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A COMPARATIVE STUDY OF THE ECONOMY OF TWO VILLAGE COMMUNITIES IN MEXICO WITH SPECIAL REFERENCE TO THE ROLE OF IRRIGATION

by

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A dissertation submitted to the Graduate Faculty in Anthropology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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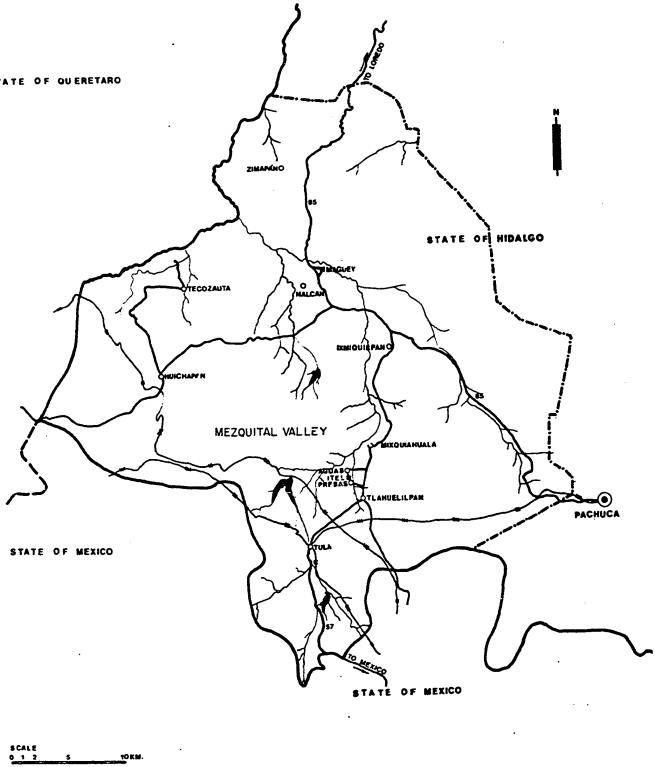

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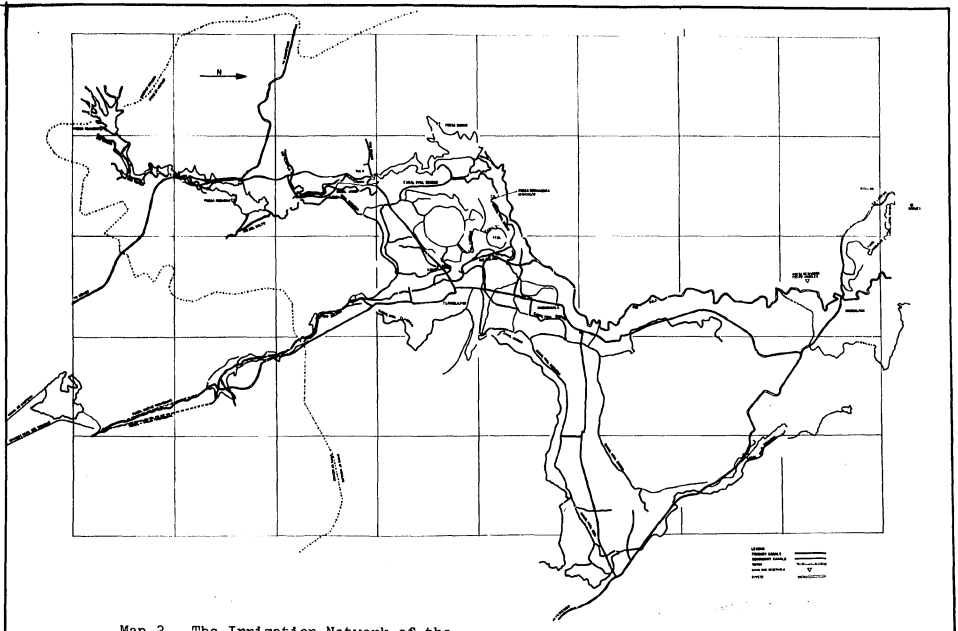

Map 2. The Irrigation Network of the Mezquital Valley.

CHAPTER 1

INTRODUCTION

This study compares the economic and social organization of two villages located forty-one miles apart in the Mezquital Valley, Hidalgo, Mexico. These two communities have been selected for study because they provide clear evidence of the many ways in which the availability of irrigation can affect the economic and social organization of a village community.

Nalcan is a village of barren fields in the semi-desert environment of the valley. There is little agriculture or other activity available to support its population. The women make a living by weaving carrying sacks from the fiber of the maguey plant and selling them to local merchants; also by cultivating sparse fields of corn. Most of the men support themselves and supplement the women's income by working in such places as Mexico City or the United States, or by engaging in petty commerce. In striking contrast is the village of Itel. Lush fields around the village provide the primary means of support for the villagers with crops of maize, wheat and alfalfa. The men work in the fields and the women maintain the

homes.[1]

Nalcan and Itel are similar in most important aspects. Both villages are politically equivalent units, with similar histories up until the eighteenth century. Nalcan's population of 1,819 people is comparable in size to Itel's 2,029. The original environment of both villages is the same: semi-arid regions with little vegetation. However, irrigation has made Itel's land arable, while Nalcan's fields remain mostly unproductive. This difference accounts for many contrasts between the two villages.

