely novel phenomenon. Counter-maps have emerged in many other places and times: in 16th century Inca-Peru, in Zapata's Mexico, and in numerous struggles over Aboriginal lands in Australia, to cite just a few examples.

Still, the form, influence, and sheer number of current mapping efforts clearly makes the present trends worthy of broader analysis as a movement. But there is more: today's community mapping illustrates an intriguing paradox. Just when globalization purports to make all places equal and new forms of communication and travel compress time and space, place-based, community-based, and local movements are emerging across the globe. The counter-mapping movement highlights the need to reexamine how spaces are being not "erased" or "made insignificant" but rather remade and reorganized. Counter-mapping is part of this process. More precisely, counter maps are at once a reaction to, an agent of, and a reflection of these larger changes. The rise of counter-mapping is rightly seen as part of new place-based social movements, in which struggles over the definition, representation, and meaning of places will ultimately condition who will and will not have access to and control over resources and people.

Fox and Chapin have clearly demonstrated the significance of maps as tools with which to influence social relations. I fear, however, that in focusing too much on technologies of mapping, we risk fetishizing maps and the people whom they purportedly serve. Community-mapping is perhaps best understood as a window into a broader analysis and as a tool for social change. Maps are no doubt important, but they must be recognized as a small part of larger political and social processes.

In the end, it's not just a question of whether we should or should not participate in counter-mapping. Other critical questions now arise from an understanding of the intensely political context in which mapping occurs. These questions have more to do with mapmaking and the consequences —intended and unintended— of creating new lines and boundaries or reinscribing old ones.

CPR FORUM RESPONSE

Mapping and the Ownership of Information

MAC CHAPIN
Director, Native Lands
Washington, D.C.

Jeff Fox's summary of the social context of various types of mapping —what he terms "spatial information technologies "— is useful. Together with a dash through a few of the different approaches currently underway, it discusses the objectives of mapping indigenous lands and contains a number of thoughtful cautions. The cautions are important because mapping has suddenly gained such widespread popularity that it has become the thing to do, something on the order of a magic tool, and it is often applied uncritically or simply misused. In this regard, the point, taken from J.B. Harley, that mental (customary) maps tend to be fluid and flexible while drawn maps define perimeters and therefore destroy this fluidity is important and should be carefully thought through.

I would like to address several issues that rose to the surface as I read Fox's essay by first describing some of the work Native Lands has been involved with in three areas of Latin America -- the Mosquitia of Honduras (1992), the Darién of Panama (1993), and the Izozog region of the Bolivian Chaco (1996)— and then using these examples as a basis for several comments.

Each of the three projects sought to map the relevant physical features and the areas of land use as a way of defining indigenous territories. We set out with several objectives in mind, and further objectives appeared along the way. One major purpose was to arm the indigenous peoples with documentation that would help them protect and eventually legalize their territories. Another was to make all of the inhabitants see their region as a whole, rather than as a jumble of isolated communities, and in this way help them focus on the threats coming at them from the outside. The Bolivian mapping was seen by an international conservation organization as a way of introducing the idea of ecological zones in preparation for development of a management plan. The mapping was also a way to teach the indigenous participants about maps: what they are, how they are put together, how to interpret them, and how to use them. And as we moved forward we became aware of the importance of maps for political organizing, education, and strengthening cultural values, among other things.

The areas mapped were relatively large: the Mosquitia had 174 communities spread across 20,000 square kilometers; the Darién, 82 communities across 17,000 square kilometers; and the Izozog, 22 communities across 19,000 square kilometers. In each of these projects, the indigenous participants carried the bulk of the work, setting up and supervising teams of "surveyors" (in the sense that they gathered information) from the communities. The surveyors spent time in their region, questioning knowledgeable villagers about land features and subsistence patterns. They drew free-hand maps of the lands surrounding their communities on large sheets of paper and gathered extensive historical, linguistic, and cultural data on their regions.

At the end of several weeks of this, they met with cartographers who began organizing this information onto cartographically correct maps, which were based on 1:50,000 government base maps and aerial photographs; everyone was clear on the need to make cartographically correct maps for both legal and political purposes. As the different types of information were melded together the government maps were corrected and updated, details were added, and things were named. The maps created at this stage were provisional, with numerous holes and questions, all of which were noted down on the maps and in the individual surveyors' notebooks. They then returned to the communities, this time with the provisional maps, for verification by villagers. Gaps were filled in, ambiguities cleared up or simply noted if they were indeed ambiguous, and corrections made. The surveyors then returned for a short workshop to work with the cartographers on the final polished version of the maps.

What is important here is that the center of the three projects, by default in Honduras and Panama and by design in Bolivia, was the indigenous participants. The cartographers were not directing the projects (although in Panama the lead cartographer caused confusion by attempting to anoint himself Principal Investigator along the way) but rather played support roles. Our experience is that the more this is the case, the greater benefit the indigenous group gains from the project. They define what should be included in the map and how the information should be represented. Because of their close involvement, it is

their map. A corollary to this is that the higher the level of technology involved, the greater the dependence on outside technicians and the lesser involvement of the communities.

Regarding the point by Harley about the dangers of slapping rigid cartographic lines on fluid customary maps, conflict has indeed grown out of the mapping in the Mosquitia. We did not approach the work there with this caveat in mind and lines were drawn around community use areas. While they showed considerable overlap —a reflection of community cultural maps — some of the communities have taken the lines as dogma and have moved to block others from entering "their" subsistence areas. We learned our lesson and in the Izozog project, carried out four years later, we had a thorough discussion of the matter before mapping work was initiated. Villagers decided against defining community use areas. Instead, the entire region is a single subsistence territory shared by the communities. And the specific use areas (hunting, gathering, fishing, etc.) within the larger territory are represented in a far more fluid manner than was the case in either Honduras or Panama.

