mapping reeds and reading maps: the politics of representation in Lake Titicaca

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This article examines a common sort of conflict, one between peasants and the state, in an uncommon setting, the beds of reeds (quite productive in ecological and economic terms) that occupy hundreds of square kilometers in Lake Titicaca, high in the Peruvian Andes. To summarize this conflict as briefly as possible, in 1978 the Peruvian government declared these reed beds to be an ecological reserve and attempted to regulate and limit their harvest. The peasants, who had customary use rights of long standing, opposed this reserve, and they succeeded in their efforts to retain control of the reed beds. By the mid-1980s, the dispute had calmed down; the state retained weak authority in one corner of one section of the reserve, and none elsewhere.

The case might seem to have some bearing on conventionally posed questions of political economy, since it suggests that one class, in many instances a weak one, gained an unusual victory over a powerful opponent. This article, however, takes a different direction, the incorporation of questions of interpretation into political economy, by studying the conflict through a set of maps that were drawn between 1977 and 1984, some by peasants and some by government officials. A careful examination of these visual representations of portions of the lake and its shores shows a surprising lack of communication between the peasants and the state. Each side views itself as being in control of the reeds, and it sees the other as accepting, rather than contesting, its position. (The peasants' and officials' oral narrative descriptions of the conflict contain similarly divergent views of its outcome.) The absence of a shared understanding of the outcome is as striking a feature of the conflict as is its having been won by a subordinate class.

This article focuses on this puzzling feature of the conflict: how can two parties, both of whom made frequent use of bureaucratic channels of communication, hold such different understandings of a situation in which they are both involved? It is as if the case suggests a violation of a hitherto unstated anthropological analogue to the principle of the impenetrability of matter. Widely accepted in physics since Newton's time, the principle states that two bodies cannot occupy the same space at the same time. In this instance, two social bodies, peasants and government officials, believe not only that they each have a legitimate claim to this space, but also that they are effectively exercising these claims and that other parties acknowledge the legitimacy of their claims and accept their control of the territory.

A dispute between government ministries and peasant communities over control of the reed beds in Lake Titicaca, Peru, in the 1970s led to a state of irresolution, with each side believing that the conflict had been resolved in its favor. In this article, maps drawn by both sides are examined in order to analyze the understandings that each side had of the conflict and to discuss the lack of resolution. The article elaborates a framework for the analysis of maps and other representations, and discusses other theories about the role of representations in political encounters. [communication, maps, peasants, Peru, politics, representations, the state]

At the level of greatest generality, the case raises questions about the role of communication and discourse in social and political life. Somewhat more specifically, it addresses an issue the distribution of power between nation-states on the one hand and local populations or subordinate classes on the other-that has attracted a good deal of attention in recent years, both in Western history and in the current postcolonial world; the issue has acquired urgency for many Peruvians, who are faced with violence on a scale unparalleled in recent history. This article draws on some work on the question of discourse and politics to address the issue of state and local power. In particular, it borrows selectively from recent work on the nature of representations in order to examine the work of two writers: Antonio Gramsci, who sought to use the notion of hegemony in order to explain the rule of specific classes, and Michel Foucault, whose view of systems of domination included not only the formal apparatus of the state but also academic and applied fields of knowledge. Foucault and Gramsci discuss questions of ideology in both institutional contexts and daily life. Their writings, though pertinent, appear less applicable to Latin America, and by extension to the postcolonial world, than to Europe. They suggest that representations serve to communicate between states and local populations in a relatively straightforward manner. This case offers an example in which representations fail, quite spectacularly, to communicate in such a manner. It allows us to examine the ways in which peasants and state officials in Peru act differently from their counterparts in Europe. Most notably, the state and peasants appear isolated from one another. State officials address one another, rather than the wider citizenry, of whom the peasants form the most populous sector, and peasants seem more eager to withdraw from the state than to influence it.

To analyze these issues, this article considers a specific and apparently realistic sort of representation—maps—in two ways. The first examines how people draw maps, that is, the ways in which maps portray notions of the relations that social groups, categories, and institutions have with one another and with specific territories. The second examines how people draw on maps, that is, the ways in which social actors use maps in social interactions, especially conflicts. The former approach could be called the study of the production of maps, the latter the study of the exchange and consumption of maps. Taken together, they compose the cartographic equivalent of "the social life of things" (Appadurai 1986).

Maps seem well suited to the task of examining the relations between politics and communication, between power and discourse, because of their nature and use as objects and because of the specific relation they imply between themselves and that which they represent. Though maps are often drawn for a specific purpose and therefore for a specific set of viewers, they are not restricted to those viewers. Their nature as drawings distinguishes them from more transient forms of representation such as speech. This permanence makes their content public and subject to multiple interpretations, since different people can view the same map on different occasions. In addition, maps claim to represent an external reality, since they depict portions of the earth's surface with natural and human¹ features. This claim enhances their qualities of permanence and accessibility. It also renders them comparable with one another: a set of maps of the same territory immediately lends itself to an examination of likenesses and differences.

Because of these characteristics, maps may be examined in two complementary ways, which I will term "analysis of form" and "analysis of practice." (This distinction is similar to the contrast that the famous art historian Erwin Panofsky noted between "iconography" and "iconology" [1955].) Maps represent external reality as a set of features divided into a small number of recurring types (rivers, mountains, towns, roads, national borders, and so on, each indicated by a conventional symbol) that are related to one another by contiguity and distance. The analysis of form consists of an examination of the representation of these features along three major dimensions: inclusion and exclusion of features, classification of features, and relations between features. The broadness of these dimensions allows one to address general issues of representation through a discussion of maps, and perhaps for this reason much of the literature on

maps focuses on this analysis of form (Jackson 1989; Pandolfo 1989; Robinson and Petchenik 1976).

Where the analysis of form examines a map in relation to a particular landscape, the analysis of practice also includes the viewers, with their culturally specific ways of looking at maps. It draws on the notion that people often turn to a map for a specific purpose: to guide them to a particular spot, to anticipate weather conditions, to document ownership of a piece of land. The analysis of practice includes two components, the first of which I term "the ethnography of viewing" and the second of which is the study of the categorization of maps into different classes. Perhaps because maps can be so easily divorced from their original context, relatively little of the literature on maps considers this analysis of practice, although there are exceptions, such as Toulmin's distinction between route-maps and more general maps (1953), Mukerji's examination of the development of markets for maps (1983:79-130), de Certeau's account of maps as "spatial stories" (1984:115-130), and Frake's detailed discussion (1985) of the ways in which medieval maritime navigators used maps. There is a rough correspondence between the two types of analysis of maps and the two ways they will be used to examine the conflict in question here. The analysis of form helps uncover the ways in which the peasants and the state understand their relations to one another and to the landscape; the analysis of practice shows how the striking differences between their understandings remain unchallenged, allowing the situation to continue without resolution.

These two types of analysis resemble the approach of Bruno Latour, who is often described as a practitioner of the history, philosophy, or sociology of science but who describes his work as part of an "anthropology of science" (Latour and Woolgar 1986:253). He studies in detail what he calls "inscriptions." This term, which he says (Latour and Woolgar 1986:88) he has adopted from Derrida (1977), appears in his ethnographic account of a biochemistry laboratory:

a number of . . . pieces of apparatus, which we shall call "inscription devices," transform pieces of matter into written documents. More exactly, an inscription device is any item of apparatus or particular configuration of such items which can transform a material substance into a figure or diagram which is directly usable by one of the members of [the research group and other individuals interested in their work]. [Latour and Woolgar 1986:51]

By focusing on inscriptions as objects that mediate between an observable universe and general statements about that universe, Latour seeks to move beyond the longstanding debate in the philosophy of science between realists (scientists discover facts about real objects in the universe) and relativists (scientists make claims about analytical constructs that relate to their observations); by examining the multiple ways that scientists and nonscientists make use of inscriptions in many contexts, he attempts to erase the precise boundary separating science from nonscience and thus to undercut the foundation of a second longstanding debate, the one between internalists (who trace the unfolding of science as an autonomous field) and externalists (who examine economic, political, social, and cultural forces that affect the development of science). Latour discusses several examples of maps, notably the relation between 18th-century European and Chinese maps of the island of Sakhalin (1987:215-219); of greater significance to this article, however, are his more general discussion in Laboratory Life of inscriptions as concrete objects with specific histories, his analysis in Science in Action of the use of inscriptions by social actors who try to convince others of the correctness of their interpretations, and his examination in The Pasteurization of France of the broad political and cultural consequences and correlates of sets of inscriptions (Latour and Woolgar 1986; Latour 1987, 1988).

The following section presents contextual material on the region and summarizes the conflict. Subsequent sections discuss the maps and examine them closely from the perspectives of analysis of form and analysis of practice. The final section discusses the more general questions that the case raises for the relations between politics and representation as viewed by Foucault and Gramsci, and examines the implications of the case for the study of peasants and the state.

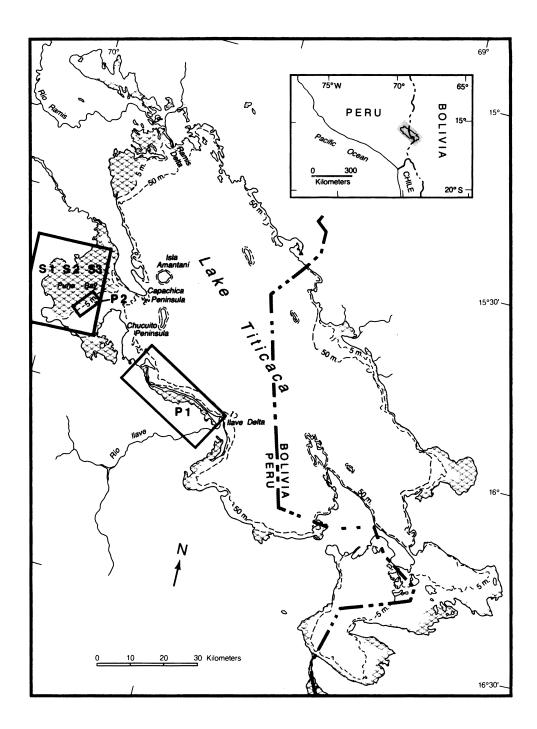
the conflict

Any discussion of the conflict over the totora reeds must be based on some knowledge of the region and its economy. Lake Titicaca is quite high (3808 meters above sea level) and of a good size (8128 square kilometers); it is located in a large flat basin known as the altiplano, divided between Peru and Bolivia (see Map E1). The people who live in the densely settled portion of the altiplano closest to the lake are organized into communities of several hundred households each. The people have a strong commitment to agriculture, producing most of the food that they consume. They earn additional income through migratory wage labor, small-scale commerce, crafts, and fishing. They thus share a number of characteristics with peasant classes elsewhere in the world, though the word "Indian" is more likely to spring to the minds of many outsiders, who are struck by the ethnic distinctiveness of their dress and customs and by the dominance in the region of the indigenous Andean languages, Aymara and Quechua.

The tall reed that grows in the lake is called *t'utura* in Aymara and Quechua, *totora* in Spanish; *Scirpus tatora* is the most widely accepted scientific name, although botanists have long disagreed on the species name and in fact on the number of species. Scientists do not dispute other facts about the plant: its restriction to areas of shallow water, between two and five meters in depth; its rapid growth; the existence of both naturally occurring and cultivated populations of it. Local peasants attach knives to long poles and cut the reed a foot or two below the surface of the water, leaving the base of the stem and the roots intact in the muck at the bottom of the lake so that the plant can grow again. They use the stem of the totora for many purposes, including thatching houses, making rafts and mats, and feeding cattle. Peasants occasionally dig up portions of totora rhizomes and use long poles to plant them on the bottom of the lake, thus extending the area where the reed grows.

Communities manage their own totora beds. Except in the cases of the most abundant growth, where totora beds are open to all members of the communities, the beds are divided into individually owned plots. Most communities limit the cutting of totora to certain months of the year and certain days of the week. Many communities also appoint a lake watchman (vigilante de lago) to a yearly term to supervise and patrol the totora beds. There is great variability in the width of the bands of water in which the reeds grow. Since communities own the totora beds adjacent to their lands, this variability creates differences in the areas of community beds. Some communities are self-sufficient in totora, others are lacking, and still others have a surplus. Individuals in regions deficient in totora often travel to communities with more abundant supplies and pay the community members for the right to harvest totora. An individual who wishes to cut totora for the first time would travel with a group to an area with surplus totora and establish contact with the local totora-owners by making gifts of coca, alcohol, and, to an increasing extent in recent years, some cash as well. The totora-owners would then grant permission to cut a certain amount of totora. These ties usually continue for many years and often acquire additional solidity through the establishment of ritual kinship (compadrazgo) through sponsorship of baptism or marriage. Although the payment is often made in kind rather than in cash, it is not referred to as barter (canje), a term that is reserved for the occasional exchange of goods for totora that has already been cut. Instead, peasants say that they "rent" (Spanish arrendar, Aymara arint'asiña, Quechua arindakuy [cf. Guevara 1924:124]) the totora beds, a term that acknowledges the labor of the owner in planting the crop and of the cutter in traveling to the actual spot of harvest and separating the upper portions of the reeds from the

Three major events divide the conflict over the reed beds into distinct periods. In 1975, the Peruvian government established the National Forestry Center (Centro Nacional Forestal), commonly known by its acronym CENFOR, a subministerial branch within the Department of Forestry and Wildlife of the Ministry of Agriculture and Food; CENFOR was charged with regulating natural plant and wildlife resources through a system of national parks and reserves. In



Map E1. The Lake Titicaca region: major physical features, national boundaries, and index map.

