



INTRODUCTION

In late 1993, Native Lands found itself in the final stages of a participatory mapping project in the Darién region of Panama. The previous three months had been a long and difficult haul. The internal dynamic of the project was strained from the start, and tensions mounted steadily as we headed into the home stretch, moving dangerously toward meltdown. The two Panamanian organizations managing the project had grown farther and farther apart as time wore on, regarding each other with increasing suspicion until they were barely on speaking terms. The cartographic unit was in semi-disarray and the lead cartographer was in open conflict with practically everyone. Secret meetings behind locked doors were being held by the different factions, and the atmosphere in communal rooms was suffused with a bristling, icy silence. It was a wonder that the various members of the project team continued, to the best of their ability in this tense setting, to work toward the shared goal of producing the maps. But this they had done, and the maps were now being printed by the Instituto Geográfico Nacional “Tommy Guardia.” The maps looked good. Everyone involved was in agreement that the work was of superior quality, and on this level the project appeared to be a success. But the fact remained that all of us were badly shell-shocked.

This had been the second of two mapping projects Native Lands had undertaken in rapid-fire fashion, one on top of the other, since 1992. We had minimal direct involvement in the first project, which was carried out as a collaborative effort between two Honduran groups in the indigenous region of the Mosquitia, in the northeast corner of Honduras. That was an exploratory venture, a maiden voyage with a methodology that had been jerry-built by many people and pieced together on the run, as field activities unfolded. The project had an intense and somewhat rushed aspect as it careened forward, but it was roughly coherent and the team had held together admirably well. There was a feeling of satisfaction all around, and the final map was judged to be competently done and useful.

Several months later, we had slid almost directly into Panama for a second go at participatory mapping with the indigenous peoples of the Darién. We played a more direct role in the project this time. Our plan was to follow the same general methodology and enlist the same lead cartographer. We were confident of our ability to pull off this second project despite the fact that we had spent little time reflecting on the Honduran experience and didn't even have an explicit

work plan to guide us. Although we encountered difficulties at the start, we believed that one way or another things would simply fall into place, just as they had in Honduras. But they didn't, and we weren't prepared for the turmoil that hit us.

In the aftermath of the Panama experience we struggled slowly to our feet, surveyed the wreckage surrounding us, and tried to understand what had gone so desperately wrong. Amid our confusion, we had maintained the firm belief that in concept the basic strategy for participatory mapping was sound. The difficulties had made their appearance because some elements in the original design had been faulty and things had gone awry when the imperfections had played out in practice. It was merely a matter of getting a clear fix on what had happened, thinking the process through, and retooling our approach to come up with a more smoothly functioning system.

It was in this frame of mind, then, that we decided to undertake a thorough analysis of the projects in Honduras and Panama. In early 1994, we began sifting through the available information, fitting one project like a transparency over the other to see what they had in common and where they diverged. We soon realized that this was going to be no simple task. No one in either country had an overview of everything that had taken place, and very little had been written down. There was no master script. Both projects had been carried out on the fly, with virtually no pause for rumination; and because of their

complexity, what had occurred was largely a mystery. The two projects had been, in fact, journeys into new territory for everyone involved — the coordinating institutions, the members of the technical teams, and the indigenous communities — and a complete picture of the route we had all taken did not exist.

We started by rummaging through our notes and recollections and assembling the written materials at our disposal. We then widened our net to include interviews of many of those who had participated in or witnessed the two projects in one way or another; and as we reviewed the growing body of information, we gradually came to understand what had happened. On the basis of this work, we began developing, tentatively, a refined methodology for future attempts at mapping.

As we struggled toward clarity, an opportunity to set up another mapping project arose with Guaraní-speaking Indians in the Bolivian Chaco, in the region called the Izozog. Although our analysis was not yet completed, we had by this time a much better sense of how to proceed, and this served to guide us in structuring the Bolivian work. We were able to avoid many of our earlier mistakes. We modified certain elements to make them more functional, strengthened some of the positive components that had been weakly developed in the earlier efforts, and added several new twists. The result was a far better project — not perfect, by any means, but more tightly organized, more in

tune with the needs of the communities, and much more pleasant and tension-free. This experience confirmed for us that the methodology had considerable potential.