More and more indigenous peoples are drawing maps of their territories and this, as Fox and Harley note, has consequences. People with maps come to perceive their landscapes differently. Yet indigenous peoples have little choice in the matter. Either they draw up maps and fight through political and legal channels to define, claim, and legalize their lands, or they lose what they have. They have to fight fire with fire — just as the indigenous peoples of most of Latin America have had to learn Spanish to deal with national societies. At the same time, they can also use maps for other purposes, and in our experience they are often extremely creative with an understanding of basic cartography. In all three projects, the process of putting the maps together was a history lesson. Pages and pages of historical information were produced, with the maps at the center of discussion (in the Miskito language of Honduras and Nicaragua, as Bernard Nietschmann has pointed out, "geography is history," for places are often named after special events that occurred there). Just putting their names on the maps gives them a spiritual ownership over the things named. In the Izozog, the communities are developing an environmental education curriculum for children that involves maps. And the maps have stimulated political organization throughout the three regions. If given a chance, indigenous peoples will use mapping technologies in ways that many outside researchers are often not even aware of. Perhaps the most impressive evidence of indigenous creativity with guidance from professional cartographers, at least in Latin America, is the recent Maya Atlas from Belize, put together by the Toledo Maya Cultural Council, the Toledo Alcaldes Association, and the GeoMap Group at U.C. Berkeley.

My reading of Fox's essay is that outside researchers (cartographers) are very much in evidence, and the primary beneficiaries of the mapping are the researchers. Mapping, he says, is "useful for furthering *our* understanding of the spatial structure of material culture and the relationship between distance and human interactions." (my emphasis) "Perhaps," he continues, "through uniting spatial information technology with participant observation techniques, as some researchers are beginning to do, *we* can begin to interpret the patterns cultures impose on *their* landscapes."(again, my emphasis) This is all fine, but let's be clear that this is an academic exercise in which the benefits appear to flow in the direction of the researchers rather than those being studied. Ownership of information is the key issue.

In a separate context, Fox notes that Robert Wavey, a Native American from Canada, "argues for complete indigenous control of traditional land-use information [as] fundamental to maintaining the proprietary nature of much of the resource and land use information." Then Fox goes on to say that "this suggestion should be taken seriously. The use of spatial information technology in cultural ecology research does pose problems of surveillance and privacy of local informants." I agree with Wavey's point, if this is indeed what he has said. However, I have the suspicion that whatever it was that Mr. Wavey said was more emphatic than a "suggestion"; ownership of technology and, ultimately, information is a serious matter that goes far beyond mere "problems of surveillance and privacy of local informants."

CPR FORUM RESPONSE

Mapping, The White Man's Burden

ROBERT RUNDSTROM
Department of Geography
University of Oklahoma, Tulsa

Jeff Fox has written a stimulating commentary with ideas worthy of expansion. I like his skepticism of mapping and GIS; we get far too little of it these days. But I remain even less sanguine than he about the prospect for spatial technologies. Although I am alert to the seemingly positive exercises in self-determination Fox recounts, all such projects compel people to assimilate to a prevailing Cartesian-Newtonian (i.e., "Western") epistemology. That epistemology does not prize key character-

istics of indigenous thinking, including: the principle of the ubiquity of relatedness; non-anthropocentricity; a cyclical concept of time; a more synthetic than analytic view of the construction of geographical knowledge; non-binary thinking; the idea that facts cannot be dissociated from values; that precise ambiguity exists and can be advantageous; an emphasis on oral performance and other non-inscriptive means of representation; and the presence of morality in all actions.[1] My own experience provides a case in point.

I worked among the Inuit in Arviat on the west coast of Hudson Bay in the late 1980s, documenting Inuit geographies through a systematic place-name survey. My job was to translate Inuit customary land use into the conventional cartographic maps about which Fox is so rightly skeptical. Our method included hiring local residents to conduct interviews in Inuktitut, and encouraging individuals to recognize and mark places represented on government 1:50,000 topographic sheets while an interviewer recorded names, locations, uses, histories, and stories. I was hired by Inuit elders, at their request and under their auspices, to help them put their geographical knowledge on paper. It was during this project that I learned the inadequacy of the standard cardinal-direction schema for the Inuit world, and how spatial technologies could be tools of cultural assimilation.

The significance of personal involvement for creating awareness cannot be overstated. For example, I was compelled to face squarely the question Fox asks regarding the legitimacy of "... translat[ing] mental images into cartographic maps to define the boundaries of customary lands." Early interviews had suggested to me that place-names for large regions existed, names that linked particular Inuit bands to a place. I decided to discuss mapping them with a few of the more knowledgeable Inuit hunters. At first, they responded that they couldn't map regional boundaries because they did not know where one began and another ended. That is, there was no line. But soon it became apparent that they wouldn't draw any regions because, "Inuit don't feel separated, but united," and "there is no owning of property." At the time, the Arctic had been heavily politicized by ongoing negotiations between Inuit and Dene (Athapaskan Indians to the west) at the behest of and moderated by representatives from the government in Ottawa. The issue was where to draw the western boundary for Nunavut, the new Inuit territory in Canada. Those negotiations were rancorous, making all Inuit keenly aware of the symbolic power of drawing lines on maps, and how such imposed stasis on what they considered a dynamic, shifting, living landscape could affect them personally in very tangible ways. I still think there are no such boundary lines — that Inuit regional thinking includes broad transition zones perhaps tied to caribou calving grounds and herd movements — but as Fox correctly recognizes, the politics of pitting village against village, people against people permeates the intellectual issues we erroneously assume are separate. I quickly stepped back from that discussion and dropped the idea of mapping boundaries.[2]

A remarkably similar incident occurred when we were working in the opposite direction, trying to recognize an existing representation on the map. Three hunters were deeply involved in a discussion of a section of coast depicted on several topographic maps. They were having trouble pinpointing a good location they know for gathering goose eggs, the name of which they felt should be included in names list we were amassing. The men spent many minutes gesturing at the map and recounting stories about their travels by kayak and power boat along that coast, and detailing what the terrain and water were like. The map wasn't working for them; they were in heated disagreement over where the site was located, something that almost never occurs in my experience of conversations among experienced hunters. Finally, one of them looked over at me and announced that they had concluded the map was wrong, that the coastline was not drawn correctly, that in fact it was impossible to draw the coastline in one position because of the tides. If I could show them a series of maps that depicted the precise location of high and low tides in the season in which they gather eggs, then they could tell me exactly where the site was. They looked at me with anticipation, but of course there were no such maps.