1978, the Peruvian government established the Titicaca National Reserve (Reserva Nacional Titicaca) by promulgating Supreme Decree 185-78-AA. In 1980, CENFOR began to issue permits for totora cutting within the Reserve. I refer to the period 1975–78 as "the mid-1970s," 1978–80 as "the late 1970s," and 1980–84 as "the early 1980s." My discussion centers on three regions within the lake, shown on Map E1: Puno Bay, the entire region to the west of

Capachica and Chucuito Peninsulas; the Ramis Delta, corresponding roughly to the districts of Pusi, Taraco, and Huancané in the northern portions of the lake; and the western Ilave Delta, including the districts of Acora and Ilave. (It is in the shallow waters of these bays and deltas that many of the extensive totora beds are found.) In the western Ilave Delta in the mid-1970s, peasant activism led to that region's being excluded from the Reserve altogether; in the Ramis Delta in the late 1970s and early 1980s, it prevented the government from attempting to administer that region; in Puno Bay in the early 1980s, it reduced the area under official control.

In 1976, the government opened the regional office of CENFOR in Puno, the city that bears the same name as the department of which it is the capital. Word of the establishment of CENFOR had spread from official circles to the countryside, creating great concern on the part of the peasants. Some had very specific worries: a number of peasants knew, for instance, that a wealthy storekeeper in Puno had considered setting up a paper factory that would use the reeds for raw material, and they feared that the government might take over the reed beds for this end. Others believed that new taxes might be imposed, or simply distrusted new government programs.

Many communities in the districts of Acora and Ilave in the western Ilave Delta discussed the matter in assemblies in 1975–76 and formed a Totora Defense League (Liga de Defensa de la Totora). Eighteen communities held assemblies in which they formed communal committees (comités comunales) and chose delegates to the League, which raised funds by collecting fees (cuotas) from each household of the community. These funds supported the trips of League delegates to Puno and to the national capital of Lima, where they visited the offices of the Navy, the Ministry of Agriculture and Food, and the Ministry of the Interior. They presented documents (memoriales) which argued that CENFOR should not administer the totora beds, but should leave them in the hands of the communities instead. Representatives from the League met with the Minister of Agriculture and Food during his visit to the department in September 1976, a month of growing political tensions throughout the Peruvian countryside and more specifically in the department of Puno (Taylor 1987). Six months later, in March 1977, this ministry issued interim regulations that guaranteed the peasants in the western Ilave Delta the right to continue harvesting totora as they always had. Before the Peruvian government established the Titicaca National Reserve, the CENFOR staff did preliminary work to establish the Reserve's boundaries. There was some debate over whether the appropriate "conservation" unit" was the stricter "national park," under which resource extraction would be prohibited, or the more permissive "national reserve," under which it would be allowed, though regulated. The latter was chosen.

The Supreme Decree of 1978 states that the government has decided to act on the basis of "studies" that CENFOR and the Ministry of Agriculture and Food offices in Puno have conducted, and it decrees the formation of the Titicaca National Reserve "in order to guarantee the conservation of natural resources and landscapes and the socioeconomic development of neighboring populations through the rational utilization of the flora and wildlife and the promotion of local tourism" (República 1978:1). The first and longest article indicates the boundaries of the Reserve in its two portions,² the first and smaller "Sector Ramis" in the Ramis Delta and the second, larger "Sector Puno" in Puno Bay. The next four articles charge CENFOR and the regional office of the Ministry of Agriculture and Food with the "development" and "administration" of the Reserve. They outline the roles of other ministries. In addition, they stipulate the right of the inhabitants of the floating islands in Puno Bay to maintain their "customary agricultural activities and livestock raising" (República 1978:1) in the Reserve as long as they respect the management rules of the Ministry of Agriculture and Food.

An explanation of these "floating islands" entails a digression. The term, as a geographical reference, is correct: some peasants cut reeds in the large totora beds in Puno Bay and make them into enormous mats, hundreds of square meters in area and a meter thick, which float on the southeastern edge of these beds (Levieil, Cutipa, Goyzueta, and Paz 1989:164). Their

houses, built of totora, are located on these islands. What is a topic of debate is the history and ethnicity of these people; it concerns us here because of the differing representations of them in peasant and state maps. These people have a special status under the Supreme Decree that established the Reserve, since, in the eyes of national law-makers, they actually live within the Reserve rather than as "neighboring populations" on or near its boundaries. This favorable position reflects the unique role in the history of the altiplano accorded to them by many people, in Peru and elsewhere, who call them "Uros" and believe them to be continuous with an earlier people, also known as Uros, who inhabited the altiplano before the Aymaras, who were in turn subjugated by the Incas, whom the Spanish later conquered. In some versions of this view, the history of the altiplano is seen as a succession of invasions and conquests; in others, there is an evolutionary narrative, in which the present-day Uros, who fish and hunt wild birds, are taken to represent an earlier, preagricultural phase of human existence. There is some basis for this view of the Uros in general, since much evidence supports the complex linguistic history of the Lake Titicaca basin and the existence of a group in Inca and colonial times of people called Uros for whom lacustrine resources were very important (Bouysse-Cassagne 1987; Julien 1987; Wachtel 1978). The local shoredwellers implicitly deny this view; they identify these people in the same manner as they do other shoredwellers, by reference to a place name, Capi,³ rather than by the use of an ethnic label. Some researchers believe that the inhabitants of the floating islands in Puno Bay are Aymara-speaking peasants from shore communities who established settlements on the edge of the totorales within the last hundred years; this view draws support from the central importance of access to land for these island inhabitants, many of whom cultivate fields and almost all of whom bury their dead on shore, rather than being exclusive lakedwellers.

CENFOR met with differing responses from the peasants in Puno Bay and those in the Ramis Delta during the late 1970s. In the former, CENFOR had some apparent success in carrying out the requirements of the law. Its officials traveled through the Sector Puno, holding meetings with communities and seeking to grant them the status of *calificación*. This "qualification" consisted of registering adult men as household heads and listing their holdings of livestock and the craft items that they made from totora. In the late 1970s, CENFOR claimed that they would not issue contracts to members of unqualified communities, although they did not enforce this requirement later on. A few communities refused to meet with CENFOR. These included Yapura and Perca, both of which had long traditions of obtaining totora from the area within the Reserve because of the small size of their own totora beds and their proximity to the Reserve. Most communities received the ministry staff more openly. The inhabitants of the floating islands gave them a particularly warm welcome.

Events were quite different in the Sector Ramis, the other section described in the Supreme Decree that established the Reserve. In this area, the peasants opposed the Reserve more forcefully than in the Sector Puno. Beginning in the late 1970s and extending into the early 1980s, their opposition took two forms. The first was the establishment of an organization that pressured the government to annul the Reserve. In December 1978, the peasants in the districts of Taraco and Huancané formed the Totora Defense Front (Frente de Defensa de la Totora), which peasants from the neighboring district of Pusi joined in 1980. Some of its founding members had contacts with the Totora League in the western Ilave Delta and with the left-wing Peruyian Peasant Confederation, one of the main organizations of the political opposition. The Front sent memoriales similar to those of the League to government officials in Puno, demanding the repeal of the Supreme Decree. The second form of opposition has been a consistently antagonistic stance toward the presence of government agencies. On a number of occasions in 1979, 1980, 1982, and 1983, crowds of peasants drove government officials out of the communities by threatening to beat them and, in some cases, surrounding their vehicles and throwing stones at them; there are no reports of such incidents with CENFOR staff from elsewhere around the lake after the establishment of the Reserve. To date, the government agencies have made no formal response to the *memoriales* or to the tense confrontations. They have not, for instance, modified the law to change the legal status of the Sector Ramis. However, CENFOR has not attempted to enforce its jurisdiction over this region.

By 1980, Puno Bay was the only portion of the Reserve in which CENFOR exercised control. In that year, CENFOR began issuing annual permits (contratos) for totora cutting in the Sector Puno; these stipulated that an "extractor" was permitted to cut a specific amount of totora in a specific portion of the Reserve in a specific year in exchange for payment of a fee. The application procedure was simple: each community had to present the national identification documents of several members and to indicate the areas of reeds that they sought to "extract." The government also required them to present a sketch map (croquis) of the areas in which they wished to cut reeds. These contracts offered a set of tricky possibilities. First, they gave many people a chance, at least in theory, to cut totora directly instead of purchasing it from intermediaries. Formerly, only the inhabitants of lakeshore communities had cut totora, but the law extended this right to all Peruvian citizens; of particular importance were peasants from nonlakeshore communities, who made up the majority of the population of the altiplano, and nonpeasant traders and cattle-owners. Second, since the law asserted that the state, rather than the communities, had sovereignty over the totora beds, the law challenged one of the fundamental principles of the social and political life of peasant communities: their right to manage their territories. Finally, the contracts raised concerns about the fees that CENFOR would charge and the sanctions that forest rangers (guardias forestales) based in Puno would place on individuals or communities that did not comply with the law. These complex possibilities touched off a series of conflicts between communities. In particular, members of communities that did not seek to obtain contracts attacked those that did. Several peasants mentioned that long eucalyptus poles were used as weapons rather than for their usual purpose, pushing boats through the shallow waters of the reed beds.

The lists of extraction contracts, which I was able to obtain for the years 1980 and 1984, are of interest. Even though the government designed contracts to be issued to individuals, all of the contracts were granted to communities, with the exception of one contract issued in 1984 to a family. Some of the communities listed for 1980 were ones that had refused to be evaluated for *calificación*. Significantly, CENFOR did not issue any contracts to members of communities located away from the shores of Lake Titicaca, even though these people are mentioned specifically in the Supreme Decree as having rights to use the Reserve. It also did not give contracts to nonpeasants such as large-scale traders. It neither issued contracts for the cutting of totora in the Sector Ramis nor intervened to stop cutting without such approval. In 1980, 31 contracts were issued; in 1984, the corresponding figure was only 13.

This decline is hard to interpret, not only because of any difficulty in placing confidence on a line traced through two points, but also because of the numerous factors that may have intervened, such as a conscious withdrawing of pressure by the government in 1984 in order to gain support for the ruling party in the 1985 elections, or variable weather, in particular the heavy rains of 1983-84, which may have temporarily reduced the demand for totora by increasing the availability of alternative sources of fodder. However, an examination of the spatial distribution of the contracts shows a narrowing from 1980, when they were widely spread among the lakeshore districts in the province of Puno, to 1984, when they were concentrated in those areas that the government could supervise most easily: the three lakeshore districts readily accessible by paved road and by travel through open waters, rather than by dirt roads or through the totora beds (see Table 1). A long list of interrelated factors might explain this shift: a sense among peasants that failing to obtain contracts would entail few negative consequences, the steady peasant opposition to the Reserve, a tolerance on the part of senior government officials for reports from Reserve managers that listed relatively few contracts, a lack of coordination between Reserve officials and other government personnel (especially in the Navy and the Ministry of Fisheries) who might have assisted in the enforcement of the law, the

Table 1. Spatial distribution of extraction contracts issued for the Titicaca National Reserve.

District	1980	1984	
Capachica	4	0	
Amantaní	5	0 0 0	
Coata	5		
Paucarcolla	0		
Puno	0	3	
Chucuito	7	4	
Platería	6	6	
Acora	4	0	
Total	31	13	

Source: Empadronamiento de las Comunidades Solicitando contratos de extracción de totora de la Reserva Nacional del Titicaca, Ministerio de Agricultura y Alimentación, Puno, 1981, 1984.

development of informal mechanisms allowing peasants to bypass the contract requirement, and the consolidation of personal ties between Reserve officials and peasants in a few communities that did obtain contracts.

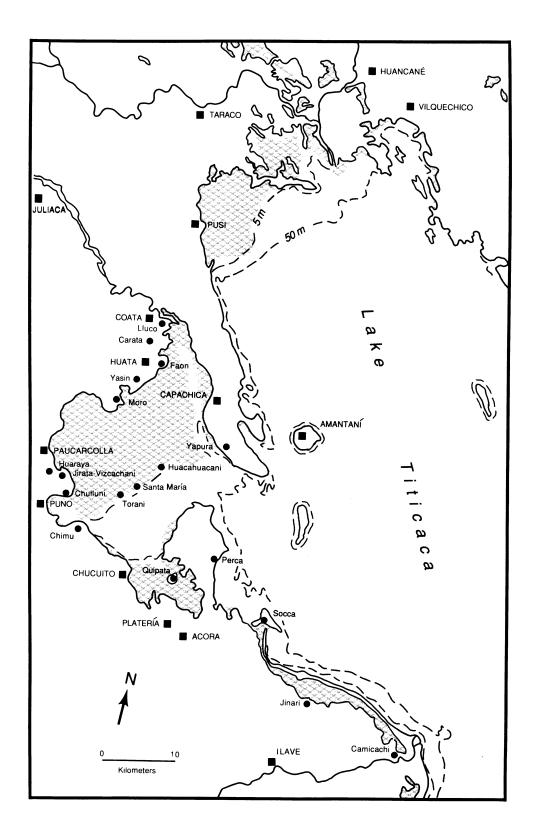
There is one additional shift that merits attention. The 1984 list includes two instances in which CENFOR, rather than granting extraction rights to a portion of the Reserve at some distance from the community in question, simply affirmed the customary rights to the totorales adjacent to the community, precisely the ones which the community claimed as its own and to which it had direct access. These cases, both located in the district of Puno, were those of Huaraya and Jirata-Viscachani, which appear as contracts 1 and 2 in Map S3.5

By the mid-1980s, then, the area of effective CENFOR control was reduced to a nucleus of the Reserve in the area closest to the city of Puno. CENFOR issued "extraction" contracts only in one portion of one sector of the Reserve, in the district of Puno itself and the two districts immediately adjacent to it on the main highway, but these contracts did not lead to any significant changes in cutting practices; CENFOR gave none in the other 18 lakeshore districts or in the districts that did not border on the lake. In the other lakeshore districts, peasant communities maintained customary control of the totora beds that bordered their lands, and obtained totora in the large beds in Puno Bay and the Ramis Delta through customary "rental" arrangements.