Another difference contrasting the development of the two villages is the history of Itel and Nalcan following the expansion of the haciendas into the Itel region during the latter part of the eighteenth century.[2] Exposure to the hacienda authorities prepared the Itelanos to deal effectively with representatives of the larger society. After the 1910 revolution, the government apportioned to Itelanos irrigated hacienda lands in *ejidos*, a usufruct system of land tenure. Such lands were subsequently favored by government irrigation expansion and by the early 1950's Itel had substantially increased its acreage of irrigated lands. As Nalcan was not located within the range of hacienda expansion, the Nalcaños have received

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[1]I have changed the names of the two villages; the counties (*municipios*) in which they are located and the names of people in order to conceal the names of my informants.

[2]Haciendas are large privately owned estates dependent upon a system of peonage labor.

little governmental attention.

Important as they are however, these differing historical contexts are not the principal concern of my study. Instead, I have chosen to concentrate on those contrasts between the social and economic organization of Nalcan and Itel which can be directly related to the presence or absence of irrigation.

One point must be made. The Mezquital Valley is commonly regarded as containing the areas of highest population of the Otomí Indians. The few available studies often deal with the population from the perspective of tribal units, unrelated to the nation as a whole (Armas 1962; Basauri 1940; Carrasco 1950; Manrique 1969; Soustelle 1937). Indeed, numerous typologies exist in the literature which attempt to delineate Indian from non-Indian population aggregates (Adams 1956; Beals 1953; Fuente 1952; Nash 1966; Wagely and Harris 1957). In accordance with the data on which this study is based, however, any attempt to apply a classification of this nature to the Mezquital Valley region is spurious (for other regions of Mesoamerica see Goldkind 1963; Stavenhagen 1965). It is true that villagers in Nalcan are bilingual in Otomí-Spanish, whereas in Itel Spanish was spoken in the past by grandfathers and, in some cases, by parents. The inhabitants of the two villages do not otherwise contrast in "custom." The observable differences are best explained on the basis of divergent modes of economic organization and recent history rather than on ethnic grounds.

It will be demonstrated that irrigation is a

crucial factor in determining a community's economic organization, its family structure, and its political relationship to the larger society.

The professional literature has provided many instances of concern with various aspects of irrigation and its social concomitants. The role of irrigation has been discussed from a diachronic perspective in relation to the emergence of urban civilization and the state (Leach 1959; Sanders and Price 1968; Steward 1955; Witfogel 1957). The role of irrigation in contemporary societies is emphasized by Beardsley (1963), Epstein (1962), Leach (1961), Millon *et al.* (1962), and Pasternak (1968). These studies stress the influence of the requirements of irrigation management and water supply on such organizational patterns as family structure and cooperative and competitive networks. For example, Beardsley's (1963) investigation of two widely divergent socio-cultural settings in Japan and Spain emphasizes convergent changes in cooperative patterns and family organization in response to requirements of irrigation management. The brief Millon *et al.* (1962) examination of irrigation within the Teotihuacan Valley, Mexico emphasizes the two-edged potential of local irrigation management to encourage both cooperation and competition. In Pasternak's (1968) analysis the question is how cooperative networks and labor demands are conditioned by the nature of the irrigation system.

My study deals with a complex irrigation system of the Mezquital Valley (see map 2) which is controlled and maintained solely by a branch of the national government, the Ministry of Hydraulic Resources. Here, the peasantry is not involved in physical maintenance of the system and distribution of the water. Furthermore, irrigation water is plentiful and is sold to the villagers upon request; hence, there is no competition for water among the beneficiaries of the system. But the bureaucratic manner in which the water is distributed does have direct influence on such economic arrangements as household labor demands. The water allocation system will be discussed in this light. In effect, then, my study focuses not so much on the irrigation system itself, but rather on a system of agriculture made possible by irrigation and its effects on the economy and social organization. I shall demonstrate the social and economic consequences of irrigation agriculture by comparing an irrigated with a non irrigated village. The only other comparable study is T. S. Epstein's investigation (1962) of two communities in India. Certainly none of the other numerous studies of contemporary Mexican communities have been discussed from this perspective.[3]

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[3]Many studies have dealt with Mexican communities from varying perspectives. To note but a few, Redfield's pioneer works in the Yucatan region (Redfield 1941; Redfield 1950; Redfield and Rojas 1934) and more recently Goldkind (1965; 1966); Lewis (1951) in the state of Morelos; Foster (1967); Friedrich (1970); Nelson (1971) in the Lake Patzcuaro area; Diaz (1970) in the Guadelajara vicinity; Vogt (1970), Cancian (1965; 1972) in Chiapas.

A comparison of my research with Epstein's data support her general conclusion that irrigation fosters a perpetuation of traditional village life in one community, while lack of irrigation in the second community compels its members to seek new strategies in view of the changing economy of the larger society in order to maintain a minimal standard of living. My findings indicate in addition that government investment in and management of irrigation serves to integrate the community as a unit into the larger society and to perpetuate a sedentary peasant population.

An Overview of the Study:

This study will reveal a number of interesting contrasts between Itel and Nalcan. The influence of irrigation on economic and social organization in the villages studied is apparent on almost every level, from overall economic structure to family relationships and to the details of daily life. Irrigation makes agriculture possible on land which is otherwise unsuited to intensive crop cultivation. It is the determining factor in modes of subsistence available to Itelanos. Thus, in Itel the basic subsistence resource is land and water and people make their living by growing crops and selling the produce to the market. The Itelano man is required to remain at home to provide the labor needed for working the land.