The project with the Inuit crystallized for me how spatial technology violates the dynamics of particular cultural geographies, and how seemingly objective intellectual inquiries are not that at all; they are inherently political. Fox is absolutely right: "...when we map a customary tenure system, we change its intrinsic quality." But it should be clarified that the boundaries or transition zones of such a system are understood identically over a widely dispersed population, not idiosyncratically from individual to individual. All over Nunavut, Inuit were being compelled to regard the crucial lines of their ecumene — rivers, seacoasts, traplines, caribou paths, and their own travel routes, lines that had always signified specific types of dynamics and movement agreed upon by hundreds if not thousands of people, as lines of landscape stasis on a paper map. That stasis is also a property of digitally encoded lines in GIS databases.

We are compelled to see space as a cultural construction, but

mappers behave for the most part as if being agents of epistemological assimilation is not a problem. We proclaim an interest in understanding how people unlike ourselves imagine and use their world, and we seek to protect such worlds from an onslaught of outside forces wielding another spatial view. Yet, to do so we become part of that onslaught. We translate and reconstruct that world in the Cartesian-Newtonian space embedded in our cartography and GIS. We fear, I think, that nihilism awaits those who tread too far on the path of cultural constructivism. Spatial technologies afford us the necessary wiggle-room: we can still "do right" by others — and often at their request, after all — without abandoning the comfort of our own spatial world. Indeed, despite Fox's skepticism, most still imagine that the production of a "one-world" view through pursuit of counter-mapping projects worldwide is benign and helpful in protecting the status of others. I have come around to thinking though, that our little habit may be just another manifestation of the White Man's Burden.

I think Fox's essay leads in a good direction, but his piece is also punctuated with ready examples of our collective dilemma; examples, I hasten to add, that could be culled from most writing in this field, including my own. Although he appears sympathetic to the existence of multiple culturally constructed worlds, as I suspect most of us are, Fox still holds to the "true" image of a single world unified by an abstract, infinite space in the Newtonian mold.[3] In one passage, he calls this "natural space" or "cartographic space," which he opposes to "cultural" or "symbolic space." Elsewhere, he posits the existence of a "true picture" of how a group of people lives with the land, and although he admits it is no easy task to describe it — actually, I suspect Fox thinks that GIS is incapable of displaying this picture — he seems to think that a single concrete and "correct" view of this space exists a priori nonetheless. We read, "...it seems self-evident that space is an important variable in determining how people use land...." Here, in this Newtonian world, space is a given; we only follow its edicts. In contrast, a firm-footed constructivist would reason oppositely, writing of the self-evidence of human land use as a determining factor in the construction of space.

Fox knows too that claims about the distortions or incompleteness of cognitive maps are errant, yet he still wants to assert, "the challenge is to record the aboriginal perspective on land use, on base maps and in databases that have come from a western framework, without losing the true picture of how a tribe and their ancestors lived with the land." On the one hand, he rejects the idea that cognitive maps represent distorted views of a naively given reality, but he can't quite let go of the notion that there is a single true picture of reality nonetheless. This is essentially a control issue, and until all of us learn to turn loose of it, spatial heterodoxies will continue to disappear.

In the end, counter-mapping and GIS can provide at best no more than a simulacrum of indigenous or non-Western geographies. Fox has reservations about this, but apparently sees little alternative. These days, he concludes, you are either on the map or you are off. Perhaps he is right.

But I can imagine three other useful activities to pursue while we worry whether to map or not. First, we need comparative cross-cultural studies, conceived as such at the outset. There are some compilations, but no direct comparison of mapping/GIS projects operating in different political contexts, comparisons based on a rigorous conceptual framework. For example, I would like to see a book (based on a Ph.D. dissertation perhaps) that compares the power relations embedded in spatial technologies used among the 39 Indian tribes in Oklahoma, or more broadly across the U.S. Second, as Fox describes, Canada has now opened the door to acceptance of oral geographies and histories for documenting customary land use in the courts. Those with geographical expertise might work to spread this "equality of documentation" beyond Canada's borders. Finally, we might encourage more participatory projects among all people, so citizens see the value of non-contentious, non-assimilative mapping. Students of all ages make ideal facilitators for this. And it may just help sensitize a few more people to the issues at stake when spatial technologies are used in places around and beyond their own neighborhoods.

NOTES

1. These and other epistemological qualities are elaborated and described with examples in Robert Rundstrom, "GIS, Indigenous Peoples, and Epistemological Diversity," *Cartography and Geographic Information Systems* 22/1 (1995): 45-57.

2. For details on this story and the ups and downs of the project, see Robert Rundstrom, "An Arctic Soliloquy on Inuit Placenames and Cross-Cultural Fieldwork," Names 44/4 (1996): 333-358.

3. Michael Curry writes extraordinarily clearly about different concepts of space. See Michael Curry, "On Space and Spatial Practice in Contemporary Geography," in C. Earle, K. Mathewson, and M. Kenzer, eds., *Concepts in Human Geography* (Lanham, MD: Rowman and Littlefield) 1996: 3-32.

Letter to the Editor

My article on the Akha in China and Thailand (CPR Digest, January 1998) is a distillation of my dissertation research. I first became interested in the Akha for this comparative study because researchers and government staff in Xishuangbanna Prefecture, China see the Akha as the most developed among the hill shifting cultivators, while researchers and government agents in Chiang Mai and Chiang Rai Provinces in Thailand regard the Akha as the most "backward" and perhaps unremediable of the hill tribes. I was intrigued how these opposite perceptions came into being, as well as how they related to conditions on the ground.

To give more background for Lesley Potter, whose response questioned the validity of comparing one village in Thailand with one in China, I spent six months visiting 13 to 14 Akha villages each in China and Thailand. I looked at villages at different elevations, distances from and involvement in markets; different length of settlement and size of forest; and different intensities of development project activity. Included within these villages were the ones I eventually selected as research sites, as well as Durno's study village. Durno's village is the target of many development projects and comes under the wing of the Hill Area Development Foundation, which has close links to the royal family.