These events may not seem very surprising. The following would be in some ways a plausible summary of this account: after decades, if not centuries, of managing totora on their own, peasant communities were faced with a challenge from a small state agency that sought to regulate this resource, of major economic importance to the peasants and of minor administrative significance to the state. Because of their concerns and large numbers, the peasants mobilized themselves effectively. Their organization was largely spontaneous, since the rather limited involvement of left-wing groups followed rather than preceded the community assemblies and the establishment of the Totora League. The state took a number of steps in response to their pressures, although it did not withdraw completely from the area.

the maps

Here, attention shifts from an ethnographic reconstruction of the events in the conflict over the totora beds to an examination of representations of the totora beds. Both sides in the conflict prepared maps at different points. I include here five maps, drawn between the mid-1970s and the early 1980s, all of which a colleague of mine, Dominique Levieil, and I found among the files—one could perhaps call it an archive—of the CENFOR office in Puno in 1984.6 I refer to the first three as "state maps" and the other two as "peasant maps," and I label them S1, S2, S3, P1, and P2, respectively; I use the labels E1 and E2 ("ethnographic maps") for maps pre-



Map E2. Western portions of Lake Titicaca: physical features and settlements.

pared for me by a North American cartographer, Mary Beth Cunha. These maps all include some reed beds and some portions of open water; with one exception, they also contain some lands on the lake's shores.

Maps P1 and S1 both depict totora beds, the former of a section of the western llave Delta, the latter of the western portion of the Puno Bay. The Totora Defense League included Map P1 in a *memorial* that it presented to the regional office of the Ministry of Agriculture and Food in Puno in 1976 or 1977. The roughness of the drawing and the lettering indicates that it was almost certainly prepared by peasants. Map S1 was published in an eight-page document, "Reserva Nacional del Titicaca," issued in Puno by CENFOR in 1979, which summarizes the decree that established the Reserve and includes a list of aquatic plants, waterfowl, and tourist attractions.

These maps, like those discussed later in this section, follow certain basic conventions of the Western tradition of mapmaking which peasants and government officials share: they are rectangular, land and water are distinguished, places have their names written near them, and north is, to some extent, up. (These similarities are traces of many previous encounters between peasants and the state.) All of the maps are readily recognizable to a Western eye as maps, and they are generally intelligible, unlike some other, more radically different non-Western maps, such as the constructions made of sticks and shells with which Micronesians navigated between islands across the vast open stretches of the Pacific Ocean (Finney 1976) or the Australian Aboriginal depictions of a heavily supernaturalized landscape that can be interpreted only by certain individuals with access to restricted training (Munn 1973). Map P1 is larger than Map S1, between three and four times larger. The depth and evenness of the creases in it suggest that it has been folded, opened, and refolded with some care. It seems very likely that it served as the topic of discussion at meetings of the Totora League. In contrast, Map S1 was prepared for inclusion in a document. It was drawn on a mimeograph stencil. Portions of the map are incompletely inked because they were printed by old and poorly maintained mimeograph machines on low-quality paper, an inexpensive grade known in Peru as papel bulky, which is of such rough texture, uneven thickness, and yellowish color that it is ordinarily used in wealthier countries only for wrapping and packaging. Although both maps have some lines that are drawn with rulers and others that are freehand, Map P1 is rougher. Map S1 seems more polished, since it includes a title and a legend and its place names are typed, rather than handlettered. Like the other government maps, it is drawn to scale, in this case one inch to two miles. Map S1 is oriented so that north is exactly at the top; the north-south axis on Map P1 is rotated more than 60° counterclockwise from the vertical. The detail on the shore and the location of the channels in Map S1 indicate that government maps served as a base for it; Map P1 was drawn freehand.

These maps differ in their depictions of the totora beds and in the relations they establish between social groups, land, and the lake. Map P1 emphasizes the communities along the shore of the lake. There are no gaps in the string of communities that follow the shores. The communities, depicted as triangles⁷ composed of three black lines against a white background, are roughly equidistant from one another in each portion of the shore, somewhat closer to one another in the hillier portion on the left side of the map, more widely separated on the flat areas near the Río llave on the right side. The mapmaker located the communities in relation to natural features. The ridge close to shore is depicted as a series of peaks, which tend to be isosceles triangles.⁸ This ridge is quite low by general Andean standards, since its highest point of 4040 meters is only 230 meters above the level of the lake. Its crest, which never falls below 3940 meters, is fairly unbroken rather than being divided into distinct mountains, let alone ones whose sides are equal in length and slope. However, throughout the Andes there is a well-established practice of using mountains to indicate the boundaries of communities; these peaks have cultural rather than orographic significance. In the flatter righthand portion of the map, there is still some association of communities with natural features, in this case with bays

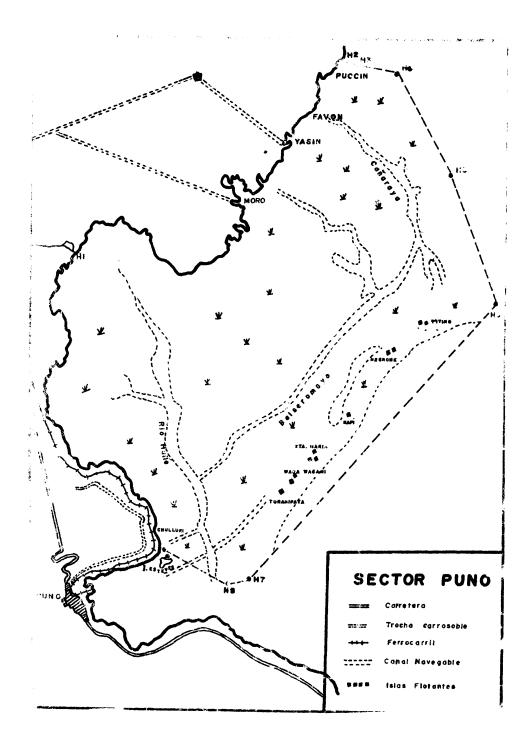


or smaller ponds in the Ilave Delta. In this sense, communities are still associated with flat areas surrounded by higher edges (Rappaport 1985), whether the bays and their shorelands separated from one another by small promontories, or ponds separated by dry land. Map P1 is not limited to natural features and communities, however. Roads, depicted by two parallel lines, form a network that links communities, supplemented by trails indicated by single lines. 10 The absence of towns is striking; if the mapmaker had included only slightly more territory below the bottom edge, he (it is very unlikely that any of the peasant or state maps were drawn by women) would have added two towns, the district capitals of Ilave and Acora, which he had undoubtedly visited on many occasions. Since the map is not to scale, this extension would have been quite simple; its omission may suggest a deliberate effort to exclude urban centers, and thus to offer an entirely rural and peasant depiction of this area. Whether the omission was deliberate or not, the map would have been quite different if towns had been included. In this portion of the altiplano, every town is a capital of something, more specifically of some administrative unit, whether a department, a province, or a district, and in virtually every case the town bears the same name as the unit that it administers. The presence of towns would thus not merely dilute peasant control, but would transform it, by locating the countryside in relation to the centers from which state control is exercised.

The map refers to the national government through the inclusion of flags, depicted by rectangles with dark sections at the right and left edges. These rectangles bear an obvious resemblance to the national flag, which is composed of two vertical red stripes separated by a white one. These flags evidently mark communities that participate in the Totora League, since 13 of the 14 communities with flags appear among the set of 18 League communities that a peasant from Socca, one of the communities in the League, mentioned to me in 1979. (Jinari, the only one of the 14 missing from his inventory, is relatively far from Socca. The additional five communities in his list may have joined the Totora League after the map was made.) For the peasants, the flags probably brought to mind communal assemblies like the ones in which each community voted to join the Totora League. Community leaders raise a flag at the spot where an assembly will be held to call community members to it, and often leave the flag up while the meeting is being held. Aside from being an effective way of gaining attention, the flag suggests the community's belief that the state sees the community itself, the assembly, and the assembly's decisions as legitimate.¹¹ The line of crosses on the right side of the map separates the communities of the Totora League from other ones.

Map S1 shows the boundary points, called *hitos* in Spanish, that mark the boundaries of the Reserve. The mapmaker abbreviated the word *hito* to its initial letter. The conventional symbol for reeds is deployed in such a way as to suggest that totora is only found inside the Reserve and that, with the exception of certain navigable channels, the Reserve is one continuous totora bed.¹² The only inhabitants of the Reserve are the people who dwell on the floating islands. The rest of the lake is a featureless surface, with the exception of Isla Esteves, the site of a new government-run tourist hotel. The peasants are almost invisible in this map. Although the mapmaker included the names of a few communities along the shore, he did not indicate their presence by any mark.

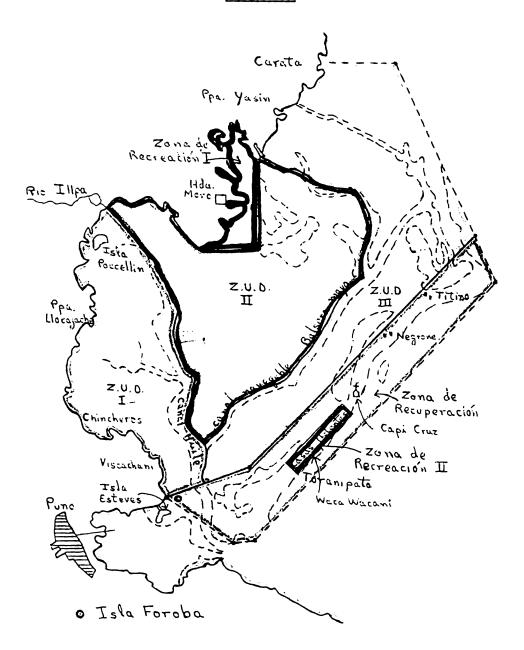
The Reserve is located in relation to towns, roads, and railroads. Map S1 explicitly distinguishes different types of roads. Many government maps, including most of the ones that the mapmaker is likely to have used as a basis for this one, include this distinction, so it is difficult to decide how much significance to attribute to a detail that might simply be the outcome of routine copying. However, this detail is important to the tourists and the staff of government agencies who are singled out as the intended users of the Reserve by the Supreme Decree, since many of them drive their own vehicles or have chauffeurs to take them. The mapmaker may have wanted to alert prospective visitors, whether government officials or tourists, to the difficulties of driving on roads other than the main highway. These matters are of less concern to peasants, who travel on foot, by bicycle, or by truck.



Map S1. Sector Puno of the Titicaca National Reserve.

Map S2, the second CENFOR map in this set, was made sometime between 1979 and 1981, with 1980 as its most probable date. It was included in reports that the CENFOR staff in Puno submitted to their superiors in Lima. It differs from map S1, on which it was based, in its somewhat smaller size (it is drawn on a scale of 1:150,000), in its inclusion of the administrative

NAPA DE ZONIFICACION DE LA RESERVA NACIONAL DEL TITICACA SECTOR PUNO



Map S2. Zones within the Sector Puno of the Titicaca National Reserve.

division (the "zonificación" in its title) of the Reserve, and in its elimination of some details external to the Reserve, such as roads, railroads, and the town of Huata (which last was indicated on S1 by a roughly pentagonal shape on the road leading to Yasin). The boundaries of the Reserve are slightly simplified. The mapmaker seems to have had tourism somewhat more in mind, as shown by the inclusion of Isla Foroba, the intended site of a small museum, and of the causeway that links the shores of the lake with Isla Esteves.¹³

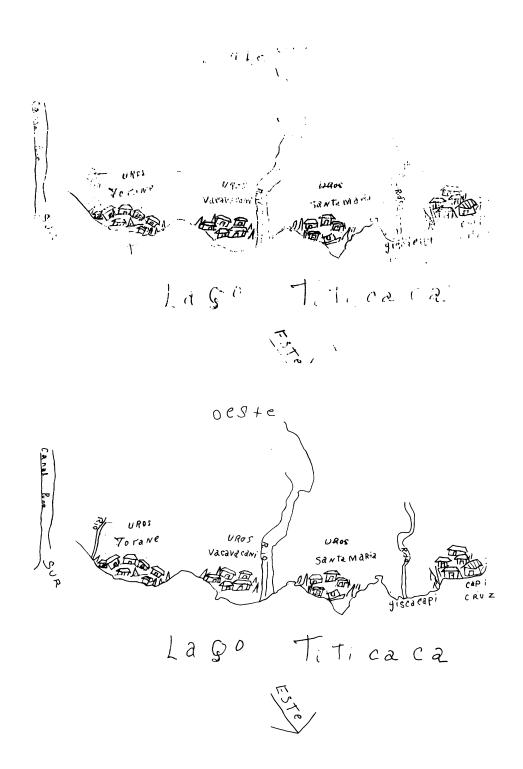
In this map, CENFOR has classified the Reserve into three types of zones according to the density of totora and the potential to attract tourists. There are three ZUDs (zonas de utilización directa), in which totora may be cut. A fourth region, which bears the name zona de recuperación, is a section in which the state decided that the totora was too thin to permit cutting. ¹⁴ The two remaining sections are zonas de recreación, the second of which contains the tourist attraction labeled "floating houses" (casas flotantes). The only feature that the map includes in the first recreation zone is labeled "Hda. Moro," although this Hacienda Moro had been expropriated by agrarian reform agencies in earlier years and incorporated into one of the post-reform state-sponsored cooperative agricultural enterprises of the type known by the acronym SAIS (Matos Mar and Mejía 1980). This zone may have been marked off, however, not because of its presumed appeal to visitors, but because it was an area in which disputed claims were particularly severe. It is the one portion of the lakeshore that was controlled by a large hacienda at the time of the agrarian reform in 1969, and several different groups sought to control it. ¹⁵

Maps P2 and S3, which both date to 1984, depict portions of the totora beds within the Reserve. They bear a much closer relation to one another than P1 and S1 do. Map P2 is the sketch (croquis) that the lakeshore community of Quipata included with its request (solicitud) to CENFOR to be granted an extraction contract. Map S3 was filed in a folder labeled Empadronamiento de las Comunidades Solicitando contratos de extracción de totora de la Reserva Nacional del Titicaca (census of communities requesting totora extraction contracts from the Titicaca National Reserve); the map itself was labeled UBICACION DE AREAS DE EXTRACCION DE TOTORA EN EL SECTOR PUNO DE LA RESERVA NACIONAL DEL TITICACA (SEPTEMBRE, 1984) (location of areas of totora extraction in the Sector Puno of the Titicaca National Reserve [September, 1984]).