In Nalcan there are insufficient resources to

support the entire population on agriculture. Without irrigation the land produces, at best, maguey and corn stalks for livestock fodder. The men must supplement the household income by seeking employment in the cities or in the United States. The skills of the Nalcaño male are the non-agricultural abilities needed by the hired wage earner, while the Itelano man develops the specialized skills of irrigation, cultivation and harvesting. Thus by influencing the mode of subsistence, the presence of irrigation also determines the day to day activities necessary to make a living.

Irrigation also affects the roles of women.[4] Itelano men are home year round providing full support for the family. Homemaking thus becomes women's primary occupation as in most peasant households. In Nalcan, however, the lack of local resources has sent the men off for most of the year, leaving the women to support themselves, to make the household decisions, and to maintain the home. Due to the lack of irrigation Nalcan is a community comprised of female peasants and male proletarians.[5]

Just as it affects the work roles of men and women,

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[4]This point is especially interesting in light of Mintz' (1969) comment in his review of Wolf's book on peasants where Mintz calls attention to the importance of distinguishing male and female roles in rural households.

[5]The literature is replete with discussions dealing with the definition of peasants (Firth 1964; Foster 1961; Foster 1967; Kroeber 1948; Redfield 1956; Wolf 1966). In this study I follow primarily Wolf's definition.

irrigation affects other aspects of family organization. Nalcaño men are less likely to marry outside the village because non-village women do not have the special skills of sack weaving and the self-sufficiency required of a Nalcan woman. The few women brought in from outside may come from some distance due to the ranges travelled by the men seeking work. Itelano women need know only the more common skills of homemaking, and the men practice exogamy more frequently than do their Nalcan counterparts although they seldom stray beyond the neighboring villages.

Inheritance practices are also influenced by irrigation. Irrigated land is of greatest value when fully cultivated. In Itel land is passed on exclusively to males who traditionally work the land. Unirrigated land in Nalcan is best used for the minimal crop of corn and maguey, which the Nalcan women are as capable as the men of exploiting. Land is inherited equally between sons and daughters in Nalcan.

The relationship of the village to the outside world is influenced by the factor of irrigation as well as by the historical context which led to irrigation. While Nalcaños have been left relatively ignored by the larger society, Itelanos have been dealing with hierarchical structures outside of the village for over a century. Haciendas introduced peonage and the resultant stratification leading from peons to mayordomos to administrators to owners. The hacienda served as a culture and power broker between the peons and the government. Following the fall of the hacienda, the *ejido* authorities, the irrigation authorities, and other

representatives of the new government replaced those of the hacienda. Requirements of getting the crop to market further prepared the Itelano in relating advantageously to external bureaucracies.

Nalcaños have had no similar experience. The men are not home enough to have established relationships with outside authorities and there is nothing in Nalcan like the irrigation system to bring the bureaucracy directly to the village. Nalcan's outward flow of goods is minimal, mostly composed of carrying sacks which are sold to local middlemen. Hence Nalcan as a village is not as integrated into the larger society although the men have become individually autonomous units in the society's labor force.

Itel, on the other hand, has been integrated into the wider society. With irrigation, Itel has gained the role of producers of crops, particularly alfalfa. The men of Itel perform the functions of production and bring produce to market, which makes them the agents which integrate Itel with the economy of the rest of the society. Yet these agents operate completely within the confines of Itel and the market place, having no role whatsoever outside of these confines. Thus, Itel as a unit is articulated with the larger society, but individual Itelanos have little experience of the world outside the village. By contrast, individual Nalcaños frequently leave the village, but the village of Nalcan as a whole is minimally integrated into the larger society.

Concepts of prestige are influenced by the factor

of irrigation. In Itel the outsiders attracted to the village by the presence of irrigation include government employees such as engineers and agronomists with whom the cultivators can establish ties of friendship reinforced by such means as *compadrazgo* (ritual kinship), and by invitations to individual and village-sponsored fiestas. These connections, plus their dealings with the bureaucracy, put Itelanos in a favorable position to acquire benefits for themselves and their village. The more effective a man is in nurturing his connections and obtaining communal benefits, the more prestige he will obtain from his fellows.

Nalcaños lack such prestigious connections outside the village and villagers rank their fellows by different criteria. Since Nalcaños lack irrigated land on which to produce a subsistence crop, they must seek other ways to obtain cash for daily needs, or they must frequently purchase maize on credit. Nalcaños obtain credit from the local merchants, and prestige is accorded to the merchants who are willing to extend unsecured credit to the villagers. In Itel, irrigation provides the villagers with arable land, and villagers have chosen to accord prestige to those who have access to the authorities that retain control of the arable land.

Another important result of irrigation in Itel is its effect upon land tenure. This is the system of share-cropping with affects one-third of the population of Itel. It must be attributed to a shortage of labor and land which, in turn, is related to the presence of irrigation

and the historical phenomenon of the *ejido* system. Under the *ejido* system, villagers received small plots of land which, added to their private holdings, nonetheless provided only subsistence living. To supplement their incomes many villagers have taken to sharecropping which involves them in a complex system of socio-economic arrangements. This system is completely absent from the economic and social organization of Nalcan, and evidences the dramatic contrasts determined by the irrigation factor. The sharecropping system in Itel involves villagers whose landholdings exceed what they can manage on the labor available in their households, as well as, individuals with little land of their own. The latter have managed to improve their economic position by sharecropping. This has fostered the development of wealth differentiation. Sharecropping many plots simultaneously has proved highly profitable for some entrepreneurs. Moreover, in an interesting reversal of the usual relationship, there are cases in this system where the landholder has become dependent on the tenant sharecropper.