Through all these visits, I wanted to know how my research villages fit within common patterns, as well as how each was unique, since there is no typical village. In the dissertation, I expect there will be generalizable conclusions about processes affecting Akha and their forests in these two different nation-states. Both Xianfeng and Payaprai, the two research villages, are in better shape than other Akha villages I visited, more because of length of settlement and high elevation than special state attention. In Xishuangbanna, most Akha villages combine management of a collective (community) forest with household management of freehold forest, swiddens, wet rice fields, and a cash crop, as well as livestock for use and sale. In their reliance on composite swiddening (Rambo 1995), in which different land use components may predominate at different times, the Mengsong Akha are not unique. Also, my article is not referring to the rattan forest of Xu Jianchu's study. Xianfeng experienced no special government protection of customary rules for forest management, although in Xianfeng, as in numerous other Akha villages in Xishuangbanna, I found that customary rules for forest use and protection were intact.

In response to Poffenberger's comments on population growth, I suggest that population patterns need to be understood, in part, as the results of political economic processes. Certainly the political unrest in Burma has been the major factor causing migration of various minority groups into northern Thailand from the late 1940s onward. Also, as more and more territory in the north has been claimed by the state for reforestation, national parks, wildlife sanctuaries, and other protected areas, the land available for ethnic minorities has shrunk. Population density in the north would have increased even without natural population growth, but to complicate the picture, Payaprai grew and diminished a number of times as groups of Akha moved in and out. As Piers Blaikie and Harold Brookfield have shown, researchers need to be careful of citing population growth as the sole cause of particular trajectories of resource use change. Population growth will bring changes, but without careful study of local social relations and local political economic effects, it is difficult to understand what particular changes population growth has derived from and contributed to.

It is possible that commercialization will transform the landscape of Xishuangbanna, but I would argue that the Akha in China are better placed as a group to benefit from that transition than are Akha in Thailand, not only because of tenure arrangements, but also because there are Akha in the prefecture government, the forestry department, the agriculture department, and so on. Commercialization may bring loss of forest cover, but the processes of transformation will not be the same as those in Thailand. Poffenberger sees "remarkably consistent" outcomes for ecosystems and local ethnic societies in the face of the growing presence of the state and increasing commercialization. My argument is that while state-building processes have in some ways sought similar modernizing goals, and global markets now seem to reach everywhere, the outcomes for local people can be markedly different. The nature of policies for forests and ethnic minorities differ dramatically in China and Thailand, as do the administrative structures for their implementation. Local experience of policies and growing markets is mediated by local social history and local environmental constraints. What may look like homogenous forces at the regional level (Asia) will result in multiple trajectories of change in local places. This is what makes research interesting, and also why local-level research is of great value to those who design policies and development projects and need to keep local multiplicity in mind.

Janet Sturgeon
March 1998

Recent Publications

Compiled by Charlotte Hess

Books

Admassie, Yeraswork. 1997. Twenty Years to Nowhere: Property Rights, Land Management and Conservation in Ethiopia. Lawrenceville, NJ: The Red Sea Press.

Buck, Susan J. 1998. The Global Commons. Covelo, CA: Island Press.

Devlin, Rose A., and R. Quenton Grafton. 1998. Economic Rights and Environmental Wrongs: Property Rights for the Common Good. Lyme, NH: Edward Elgar.

Fratkin, Elliot M. 1998. Ariaal Pastoralists of Kenya: Surviving Drought and Development in Africa's Arid Lands. Boston: Allyn and Bacon. (Cultural Survival Studies in Ethnicity and Change).

French, Susan F., and Wayne S. Hyatt. 1997. Community Association Law: Cases and Materials on Common Interest Communities. Durham, NC: Carolina Academic Press.

Goldschmidt, Walter Rochs, Theodore H. Haas, and Thomas F. Thornton. 1998. Haa Aani: Our Land: Tlingit and Haida Land Rights and Use. Seattle: University of Washington Press.

Guha, Ranajit, and Amartya Sen. 1996. A Rule of Property for Bengal: An Essay on the Idea of Permanent Settlement. Durham, NC: Duke University Press.

Hoffmann, Bernd Von, and Myong Chan Hwang, eds. 1997. The Public Concept of Land Ownership; Reports and Discussions of a German-Korean Symposium Held in Seoul in October 7-9, 1996. New York: Peter Lang.

Mbaku, John Mukum. 1997. Institutions and Reform in Africa: The Public Choice Perspective. Westport, CT: Praeger.

Payne, Geoffrey. 1997. Urban Land Tenure and Property Rights in Developing Countries: A Review. London: Stylus.

Smith, Richard Saumarez. 1996. Rule by Records: Land Registration and Village Custom in Early British Punjab. Nelhi: Oxford University Press.

Ward, R. Gerard, and Elizabeth Kingdon, eds. 1996. Land, Custom, and Practice in the South Pacific. New York: Cambridge University Press.

Articles and Dissertations

Agrawal, Arun, and Gautam N. Yadama. 1997. "How Do Local Institutions Mediate Market and Population Pressures on Resources? Forest Panchayats in Kumaon, India." Development and Change 28:435-465.

Ajuzie, Emmanuel I. S., and Marilyn A. Altobello. 1997. "Property Rights and Pollution: Their Implications for Long Island Sound and the Oyster Industry." Review of Agricultural Economics 19(2):242-250.

Anderson, C. L., and E. Swimmer. 1997. "Some Empirical Evidence on Property Rights of First Peoples." Journal of Economic Behavior and Organization 33(l):l-22.

Baland, Jean-Marie, and Jean-Philippe Platteau. 1997. "Wealth Inequality and Efficiency in the Commons. Part 1: The Unregulated Case." Oxford Economic Papers 49(4):451- 482.

Barham, Elizabeth. 1997. "Social Movements for Sustainable Agriculture in France: A Polanyian Perspective." Society and Natural Resources 10(3):239-249.

Barkin, J. Samuel, and George E. Shambaugh. 1996. "Common-Pool Resources and International Environmental Politics." Environmental Politics 5(3):429-447.

Bebbington, Anthony. 1997. "Social Capital and Rural Intensification: Local Organizations and Islands of Sustainability in the Rural Andes." Geographical Journal 163(2):189-197.

Berkes, Fikret, Iain Davidson-Hunt, and Kerril Daidson-Hunt. 1998. "Diversity of Common Property Resource Use and Diversity of Social Interests in the Western Indian Himalaya." Mountain Research and Development 18(1): 19-34.