Map P2 contains references to the cardinal directions; the words "east" (este) and "south" (sur) are clear. It labels the open waters of the lake beyond the edge of the totora "Lago Titicaca." Arranged across the map are four nucleated settlements on the floating islands, each of which is represented as an open-centered, roughly circular cluster of five to seven houses next to which its community name is written. With the exception of the one at the extreme right, the community names are legible; from left to right, they are Uros Torane, Uros Vacavacani, and Uros Santa Maria. (Though these places are also included on maps S1 and S2, their names are different in spelling and form, suggesting that the makers of Map P2 did not use the state maps as direct models.) The inverted Vs found in all four communities probably indicate the raised platforms on which the inhabitants stand to get a view over the tops of the reeds. The mapmaker has also included channels in the totorales; the one on the left is labeled "Canal Puno" and the other two are listed as "Rio." At the mouth of the righthand channel is its name, Jiscacapi, composed of *jisca*, the Aymara word for "small" and a frequent first component of toponyms, and the name Capi, which appears in other nearby place names. There may also be a fourth channel indicated at the right edge of the map.

The map locates the communities and the channels in relation to one another. It offers a somewhat different view of the floating houses and the totora beds than aerial photographs and Peruvian military maps do. First, it shows the floating houses clustered into nucleated centers, thus leaving out the large percentage of isolated houses that are dispersed along the edge of the reed beds. Second, it presents the nucleated centers as roughly equidistant, omitting an unpopulated stretch several kilometers wide that divides the floating islands into two groups. Finally, it greatly exaggerates the unevenness of the edge of the totora beds. In sum, it depicts the totora beds as containing a continuous set of communities, each of which has a well-defined center and is separated from other communities by rivers, channels, or bays.

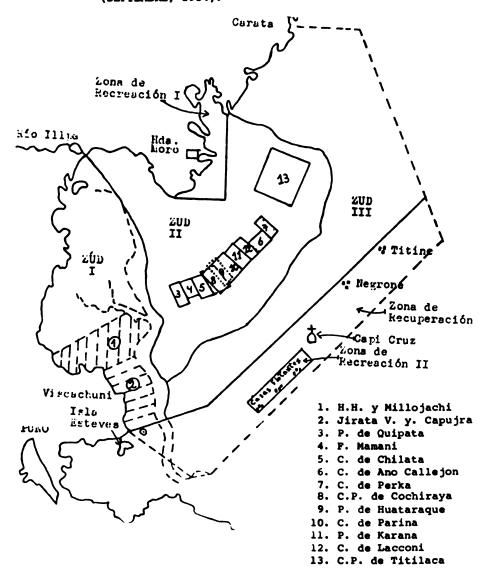
CENFOR prepared Map S3 as part of its efforts to summarize its activities for the year 1984. In this map, which is on the same scale as Map S2, the area assigned to Quipata is shown as the rectangle marked by 3. This rectangle differs from the area in Map P2 in many ways, of which the contrast between the precision of the straight lines and the roughness of the sketch



Map P2. Map accompanying the totora extraction contract request from the community of Quipata (top) and the same map with certain details rendered more clearly (bottom).

is only one. Map S3 shows the floating islands to be a zona de recreación contained within a zona de recuperación in which no cutting is permitted. The area depicted in Map P2 is thus at

UBICACION DE AREAS DE EXTRACCION DE TOTORA EN EL SECTOR PUNO DE LA RESERVA NACIONAL DEL TITICACA (SEPTEMBRE, 1984).



Fuente: CENFOR X-PUNO
Proyecto Reserva Nacional del Titicaca.

Map S3. Location of totora extraction areas in the Sector Puno of the Titicaca National Reserve.

some distance from any portion of the Reserve in which CENFOR would permit extraction. A comparison of maps S1, P2, and S3 shows that the communities in Map P2 whose names are legible are the same as the ones in the *zona de recreación II* in Map S3, so that Map P2 at best suggests an intention to cut totora somewhere in the areas marked by rectangles 3 through 5 and 8 through 11 or 12.

Since the community of Quipata submitted Map P2 to CENFOR as part of a formal request for an extraction contract, it seems reasonable to assume that the map indicates the portion of the Reserve for which they requested extraction rights. The map could be taken either as the actual place where they will cut totora or at least as the portion of the outer edge of the vast totora bed in the Reserve to which they will travel. Granted the history of relations between the inhabitants of the floating islands and the lakeshore communities such as Quipata, Map P2 strongly suggests the intention of the *comuneros* to travel to some portion of this wide band of communities in Capi, request permission to cut totora, and travel along the "canal" and "ríos" to the portions indicated to them by the members of the communities in Capi.

comparing the maps

As the previous section has suggested, peasant and state maps depict Lake Titicaca and its shores in quite different terms. I first examine these differences through the previously described analysis of form: a study of the inclusion and exclusion of features, classification of features, and relations between features. Some comparisons can be made on the first two aspects alone: the selection of certain numbers and types of human and natural elements leads to some elements being present in both sets of maps, to others being included in one set but omitted from the other, and to different emphases in each set. Such a comparison would comment on the absence of towns in the peasant maps and the paucity of communities in the state maps and on the differing depictions of roads in order to suggest that the peasant maps present the altiplano as rural and self-contained, the state maps as urbanized and linked to other regions. The comparison, however, rests principally on the third aspect, the relations between features. It suggests that the difference between the two sets of maps is more basic than a mere question of emphasis, because they are organized differently, both as individual representations and as series of representations. They reveal different assumptions about the making and reading of maps, assumptions that are congruent with different understandings of political authority in general and the conflict over the reeds in particular.

The peasant maps depict a series of communities, each of which consists of a focal place defined by a building or set of buildings, located at the center of a territory enclosed by wellmarked boundaries. There is a suggestion that the focal places contain plazas surrounded by buildings, since they are depicted as open triangles in Map P1 and roughly circular clusters of houses in Map P2. All of the communities that are shown border on Lake Titicaca; their other boundaries consist of high points (mountain peaks that surround a valley, peninsulas that enclose a bay) or channels of water (streams, inlets that border a promontory). These communities are depicted as equivalent, both in the size and composition of their centers and in their areas, because the maps present as uniform the variable distances between them. (Because of this even spacing of communities, the maps are not what Western cartographers call "to scale": a fixed linear distance on a map does not correspond to any fixed linear distance on the land or water, much as the depicted heights of mountains on map P1 do not correspond to the elevation of their peaks above sea level, or in this case, above lake level.) In addition, the communities are contiguous, so that no unoccupied space is left between them. Both of these maps suggest that each community controls a specific territory and that the communities jointly control the entire region.

The state maps emphasize a different dimension, that of time. To be more specific, I propose that maps S1, S2, and S3 be read in sequence. The first separates the Reserve (or, more strictly speaking, Sector Puno within the Reserve) from the rest of the lake; the second divides the Reserve into different types of zones; the third allocates portions of certain zones to users under year-long extraction contracts. These three maps, then, correspond to the three activities mentioned in the law that created the Reserve: the "studies" to determine its border, the "devel-

opment" of the Reserve, and its "administration." These activities are listed not in a random order but rather in terms of stages of enactment of the law. The administrative decisions added in each map are duplicated in the later maps. The boundary of the Reserve remains unchanged, as a series of straight lines that connect a portion of the shore with a set of points within the lake. The gradual loss of any distinct marking of these points is the only erosion of detail in the series of three maps. Map S1 contains all the *hitos*, and Map S2 includes some of them, now reduced to dots; by Map S3, they have disappeared.

These maps thus constitute a narrative: they tell a story of an actor with a set of purposes carrying out a series of activities that take place over time. The structure of the narrative, to borrow a term from the study of rhetoric, is that of prolepsis: the assumption that future acts are preordained. (A common proleptic feature in Western literature is foreshadowing, the prefiguring of future events.) In this case, the maps depict in visual form the notion, explicit in the text of the law and implicit in interviews with government officials, that the state anticipates its own future actions. The state moves from general to specific, adding detail to its previous actions but not undoing any of them. The titles of the maps correspond closely to the activities that the Supreme Decree ordered CENFOR to do, as shown in Table 2. The title of Map S1, "Sector Puno," indicates that CENFOR has completed the task of the basic "studies" to define the Reserve, much as the title of Map S2, "zonification," corresponds to "development" of the Reserve, and the "location of areas of totora extraction" in the title of Map S3 to the "administration" of the Reserve. The later maps show that CENFOR has carried out all the aims assigned to it in the Supreme Decree without adding any new ones on its own: the division into "direct utilization zones" and "recuperation zones" demonstrates the "conservation of natural resources" and, in conjunction with the "areas of totora extraction," the "development of neighboring populations through the rational utilization of the flora"; the "recreation zones" correspond to the "promotion of local tourism."

These three maps share an important omission: the Sector Ramis, also missing from the oral accounts of state officials. Its presence may only be noted obliquely, by the legend that describes the area as "Sector Puno" rather than "Reserva Nacional Titicaca." The CENFOR staff, who remained largely silent in conversations about the problematic Sector Ramis, leave it invisible and virtually undetectable in their maps.

The integrated sequencing of these three maps reflects their origin from a single institutional mapmaker, CENFOR. (A close examination of certain details strongly suggests that several different individuals drew the maps. The dashed lines vary in their evenness and thickness and in the relative lengths of the lines and of the gaps between them, for example, and the arrows on Map S2 have larger heads than those on Map S3.) By contrast, maps P1 and P2 have different makers, as do the other maps submitted with extraction contracts. These maps, like the other peasant maps described in note 6, do not form a temporal sequence.

Although the peasant maps include no towns and the state maps omit the Sector Ramis, the peasants and the state do not erase each other from their maps. They indicate their recognition

Мар	Date	Title of map	Activity of CENFOR as specified in Supreme Decree 185-78-AA of 1978	Boundaries that are indicated
S1	1979	Sector Puno	Studies	Reserve
S2	1980	Zonification	Development	Reserve Zones
\$3	1984	Location of areas of totora extraction	Administration	Reserve Zones Contract areas

Table 2. A summary of state maps as proleptic narrative.

of the other through structured and limited inclusions, carried out in ways that do not undercut their claim to sovereignty. In the peasant maps, the sole sign of the state are the flags in Map P1 marking the centers of communities that held assemblies to join the Totora Defense League. It is difficult to interpret nuances of political legitimacy from the maps alone. However, it seems likely that the peasants viewed these flags as indicating that the state ratified their autonomous rights to own and manage their territories, rather than as suggesting that the state delegated these rights to them and could therefore remove them (Orlove 1982). These assemblies were not called by state officials but rather by members of the communities, some of which have official recognition from the state through the Ministry of Agriculture and Food and some of which do not.¹⁶

The CENFOR maps only recognize peasants when the state charters them into existence. All three maps include the Uros, whom the Supreme Decree distinguishes from all other peasants because they live within, rather than adjacent to, the Reserve. The other peasants appear only in the third map, after CENFOR has established an appropriate structure for administration of the Reserve; these peasants are ones who may be presumed to acknowledge the authority of the state, because they come from "communities [which are] requesting" (comunidades solicitando) extraction contracts. The maps thus include some of the distinctions by which the state divides peasants and which the peasants themselves do not admit: distinctions between Uros, shoredwellers, and others; between recognized and unrecognized communities; between qualified and unqualified communities.

The maps indicate no movement toward resolution of a fundamental difference between the peasants and the state, that each believes that it controls the reed beds. The disparity between their views remains as great in 1984 as it was in the mid-1970s, despite the changes in the intervening years. The peasant communities do not acknowledge that the state has gained some measure of control over the reed beds, at least in portions of Puno Bay. Much as peasants on the shores of the lake still speak of traveling to Capi to "rent" totora from the local community members, rather than receiving contracts from the state to "extract" it from the Reserve, Map P2 depicts the reed beds as part of the communities in Capi and makes no overt reference to the Reserve. This peasant emphasis on the spatial continuity of their control over their territory excludes the state as a political competitor. The maps also contain minor hints of a theme expressed more clearly in oral accounts of the history of the reed beds: the peasants understand their control to be ancient and unchanging and to derive legitimacy from several equally ancient and unchanging sources, in the realms of agriculture (the maps indicate the use of lands at different elevations), politics (the maps show the locations of assemblies and possibly of plazas, denoting authority), and ritual (Map P2 includes boundary mountains at which ceremonies are held on certain occasions of the year).

By contrast, the state maps represent CENFOR as controlling the reed beds of the lake, without acknowledging the decline of CENFOR's power: the exclusion of the region of Totora League activity from the Reserve around 1977–78, the inability of CENFOR to exercise power over the Sector Ramis in 1978–82, and finally the cessation of totora extraction contracts by communities in several districts of the Sector Puno in 1980–84. The proleptic narrative of the state, by requiring compromises by the state to be presented as prefigured in laws, makes them not real compromises at all.

These differences in the spatial, temporal, and social patterning of the maps suggest that the irresolution of the two accounts is not merely the result of deliberate obstinance, but rather that it stems in part from a more fundamental incapacity of each to understand the other's views because the views are incommensurable, in two senses of the word. First, and more literally, there is no ratio that can convert a distance on a state map into the equivalent distance on a peasant map or vice versa.¹⁷ Second, and more metaphorically, the two sets of maps portray the relations between human and natural features of the landscape—or, phrased more abstractly, the relations between social groups and the natural environment—in ways that are so

radically different as to be incompatible. Each group presented a set of maps that was congruent with its claims for legitimate control of the reed beds.