When we had initiated work in Honduras, we had a general sense that the maps would be useful in defining indigenous territory, and we had hoped this would lead into more concrete discussions of the threats confronting the region and of possible strategies to thwart the dangers. But beyond this, our thinking was vague. In the rush to get things done in the field, we had ignored the deeper political implications of the mapping. By the time the work in Bolivia was completed, however, some time had passed. The Honduran maps had been out for four years and were being used by the indigenous groups, and it was easier to see some of the more specific, tangible uses to which they were being put. These surpassed what we had imagined. They were being employed in proposals for land legalization, political negotiations, and campaigns against outside exploitation of natural resources. They were useful as planning documents for management of natural areas and the basis for environmental education and programs for recovering indigenous history. The maps combined the best of two worlds. They contained traditional knowledge in a cartographic format, and served as a bridge across which indigenous peoples, government officials, and conservationists could communicate. For the first time, the groups that participated in the projects were learning how to read,

interpret, and use maps — essential skills for dealing with outsiders on land and natural resource issues. And the process of constructing the maps fostered political cohesion and unity. In short, we were surrounded with abundant evidence that the methodology we were developing was a formidable conceptual tool with broad applications.

This study is a critical examination of the projects in Honduras, Panama, and Bolivia. They were structurally (and superficially) similar. Their central theme was cartography. They covered relatively large tracts of land (between 17,000 km² and 20,000 km²). And all three took on two primary tasks: to describe in detail the salient physical features, natural and man-made, of the territories being mapped (rivers, streams, tributaries, hills; villages, roads, trails) and name them; and to determine the zones used by indigenous communities for subsistence activities (agriculture, hunting, fishing, and the gathering of medicines, fruit, firewood, building materials, and wood for sale). They were uncomplicated in their general design and, from the vantage point of hindsight, obvious in their simplicity. The technical sequence was identical in each case. It followed a fixed progression of three workshops interspersed with two periods of fieldwork that stretched out over approximately two and one-half to three months. They were exercises in what is best termed “ethnocartography,” in that the indigenous peoples were the authors of the maps. They drew on their knowledge to define their territories

in their own terms, selecting what they considered significant for inclusion. In this enterprise they were assisted by professional cartographers, who transcribed the information gathered in the communities onto cartographically accurate maps.

In practice, however, things were a good deal more complex. Each project had its own internal dynamic, its own peculiarities and idiosyncracies, all of which grew out of the special context in which activities took place. The composition of the ethnic groups at the heart of the three projects varied widely in leadership patterns, cohesiveness, and organizational capacity; in Honduras and Panama some of the groups were traditional enemies who had never worked together on the scale being proposed. In each country, the different participants had their own expectations with regard to the practical value of maps of their territories, and the uses to which they might be put. The institutions involved — governmental and nongovernmental, indigenous and nonindigenous — had different skill levels and degrees of involvement in the process. The search for finances to support the research did not follow the same course in the three projects, and organization of the project teams followed different routes. All of these factors blended together to give each project its own special character.

All three projects were joint ventures, with many people and organizations involved. The work in Honduras was organized and implemented by two organizations, MOPAWI and MASTA,

in 1992. The Panama project, which took place the following year, was jointly managed by the Congresses of the Emberá, Wounaan, and Kuna peoples of the Darién and the Centro de Estudios y Acción Social Panameño (CEASPA). The Bolivian project, which ran from late 1995 through most of 1996, was managed by the Capitanía de Alto y Bajo Izozog (CABI), with assistance from the Wildlife Conservation Society (WCS).

Native Lands' participation differed in each case. In Honduras, we provided financial support but were only marginally involved in project design, and we had no hand in the field activities. In Panama, we played a much stronger role in organizational and technical aspects of the process. We were involved in initial development of the project, which entailed lengthy discussions with the indigenous congresses and CEASPA; we brought in the bulk of the funds for the project; our Regional Coordinator, who was based in Panama, worked as a member of the technical team during the most intensive phase of the project; and we made semi-regular visits to Panama during the course of the mapping work. In Bolivia, we collaborated closely with CABI and WCS on virtually every aspect of the project, from initial community discussions and project design until final production of the maps.

The structure of this study is somewhat unconventional and therefore deserves a few words of explanation. The first eight chapters present an intertwined, comparative account of

the Honduras and Panama experiences. They contain considerable discussion of matters prior to the actual mapping activities in the field, ground preparation of a political and organizational type. We describe the sequence of the mapping proper, with the workshops and fieldwork periods, to the final production of the maps. While moving through this material, we often stop to flag important features of the process and place them in perspective, and we occasionally mention aspects of mapping projects in the West African Republic of Cameroon and Suriname in South America, which we have undertaken in the intervening years.¹ The Bolivia project is then dealt with in a single chapter (chapter 9), and this is followed by two final chapters in which we summarize the outcomes of our experience with participatory mapping and provide a provisional model for further mapping work with indigenous peoples. This latter section has also been informed by the Cameroon and Suriname projects.