Blaikie, P., K. Brown, and P. Sillitoe. 1997. "Knowledge in Action: Local Knowledge as a Development Resource and Barriers to its Incorporation in Natural Resource Research and Development." Agricultural Systems 55(2):217-238.

Botsford, Louis W., Juan Carlos Castilla, and Charles H. Peterson. 1997. "The Management of Fisheries and Marine Ecosystems." Science 277(5325):509-515.

Chopra, K., and S. C. Gulati. 1997. "Environmental Degradation and Population Movements: The Role of Property Rights." Environmental and Resource Economics 9(4):383-408.

Christy, Francis T. 1996. "The Death Rattle of Open Access and the Advent of Property Rights Regimes in Fisheries." Marine Resource Economics ll(4):287-304.

Costanza, R, and C. E. Neuman. 1997. "Managing Cattle Grazing Under Degraded Forests: An Optimal Control Approach." Ecological Economics 21(2):123-139.

Cousins, Ben. 1997. "How Do Rights Become Real? Formal and Informal Institutions in South Africa's Land Reform." IDS Bulletin 28(4):59-68.

Cubbage, Frederick W. 1997. "The Public Interest in Private Forests: Developing Regulations and Incentives." In Creating a Forestry for the 21st Century: The Science of Ecosystem Management. K. A. Kohm and J. F. Franklin, eds. Washington, DC: Island Press.

Elliott, Herschel. 1997. "A General Statement of the Tragedy of the Commons." Population and Environment 18(6):515-531.

Farrington, John, and Charlotte Boyd. 1997. "Scaling Up the Participatory Management of Common Pool Resources." Development Policy Review 15(4):371-392.

Ferrara, Ida, and Paul C. Missios. 1996. "Transboundary Renewable Resource Management: A Dynamic Game with Differing Noncooperative Payoffs." Marine Resource Economics 11(4):239-45.

Fortmann, Louise. 1997. "Voices from Communities Managing Wildlife in Southern Africa." Society and Natural Resources 10(4):403-404.

Freudenberger, Mark S., Judith A. Carney, and Aiah R. Lebbie. 1997. "Resiliency and Change in Common Property Regimes in West Africa: The Case of the Tongo in The Gambia, Guinea and Sierra Leone." Society and Natural Resources 10(4):383-402.

Gan, C. E. C, and R. Cullen. 1996. "The Implications of the Resource Management Act to Property Rights in Agriculture Land Use in New Zealand." Review of Marketing and Agricultural Economics 64(3):266-276.

Geores, Martha. 1998. "The Historic Role of the Forest Community in Sustaining the Black Hills National Forest as a Complex Common Property Multiple Use Resource." Mountain Research and Development 18(l):83-94.

Gonzalez, Exequiel. 1996. "Territorial Use Rights in Chilean Fisheries." Marine Resource Economics 11(3):211-218.

Green, H. Marlow. 1997. "Common Law, Property Rights and the Environment: A Comparative Analysis of Historical Developments in the United States and England and a Model for the Future." Cornell International Law Journal 30(2):54l-586.

Guillet, David. 1997. "Ground Water Irrigation and Property Rights in Northern Spain: National Science Foundation Grant Proposal, Funded 1996." Polar: Political and Legal Anthropology Review 20(2): 144-.

Guillet, David. 1998. "Rethinking Legal Pluralism: Local Law and State Law in the Evolution of Water Property Rights in Northwestern Spain." Comparative Studies in Society and History 40(l):42-70.

Gupta, Alok, Boris Jukic, and Andrew B. Whinston. 1997. "Streamlining the Digital Economy: How to Avert a Tragedy of the Commons." IEEE Internet Computing l(6):38-46.

Hanna, Susan S. 1997. "Scarcity, Embeddedness, and Distribution in Ecological Policy." Human Ecology Review 4(l):43-44.

Hazlett, Denise. 1997. "A Common Property Experiment with a Renewable Resource." Economic Inquiry 35(4):858-861.

Hu, Wei. 1997. "Household Land Tenure Reform in China: Its Impact on Farming Land Use and Agro-Environment." Land Use Policy 14(3): 175-186.

Hung, N. M., and Y. Richelle. 1997. "Trade Gains, Paretian Transfer and the Tragedy of the Commons." Economic Studies Quarterly 48(2):213-225.

Johnson, R. W. M. 1996. "Property Rights, Sustainability and Public Choice." Review of Marketing and Agricultural Economics 64(3):348-353.

Juillet, Luc, Jeffrey Roy, and Francesca Scala. 1997. "Sustainable Agriculture and Global Institutions: Emerging Institutions and Mixed Incentives." Society and Natural Resources 10(3):309-318.

Kevane, Michael. 1997. "Land Tenure and Rental in Western Sudan." Land Use Policy 14(4):295-31O.

King, Thomas D. 1997. "Folk Management Among Belizean Lobster Fisherman: Success and Resilience or Decline and Depletion." Human Organization 56(4):4l8-426.

Koontz, Tomas M. 1997. "Differences Between State and Federal Public Forest Management: The Importance of Rules." Publius: The Journal of Federalism 27(1): 15-37.

Lea, David R. 1997. "Do Communitarian Values Justify Papua New Guinean and/or Fijian Systems of Land Tenure?" Agriculture and Human Values 14(2):115-126.

Leach, Melissa, Robin Mearns, and Ian Scoones. 1997. "Challenges to Community-Based Sustainable Development: Dynamics, Entitlements, Institutions." IDS Bulletin 28(4):4-l4.

Leach, Melissa, Robin Mearns, and Ian Scoones. 1997. "Institutions, Consensus and Conflict: Implications for Policy and Practice." IDS Bulletin 28(4):90-95.

Marsh, H., A. N. M. Harris, and I. R. Lawler. 1997. "The Sustainability of the Indigenous Dugong Fishery in Torres Strait, Australia/Papua New Guinea." Conservation Biology 11(6):1375-1386.

Mason, Charles F., and Owen R. Phillips. 1997. "Mitigating the Tragedy of the Commons Through Cooperation: An Experimental Evaluation." Journal of Environmental Economics and Management 34(2):148-172.