This lack of resolution is troubling, perhaps because it violates the expectation of closure at the end of narratives, whether historical, social scientific, or literary. It raises the question of how this incommensurability has been preserved, and thus entails an examination of the social activities and cultural conceptions that surround the circumstances in which the maps pass from the individuals who drew them to those who look at them—in other words, an analysis of practice as well as of form. Particularly puzzling in this case is the use by peasants and officials of these maps in apparently normal political and bureaucratic activity, such as the bargaining over the boundaries and status of the Reserve before its opening and the partial compliance with government procedures for licensing afterward.

The analysis of practice consists largely of two parts, the first of which might be termed an "ethnography of viewing" and the second of which is an examination of the social and cultural categories into which peasants and officials place maps. Before taking them up in turn, however, it is worthwhile considering how an analysis of form can lead to an analysis of practice. The key links in the case are the concepts of "implied viewer" and "actual viewer," a direct borrowing of the notions of "implied reader" and "actual reader" as developed by Iser (1974, 1978), who has recently adopted the term "literary anthropology" for his work (1989). An analysis of form can provide many clues to the identity of implied viewers, whose nature may be more fully understood through an analysis of practice. The peasant maps clearly have state agencies as implied viewers, whether the Ministry of Agriculture and Food, to whom Map P1 was submitted, or CENFOR, which required Map P2. Nonetheless, the state agencies did not scrutinize the maps with care, as an examination of practice will reveal; it seems that the peasants were the actual viewers who studied the maps with attention, as suggested by the size of Map P1, large enough to be displayed at meetings, and by the detail with which the maker of Map P2 depicted specific communities.

The implied viewers of the state maps seem to be the general public of all Peruvian citizens to whom the state addresses its discourses. The use of reflexive verbs in official documents obscures the identity of both the author and the reader of the laws, making the author an implied singular rather than plural person and the reader an indirect rather than a direct object; thus, the Supreme Decree that announced the formation of the Reserve begins "se ha expedido el siguiente" (literally, "the following [text] has issued itself"). El Peruano, the title of the official newspaper in which such documents are published, is simply the generic masculine word for "Peruvian" and suggests the generality of the public to which the state addresses itself. Like the laws, the state maps do not directly address the issue of their implied audience, but they do contain some clues, such as their inclusion of certain details that refer to legal terms and categories—the abbreviation "H" for hito ("boundary point") and the phrase "zona de recuperación," for example. The inclusion of details unfamiliar to most Peruvians emphasizes the position of the state as the source of the discourse and reduces the importance of the recipients of this discourse. If all Peruvians are the implied viewers, the actual viewers are other officials of state agencies, to whom the CENFOR employees in Puno sent reports.

These identifications of implied and actual viewers are borne out by a description of the concrete practices of viewing, or, in other words, an ethnography of viewing. On some occasions, both peasant and state maps were open for viewing at the same time in the same place. When delegations from peasant communities came to the CENFOR offices on Calle Moquegua in Puno in the early 1980s, they walked through a gate, crossed a narrow courtyard, and entered a large room that had been the living room of a private residence before the owners rented the building to the government. This room contained a few desks, chairs, and filing cabinets; taped on the walls were maps of Lake Titicaca on which were indicated the borders of the Reserve and the zones into which it was divided. These maps, quite similar to maps S2 and S3 but larger in scale, were made by a process similar to the one used for blueprints, yielding

products with a light purple-blue tone to the background, and slightly fuzzy lines and lettering in a darker shade of the same purple-blue color. They were large, well over a meter on a side, since they showed a larger portion of the lake than the state maps included here, and since they were on a scale of 1:100,000. These maps were in sight when the peasants stood in front of a desk and presented, to the official seated behind it, the various documents, including the maps of the proposed totora cutting sites, that were required to request a totora extraction permit. There are several reasons why the discrepancies between these maps and those of the peasants did not come to attention. First, the two sets of maps appeared quite different, in straightforward visual terms, to the individuals who viewed them. The wall maps, though large, had lettering comparable in size to that of the smaller maps S1, S2, and S3, so that the names of places and physical features could not be read from the distance at which the peasant delegations viewed them; the peasants were too cautious, or at least too deferential, to wander from the desk in front of which they stood and examine the material on the office walls in order to compare it with the maps that they had drawn. The CENFOR officials also sat at some distance from the wall maps and would have had to walk over to collate the two. This ethnography of viewing shows that analysis of form may rest in part on analysis of practice; in this case, the legibility, and hence the intelligibility, of place names depends on the distance from which they are viewed.

The social activities of viewing draw on the cultural categories of maps, the second component of the analysis of practice. The state has two well-defined categories of maps, with established relations between the two; peasants have three relatively loosely defined categories of maps, without specified relations among them. These categories rest on the use of the maps as well as on their appearance. Visual representations that social scientists would not ordinarily classify as maps are included in all three peasant categories, and are excluded from both state categories.

CENFOR officials reserved the term *mapa* (map) for the state maps, employing for the peasant maps the term *croquis*, a word that is often translated as "sketch" but also includes the sense of "rough draft." This conceptualization allowed them to present any difference between peasant maps and state maps as the result of peasant errors, errors so numerous and severe as to place the peasant maps in another category altogether. The term *croquis* also has a narrative implication: it suggests that the peasant maps will serve as the basis for a later corrected map, drawn by state officials, as Map P2 is transformed into the rectangle 3 on Map S3. Indeed, a *croquis* need not be crudely drawn, just as some *mapas*, such as S2, can be rough. The sharpness of this distinction rests on the centrality of official documents to state discourse. The contrast between *mapa* and *croquis* is supported in this case by the government's use of the latter term in the 1975 law that established CENFOR, which requires the provision of such a *croquis* for the issuing of extraction contracts for all forest products, whether timber or nontimber products such as totora.

For peasants, cultural categories also blocked the comparison of the maps. Peasants have a loose set of types of maps rather than two simple named categories of maps; in this domain as in many others, peasant discourses are less systematized than those of the state, in part because of the lesser importance of written documents and of centralized institutions. Nonetheless, peasants are accustomed to several types of maps. Some could be called vernacular maps: peasants may use a stick to scratch a few lines in the earth, usually to indicate the location of some particular place. These are fairly uncommon, since peasants more often give oral directions by describing a route based on references to landmarks.²⁰ Peasants occasionally draw others, which might be termed bureaucratic maps, for official proceedings like lawsuits or loan applications; these tend to resemble the peasant maps of the reed beds in their depictions of rivers, roads, and villages. These maps most often indicate boundaries of some fields, pastures, or other lands. These are drawn only infrequently: in local disputes, peasants often walk to the boundaries of fields or communities and inspect the boundary markers, usually stones, and

when they submit documents to officials, a written list of boundary points often substitutes for a hand-drawn map. A third type is official maps;²¹ they typically depict a whole composed of parts. The conventional political maps of Peru that adorn classroom walls are a good example. Drawn on a scale of one to several million, they make Peru look something like a quilt, with the departments into which the country is divided being irregularly shaped patches, each of which consists of a piece of cloth of one of four or five bright colors. In the minds of the peasant children who copy such maps as school exercises, and in the minds of the adults who see the copies, these maps may bear little more direct relation to a natural and social landscape than do other emblems contained in pedagogical assignments: the national shield, whose vicuña, quinine-bark tree, and cornucopia of gold coins depict the riches of Peru in the animal, vegetable, and mineral kingdoms; and the flag, whose three vertical stripes resemble the division of Peru into the three regions of costa (Pacific coastal desert), sierra (Andean highlands), and selva (Amazon jungle), which run, like the flag's three stripes, from an upper to a lower border. The peasants probably placed the maps in the CENFOR building in the category of official maps because of their size and location on a wall.

In his discussion of state-sponsored nationalism in Southeast Asia, Benedict Anderson develops the term "logo-ization" (Anderson n.d.:12) to refer to the way in which national maps can be used "for banners, letterheads, official gazettes, magazines, airport decors, tablecloths, and so on" (Anderson n.d.:13). The peasant category that I have termed "official maps" comes close to Anderson's notion of logo, but in his view the state creates and diffuses this logo-ization of the map. His discussion omits two aspects of state-drawn maps that are of importance in this case: the possibility of multiple readings of maps and the formal categories that the state uses in its discussion of images. The Peruvian state has an official discourse regarding representations of the nation. It applies the term símbolo pátrio (homeland symbol) to only four things: the flag, the shield, the national anthem, and the escarapela or cockade, a small ornamental rosette made of ribbons. Several grounds could be offered for the exclusion of maps from this category: the contrast between the multiplicity of maps and the unity of the nation, the excessive and nonsymbolic directness of the relation between maps and that which they represent, the many changes in maps attendant on changes in boundaries made by wars and treaties since Peru achieved independence in 1821. Like the contrast between mapa and croquis, the state's definition of símbolo pátrio is precise, formal, encoded in documents. The peasants' association of the national maps with the flag and the shield may simply reflect the spatial proximity of these things to one another and to government representatives in schools, police stations, and administrative offices, or it may be a tactic, in de Certeau's sense of the term (1984), that the peasants use to evade the state's claim to power. The imputation that the maps, flags, and shields are alike is potentially a serious one. As Anderson points out, the precise delimitation of national borders is an important basis for state legitimacy and centralized rule (n.d.:7-12), and Peru is no exception, as is shown by the extreme care that was taken in drawing the border that divides the altiplano into its Peruvian and Bolivian sections (Fifer 1972:78-82, 140-150; Toppin 1916). The erasure of the difference between purportedly objective maps and more arbitrary symbols undercuts the state's claim to govern by denying the success of its closely related topographic, cadastral, administrative, and policing missions (de Certeau 1984). (Helgerson's "The Land Speaks: Cartography, Chorography, and Subversion in Renaissance England" [1986] examines these issues for a period when detailed national maps first began to appear.)

This analysis of practice can lead back to an analysis of form. There are two additional and related ways in which the state maps differ from the peasant maps: the former adopt more fully than the latter what Anderson (n.d.:8) calls the "bird's-eye convention" of depicting all features as they would appear from the air,²² and the former all connect spatially with one another and with other state maps, so that the Sector Puno can be precisely located on state maps of the region or of all of Peru, such as those placed on the walls of the CENFOR office in Puno. The

existence of only one state category of *mapas* is congruent with this connectedness of all state maps and this perspective in space, from which only the state sees Peru as a unity. The peasant maps contain several repeated violations of the bird's-eye convention: the flags and the mountains in P1, the houses and, possibly, the viewing platforms in P2. These are all depicted as they would be seen from the ground, the houses and flags from up close and the mountains as peaks on the horizon. Features at the centers of communities are drawn relatively large and those on the boundaries relatively small, making this viewpoint literally community-centered. Consistent with this combination of a bird's-eye perspective with a ground-based view are several features of the peasant maps: the multiplicity of peasant categories of maps, the inclusion of representations other than maps in each category, and the fact that particular peasant maps do not immediately form pieces of other, larger maps.²³

To review this conflict, I will draw on Gudeman and Rivera's emphasis (1990) on the notion of conversation and their portrayal of anthropologists as both listeners and participants in conversations in the field. Since the implied viewers of the peasant maps are state officials, and those of the state maps the entire Peruvian citizenry, including the peasants, the maps jointly imply an exchange between peasants and the state, a conversation in which two parties alternate the roles of speaker and listener. On closer inspection, this conversation is far less important than the two distinct, incompletely linked conversations among peasants and among state officials, the former group consisting of a network of speakers whose different conversational contexts are loosely tied, the latter of a centrally organized system of speakers whose different conversational contexts are hierarchically integrated. The separation of these two conversations corresponds to the irresolution of their differences. The lack of conversational exchanges between the two presumed interlocutors allows their highly discrepant positions to be compatible, in the sense that compatibility implies an existing together without disagreement, discord, or disharmony as well as an absence of conflict that would make association impossible or incongruous (Merriam 1973:181). It is even difficult to decide whether or not a conversation—in this case, a dispute—has taken place.

The dilemma is particularly acute in this instance, because of the increasing political violence in the altiplano in the second half of the 1980s, as the Sendero Luminoso and military activity that developed elsewhere in Peru have expanded in the region (Taylor 1987). It would now be virtually impossible for me to travel through the villages on the Peruvian shores of Lake Titicaca. The theme of the gap between the state and rural people has taken on a new urgency. I do not wish either to demystify the Sendero by reducing it to its economic and political causes (McClintock 1989) or to remystify it by emphasizing its uniqueness and thus suggesting that radical cultural differences separate Andean peoples from 20th-century life (Vargas Llosa 1983). Rather than adopting as my task a common responsibility of the ethnographer, the rescuing of voices that would otherwise be lost, I offer a variant: the recording of failed conversations that preceded a war.²⁴

viewing maps

The five maps in question here all depict similar areas, shallow portions of Lake Titicaca and, in most cases, the adjacent shores. However, they represent them in different terms. The state maps lay out a narrative of the conception and enactment of a detailed plan for a specific territory in which state officials control the natural features and human populations. The ones made by peasants tell a different story: of the control of the territory by a set of communities, all equal to one other; of the continuity of this control; of the ratification of this control by a remote state.²⁵ Analyses of form and practice have explained the fact that neither peasants nor state officials have challenged the discrepancies between the sets of maps or even commented on their incommensurability.