In many households the shortage of labor which promotes sharecropping arrangements is exacerbated by the special labor demands dictated by the village's double cropping cycle which includes cultivating the perennial alfalfa. The cyclical peak periods of labor demand requires special arrangements such as entering into a sharecropping agreement, hiring of labor, or exchanging of labor.

Methodology and Field Work

This dissertation is based on fieldwork carried out from June 1970 to late September 1971. Before moving to the region, I collected background material. I contacted various government officials in order to familiarize myself with the overall irrigation system and its operations, did research in libraries, and sought out appropriate villages in which to work. I then spent six months in Nalcan,[6] followed by eight months in Itel.

During the course of my field stay I engaged in frequent discussion with officials from the Ministry of Hydraulic Resources (*Secretaria de Recursos Hidraulicos*) or (SRH) who were extremely helpful to me in carrying out this study. SRH provided material on Itel's land tenure, size of holding, operation of the irrigation system, and soil analyses. This agency also provided me with lists of current land holdings for each household in Itel. SRH had no similar data on Nalcan however, because the village lacked irrigation and therefore was not in direct contact with the agency. Fortunately I was able to obtain land holding records for Nalcan from the

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[6]My introduction to this region of Mexico came during a summer's field work in 1967 when I carried out a brief investigation of the economic activities of one non-irrigated village (Finkler 1969). At that time I was interested to hear informants speak of a time when irrigation would be brought to the village and how their lives would then change.

Rents Office in the municipal headtown which keeps records of land involved in sales or inheritance transactions. I recorded transactions reported for the years 1960-1970 but records from before this period were chaotic. Until recently it was common in Nalcan to transfer land without official registration. My land tenure data, therefore, are less accurate for Nalcan than for Itel.

Bank officials were interviewed to ascertain formal credit options open to villagers. From these interviews I learned interesting details about villagers' relations with an important sector of the larger society.

My primary method of field study was participation in and observation of village life. In each village I lived with a family and became very much a part of the household. I shared their crises and their feasts and became related to some by *compadrazgo* ties. The enormous differences between the two villages were impressed upon me not only by the data collected but also by the nature of villagers' relation to me in each community, by the different technical problems I had to deal with, and by my role as an outsider.

For example, since most Nalcan men have travelled to the United States as *braceros* (legal migrant laborers) or "wetbacks" (illegal migrant laborers) Nalcaños were very interested in this country. They came to me continually to hear about the United States, to request English lessons, or to ask if I would write letters for them to

their *patrons* (bosses) and other persons in the United States. Villagers liked to talk about their experiences in the United States and sooner or later almost everyone I met in the village asked if I could arrange for them to go there. With most men away from the village until about November or December, and with the women occupied in their endless daily chores, I could find neither domestic help nor field assistance. It was not until late October that I finally succeeded in finding and hiring a field assistant.

The situation in Itel was just the opposite. I had no problem finding domestic help and a field assistant among Itel's sedentary peasant population. No Itelano had ever gone to the United States. Itelanos never requested English lessons, nor did they ask me to write to anyone in the United States. In fact, villagers had only the vague knowledge that the United States exists somewhere in the north. One villager had heard of President John Kennedy and knew that he was a Catholic. To my astonishment no one seemed to know the meaning of the words *"bracero"* or *"de mojado"* (wetbacks), terms commonly used in Nalcan.

Because of these differences my daily personal contact was more extensive in Nalcan than in Itel. However I did meet most villagers in both communities while taking a standard population census and socio-economic survey.

During the census-taking the contrast between Nalcan and Itel also caused a methodological problem. In Nalcan without domestic help, I needed to attend to daily

chores myself. This, plus the constant stream of visitors left me with little time to accompany my field assistant to every household. I visited only about half of the households with him. But we engaged respondents in open-ended discussion during these joint visits. Because of availability of domestic and field assistants in Itel, contact with villagers was much easier. I had more time to visit each household with my assistant spending one or two hours or more in open-ended discussion. Even with the difficulties I experienced in Nalcan, all but thirteen of the village's 301 households were visited. I went to all but eighteen of Itel's 313 households. The remaining ones were not visited because of inaccessibility of the household heads.[7]

Another instance of varying methodological problems occurred after my census had been completed. I selected at random 10 percent of all visited households for further investigation into household budgets and family history. But in both villages informants were reluctant to divulge their incomes and in Nalcan the problem was compounded by the variety of income sources. However respondents in both villages freely revealed their expenditures. They found it diverting to discuss all their expenses and even enjoyed

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[7]Headship of a household is determined by ownership of the dwelling and the property on which it stands. This corresponds to informants' responses in the socio-economic census, when asked to name the head of the household.

the novelty of actually quantifying them. The difficulties occurred in informants' attempts to remember some of their daily or weekly cash expenditures. Such factors as maize or bean consumption were usually known and quantifying these into pesos was not difficult. Nalcaño expenses were somewhat more easily quantified into cash. Nevertheless, the budgets collected are not sufficiently precise and will not be presented in this study.