McCay, Bonnie J. 1997. "Forms of Property Rights and the Impacts of Changing Ownership." In: Increasing Understanding of Public Problems and Policies — 1996. S. A. Halbrook and K. W. Ward, eds. Oak Brook, IL: Farm Foundation.

McKelvey, Robert. 1997. "Game-Theoretic Insights into the International Management of Fisheries." Natural Resource Modeling 10(2):129-.

Meer, Shamim. 1997. "Gender and Land Rights: The Struggle Over Resources in Post-Apartheid South Africa." IDS Bulletin 28(3):133-144.

Mehta, Lyla. 1997. "Social Difference and Water Resource Management: Insights from Kutch, India." IDS Bulletin 28(4):79-89.

Meidinger, Errol E. 1997. "Look Who's Making the Rules: International Environmental Standard Setting by Non-Governmental Organizations." Human Ecology Review **4(l):52-54.**

Meinzen-Dick, R. S., L. R. Brown, and A. R. Quisumbing. 1997. "Gender, Property Rights, and Natural Resources." World Development 25(8):1299-1302.

Merculieff, Larry. 1997. "Common Property Issues and Alaska's Bering Sea Communities." In: Increasing Understanding of Public Problems and Policies — 1996. S. A. Halbrook and K. W Ward, eds. Oak Brook, IL: Farm Foundation.

Merges, Robert P. 1996. "Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations." California Law Review 84(5):1293-1393.

Merges, Robert P., and Glenn H. Reynolds. 1997. "Space Resources, Common Property, and the Collective Action Problem." New York University Environmental Law Journal 6(l):107-125.

Murphree, Marshall W. 1997. "Articulating Voices from the Commons, Interpretation, Translation, and Facilitation: Roles and Modes for Common Property Scholarship." Society and Natural Resources 10(4) :415-421.

Nabane, Nontokozo, and Gordon Matzke. 1997. "A Gender-Sensitive Analysis of a Community-Based Wildlife Utilization Initiative in Zimbabwe's Zambezi Valley." Society and Natural Resources 10(6):519-536.

Norton-Griffiths, M. 1996. "Property Rights and the Marginal Wildebeest: An Economic Analysis of Wildlife Conservation Options in Kenya." Biodiversity and Conservation 5(12): 1557-1577.

Ostrom, Elinor. 1998. "The Comparative Study of Public Economies."P.K. Seidman Foundation, Memphis, TN. (The Frank E. SeidmanDistinguished Award in Political Economy, 1997).

Peters, Pauline. 1996. "'Who's Local Here?': The Politics of Participation in Development." Cultural Survival Quarterly 20(3):22-25.

Powell, P. T. 1998. "Traditional Production, Communal Land Tenure, and Policies for Environmental Preservation in the South Pacific." Ecological Economics 24(l):89-102.

Pretty, J. N., and P. Shah. 1997. "Making Soil and Water Conservation Sustainable: From Coercion and Control to Partnerships and Participation." Land Degradation and Development 8(l):39-58.

Sekhar, Madhushree. 1997. "Organisation for Sustainable Common Property Resource Development." Review of Development and Change 2(1):134-156.

Sell, Jane, and Yeongi Son. 1997. "Comparing Public Goods with Common Pool Resources: Three Experiments." Social Psychology Quarterly 60(2): 118-137.

Shin, Sungwhee, and Sang-Chul Suh. 1997. "Double Implementation by a Simple Game Form in the Commons Problem." Journal of Economic Theory 77(l):205-213.

Small, G. Ric. 1997. "A Cross Cultural Economic Analysis of Customary and Western Land Tenure." Valuer and Land Economist 34(7):6l7-625.

Smith, Eric. 1997. "Some Thoughts on Co-management." Hastings West-Northwest Journal of Environmental Law and Policy 4(l):l-10.

Smith, Mick. 1997. "Against the Enclosure of the Ethical Commons: Radical Environmentalism as an 'Ethics of Place'." Environmental Ethics 19(4):339-354.

Sunderlin, William D., and Maharlina Luz G. Gorospe. 1997. "Fishers' Organizations and Modes of Co-Management: The Case of San Miguel Bay, Philippines." Human Organization 56(3):333-343.

Tisdell, C., and K. Roy. 1997. "Good Governance, Property Rights and Sustainable Resource Use: Indian Ocean Rim Examples.." South African Journal of Economics 65(l):28-43.

Tullock, Gordon. 1996. "Provision of Public Goods Through Privatization." Kyklos 49(2):221-224.

Turner, Matthew A. 1997. "Parental Altruism and Common Property Regulation." Canadian Journal of Economics 30(4):809-821.

van Egteren, H., and J. Tang. 1997. "Maximum Victim Benefit: A Fair Division Process in Transboundary Pollution Problems." Environmental and Resource Economics 10(4):363-386.

Vedeld, Trond. 1997. "Village Politics: Heterogeneity, Leadership, and Collective Action Among Fulani of Mali." (Ph.D. Dissertation, Agricultural University of Norway, 1997).

Wicklund, Petra R. 1997. "Abrogating Property Status in the Fight for Animal Rights." Yale Law Journal 107(2):569-574.

Woodward, Richard T., and Richard C. Bishop. 1997. "How to Decide When Experts Disagree; Uncertainty-Based Choice Rules in Environmental Policy." Land Economics 73(4):492-507.

Yeto, Susana Cabrera, Rosario Gomez Garcia, and Gumersindo Ruiz Bravo. 1997. "Potential Gains from Cooperation for Vessels and Countries." Marine Resource Economics 12(2): 145-158.

International Association for the Study of Common Property

News Alert

A New Government Order Recognizes Traditional Forest Management in Krui, Sumatra, Indonesia

JEFF CAMPBELL
Program Officer, Ford Foundation
February, 1998

The former Minister of Forestry in Indonesia has just signed a government order creating a new forest category: Kawasan Dengan Tujuan Istemewa, KDTI (Area With Special/Extraordinary Objectives) which grants the right to manage national forest land (for both non-timber products and timber!) to local community members in Krui, Lampung in Sumatra. The order will apply so long as local communities continue traditional forest management activities and as long as their customary practices *(adat)* are recognized by local government.

