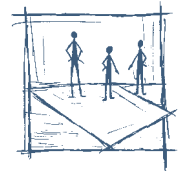
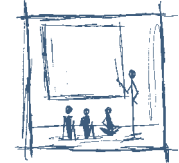


THE PROJECT SEQUENCE

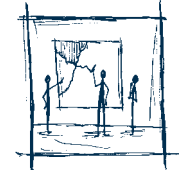
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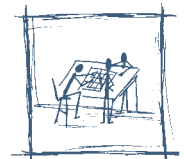
ORIENTATION AND TRAINING



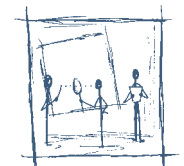
**GATHERING DATA
AND SKETCH MAPPING**



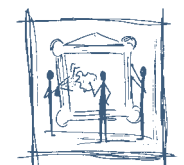
**TRANSCRIPTION OF DATA
ONTO NEW MAPS**



VERIFICATION OF DATA



**CORRECTING AND
COMPLETING THE FINAL MAPS**



6

STEP THREE: FIRST FIELDWORK PERIOD

After the first workshop, the Surveyors journeyed to the communities to gather data for the maps. In Honduras, fieldwork lasted roughly three weeks; in Panama, it was eight days. The Surveyors spent their time discussing physical features and land use patterns with knowledgeable villagers, and recording the information in questionnaires, sketch maps, and notebooks. At the same time, they compiled linguistic, cultural, and historical information and carried out village censuses.

ENTERING THE COMMUNITY

Experiences diverged in Honduras and Panama due in large part to differences in social organization in the regions being mapped. In Honduras, meetings were held in schools and churches, generally in the afternoon. Key contacts in the communities were Moravian pastors and schoolteachers. In Panama traditional village authorities were contacted first, and the project was explained in a community session in the morning or late afternoon (Emberá and Wounaan) or in the evening (Kuna).

In both Honduras and Panama, village meetings were held first to discuss the purpose and benefits to the local population of the mapping, the methodology, and what was expected of the communities. In Panama, where most of the Surveyors were young, it was found that the most effective way to approach the community meeting was through village leaders. Ideally, the Surveyors briefed village leaders and then the leaders took the lead in explaining, as well as they could, the mapping project to the community. This was difficult in a number of cases because the Surveyors simply did not understand the project and could not explain it. Some tried to improvise, but others simply dithered about in confusion until the Coordinators appeared on the scene to set them straight. Even this intervention, however, was inadequate since the Coordinators knew no more about the methodology than what they had been told in the first workshop and were unable to provide authoritative technical guidance. All of this caused major delays in the process and seriously affected the quality of the data being gathered — the consequences of which would become distressingly apparent in the second and third workshops.

In both the Mosquitia and the Darién, the primary reason voiced by villagers for doing the maps was to gain control over and legalize their communal lands. This fit nicely with MOPAWI's Land Legalization Program in the Mosquitia, and it was discussed openly within the confines of the mapping project; but in Panama, no such structured agenda existed within the project and there was little formal discussion by project staff of the use of maps to pursue land rights.

In Panama, because the initial ground preparation had been poor and some villages only learned of the project when the Surveyors arrived, in several cases there was reluctance to participate in the data collection. A small number of villages refused to cooperate, at least in the beginning. They did not understand the purpose of the project and were suspicious of the distant (non-Indian) cartographers and their motives for seeking information on indigenous subsistence. In Panama, two Kuna villages refused to provide information unless paid. This was due largely to the fact that the process in the beginning was controlled entirely by the Emberá; the Kuna were not included until after the work began, and no advance visits had been made to Kuna villages. The villagers only agreed to collaborate after the Kuna Coordinator arrived to explain the objectives of the project.

In the Mosquitia, some of the villages near the Honduran-Nicaraguan border initially feared that the goal of the project was to take their lands from them. Many of the villagers had only recently crept across the border from their native Nicaragua to relocate on Honduran soil.²⁶ Their fear was countered with the argument that the purpose of the project was to provide them with maps that would help them legalize their claims to the land, and this convinced them to cooperate.

In Panama, a political campaign was in full swing and some people thought the mapping was tied to partisan politics. The census was a particularly sensitive point in this regard. Part of the problem stemmed from the youth of many of the Surveyors; they were shy and had trouble explaining the process. Some of the junior Surveyors did not understand their mission clearly and confused villagers with garbled explanations.