In other areas, however, the budget investigation proved fruitful. It revealed the various sources of income and the nature of household expenditures in both villages. These data are reported in the discussion dealing with householding. By collecting budgets I was also able to stimulate discussions which yielded information that might otherwise not have come to light. When I questioned respondents about expenditures related to municipal taxation, for example, they mentioned fines. This topic led to an explanation of the reasons for the fines and hence to discussions of intra-village relations and of village relations with the municipal and irrigation authorities. Questions about school expenses in households with young children revealed the fact that Itelano parents participate in school activities more than the Nalcaño parents do. Also I learned that the school in Itel was much more active in sponsoring and celebrating national holidays.

Questions relating to medical expenses revealed

some fascinating data on curing practices, *curanderas*, and folk medicine. These data demonstrate that Nalcan villagers make much more use of modern medicine and doctors than do Itel villagers. The data bearing on curing are not dealt with in this study but will form the basis of a future paper. Most other questions related to budgets also generated some discussion by respondents, allowing for information about each village to be verified by numerous sources.

Perhaps the most perplexing methodological problem encountered dealt with the patterns of emigration in the two villages. As Adams (1964) rightly points out, "Understanding of migration has been inhibited by a tendency to classify migration as either 'temporary' or 'permanent'. Such a distinction can only be made after the fact, because few migrants really know if their move is permanent" (1964: 53). Adams' observation is particularly relevant to data from Nalcan where eleven households listed individuals belonging to their household who, according to the informants, return to Nalcan only once or twice a year. Similarly, in Itel women reported having worked in Mexico City until they married and returned to the village with their husbands -- men from Itel. Women currently employed in Mexico City visit Itel every fifteen to sixty days, those no longer working in Mexico City reported absences ranging from two months to five years.

Therefore the distinction between temporary and

permanent emigration in this study has been based on the following criteria. Individuals included by respondents as part of a household but employed outside of Itel or Nalcan are considered temporary migrants. In Itel for example fourteen men and thirty-two women are so considered. Permanent migrants include lineal relatives living outside of the village and not considered part of the households; also included are collateral relatives who were reported to be living elsewhere. Permanent migrants usually return to the village only periodically and on special occasions. For example, a one-time Itelano who achieved a minor degree of national renown as a *mariachi* triumphantly returns for the annual fiesta in May to entertain his fellow villagers. In Nalcan I noted that there were several men who had migrated to the Huesteca and yet returned for the fiesta. Gathering data on permanent migration requires taking careful genealogies which will form the basis of a future investigation. Regretably, such data for Nalcan are incomplete, particularly concerning the emigration of entire families. Such emigration in Itel appears to be an uncommon phenomenon.

Order of Presentation

This study is divided into three sections. Part One is a general overview of the region in space and time, including discussions of the *ejido* and the irrigation systems.

Parts Two and Three focus respectively on Itel and

Nalcan. The first chapter in each part gives a general description of each village's settlement pattern, population components, social and political activities. Subsequent chapters deal with each village's economic organization and delineate contrasting economic concerns to demonstrate the effect of irrigation on daily life. For example, each village's production requirements are shown in detail to indicate why Nalcan's economy necessitates wage-labor migration, while production in Itel requires the full-time presence of the labor force.

Chapters on householding follow, emphasizing each village's distinctive family structure, household decision-making process and the varying roles of men and women. Finally, I discuss external and internal village relations as these pertain to prestige as perceived by the villagers.[8]

Part Four is a comparative analysis of the data presented in Parts Two and Three. From the analysis I conclude that the introduction of irrigation into a community within a complex society serves to integrate the community into the larger society, while helping to generate or perpetuate a peasantry. Once irrigation comes to Nalcan, therefore, I suggest that the village proletariat will become peasants, and Nalcan will come eventually to resemble contemporary Itel in economic and social organization.

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[8]This view of prestige is similar to those taken by Silverman 1966; Stavenhagen 1967; Hansen n.d.

It will soon be possible to test my hypothesis. Nalcan is expected to receive irrigation in the next two to five years. This is the reason I selected the Mezquital Valley for study. It contains both irrigated and non-irrigated communities as well as a continually expanding national irrigation system. Already sections of the canal have been completed carrying irrigation to Nalcan's neighbor to the east. Within the coming year Nalcan will have about twenty hectares of land opened up to irrigation.

PART I

CHAPTER 2

THE REGION IN SPACE AND TIME

Environmental Setting

The Mezquital Valley occupies the central and northwest part of Hidalgo (see map 1). The valley is hilly and dominated by a number of peaks which range from 2,400 to 3,000 meters above sea level. The elevation of the valley floor varies from 1,700 to 2,200 meters above sea level. The Tula River, the only major water source in the valley, traverses it in a northwest-southeast course.

Itel (elevation 1,997 meters) is located in the southern, irrigated zone of the valley approximately sixty miles north of Mexico City. Nalcan (elevation 1,720 meters) is situated in the northern, non-irrigated area approximately ninety miles from the capital. The two are joined by forty-one miles of paved road.

Politically the Mezquital Valley is composed of twenty-seven *municipios* which are comparable to U.S. counties and are comprised of a *cabecera* (headtown) and several villages. The *municipio* of Aguas consists of the

headtown and 13 villagers including Itel. The total population of Aguas according to the 1970 census is 18,501. The *municipio* of Maguey is comprised of 21 villages including the headtown and Nalcan, with a total population of 10,957.

Based on my calculations using 1970 census figures, the population density for the *municipio* of Maguey is 65.61 per square kilometer; for the *municipio* of Aguas 133.60 per square kilometer.

The differential population distribution evident from these data parallels the division of the Mezquital Valley into two zones of land use: a dry, non-irrigated (*temporal*) zone which comprises 769,600 hectares and an irrigated zone consisting of approximately 53,000 hectares.