This government order applies specifically to a 40,000 hectare area of national forest in Krui, Lampung, on the island of Sumatra, where 60 villages forming 16 clan groups (marga) have been managing *damar* (resin) agroforests for hundreds of years. It is the culmination of several years of concerted effort by a Ford Foundation-funded group called Tim Krui and sympathetic foresters within the ministry. Tim Krui consists of national NGO representatives from LATIN and local Lampung NGO, WATALA, customary leaders from Krui, legal anthropology researchers from the University of Indonesia, staff from the University of Agriculture, Bogor, policy analysts from ICRAF, and researchers from ORSTOM and CIFOR. The process which has led to this government order, the first of its kind in Indonesia, has involved:

- Extensive research over a number of years by respected ecologists and forest economists from ORSTOM and ICRAF, which raised the profile of the damar agroforests of Krui through publications, videos and presentations, but also gave a stamp of scientific approval to the ecologically sound and economically beneficial system of "agroforest" management.
- The establishment of a Tim Krui which brought in a local NGO, a national level NGO, and other researchers to guide the process of seeking recognition for the community members.
- Community organizing at the local level with the communities of Krui, investigation of customary governance systems, and preparation of community maps. In addition, another series of maps illustrated how the area which local people always considered customary forest was converted to national forest without any prior consultation with local communities.
- Gaining initial recognition for Krui farmers by nominating them for the national Kalpataru environmental award, which was subsequently bestowed on the damar agroforest farmers of Krui in late 1997.
- Establishing and maintaining high level contacts and interest in the Krui situation at the Ministry of Forestry - including with the Minister himself, stressing the need for formal recognition to avoid conversion of large areas of damar agroforests to oil palm plantations.
- Working closely with the Ministry staff in framing and writing the new government order. Experiences in the Phillipines with ancestral rights legislation was used to draft an order that is very clear in the transfer of rights but unencumbered with administrative loopholes and requirements.

The former Minister sought to publicize the new KDTI order at most public fora and emphasized that he views it as a precedent setting order which should be applied wherever traditional community forest management systems and customary practice (adat) are still in force. Actually implementing the order in the field now involves clarifying boundaries between community adat groups and signing of letters of agreement between traditional leaders and the government. In the meantime, the forests may not be used for any other purposes. This outcome opens the door to try to seek recognition of traditional forest management systems and grant communities rights of access and management to forests in many parts of the country.

Announcements

15th International Symposium of the Association for Farming Systems Research-Extension, entitled "Rural livelihoods, empowerment and the environment: Going beyond the farm boundary" will be held November 29 December 4 1998 in Pretoria, South Africa. Final submission of papers is scheduled for Friday May 29 1998.

For more information contact:

AFSR-E Symposium '98
PO Box 411177
Craighall 2024
SOUTH AFRICA
fax: 27(0) 11 442 6111
phone: 27(0) 11 442 5927
e-mail:cpjh@jhb.lia.net

International Seminar on "Cultivating Forests: Alternative Forest Management Practices and Techniques in Community Forestry" will be held September 23 -25 1998 at the Rama Gardens Hotel in Bangkok.

For more information, contact:

Michael Victor
Publications/Information
Regional Community Forestry Training Center (RECOFTC)
Kasetsart University
PO Box 1111
Bangkok 10903, Thailand
Tel: (662) 940-5700 ext. 1222
fax: (662) 561-4880
E-mail: omichael@nontri.ku.ac.th or
corveer@mozart.inet.co.th

The North American Program of the Land Tenure Center, University of Wisconsin-Madison is holding its upcoming conference, **Who Owns America? II: How Land and Natural Resources are Owned and Controlled.** The conference on June 3-6, 1998 at the University of Wisconsin-Madison. The primary goals of the conference are to provide a forum for the exchange of ideas and information about land and natural resource tenure issues in North America—Canada, Northern Mexico, and the United States and to assemble as large and diverse a group of interested parties as possible.

For more information, contact:

ETC North American Program
University of Wisconsin-Madison
1357 University Avenue, Room 210
Madison, WI 53715
fax: 608-262-2141

The National Science Foundation welcomes proposals for its Arctic Social Sciences Program. The Arctic Social Sciences Program supports research on social change, community viability, and human-environment interactions in the circumpolar north. Institutions and common pool resource issues are also of interest. Target dates for submission of research proposals are December 15 and August 1. Proposals should come from U.S. institutions.

For more information, contact:

Dr. Fae L. Korsmo
Arctic Social Sciences Program Director
Room 755
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
phone: 703-306-1029
fax: 703-306-0648
e-mail: fkorsmo@nsf.gov

IASCP MEMBERSHIP FORM

Submit your membership now and you will not miss any of your membership benefits, including: subscriptions to The Common Property Resource Digest; discount registration at our nearly annual meetings; conference abstracts, and the opportunity to contribute to the growth of the IASCP. Contact the IASCP office at the addresses below for additional information or visit our Web site.

NEW MEMBER_____ MEMBERSHIP RENEWAL _____

LAST NAME_____ FIRST NAME_____ MIDDLE ____

INDIVIDUAL MEMBERSHIP CHECK MEMBERSHIP YEAR(s):

$15,000 or more.....US $30.00_____ July 1998-June 1999

$14,999 or less.....US $8.00_____ July 1999-June 2000

_____ July 2000-June 2001

Total dues payment @US $30.00.....$_____

Total dues payment @ US $ 8.00.....$_____

PAYMENT INFORMATION: You can return this form to IASCP with:

A check payable to IASCP

____MasterCard ____Visa_____Discover

Card Number _____

Signature_____ Exp. Date:_____

Or E-mail, phone or fax the information to the addresses below.

THE INTERNATIONAL ASSOCIATION

FOR

THE STUDY OF COMMON PROPERTY

Indiana University, Workshop in Political Theory and Policy Analysis

513 North Park Avenue, Bloomington, IN 47408-3829

Phone: 812 855 8082 • Fax: 812 855-3150 • E-mail: iascp@indiana.edu

Web URL: http://www.indiana.edu/-iascp

CROSSING BOUNDARIES
The 7th Common Property Conference of the INTERNATIONAL ASSOCIATION FOR THE STUDY OF COMMON PROPERTY
in
Vancouver, British Columbia, Canada 10-14 June 1998

Scholars and practitioners from all disciplines are invited to the 7th IASCP conference in a spectacular setting in Vancouver, British Columbia. Participants from 50 countries attended the 6th IASCP conference in 1996. Panels will explore theoretical and empirical aspects of common property regimes and institutions, and will cross boundaries between disciplines, between practice and theory, between resource types, between cultures, and between jurisdictions. For registration information, see p. 18 of this CPR Digest.