The lack of attention to difference seems odd, granted much of the current discussion of representation and power in societies with class divisions and with centralized states. Foucault's writings, for example, emphasize the unity of systems of domination. Although his writings often present difficulties to readers (in part because of their great originality, in part because of the diverse and evolving character of his ideas), certain issues have an importance throughout his work. Most central is the notion of systems, at one point termed "epistemes," of discourses and practices (this notion has been evident since Madness and Civilization [1965] but is increasingly emphasized in later books). These systems provide categories and representations for the natural and social world and (in a theme again present in Madness and Civilization and more fully developed later) are intimately connected with systems of power and domination. Some of the best-known examples of Foucault's approach are his historical studies of fields, such as madness, medicine, linguistics, economics, criminality, and sexuality, through which many aspects of daily life are observed, categorized, regulated, and controlled and to which opposition or resistance is often indirect. Foucault often refers to these studies as "archaeology" rather than history because of the close parallel between the archaeological notion of stratigraphy and his own emphasis on the unities within systems and the sharpness of the discontinuities between them. Power within these systems is often concretized in the state but is not restricted to the state. For Foucault, underlying patterns of thought and action are manifested in the state, just as they are in scholarly and applied professions and other, less institutionalized aspects of social life. Foucault's interpretive frameworks seem appropriate to the case of the Lake Titicaca reed beds, both for general reasons (the interconnections of discourses and practices, the possibility of covert resistance to domination) and for ones more specific to the maps. In particular, the field of cartography is reminiscent of other fields, such as medicine and sexuality, about which Foucault wrote extensively. Cartography treats its subject matter, the landscape, by categorization and depiction, much as those other fields treat theirs, the human body. Important parallels include the implicit claim to offer accurate representations (in this case, of the world), the association with scientific fields (geography), the dispersion of the making of representations (maps) beyond the state to professionals and other social groups, and the links of the field to systems of power and domination. The links between cartography and those other fields lie in the supervision and control of the movements and activities of persons. This spatial dimension of the regulation of the human body may be a more fruitful topic of inquiry in Latin America than in France, where Foucault concentrated his studies, because of the great differences in the links among nation, state, and government in the two regions. (When interviewed by the editors of the French geographical journal Hérodote, Foucault agreed that his work did not include a serious examination of geographical issues and that it specified the temporal but not the spatial limits of his epistemes; only at the end of the interview did he begin to acknowledge the importance of spatial issues in the "tactics and strategies of power" [Gordon 1980:63-77].)

Another link between the maps and Foucault's work is his emphasis on vision. This emphasis is evident in much of his work, such as his discussion in *Discipline and Punish* (1977) of the panopticon, the prison in which the guard can simultaneously observe every prisoner, and the section that opens *The Order of Things* (1970), a discussion of Velázquez' painting *Las meninas*, in which the steady outward look of the artist depicted in the painting serves to indicate general issues of perception and representation. The word "gaze" occurs throughout his work. The English title *The Birth of the Clinic: An Archaeology of Medical Perception* is not quite a literal translation from the French, since the last two words of *La naissance de la clinique: une archéologie du regard medical* are more accurately rendered as "medical gaze." This word in its sense of fixed and prolonged attention (Merriam 1973:370) suggests control over an immobile and possibly unaware object, and thus fits closely with Foucault's analysis of discourse and power. (In the issue of medical gaze may be found the greatest direct overlap between Foucault's studies of the human sciences and Latour's of the natural sciences. Latour's account

[1988] of the growth of microbiology and hygiene in late 19th-century France, with attendant shifts in such realms as medicine, agriculture, military organization, and colonial policy, offers the notion of medical inscriptions rather than that of the medical gaze. These plural inscriptions involved the participation of supposed objects as well as subjects, and their significance was open to debate at the time of their formation—and remains open today. Latour shows fluidity, change, and debate in the midst of what Foucault took to be a single coherent medical episteme.) In the instance of the conflict over the reeds, however, the state glances, rather than gazes, at peasant maps. Having requested that the peasants provide maps, in the sense of visual representations of natural and social features of a specific territory, the state turns them from maps into rough drafts; the culturally specific details of Map P2 are reduced to a rectangle in Map S3, the features of the peasant maps that propose a view different from that of the state are transformed into inaccuracies or irrelevancies, and the state sees peasant assent where it does not exist. Foucault's discussions rarely include cases such as this, in which systems of power attempt neither to locate nor to control differences. The peasants in the altiplano, however, do not have to escape the state's gaze, ²⁶ since they find its glances so inconsequential.

This case of viewing raises a second difficulty with the application of Foucault's work here. His analysis of discourse and practice rests on the premise that basic understandings are widely shared and deeply internalized, yet the peasants and state officials produce and interpret maps in very different ways. They would seem to lie on opposite sides of a discontinuity that separates two epistemes, a possibility that Foucault does not discuss.²⁷ This case, however, may not diverge so much from Foucault as it does from France. Had Foucault's premature death not interrupted his work, he might have carried forward the comparative dimension found most strongly in his last writings, *The History of Sexuality* (1978) and the unfinished fragments on the care of self. In this way, he might have integrated non-European cases more thoroughly into his thought, and, through a consideration of non-Western cultures and of colonial situations, have allowed for possibilities such as this one.

If Foucault's ideas help us to understand the perceptions of the state, Gramsci's writings, their ambiguities notwithstanding, may be used to study those of the peasants, perhaps in part because the Peruvian state resembles the Italian state, with the weaknesses attendant on its late unification, more than it does the older and more centralized French state, so strong in Foucault's mind. Gramsci's focus on the associational character of political life draws attention to the community as a point at which peasant and state ideologies would compete; his wellknown distinction between traditional and organic intellectuals could be applied in somewhat modified form to the state and peasant mapmakers. (Latour shares with him, and with many others, an interest in politics as the building of coalitions opposed to one another.) Most apposite, though, is Gramsci's notion of hegemony, since it proposes that elites exercise political domination not only through direct coercion and control of resources but also through the establishment of ideologies that legitimate their rule. His ideas suggest that the dominant groups, whether social classes or the state, seek to impose their own ideologies (in this instance, a construct of state control over territory) and that a point of difference (in this instance, the incommensurability of the maps) would be the locus of struggle in which subordinate classes challenge domination through their counterhegemonic ideologies and activities. The term that comes to mind here is resistance, a metaphor not of vision but of force that has gained considerable usage in the current, more culturalized discussion of politics in a variety of settings around the world (Comaroff 1985; Martin 1987; Ong 1987; Scott 1985) as well as in the Andes (Burga 1988; Flores Galindo 1987; Langer 1989; Rasnake 1988; Rivera 1986; Stern 1987; Weismantel 1988). Although the possibility of resistance is of theoretical importance to Foucault, he devotes very little space to a discussion of practices and discourses of resistance, in contrast to his lengthy treatment of domination (Dreyfus and Rabinow 1982:206-207, 224-226). Much as the term "gaze" implies a viewer and a viewed, the term "resistance" suggests two parties in a dominant and a subordinate position, in this case with the powerful party pushing the weaker one in some direction; unlike the term "gaze," which attributes passivity and possibly lack of awareness to the subordinate party, the term "resistance" implies that the subordinate party overtly recognizes the hostile or threatening force and actively withstands, counteracts, or alters it (Merriam 1973:688). Gramsci draws on a similar notion in his discussion of "the purely Italian concept of 'subversive' " (1971:272), the idea that a class or set of classes defines itself in opposition to its enemies. In the instance of the reed beds of Lake Titicaca, however, the term "resistance" is less appropriate, suggesting a certain Eurocentric bias in Gramsci's work as well as Foucault's, because the peasants do not so much oppose the state as remove themselves from it, or at least displace or subordinate it in their accounts. The term "resistance" implies an engagement between two parties, if only because the metaphor of pushing implies physical contact. Though such engagements may take many forms, including withdrawal and retreat as well as conflict and combat, it seems that the peasants' sheer lack of attention to the state is much further from the sense of the term "resistance" than are most other activities to which that label is attached. The peasants claim that they continue to manage their affairs in the fashion that they always have, and that the state, having withdrawn its challenges to them, once again acknowledges their right to do so; their view is one not so much of peasant resistance as of state desistance. This alternative has received less attention, perhaps because of its incompatibility with the assumption of domination and subordination inherent in the notion of resistance. The peasants' maintenance of control over the reed beds thus raises problems for the applicability of one of Gramsci's basic dicta, "the first element [of politics] is that there really do exist rulers and ruled, leaders and led" (1971:144), since this case fits so poorly with most notions of the nature of ruling and of leading.

A number of South Asian scholars (Ranajit Guha 1983; Ranajit Guha and Spivak 1988) have used a related term of Gramsci's, "subaltern," in the name of their group, and have adopted much of his approach in their examination of the ways in which popular culture has supported, and been shaped by, resistance to hegemonic domination, especially during and after colonial rule; they have also drawn, somewhat less extensively, on Foucauldian notions of discursive power. Such a history from below has much in common with the approach taken here to the conflict over the Titicaca reeds. One recent study (Ramachandra Guha 1989), closely allied with the subaltern studies group, of peasant resistance to commercial exploitation and state regulation of Himalayan forests offers a number of parallels in its emphasis on peasant notions of state legitimacy and on customary land-use practices and village authorities, but contains an important difference as well: an emphasis on direct confrontation and indirect resistance where I have described disengagement. This contrast might be attributed to the ways in which India differs from Latin America (in scale, cultural diversity, colonial history, and the role of intellectuals [Kahn 1985; O'Hanlon 1988; Prakash 1990], among others) as well to the analytical traditions from which that study has borrowed.

At the level of specific political actors, two striking features emerge from a comparison of these maps. First, the state is turned inward, preparing representations for itself rather than for its control over its territory and citizenry. The recent literature on the state in the Third World has focused on the distinction between strong and weak states (Migdal 1988). This case is, at the very least, one of a Latin American state far weaker than is ordinarily assumed. Latin American governments are generally believed to maintain effective control over all populated, and most unpopulated, sections of their territories, except under unusual circumstances, notably civil war, guerrilla movements and, more recently, illegal drug trade. These circumstances are usually deemed less unusual in other portions of the Third World: Lebanon, the Philippines, Burma, Mozambique, and Ethiopia are only a few examples that come to mind. Even in the regions free from such civil disturbances, Latin American governments are often seen as maintaining an administrative presence more effective than that found in most African and some Asian nations (Eckstein 1989). Second, the peasants seem autonomous rather than subordinated. The recent literature on peasants in the Third World has focused on the consequences

of the incorporation of peasants into economic and political systems; in this instance, at least, these consequences cannot be assessed, simply because peasants have retained a considerable degree of independence. This view differs from most in that it emphasizes the attributes of the rural inhabitants of the altiplano that make them something like a sovereign people, and hence a nation, rather than the ones that make them a class (Anderson 1983).

It could be argued that the unusual features of this case derive from the unique ecological conditions, historical background, and cultural diversity of the altiplano. However, many areas share the structural and historical features that have favored this irresolution and incommensurability. In particular, the irresolution that characterizes this conflict is created by the state's view that the peasants are passive citizens and the peasants' belief that the state is a remote, aloof supporter of their own local political institutions. The former view draws some of its strength from the fact that Peruvian law rests on a tradition distributed quite broadly across the globe, that of civil law, in which central authorities proclaim legal codes. (Had the lakeshore communities or CENFOR brought suit against the other, the case would have been heard by a minor administrative judge in the Ministry of Agriculture and Food, and appeal would have been virtually impossible. If Peru had a common law tradition, then customary peasant practices would have the weight of precedent and could have been presented as evidence in court. As E. P. Thompson has argued in Whigs and Hunters [1975], it was precisely this common law tradition and the role of courts that led a generally similar conflict over control of English forests in the 18th century to reach a rapid resolution, in part because the courts compared and rendered commensurable the quite distinct claims of local peasants and government officials.) The peasants' view of the state as ratifying their own affairs from a distance rests on features of corporate land-holding villages, such as community assemblies and leaders with ritual and political functions, that have parallels in many other parts of the world. More broadly, a general tendency of organizations to attribute power to themselves may be reflected both in the state's perception of itself as the only source of law and of planning and in the peasants' view that their longstanding use and management of their lands legitimize their control over them.

Our discussion of the maps also raises some questions about the relation between communication and action. First, it shows that the concept of "interest," once seen as straightforward and as the basic element in the analysis of political action, has become much more complex in recent anthropological thought (Latour's work is a notable example) and, in some cases, has been abandoned altogether. In this case, it would be difficult to define, let alone to measure, the interests of peasants and government officials, even in regard to so economically important a resource as the reeds. Each side holds distinct, complex notions of use, control, and ownership of resources. The differences in these views make it difficult to establish a single authoritative account of the conflict and its outcome; this lack of a single account, in turn, challenges conventional understandings of political conflicts as having, like most Western narratives, beginnings, middles and, most important, ends. This situation could be described through the use of one of the most common metaphors for politics: without a referee and without a scoring system, it's hard to follow the game or even to know whether the game is still going on. Second, this questioning of the notion of interests, presumably material, has turned attention to the issue of meaning, presumably mental, whether by examining the fairly broad subject of culture and ideology or by studying the more specific theme of discourse and representation. This move shows the growing attention paid to the importance of imagination in politics, imagination that can be conceived either in cultural and ideological terms as the formulation of future programs, alternatives, and utopias or in discursive and representational terms as the making and viewing of images. Anderson's view of nations as "imagined communities" (1983) might be complemented by the spatial idea of imagined countrysides. In the instance of the reed beds, two very different imagined countrysides coexist: one in the minds of the peasants, who rarely make maps but whose frequent travels through the area render it visible to them, and whose notions of territory, social group, ownership, and authority make it comprehensible; another in the

minds of government officials, who rarely leave the cities, towns, and roads to enter the lake but whose maps, based on very different notions of territory, social group, ownership, and authority, make the area both visible and comprehensible to them as well.

notes

Acknowledgments. This article is based on my fieldwork around Lake Titicaca. I first visited the region in 1972, traveled there for short periods in 1974 and 1976, and spent a total of 18 months in the region in 1979-81, when I was funded by National Science Foundation grant BNS-78-15409. In addition, I made brief trips to the altiplano in 1982, 1983, and 1986, the last time with support from NSF grant BNS-83-07728. I have also drawn on the field notes of Dominique Levieil, a fisheries economist and planner who worked in the altiplano in collaboration with the United Nations Food and Agriculture Organization in 1980-81 and who conducted dissertation fieldwork around Lake Titicaca in 1984 (Levieil 1987). The overlap in our interests and inquiries has led us to write four articles together (Levieil and Orlove 1990; Levieil and Orlove In press; Orlove and Levieil 1989; Orlove, Levieil, and Treviño In press); because of our extensive discussions and exchanges of field notes, documents, and other materials, I often find it difficult to attribute certain points of information and interpretation to one or the other of us. Levieil's contribution to this article is particularly important, since he drew my attention to the question of communal control of reeds (though he interprets this matter from a perspective of economic efficiency and resource management, somewhat differently than I) and since he obtained most of the maps included in this article, P1, P2, S2, and S3. (As best I can recall, I was the one who picked up the document that contains Map S1.) He included a partially redrawn version of portions of P1 in his dissertation.