In both countries, difficulties of this sort were resolved by the project Coordinators, who visited the villages and explained the project in more detail. If they lacked technical expertise, they understood fully the objectives of the project and the value of the maps for their people. They also had a high-ranking status in the region, and their words carried weight. Through their intervention, most of the confusions were cleared up and

²⁶ *The Miskito live on both sides of the border and for years have moved freely back and forth across it. They tend to see the region they inhabit as a single territory. In recent years, the Consejo de Ancianos (Council of Elders), a Nicaraguan Miskito group, has been pressuring the Nicaraguan government to annex the Honduran Mosquitia so that the Miskito Nation will again be whole.*

cooperation was secured. At the same time, the need to put out brush fires in communities that were widely scattered was difficult and time-consuming; this was most severe in Panama, where ground preparation had been poor to nonexistent and the fieldwork period lasted just eight days. Much of this could have been avoided had there been more complete, prior preparation in the communities.

ELICITING INFORMATION

The data-gathering methodology was designed to elicit information residing in the heads of villagers. This can be done without journeying into the surrounding bush to survey and note down the areas to be included in the map. First, it is based on the assumption that villagers have cognitive maps of their region that are both precise and detailed. And second, the area being mapped was large and the time frame was small. Some of the Surveyors were expected to cover zones made up of 10 or more villages, and it would have been physically impossible to visit even a sample of the sites plotted on the maps.

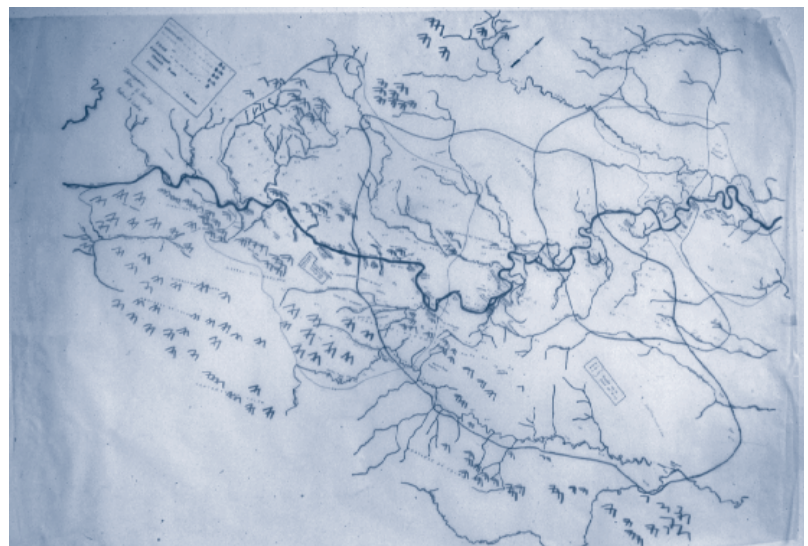
In Honduras, the Surveyors held community meetings to explain the objectives of the project, and there were several early attempts to elicit information from large congregations. In one community more than 150 people came forward in an unruly herd. In

the end, the Surveyors managed to meet with community leaders and choose small groups of four or five villagers with intimate knowledge of the region who would serve as principal advisors to the project.²⁷ In Panama, the Surveyors spoke with village leaders as soon as they arrived, and after an introductory village meeting a small team of advisors was enlisted to sit down with the Surveyors and provide information.

The Surveyors used three tools to gather data: questionnaires, community sketch maps, and notebooks.

(1) Questionnaires: This was a relatively straightforward exercise since it consisted of administering a series of simple questions about names of places where activities were carried out. Subsistence areas were: farming, hunting, fishing, and gathering. Gathering

Figure 11. Zone map for Wampusirpi (Zone G on fold-out map of the Mosquitia) based on information provided by Surveyor Tomás Rivas. Also shows portions of Zones F (Ahuas), H (Tawahka), J (Warunta), K (Mocorón), and Q (Suhi-Río Coco). The polygons are communities and the outer limits of the subsistence areas are shown in lines. Subsistence areas overlap.



MOPAWI

²⁷ Most of these people were men who were hunters, medicine men, or traders who had been journeying through the surrounding landscape on a regular basis over many years. Some women were included in these teams, although in both countries it was the men who traveled widely and had a more complete vision of the territory used by the group.



Figure 12. Sketch map of the Río Plátano Zone (Zone C on the fold-out map of the Mosquitia) by Surveyor Elmer Waldermar.

was further broken down into medicines, building materials, wood for sale and wood for personal use, firewood, and fruit. Livestock, especially cattle, were not included in either country since they were insignificant economically; they were present in Honduras but not in numbers to resemble anything like herds. The information was most effectively gathered in small groups of villagers, with considerable back-and-forth discussion.

Information regarding physical features of the landscape (other than the names of places where subsistence took place) was not included in the questionnaire.

(2) Sketch maps: The Surveyors in Honduras lacked clear guidelines for drawing sketch maps, as they had received no training in the first workshop. Some Surveyors colored-in subsistence areas on photocopied base maps, and many produced sketch

maps on stray sheets of paper. The sketch maps produced in Panama were not much better because Leake, who organized the first workshop there, thought that sketch mapping was a secondary activity to, at best, back up the more systematic filling out of questionnaires.