The Mezquital Valley is generally characterized as the semi-desert region of Hidalgo; however, the existence of irrigated areas sprinkle the starkness with pockets of verdant growth. A variety of crops is cultivated in the irrigated zone including maize, beans, wheat, alfalfa, barley, oats, tomatoes, chiles and other vegetables. Of these maize, alfalfa and wheat are the principal crops grown in Itel. In the dry zone including Nalcan only maize, beans and maguey are planted. However Nalcaños appear to make the most of the floral resources of the valley including maguey (*Agave sp.*),[1] *nopal* (*Opuntia sp.*) *garambullo* (*Myrtillo - cactus geometrizans*), *biznagas*

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[1]Maguey (*Agave sp.*) sprout naturally and are also cultivated.

(*Echinocactus peninsulae*), mesquite (*Prosopis chilensis*), *huizaches* (*Acacia farnesiana*), and *organos* (*Marginatocereus marginatus*). A detailed description of the vegetation in the Mezquital Valley can be found in Quintero (1968).

The natural fauna include rabbit and quail. Sheep and goats are the major domesticated animals found throughout the valley in both the dry and irrigated zones. However, goats appear to adapt better than sheep to the dry zone by virtue of their ability to find food, such as the seeds of the mesquite, in the scrubby vegetation.

Stevens (1964) describes the soil structure of the Mezquital Valley as a combination of azonal soils, including Lithosols and Rogosols, which characterize the steeper slopes of the hilly valley, and zonal desert soils such as Sierozem which surface the more gently sloping hillsides. Stevens notes: "To the extent that water supply permits, those soils are fairly productive except where the desert hardpan is extremely firm and very near the surface" (1964: 294). Following a more recent soil classification, (Buckman and Brady 1969) the valley's soils correspond to the aridisols order characteristic of soils in arid regions, such as those formally designated as Desert, and Sierozem soils. Buckman and Brady (*ibid.*: 315) state, "Without irrigation, aridisols are not suitable for growing a cultivated crops. Some areas are used for sheep or goat grazing, but the production per unit area is low. When irrigation water is available aridisols can

he made most productive." Quintero (1968) describes the valley's soils as poor in organic materials and deficient in various elements. I obtained analyses of soil samplings from two different sites in each village. These analyses indicate the essential similarities of the soils in the two villages and reflect the semi-desert ecology of the region. Nalcan and Itel soils are classified as clay-loam and loam respectively, and as Buckman and Brady (1969) point out, most soils of agricultural importance are some type of loam. This is characteristic of arid and semi-arid regions (Buckman and Brady 1969). However, the organic content is twice as high in Itel's irrigated soils as compared with Nalcan's dry earth (Table 1). This is due more to the use of untreated sewage water (*aguas negras*) for irrigation (see Chapter 4) than to any inherent differences between the soils (SRH agronomist personal communication).

The climatic conditions which prevail in both villages are similar and typical of the semi-desert region. The annual mean temperature recorded for the valley during the period 1940-1960 was 18.3 C. The lowest temperature on record is the 9.0 C which occurred in the month of January 1956, and the highest temperature recorded was 38.0 C in May 1953 (Quintero 1968). Precipitation in the valley is seasonal. Most of the rainfall occurs during July, August and September. The precipitation season coincides with the growing season

Table 1

Comparative soil analyses for Itel and Nalcan showing pH values and organic matter content at 6" depth.

	pH	Organic material %
Nalcan		
site 1	8.00	1.24
site 2	8.20	1.38
Itel		
site 1	8.30	2.76
site 2	8.10	2.26

but high summer temperatures diminish moisture efficiency. These conditions are further aggravated by the cyclical droughts which are characteristic of desert regions. Data based on 1940-1960 records (Quintero 1968) show the annual rainfall in the valley varying from 127.6 mm to 773.3 mm while averaging 410.7 mm. During the period from 1965 to 1970 the average annual rainfall was 473.2 mm in the vicinity of Nalcan and 543 mm in that of Itel.[2] The highest precipitation in the Nalcan vicinity occurs in May, August and September while in Itel's environs, June, August and September bring the most rainfall. During the months of November, December and January virtually no rain was recorded for either station. Generally, precipitation is highly variable even within a radius of a few miles. During the field stay, I noted no evidence of precipitation within half a mile or a mile away from the site of a heavy rainfall.

Historical Setting

Scholars disagree as to both the nature of the biophysical environment and the origins and composition of the indigenous populations which dominated the region in pre-Columbian times (Carrasco 1950; Cook 1949;

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[2]These data were provided by the meteorological section of SRH from the station nearest Itel (about 3 miles away) and that nearest Nalcan (about 9 miles away).

Mendizabal 1933; Soustelle 1937).[3] There is no doubt, however, that the indigenous inhabitants that had roamed the Mezquital Valley at the time of the conquest were the Otomies: "man who wings birds with arrows" (Wolf 1959: 41).