I have been unusually fortunate in receiving insightful and productive comments on previous drafts of this article from four anonymous reviewers, the journal's staff associate editor, Kristin Fossum, and a number of colleagues: Marc Blanchard, John Bowen, Don Brenneis, Lucy Briggs, Steve Brush, Jane Collins, Marisol de la Cadena, Michael Foley, Carol Greenhouse, Steve Gudeman, Karen Halttunen, Michele Hannoosh, Terri Koreck, Erick Langer, Dianne Macleod, Roland Marchand, Enrique Mayer, Juan Martinez-Alier, Aihwa Ong, Deborah Poole, Joanne Rappaport, Hermann Rebel, Ed Rubin, James Scott, Orin Starn, Michael Watts, Deborah Weiner, Miriam Wells, Eric Wolf, and Aram Yengoyan. I also benefited from my residence as a fellow at the University of California, Davis, Humanities Institute, where I presented an early version of this article. I have special debts to Jean Comaroff, Michael Herzfeld, Dominique Levieil, Howard Ockman, Gary Urton, and Mary Weismantel for the extraordinary generosity of their lengthy, detailed, and closely reasoned comments and to Jim Griesemer for introducing me to Bruno Latour. I am also grateful to Karen Kraft and Joanne Newman, whose work as research assistants was extremely valuable, and to Mary Beth Cunha, for the preparation of maps E1 and E2 and the enhanced version of Map P2.

¹I include two kinds of human features: those, such as towns and roads, that can be linked directly to material objects, and others, such as political boundaries, that correspond to portions of natural landscapes but cannot be linked directly to material objects.

²These boundaries include the largest totora beds in the lake. The communities in the Totora League, exempted by the 1977 regulations, had smaller beds than those in the Reserve, and thus could have been excluded on purely ecological criteria. It is more difficult to discover an ecological basis for the exclusion of the southern end of Puno Bay, granted its large size and proximity to the rest of the Reserve. Peasant opposition may have been a factor in this exclusion; several individuals spoke to me of a "second section" of the League, which operated in the districts of Platería and Chucuito, though at a lower level of activity than the "first section," as they termed the League communities in the adjacent districts of Acora and Ilave.

³A linguistically more accurate rendering of this toponym would be k'api, since the first phoneme is a glottalized front velar stop. I have chosen to use Hispanicized spellings of place names throughout, however, since I would not want to restrict phonetic renderings to the names of communities while keeping Spanish orthography for villages and towns. If I wrote K'api rather than Capi, but not Wat'a for the district capital of Huata (or, in the extreme case, Piru for Perú), I might be taken as implying that native discourse ceased in urban centers, or that native discourse incorporated national terms directly in the case of urban centers.

⁴The 1980 list includes one case from 1981. Although the 1984 list does not include contracts issued after September, it is likely to be nearly complete, since contracts were granted somewhat in advance.

⁵The 1980 list contains two communities whose customary totorales were included in the Reserve, Lluco and Carata, both in the district of Coata. Their totorales, however, formed part of the zona de utilización directa III, an official "zona de recuperación" in which totora-cutting was forbidden. Their contracts granted them cutting rights in other, nonadjacent portions of the Reserve.

⁶My choice of the five maps in this article rests on several factors. Maps S1, S2, and S3 are the only state maps of the Reserve in the notes and documents that Dominique Levieil and I obtained. I am fairly certain that there are other maps which, like S3, depict the areas of contracts for different years; if I had found one for 1985, for example, I might have labeled Map S3 S3a and the new one S3b. I have not included the topographical and bathymetric maps prepared by the Military Geographical Institute and the Joint Peru-

vian-Bolivian Naval Commission, because they were prepared before the declaration of the Reserve (although a few were published after it) and because they bear so little on the issues discussed in this article. I would very much have liked to see other peasant maps; I suspect that there may be other maps that could be labeled P1b and P1c. For instance, the Totora Defense Front probably included some sketches with their memoriales and with their reports to the Peruvian Peasant Confederation, but I have never seen any. Levieil's notes contain photocopies of three maps presented by peasant communities with their requests for totora extraction contracts. Rather than including them as maps P2a, P2b, and P2c, I decided to select only one, partly for reasons of space, because the one that I chose is larger and more detailed than the others, and partly because one of the others is very faint and the other has a number of markings on it, apparently made by Levieil and CENFOR staff during their conversations with each other. Finally, there are a large number of other peasant maps that I have not included, such as the dozens of maps that communities submitted to the Ministry of Agriculture and Food in connection with claims stemming from the agrarian reform, and drawings of lakeshore communities in the district of Acora (Almanaque 1982; Chirapo Cantuta 1982). These maps display natural and social features of the landscape in terms very much like those of the maps included here; because of the limitations of space, I was not able to discuss them.

⁷Two communities on the right side of the map, outside the area of the League, are shown as open circles with dots in their centers; the rectangle below them corresponds to the community of Camicachi, whose name is written along the road that goes to it.

⁸Silverman-Proust (1988) examines the depictions of mountains as isosceles triangles in contemporary Peruvian textiles. Such depictions are also found in European maps from the 16th through the 18th century (Bagrow 1985; Crone 1978; Sahlins 1989; Thrower 1972), as well as in 18th-century maps from Cuzco (Macera 1968).

⁹There are at least superficial resemblances between the government practice of marking boundaries as a series of boundary points (*hitos*) connected by lines and the peasant practice of delimiting boundaries by a series of peaks, from each of which the neighboring peaks are visible. I am not aware of historical studies of maps or of on-the-ground visits to boundaries that explore the possibility of connections between them. This similarity, like those between peasant and government notions of "community," "rental," and "plaza," raises important questions of the historical relations between discourses, questions that are beyond the scope of this article.

¹⁰The trails that are included in this map tend to be ones that pass around bodies of water or ranges of hills. For example, the path that goes down and to the left from the principal path skirts a set of hills whose highest point, at 4028 meters, is nearly as high as the tops of the hills indicated in detail closer to the lake.

¹¹It is for similar reasons that peasants carry flags when they invade haciendas or cooperatives, much as the urban poor do when occupying land to set up a squatter settlement. These cases, however, are much more direct confrontations than the community assemblies are and the use of the flag is in part a conscious tactic designed to prevent repression by state forces (de Certeau 1984).

¹²The long narrow blank region that is shown in map S1 along the southeastern edge of the Reserve contains open waters of the lake, since the "floating islands" next to it are located where these waters and the totora beds meet. However, since this region is not labeled as such, and since the symbols indicating the reeds are so widely spaced, the map leaves that region unexplained.

¹³There are a few other shifts. Map S2 is slightly rougher, since the names of places and natural features are written by hand. There is slightly greater detail on the open-water channels in the Reserve, and one island has been added. Two communities have been dropped (Chulluni and Favon) and two added (Chincheros and Viscachani). Moro is labeled a hacienda, despite the fact of its incorporation into the postagrarian reform unit of the SAIS Buenavista. Two flat areas, "pampas," are labeled "Ppas."

¹⁴This classification bears only a weak relation to the findings of the major study of aquatic vegetation in the region, which shows that only about one-quarter of the totora in Puno Bay is of "low density" rather than "high density," and that this low-density section is found mostly in the areas classified by CENFOR as ZUDs I and II, with some in ZUD III and almost none in the recuperation zone. The low-density totora is found principally in waters either too shallow or too deep to support optimal growth (Collot 1981). In a few areas, plants in the algal genus *Chara*, known locally as *puruma*, have caused yields to decline, particularly when the totora is cut very close to the bottom of the lake or during the rainy season, when the waters are muddier than otherwise. Such cutting may be associated with years of low lake level. This problem does not appear to be extensive, nor does it seem to be increasing significantly.

¹⁵The competing groups consisted of the former peons of the hacienda, who wished to have the lands allocated to them; the large post-agrarian reform unit of SAIS Buenavista, which wanted to manage the lands; neighboring peasant communities; and mestizos from the town of Huata, who had owned smaller properties in the area. These conflicts led to the removal of one of the area's objects of potential interest to tourists: a number of members of one of the communities associated with the SAIS Buenavista took the image of Saint Barbara from the chapel of the abandoned hacienda to a shrine farther away from the shores of the lake.

¹⁶This interpretation is also consistent with the views of some other anthropologists who have written about peasants' belief in the existence of a "pact of reciprocity" that links them and the state. In the Bolivian department of Potosí, for example, peasant communities regularly give certain goods and services to the state, which, in turn, recognizes the claims of local groups to the land and the legitimacy of traditional authorities (Platt 1982:100–103); when peasants have perceived a failure of the state to meet its obliga-

tions, they have entered into protracted rebellions. Peasants in the altiplano reflect a similar view when they use the term "respect" to describe the attitude of the state toward peasant control of the totora beds. Heraclio Bonilla, Florencia Mallon, and Steve Stern offer a related perspective on similar issues in their discussions of "peasant nationalism" in Resistance, Rebellion, and Consciousness in the Andean Peasant World, 18th to 20th Centuries (Stern 1987). Abercrombie (In press) offers a subtle and nuanced view of the connections between indigenous and mestizo views of space, history, and identity in Bolivia; his work traces the preconquest, colonial, and republican origins of these views more thoroughly than I do.

¹⁷Such conversion is not always simple, because of the difficulties of making flat maps of a round earth, but the possibility of conversion still exists, although it may involve mathematical operations more complex than simple multiplication by a single ratio.

¹⁸Maps hung on the walls of many other government offices in Puno in the same years. Many lakeshore peasants visited the Ministry of Agriculture and Food, which, occupied at the time with the administration of the 1969 agrarian reform program, had even more maps on its walls than CENFOR.

¹⁹I have no record of CENFOR officials using other Spanish words for map, such as *plano* ("plans," often used for built structures such as houses and cities) and *carta* ("map," a word which, like its English cognate "chart," is used less frequently now than it was in the past).

²⁰This practice of orienting by immediately visible landmarks, usually mountains, sometimes creates misunderstandings between peasants and foreigners, among whom anthropologists may be included. Like other English-speaking fieldworkers in the Andes, I was told on occasion that some specific place was kaychallapi (Quechua), akjitaruki (Aymara), or aquicito no más (highland Spanish), and I translated the word or phrase as "right here." I assumed that the distance to it was short; on finding that it took several hours to reach my destination, I invented various explanations for myself: the local people walk really fast, they are in less of a hurry than I am, they do not want to anger or disappoint a high-status outsider by conveying accurate but unpleasant information. The problem was one of cross-cultural misunderstanding; the phrase means something more like "you can see it from here" or "nothing big blocks it from view." This problem is even greater in the case of haqay urqu qhipallapin (Quechua), akäx qullu qhipaxankiwa (Aymara), and tras aquel cerro no mas (Spanish), which sound like they should mean "just behind that mountain" and in fact refer to places that can be seen from the other side of the mountain, possibly two days' hike away.

²¹A possible fourth category could be the three-dimensional representations of the earth's surface that are generally used for ritual purposes. There are some examples familiar to Andean specialists, such as the arrangements of pebbles that depict houses and corrals (Allen n.d.) and the alabaster carvings of fields and houses best known from Ayacucho but also found near Puno (Tschopik 1951:237); a less well known instance would be the heaps of dark stones surmounted by light stones in Santiago de Huata in the province of Omasuyos, department of La Paz. These piles resemble the snow-capped peaks of the Bolivian Cordillera Real, and peasants use the same term for both, *hanq'o p'eqe achachila*, "white-headed grandfather" (Aymara).

²²The only possible violation of this convention in the state maps is the depiction of the church in Capi Cruz on S2 and S3 as it might appear from the front, as a building with a pointed roof topped by a cross. It appears only once on each map and, in any case, a representation more pictorial than usual might be expected for this, the one tourist attraction singled out for attention in the recreation zones.

²³Rough, hand-drawn maps can preserve the bird's-eye perspective and the assumption of connectedness even if they are not to scale; good examples of such maps from the present-day United States can be found in the photocopied sketches that are inserted in invitations to parties, dinners, weddings, and the like. They maintain connectedness by referring to transportation networks and to well-known landmarks.

²⁴The full details of the political violence in the altiplano and elsewhere in the highlands are far from clear, though not as mysterious as some have portrayed them. Two recent thorough reviews are Gorriti (1990) and Degregori (1990). (The violence itself can also be seen as some kind of communication with its own well-established history in the highlands [Poole 1988].) In Ayacucho, the department where the Sendero Luminoso began, there were undoubtedly other failed conversations between government officials and peasants, particularly over the agrarian reform (Degregori 1990); this topic may also have been important in the portions of the altiplano, farther from the lake, where Sendero was most active (González 1986a, 1986b). Organizations that could speak, or shout, across the gap between peasants and the state, such as community groups in the Catholic diocese of Puno and local branches of the Peruvian Peasant Confederation, have probably helped to restrict the further expansion of Sendero into the department and to prevent its consolidation there (Rénique 1987). These links notwithstanding, the sudden and extreme spread of violence suggests an absence, or weakness, of political discourse that can be expressed in the image of a failed conversation.

²⁵Platt (1978) discusses similar contrasts between two maps of a single territory; he compares maps of a section of northern Potosí, Bolivia, drawn by Indians and by a Spanish miner in 1651 as part of a court case.

²⁶This notion of gaze might appropriately be applied to the first stage of CENFOR's activities in the altiplano, that of *estudios* ("studies"), in which it gathered information about ecological, economic, and social conditions in the region.

²⁷Gudeman describes a similar case in Panama of alternative systems of representing land (1979). In that case, however, one system replaces another rather than coexisting with it.