This particular structure — with the two earlier projects handled together first and in great detail, the Bolivia project contained in a separate chapter, then outcomes and a methodological proposal — reproduces the journey we took in piecing together what took place and coming to grips with it. In a very real sense, the

Honduras and Panama projects served as the raw material for our analysis, and the Bolivia project was the test of that analysis; what then follows is merely a summing of the outcomes and process.

Some readers might consider the comparative discussion of the earlier projects to be overly detailed. When our research began, we regarded the piles of information being gathered as little more than a set of reference notes for our own internal use, as material to cull for something like a manual, a sort of how-to paper on participatory mapping. What did not fit would be discarded. But as the gathering progressed, we became increasingly impressed by the wealth of what was being amassed, and it gradually dawned on us that much of this information would be useful, even critical, for those involved in similar projects. This conviction was strengthened when, during the course of workshops we conducted on the mapping methodology, the odd details, the anecdotes, all of the tiny twists in the process proved to be especially instructive and of practical significance. We concluded that to leave this material offstage would keep a large part of the richness and complexity of what had occurred hidden from view.

We consequently refocused ourselves to provide a more thorough account

¹ In Cameroon we worked with the Mount Cameroon Project (MCP), a binational British–Cameroon program to preserve the biodiversity of the Mount Cameroon region, and villagers from the Boa Plain area in 1998 and 1999. In the southwest corner of Suriname, we worked with the Amazon Conservation Team (ACT) and the Tirio of the Kwamalasamutu area. Both projects used the same methodology as the projects forming the core of this book, but added refinements to the system that are discussed more fully in chapter 11.

featuring the ups and downs experienced during the course of the two projects — the successful maneuvers together with the breakdowns and blunders, the carefully thought-out moves along with the improvisations, the warts as well as the beauty spots. This approach would allow us, we felt, to inspect and reflect on the salient features of both projects in much greater depth and assess what had happened: why we became involved in mapping in the first place, how the project teams were formed, how the communities worked with the project team, why and how decisions were made (or not made, or poorly made), how fund-raising was carried out, why confusions and conflicts appeared, how political agendas were combined with the technical cartographic work, and so forth.

This brings us to an issue that we consider central to our discussion of ethnocartography — or at least, the version of ethnocartography discussed in this study. The careful reader will soon realize that a good deal of what we discuss in the following pages has nothing specifically to do with cartography. While it is true that the central theme of the three projects was cartography, and the major tangible result was a set of cartographically accurate maps documenting indigenous perceptions of their landscapes, it needs to be stressed that work of this sort entails a good deal more than the technical exercise of cartography. The cartography component is located, like the seed of a peach, within the larger project framework that must be built up so that the mapping can take

place. Consequently, we spend considerable time discussing the complex and generally more time-consuming “nontechnical” (and some would say, “softer”) outer layer. This is composed of matters such as project financing, administration, the social organization of fieldwork, and the diplomatic groundwork surrounding the technical core. In fact, much of what we say can be applied to a large number of participatory projects, be they “research” (however this may be defined) or something else, organized and managed by indigenous peoples and/or nonindigenous nongovernmental organizations (NGOs).

We have written this study with several audiences in mind. Among these are conservationists working with community-based strategies for resource management; academics — particularly geographers and anthropologists — and public interest lawyers concerned with participatory approaches to community work; and donors supporting a range of projects among indigenous peoples. All of these might conceivably find our account of the three projects of interest. Our primary audience, however, is practitioners who are involved in participatory mapping projects, or who are interested in carrying out similar efforts in indigenous regions of the world. The three examples presented here are from Latin America; but it is our sense that the methodology, with appropriate modifications for local conditions and specific objectives, can be effectively applied in a wide variety of settings. For example, our work in the very different cul-

tural, political, and economic setting of the Republic of Cameroon in West Africa went forward without a hitch, and we were even able to improve on certain aspects of the earlier projects.²

This is not to say that putting together projects in indigenous communities and carrying them through to conclusion is easy. Resources are often few and tenuous; and to make headway

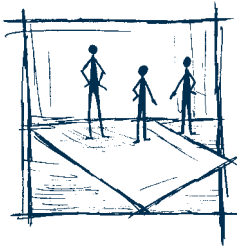
one frequently is forced to improvise, try novel and untested approaches, and fight past mistakes and missteps to make things come out right. With this study we hope to convey a sense of the often difficult and complicated texture of work of this sort, of the need for persistence and constant self-evaluation, and of the ultimate possibility of achieving success.