The Spanish conquest ushered in several centuries of manifold changes throughout Mesoamerica, including massive demographic shifts (Cook 1949; Mendizabal 1947). For the Mezquital Valley and its inhabitants, the most far reaching consequences of the Spanish conquest resulted from the discovery of ore-bearing minerals and the introduction of livestock into the region in the late sixteenth century. The Spaniards did not succeed in their attempts to reorganize the Otomí dispersed settlements into nucleated "Spanish towns"; and, only to a minor extent, were they able to harness the Otomí population for work in the mines (Mendizabal 1947). But the presence of mines gave an impetus to the extant exploitation of the maguey plant for fiber and *pulque*. Negro slaves, Indians, and Spaniards in search of fortune came to the valley and the local population supplied them with *pulque* and cordage. The latter, the most important product of the maguey leaves became a booming industry for the Otomies as the colonial mining industry expanded. It became a necessity

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[3]The controversy in the literature is whether the Otomí tribes were one of the earliest inhabitants of the Mexican Central Plateau, or were migrants from other regions including the Gulf Coast.

for the mining industry for packing bars of silver and for handling metals. Additionally, maguey fibers provided numerous products useful to the mining industry, including *ayates* (carrying sacks), which were widely used in transporting goods. This cordage industry flourished until the 19th century when other methods and products diminished the demand for the maguey fibers.

Mendizabal observes that the valley's proximity to Mexico City and to the rapidly growing Pachuca-Jacala mining centers was favorable for mixed farming development. But the valley climate proved unfavorable for the introduction of large scale agriculture and for this reason ". . . all the activity in the region was concentrated on increasing livestock" (1947: 107, translation mine). The Spaniards introduced wheat and fruit trees on a minor scale. They utilized the Tula River waters by means of small systems of irrigation which predated the Spanish era. However, as Mendizabla notes, ". . . there were difficulties in bringing drainage up to the level of the fields because of the depth of the river" (1947: 107, translation mine). Hence, in this region, introduction of crops met with only minor success, whereas livestock proved to be especially well adapted to the environment and a small but sufficient supply of human labor was available to care for the animals. Mendizabal observes that the Mezquital Valley wasa sparsely populated area and therefore labor was scarce (1947: 111). Animal husbandry

demands a reliable but relatively small work force, which was drawn from the indigenous population. However, the development of a livestock industry in this region was more than a practical application of terrain and population. Given the extreme scarcity of domesticated animals, it proved very lucrative in a short time. Twenty years after the introduction of sheep, in 1569-1570, the livestock industry had become entrenched in the region. Moreover, animal grazing did not require the Spaniards to settle in the region and they contented themselves to leave the huge *estancias* (ranches) to the care of the indigenous populations (Mendizabal 1947). A number of scholars (Darling 1956; Mendizabal 1947; Simpson 1952) believe that the introduction of close grazing was the major contributing factor to the starkness which is so characteristic of the non-irrigated portion of the valley today. A new ecosystem thus emerged, concomitantly ushering in a new adaptive process based on intensified exploitation of the native plant and small domesticated animals. During the colonial period mining and commerce remained the mainstay of the region's economic life.

The middle of the 18th century ushered in the era of the great latifundias. By 1900, 195 haciendas existed in the State of Hidalgo (*Bosquejo Historico* n.d.). Mendizabal (1947) points out that, with the introduction of the latifundias, the Mezquital Valley developed as three distinct production regions, each following its

own ecological potential and economic convenience. The southwestern part of the valley, the area in which Itel is situated, including Zumpango, Tula and Huichapan were committed principally to the production of maize and wheat concomitant with the raising of livestock. The northern section of the valley, the area in which Nalcan is located, was dedicated to raising livestock. In the Pachuca-Actopan area cultivation of fodder (barley) and cereals predominated as well as livestock. During this period the history of the two villages diverges. The differential location of Itel and Nalcan exposed each to distinctive experiences with the hacienda system. Itel is located in what was the heartland of the giant haciendas which had practiced a mixed farming economy and emphasized crop cultivation. Nalcan is situated in the region where by all accounts the haciendas seem to have been smaller and were devoted primarily to animal grazing and some cultivation. Crop cultivating haciendas relied upon a labor force drawn from villages within the area, including Itel. Animal grazing demanded a lesser labor supply and the haciendas did not seek labor from villages situated in the vicinity, including Nalcan. Therefore Nalcaños had less direct contact with haciendas than did their southern counterparts.

Elderly villagers in Itel vividly recall their work on the hacienda. By their accounts, no one in Itel

was an *acasillado*: a resident on the hacienda. They "shaped-up" every morning at 6:00 a.m. at a designated spot, after a two hour walk from their village. There, they were assigned work for the day. Both men and women worked in the hacienda's fields which produced wheat, corn and barley. They say one had to work for the hacienda in order to obtain maize, which otherwise could not be purchased.

A key informant, Solomon, the most prominent citizen of Itel today, served as mayordomo (foreman) on the hacienda during the five years prior to its disbandment. He had inherited the job from his father. Mayordomos on the hacienda belonged to a class slightly more privileged than the peons. They were paid several cents more per day than the peons and received extra rations of maize. As mayordomo, Solomon came in direct contact with the hacienda administrators in charge of the estate but not with the *hacendado* (landholder) himself who was normally absent from the region.

The ruins of a minor *casco* ("big house") of the former owners, a *cortina* built by the *hacendados* to dam up water, and the memories of a few village elders are the only tangible remains of the hacienda era to be found in Itel today. Inadvertently, however, the hacienda left a legacy of advantage to Itel's villagers in dealing with their societal environment today.

A few villagers in Nalcan were able to recall

having grazed their animals on a neighboring hacienda, paying a tax per animal head. No one reported having worked for one.