IASCP Conference MOBILE WORKSHOPS AND NGO OPEN HOUSES, JUNE 12TH
[You may choose only ONE among the following possibilities]

1. Alouette River:
About a 70 minute trip by bus takes you to this tributary of the Fraser River.The Katzie First Nation will serve a salmon barbecue lunch. Three speakers will explore the multi-faceted plan for the river developed by local stakeholders, in conjunction with government agencies, First Nations, and a Crown Corporation (British Columbia Hydroelectric). The plan recognized multiple values for the water uses in the Alouette basin (fisheries, recreational, flood control, and spiritual). A key element in the water use plan was to increase in-stream flows to improve fisheries habitat, and to create the flexibility to address further concerns through monitoring. The plan has been seen by government and by BC Hydro as the model for conflict resolution in addressing community concerns when a water rights holder (BC Hydro) is seen to have a duty to use water for more than a single purpose. The minimum-security correctional facility on the river has endorsed and embraced rehabilitation of the river as one of its programs since 1979. (Today we see rehabilitation of prison inmates through fisheries programs being utilized in correctional facilities in numerous areas in North America.)

2. Rainforest Tour:
About a 40 minute trip to the North Shore of Vancouver takes you to the territory of the Tsleil Waututh First Nation (Burrard Indian Band). You will be welcomed by Leonard George (son of Chief Dan George), who will share his vision of the rehabilitation of the forests in his nation's traditional territory, and the co-management agreements they are working toward. Herb Hammond, a forester working with the band on this rehabilitation, will tour you through patches of original first growth forests and naturally regenerated second growth and discuss his holistic forestry model. Forest ecologist Dr. Ken Lertzman will point out forest functioning in the area which he has studied for years. Box lunch served.

3. Urban Heritage Commons Trail:
Twenty minutes by city bus takes you to False Creek, the proposed site for a sustainable community in Downtown Vancouver. Characterized by its rich natural and cultural heritage, False Creek represents a "re-visioning" of urban commons within the context of City-owned industrial land-use and a history of landscape changes. Dr. Don Alexander will lead a walking tour on the history and successive land uses of the creek. This mobile workshop will demonstrate examples of good and bad management of the urban commons and the potential for an integrated and innovative approach to the use and design of public urban spaces.

4. Non Government Organizations (NGO's) Open Houses:
Numerous environmental and neighborhood activist organizations easily accessed by a 15-20 minute city bus ride from the UBC Campus, will hold open houses for visitors on a drop-in basis. Organizations such as the David Suzuki Foundation, the Britannia Neighbourhood Plan, Canadian Parks & Wilderness Society, and the Institute of Urban Ecology will explain their activities and provide an opportunity for networking and information sharing. Details on NGO mandates and activities will be provided upon request. There is no fee associated with visiting open houses.

MAY 1998

MAIL THIS REGISTRATION FORM WITH YOUR REGISTRATION FEE
TO THE IASCP HEADQUARTERS (not THE CONFERENCE SITE)
BY FEBRUARY 16, 1998. SEND TO:
Michelle Curtain, Secretary-Treasurer, IASCP,
513 N. Park, Bloomington, IN 47408-3829 USA
Phone: 812/855-8082 • FAX: 812/855-3150 • E-Mail: iascp@indiana.edu

If you're not an IASCP member, contact Michelle Curtain (at address above) about joining and membership rates, which are on a sliding scale by income. They are US$8 for people with incomes under US$15,000, and US$30 for people with higher incomes.

REGISTRATION FORM

Crossing Boundaries Conference, June 10-14,1998

7th Conference of the International Association for the Study of Common Property Held in Vancouver, British Columbia, Canada

PLEASE PRINT/TYPE LEGIBLY

Name: Mr. Mrs. Ms. Dr. (first, middle, last) _____

Title/Position: _____

Institution: _____

Address _____

City, Province/State, Postal Code _____

Country _____

Telephone (office) _____ (home) _____

Fax _____

E-mail _____

REQUIRED FEE

Registration Fees (includes conference fee, 2 lunches, 4 continental breakfasts, reception, access to abstracts on website)

	Registration postmarked by Jan. 16	Late Registration	
Regular member	US$140	US$170	$_____
Student member	US$100	US$130	$_____
Non-IASCP member	US$1 80	US$210	$_____

OPTIONAL FEES

First Nations Evening June 11th
(includes traditional salmon barbecue, First Nations speakers, First Nations dancers)
[limited space, reserved on a first-come basis] US$30 $_____

Mobile Workshops (Field Trips) June 12th
(choose 1 only, or rank preference 1,2,3) [see attached descriptions of workshops and NGO open houses on page 19]

1. Alouette River (includes salmon BBQ lunch) US$20 (rank)____$____
2. Rainforests (includes box lunch) US$20 (rank)____$____
3. Urban Heritage Commons (includes box lunch) US$20 (rank)___$__

TOTAL FEES, REQUIRED AND OPTIONAL $_____
Cancellations received before May 7, 1998 are 80% refundable.

Please check method of payment
__Check or money order payable to IASCP [must be in US funds and drawn on US bank]
__Credit card [information may be faxed] Check one (__Visa,__Mastercard,__Discover only).
Credit Card No._____Expiration Date_____
Date signed_____Signature_____

**PLEASE SEND THIS FORM AND ATTACHED FEES TO IASCP HOME ADDRESS ABOVE.
THE IASCP WILL HANDLE FINANCES AND FORWARD THE REGISTRATION INFORMATION TO THE CONFERENCE HEADQUARTERS**

University of California
CPR Digest
Department of Environmental Science,
Policy and Management
145 Mulford Hall
Berkeley, CA 94720
USA

Non-profit org.
U.S. Postage
PAID
University of California

EXP: 6/98
VINCENT OSTROM
WORKSHOP IN POLITICAL THEORY
AND POLICY ANALYSIS
513 N PARK AVE
BLOOMINGTON IN 47408-3829