In both Honduras and Panama, villages are invariably located on the banks of rivers. Most of the Surveyors began by orienting themselves along the rivers, drawing them in like backbones and then filling out the adjoining ribs of countryside with villages, other physiographic features, and subsistence zones. Working with villagers, the Surveyors had no difficulty orienting themselves directionally, although the method was different in the two countries. In Honduras, the Surveyors tended to think in terms of north, south, east, and west; and they indicated this on their maps. In Panama the cardinal points were largely an

abstraction and were seldom referred to; instead, reference was made to the movement of the sun, and directions were moored to the village — behind the village, in front of the village, and so forth — or upriver or downriver. In notations, Surveyors often made reference to left and right. Directions were easily located during the second workshop by reference to base maps.

Most of the Surveyors used pictographic symbols to represent land use. In neither country was the symbolism standardized and dictated by project leaders. Each Surveyor was given the freedom to develop his own symbols, although in the end most of these were similar in form (e.g., a fish for “fishing,” an animal for “hunting”). Despite their differences, symbolic figures were easily deciphered when the Surveyors worked with the cartographers in the second workshop. (At this stage, Herlihy standardized the references on the new maps with letters rather than pictographs.)

(3) Notebooks: Each Surveyor was expected to keep a running narrative containing information that fit in neither the questionnaire nor the sketch

maps. In both countries, the Surveyors were told to jot down facts, observations, and explanations that would assist them as they tried to explain the location of places on the map to the cartographer. They were also instructed to record cultural and linguistic information such as stories attached to particular places, and the meanings of names.

The results were varied. As a general rule, the more literate the Surveyor and the more familiarity he had with the written word, the more complete and coherent was the commentary in the notebook. Some of the older Surveyors — those over 50 years of age — had difficulties because they had not written much of anything since they had left school. Out of practice, their hands cramped. Sometimes the weak grasp they had of literacy had atrophied. A few had deteriorating eyesight and were unable to write. In truth, it must be said that few Surveyors were used to writing, and none had the habit of jotting down long explanations of things. This was a rather abrupt assignment for most of them, and some rose to the challenge while others did not.



DISCUSSION

At the risk of repetition, it must be emphasized that the success of the first fieldwork period depends to an overwhelming degree on the effectiveness of the steps that come just before it: the ground preparation phase, which ideally informs the communities about the methodology and objectives of the project; and the first workshop, which orients the Surveyors and the Coordinators for their fieldwork. If these two steps are executed thoroughly and with care, the project should move forward smoothly. If, on the other hand, they are rudimentary or defective, the project will not get off on the right foot and will have difficulty finding its stride farther down the road. In Honduras, the early phases were adequate yet a bit weak; in Panama, they did not prepare the Surveyors for the work ahead.

Once fieldwork begins, a collection of interrelated factors affects the quality of the data gathering. These are (1) the size of the area being mapped, (2) the number of communities, (3) the number of Surveyors to be deployed in the communities, and (4) the time allotted for the task.

In both Honduras and Panama the projects were hampered by the large area being mapped, the numerous communities in those areas, the small

number of Surveyors to carry out the data gathering, and the short time at their disposal. In Honduras, the decision was made early on to map the entire Mosquitia, a huge area (approximately 20,000 km²) containing 174 indigenous communities. To do this, project leaders were confronted with two choices: either they increase the number of Surveyors to more adequately cover the communities (perhaps one Surveyor per two or three communities), or they work with a small number of Surveyors and have each be responsible for a large number of communities. The first approach was deemed too complicated from a logistical and cartographic perspective, and also because it would send the budget into the stratosphere. Thus the second path was taken and 22 Surveyors were chosen, each covering zones containing as many as a dozen communities. This was all to be squeezed into a narrow time frame of roughly three weeks, which meant that Surveyors with many communities could spend no more than a day or two in each.

In Panama, a similar trade-off was made to sacrifice in-depth field coverage for manageability at the cartographic end. Although the number of communities was slightly less than half the number in Honduras, the other variables were similar: the

region was extensive, the number of Surveyors was small, and the time frame was even shorter, only eight days. The same dynamic was present, only more cramped.

Given the constraints — the need to map a large area with a limited budget in a short period of time while keeping the project manageable — these decisions were perhaps reasonable. Yet it must be said that by severely abbreviating the schedule, those in charge

diminished the project in two fundamental ways. First, it diluted the coverage of communities and produced, in many cases, sketchy and even questionable data. Second, it reduced the time Surveyors and villagers could interact and discuss the broader implications of the mapping. The project would have been a richer process, in every sense, had it been more fully staffed and longer, with more time to interact with villagers. It would have also been less stressful.