Abercrombie, Thomas

In press To Be Indian, To Be Bolivian. *In Nation-States and Indians in Latin America*. Greg Urban and Joel Sherzer, eds. Austin: University of Texas Press.

Allen, Catherine

n.d. Pebbles and Power in the Central Andes. MS, files of the authors.

Almanague

1982 Almanaque documental Puno 1982. Ciclo agrícola y cultura popular en la economía campesina. Puno: Instituto de Investigación para el Desarrollo Social del Altiplano.

Anderson, Benedict

1983 Imagined Communities: Reflections on the Origin and Spread of Nationalism. London and New York: Verso.

n.d. On Official Nationalism and the Colonial State. MS, files of the author.

Appadurai, Arjun, ed.

1986 The Social Life of Things: Commodities in Cultural Perspective. Cambridge: Cambridge University Press.

Bagrow, Leo

1985 History of Cartography. 2nd ed. Chicago: Precedent.

Bouysse-Cassagne, Thérèse

1987 La identidad aymara: aproximación histórica (siglo xv, siglo xvi). La Paz: HISBOL and Instituto Francés de Estudios Andinos.

Burga, Manuel

1988 Nacimiento de una utopía: muerte y resurreción de los incas. Lima: Instituto de Apoyo Agrario. Chirapo Cantuta, Eustacio

1982 Origen y cambios en la producción y consumo en la nacionalidad Aymara: Los Yanaques. Puno: Instituto de Investigación para el Desarrollo Social del Altiplano.

Collot, Daniel

1981 Les macrophytes des quelques lacs andins. La Paz and Paris: Convenio Universidad Nacional San Andrés-ORSTOM.

Comaroff, Jean

1985 Body of Power, Spirit of Resistance: The Culture and History of a South African People. Chicago: University of Chicago Press.

Crone, G. R.

1978 Maps and Their Makers: An Introduction to the History of Cartography. Folkestone, Kent, England: Dawson and Sons.

de Certeau, Michel

1984 The Practice of Everyday Life. Berkeley: University of California Press.

Degregori, Carlos Iván

1990 Ayacucho 1969–1979: el surgimiento del Sendero Luminoso. Lima: Instituto de Estudios Peruanos.

Derrida, Jacques

1977 Of Grammatology. Baltimore, MD: Johns Hopkins University Press.

Dreyfus, Hubert L., and Paul Rabinow

1982 Michel Foucault: Beyond Structuralism and Hermeneutics. Chicago: University of Chicago Press.

Eckstein, Susan, ed.

1989 Power and Popular Protest: Latin American Social Movements. Berkeley and London: University of California Press.

Fifer, J. Valerie

1972 Bolivia: Land, Location, and Politics since 1825. Cambridge: Cambridge University Press.

Finney, Ben, ed.

1976 Pacific Navigation and Voyaging. Wellington, New Zealand: The Polynesian Society.

Flores Galindo, Alberto

1987 Buscando un Inca: identidad y utopía en los Andes. Lima: Instituto de Apoyo Agrario.

Foucault, Michel

1965 Madness and Civilization: A History of Insanity in the Age of Reason. New York: Pantheon Books.

1970 The Order of Things: An Archaeology of the Human Sciences. New York: Vintage Books.

1973 The Birth of the Clinic: An Archaeology of Medical Perception. New York: Pantheon Books.

1977 Discipline and Punish: The Birth of the Prison. New York: Pantheon Books.

1978 The History of Sexuality. New York: Pantheon Books.

Frake, Charles O.

1985 Cognitive Maps of Time and Tide among Medieval Seafarers. Man (n.s.) 20(2):254–270. González. Raúl

1986a Puno en el corredor senderista. Quehacer (Lima) 39:49-58.

1986b Que pasa en Puno? El PUM, el PAP, el Sendero y Alán García. Quehacer (Lima) 43:40-51.

Gordon, Colin, ed.

1980 Power/Knowledge: Selected Interviews and Other Writings, 1972–77. Michel Foucault. New York: Pantheon

Gorriti, Gustavo

1990 Sendero: historia de la guerra milenaria en el Perú. Vol. 1. Lima: Editorial Apoyo.

Gramsci, Antonio

1971 Selections from the Prison Notebooks of Antonio Gramsci. New York: International Publishers. Gudeman, Stephen

1979 Mapping Means. In The Social Anthropology of Work. Sandra Wellman, ed. pp. 229–247. London: Academic Press.

Gudeman, Stephen, and Alberto Rivera

1990 Conversations in Colombia: The Domestic Economy in Life and Text. Cambridge: Cambridge University Press.

Guevara, Víctor

1924 Derecho consuetudinario de los indios del Perú y su adaptación al derecho moderno. Revista Universitaria (Cuzco) 8(44–45):119–125.

Guha, Ramachandra

1989 The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya. Berkeley: University of California Press.

Guha, Ranaiit

1983 Elementary Aspects of Peasant Insurgency in Colonial India. Delhi: Oxford University Press.

Guha, Ranajit, and Gayatri Chakravorty Spivak, eds.

1988 Selected Subaltern Studies. New York and Oxford: Oxford University Press.

Helgerson, Richard

1986 The Land Speaks: Cartography, Chorography, and Subversion in Renaissance England. Representations 16:50–85.

Iser, Wolfgang

1974 The Implied Reader: Patterns of Communication in Prose Fiction from Bunyan to Beckett. Baltimore, MD: Johns Hopkins University Press.

1978 The Act of Reading: A Theory of Aesthetic Response. Baltimore, MD: Johns Hopkins University Press.

1989 Prospecting: From Reader Response to Literary Anthropology. Baltimore, MD: Johns Hopkins University Press.

Jackson, Peter A.

1989 Maps of Meaning: An Introduction to Cultural Geography. London and Winchester, MA: Unwin Hyman.

Julien, Catherine J.

1987 The Uru Tribute Category: Ethnic Boundaries and Empire in the Andes. Proceedings of the American Philosophical Society 131(1):53–91.

Kahn, Joel

1985 Peasant Ideologies in the Third World. Annual Review of Anthropology 14:49–75.

Langer, Erick D.

1989 Economic Change and Rural Resistance in Southern Bolivia 1880–1930. Stanford, CA: Stanford University Press.

Latour, Bruno

1987 Science in Action: How to Follow Scientists and Engineers through Society. Milton Keynes, Stratford, England: Open University Press.

1988 The Pasteurization of France. Cambridge, MA, and London: Harvard University Press.

Latour, Bruno, and Steve Woolgar

1986 Laboratory Life: The Construction of Scientific Facts. Princeton, NJ: Princeton University Press. Levieil, Dominique

1987 Territorial Use-Rights in Fishing (TURFs) and the Management of Small-Scale Fisheries: The Case of Lake Titicaca (Peru). Ph.D. dissertation. School of Community and Regional Planning, University of British Columbia.

Levieil, Dominique, Cirilo Cutipa, Gregorio Goyzueta, and Percy Paz

1989 The Socio-Economic Importance of Macrophyte Extraction in Puno Bay. *In* Pollution in Lake Titicaca, Peru: Training, Research and Management. Thomas Northcote, Pedro Morales, David Levy, and M. S. Greaven, eds. pp. 155–175. Vancouver, BC: Westwater Research Centre; Puno: Instituto de Aguas Alto-andinas, Universidad Nacional del Altiplano.

Levieil, Dominique, and Benjamin Orlove

1990 Local Control of Aquatic Resources: Community and Ecology in Lake Titicaca, Peru. American Anthropologist 92:362–382.

In press Socioeconomic Importance of Lake Titicaca Macrophytes. *In* Lake Titicaca: Synthesis of Limnological Knowledge. Claude Dejoux and Andre Iltis, eds. The Hague: Kluwer.

1968 Mapas coloniales de haciendas cuzqueñas. Lima: Universidad Nacional de San Marcos, Seminario de Historia Rural Andina. Martin, Emily

1987 The Woman in the Body: A Cultural Analysis of Reproduction. Boston: Beacon Press.

Matos Mar, José, and José Manuel Mejía

1980 La reforma agraria en el Perú. Lima: Instituto de Estudios Peruanos.

McClintock, Cynthia

1989 Peru's Sendero Luminoso Rebellion: Origins and Trajectory. *In Power and Popular Protest*: Latin American Social Movements. Susan Eckstein, ed. pp. 61–101. Berkeley and London: University of California Press.

Merriam, G. & C.

1973 Webster's New Dictionary of Synonyms. Springfield, MA: G. & C. Merriam Company.

Migdal, loel

1988 Strong Societies and Weak States: State-Society Relations and State Capabilities in the Third World. Princeton, NJ, and London: Princeton University Press.

Mukerji, Chandra

1983 From Graven Images: Patterns of Modern Materialism. New York: Columbia University Press. Munn, Nancy

1973 Walbiri Iconography: Graphic Representation and Cultural Symbolism in a Central Australian Society. Ithaca, NY: Cornell University Press.

O'Hanlon, Rosalind

1988 Recovering the Subject: *Subaltern Studies* and Histories of Resistance in Colonial South Asia. Modern Asian Studies 22(1):189–224.

Ong, Aihwa

1987 Spirits of Resistance and Capitalist Discipline: Factory Women in Malaysia. Albany: State University of New York Press.

Orlove, Benjamin S.

1982 Tomar la Bandera: Politics and Punch in Southern Peru. Ethnos 47(3–4):249–261.

Orlove, Benjamin, and Dominique Levieil

1989 Some Doubts about Trout: Fisheries Development Projects in Lake Titicaca. *In* State, Capital and Rural Society: Anthropological Perspectives on Political Economy in Mexico and the Andes. Benjamin S. Orlove, Michael W. Foley, and Thomas F. Love, eds. pp. 211–246. Boulder, CO, and London: Westview Press.

Orlove, Benjamin S, Dominique P. Levieil, and Hugo Treviño

In press Social and Economic Aspects of the Lake Titicaca Fisheries. *In* Lake Titicaca: Synthesis of Limnological Knowledge. Claude Dejoux and Andre Iltis, eds. The Hague: Kluwer.

Pandolfo, Stefania

1989 Detours of Life: Space and Bodies in a Moroccan Village. American Ethnologist 16:3–23.

Panofsky, Erwin

1955 Meaning in the Visual Arts: Papers in and on Art History. Garden City, NY: Doubleday and Company.

Platt, Tristan

1978 Mapas coloniales de la provincia de Chayanta: dos visiones conflictivas de un solo paisaje. *In* Estudios bolivianos en homenaje al Gunnar Mendoza L. M. Urioste de Aguirre, ed. pp. 101–118. La Paz: Depósito Legal 135–78.

1982 Estado boliviano y ayllu andino: tierra y tributo en el norte de Potosí. Lima: Instituto de Estudios Peruanos.

Poole, Deborah

1988 Landscapes of Power in the Cattle Rustling Culture of Southern Andean Peru. Dialectical Anthropology 12:367–398.

Prakash, Gvan

1990 Writing Post-Orientalist Histories of the Third World: Perspectives from Indian Historiography. Comparative Studies in Society and History 32(2):383–408.

Rappaport, Joanne

1985 History, Myth, and the Dynamics of Territorial Maintenance in Tierradentro, Colombia. American Ethnologist 12:27–45.

Rasnake, Roger

1988 Domination and Cultural Resistance: Authority and Power among an Andean People. Durham, NC, and London: Duke University Press.

Rénique, José Luís

1987 Estado, partidos políticos y lucha por la tierra en Puno. Debate Agrario (Lima) 1:55–76.

República del Perú

. 1978 Decreto Supremo No. 185-78-AA. Lima: Ministerio de Agricultura y Alimentación, República del Perú.

Rivera, Silvia

1986 ''Oprimidos pero no vencidos'': luchas del campesinado aymara y qhechwa 1900–1980. La Paz: Hisbol.

Robinson, Arthur H., and Barbara Bartz Petchenik

1976 The Nature of Maps: Essays toward Understanding Maps and Mapping. Chicago and London: University of Chicago Press.

Sahlins, Peter

1989 Boundaries: The Making of France and Spain in the Pyrenees. Berkeley: University of California Press.

Scott, James C.

1985 Weapons of the Weak: Everyday Forms of Peasant Resistance. New Haven, CT, and London: Yale University Press.

Silverman-Proust, Gail P.

1988 Weaving Technique and the Registration of Knowledge in the Cuzco Area of Peru. Journal of Latin American Lore 14(2):207–241.

Stern, Steve, ed.

1987 Resistance, Rebellion, and Consciousness in the Andean Peasant World, 18th to 20th Centuries. Madison and London: University of Wisconsin Press.

Taylor, Lewis

1987 Agrarian Unrest and Political Conflict in Puno, 1985–1987. Bulletin of Latin American Research 6(2):135–162.

Thompson, E. P.

1975 Whigs and Hunters: The Origins of the Black Act. London: Penguin.

Thrower, Norman

1972 Maps and Man: An Examination of Cartography in Relation to Culture and Civilization. Englewood Cliffs, NJ: Prentice-Hall.

Toppin, H. S.

1916 The Diplomatic History of the Peru-Bolivia Boundary. The Geographical Journal 47(2):81–116. Toulmin, Stephen

1953 The Philosophy of Science: An Introduction. London: Hutchinson's University Library.

Tschopik, Jr., Harry

1951 The Aymara of Chucuito, Peru. I. Magic. Anthropological Papers, Vol. 44, Part 2. New York: American Museum of Natural History.

Vargas Llosa, Mario

1983 Inquest in the Andes: A Latin American Writer Explores the Political Lessons of a Peruvian Massacre. New York Times Magazine, 31 July: 18–23 et passim.

Wachtel, Nathan

1978 Hommes d'eau: le problème Uru (XVIe-XVIIe siècle). Annales: Economies, Sociétés, Civilisations 33(5–6):1126–1159.

Weismantel, Mary

1988 Food, Gender and Poverty in the Ecuadorian Andes. Philadelphia: University of Pennsylvania Press.

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