² These refinements are discussed in the Discussion sections throughout the text and in the concluding chapter.

PROJECT SEQUENCE

Although our narrative of the projects in Honduras and Panama is chronological, the numerous pauses and detours we take along the way may cause some readers to lose their way as we work through the methodology. To minimize this, we have devised a schematic project sequence to serve as a guide as we move forward. It consists of a series of icons that chart the various stages of the process, starting with initial ground preparation and moving through the different workshops and fieldwork periods to final publication and distribution of the maps. This schematic sequence appears at the start of each chapter or sub-heading that initiates discussion of a particular stage. It is designed to assist the reader to locate the topical discussions in the larger flow of the project and simultaneously facilitate later reference back to specific sections and topics.

The sequence, which is presented here in its ideal form — we will see how events in the field often strayed from the ideal — is as follows:



GROUND PREPARATION

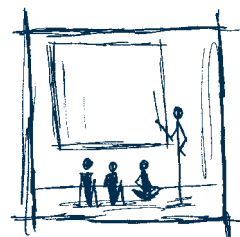
During the months leading up to the start of formal project activities, project leaders and indigenous authorities visit communities to explain the objectives and importance of the mapping work, and discuss the methodology to be used. They also visit government agencies and NGOs to discuss the project and enlist collaboration. Among the most important of these contacts is the government mapping agency. At this time, the technical team and a team of community data gatherers (Surveyors³) are recruited. The technical team gathers together all available cartographic material pertaining to the area to be mapped and evaluates its quality.

3 In the three projects dealt with in this study, community data gatherers were called encuestadores, which translates into English as “surveyors.” Neither term is satisfactory: in Spanish, encuestador is roughly equivalent to “census taker”; in English, it denotes either someone who is administering a questionnaire (a survey) — which was only part of what was going on — or the work of a topographer. Encuestador was used initially because at that time the task was seen largely as one in which the questionnaire was central; and beyond this, a formal census of the population of the region was undertaken.

In later projects, we have used the Spanish term investigador, which translates into English as “researcher.” In our historical discussion of the Honduras, Panama, and Bolivia projects we have maintained the term “Surveyor.” In our concluding section, we shift to the more appropriate “Researcher.”

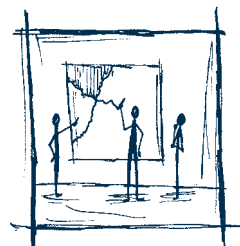
FIRST WORKSHOP: ORIENTATION AND TRAINING

Project staff and indigenous leaders bring together the Surveyors and the technical team and explain to them the objectives and methodology of the mapping project. The project team then works together on data-gathering techniques: developing a questionnaire on land use, practicing the drawing of community sketch maps on blank sheets of paper, and discussing additional information that will be recorded in notebooks.



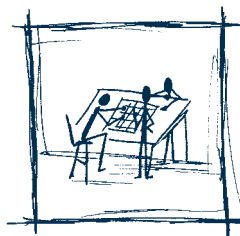
FIRST FIELDWORK: GATHERING DATA AND SKETCH MAPPING

Surveyors visit communities in their areas to gather detailed information. They first meet with village authorities to devise a strategy for eliciting data, then begin working with local specialists to fill out the questionnaires and draw community maps. During this time the technical team readies the site of the second workshop for upcoming work with the Surveyors, organizing the cartographic materials and equipment.



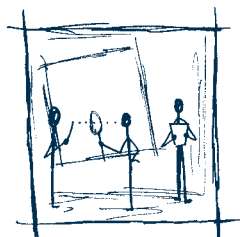
SECOND WORKSHOP: TRANSCRIPTION OF DATA ONTO NEW MAPS

Surveyors arrive from the field with information on significant land features and subsistence patterns in their region. They begin working with the technical team to place their information on cartographically precise maps. This interaction produces draft maps that still contain gaps and outstanding questions.



SECOND FIELDWORK: VERIFICATION OF DATA

Surveyors return to the communities with the draft maps to verify the details on them, answer questions, and fill in gaps. Villagers have an opportunity to take a critical look at the maps and discuss issues surrounding their territory.



THIRD WORKSHOP: CORRECTING AND COMPLETING FINAL MAPS

Surveyors reunite with the cartographers to incorporate information that has been verified in the field and put the draft maps in final form. Large-scale maps (1:25,000, 1:50,000, or 1:75,000) may be done, then fit together into a composite map of the entire region (1:250,000 or 1:500,000). The Surveyors, technical team and indigenous leaders make a final evaluation of the quality and usefulness of the map before turning it over to the printer.