Itel's experiences with the hacienda taught the villagers to deal with the larger society in several ways. The hacienda provided a situation in which a few individuals were able to acquire the know-how to manipulate and deal with representatives beyond the confines of the village; thereby creating a core of individuals capable of integrating the village community with the wider society. For example, Solomon, the most prestigious member of Itel today was, as noted previously, a one time hacienda mayordomo who subsequently became the spokesman for Itel.

The hacienda also provided an exposure to a new technology. David, another villager, remembered observing a special technique used by hacienda engineers in levelling land, and recently employed that technique to install a small irrigation pump system.

Finally, in Nalcan, the predominance of animal grazing contributed to its deterioration; whereas the people of Itel received partially irrigated crop land, expropriated and redistributed in *ejidos*.

On the other hand, Nalcan's recent past did not

prepare the villagers to deal with the present. To the contrary, the hacienda, not needing their labor, had no use for them either and they were pushed to the periphery of the wider society. The structural isolation of Nalcan also explains why the indigenous language, Otomí, still prevails particularly among the members of the older generation. The Nalcaño's past prepared him only to exploit the natural habitat dominated by the ubiquitous maguey.

The cataclysmic Mexican revolution of 1910 reshaped rural Mexico; and its land reform program -- the *ejido* system -- was the major means by which this was accomplished. The Mexican revolution gave the impetus to the transformation of the land tenure system based on giant haciendas to one built upon medium sized to small plots. Today *ejido* tenure and *pequena propiedad* (small private property holdings) are the principal forms of land tenure in Mexico (Brandenburg 1969).

Land and Water

Ejido land tenure represents the one major link between the recent past and the present, and between the nation and Itel -- a link which has helped produce structural differences between Itel and Nalcan.

The *ejido* system came into existence by direct government action. On January 6, 1915 Venustiano Carranza, then president of Mexico, issued his now famous decree

ordering the return of land to the villages. In 1917, Article 27 of the new constitution provided the legislative foundation for agrarian reform (Tannenbaum 1929; Whetten 1948). Carranza, however, was not an enthusiastic supporter of agrarian reform and land distribution was not effected on any major sale until Alvaro Obregón's presidency (1921-1925). During this period the Ejido Laws of April 10, 1922 were formulated. The 1922 regulations specified the amount of land a village could receive. Each family or person over eighteen years of age was to be allotted either three to five hectares of irrigated or humid land; or four to six hectares of sub-humid land receiving a sufficient amount of rain; or six to eight hectares of other non-irrigated land.

Despite the existence of these laws, the expropriation and redistribution of lands was not fully implemented until the administration of President Lázaro Cárdenas (1935-1940) who expropriated and redistributed some of the most highly developed farm lands in Mexico. During his presidency more land was distributed in *ejidos* than had been since the inception of the program, or would be in the twenty years to follow (see Huizer 1968 appendix). More importantly, Cárdenas firmly anchored *ejido* tenure, hitherto believed to be only a temporary measure, as a permanent form of land holding. *Ejido* tenure became a fundamental part of Mexican national economy during the Cárdenas era (Simpson, E.N. 1937; Whetten 1948: 127).

The legal size of *ejido* plots of land (*parcelas*) has varied over time. Until 1943 agrarian laws allowed four hectares of irrigated land or eight hectares of *temporal* (seasonal) land. Subsequently the code was revised and allotments were increased to six hectares of irrigated land or twelve hectares of temporal land (Whetten 1948). Cardenas' successors continued the distribution of land. During Migual Aleman's administration (1947-1953) the minimum grant was raised to ten hectares of irrigated land or twenty hectares of *temporal* land. This measure was designed to reverse a trend toward the growth of *minifundias*. It also opened more lands for colonization rather than continuing the expropriation of land ". . . into uneconomic units the small and poor land resources inherited by the revolution" (Cline 1963: 215). According to Whetten (1948), however, the average allotment per recipient in the State of Hidalgo was 3.1 hectares of irrigated land or 6.3 hectares of *temporal* land. Only in the State of Mexico were the allotments of irrigated land smaller than those in the State of Hidalgo. The average size of irrigated *ejido* plots of land today in Itel's district is 1.26 hectares.[4]

Ejidos may be held collectively but the largest proportion of them are held and worked individually as is the case in Itel and Nalcan. Collective *ejidos* are few in number and found chiefly in the northern states of Coahuila

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[4]These data were furnished by SRH Irrigation District Office.

and Durango.[5]

The formal administrative structure of the *ejido* system is comprised of national and local administrative bodies. On the national level, the *ejido* is dependent upon the Agrarian Department for such matters as the validation of land grants, the confirmation of old communal titles, the issuance of certificates of title to individual holders, and the assessment of land boundaries. On the local level, the administration of the *ejido* is vested in two committees. The first is the *Comisariado Ejidal* (executive committee) consisting of three elected members with three alternates. This body is responsible for active management of *ejido* affairs. The broad functions of the committee are to represent the *ejido* before the administrative and judicial authorities, to supervise the division of plots, to designate successors to plots, and to call a meeting of the general assembly at least once a month. The general assembly is composed of all *ejidatarios* (parcel holders). The second committee operating on the local level is the Vigilance Committee, comprised of three members and charged with watching over the executive committee.

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[5]For full discussion of collective *ejidos* see Eckstein (1970); Wilkie (1971). For full treatment of the *ejido* system see Simpson (1937); Tannenbaum (1929, 1950); Whetten (1948) and others (Brandenburg 1969; Cline 1963; Eckstein 1966; Stavenhagen 1970). An analysis of the *ejido* system in relation to its significance for sustaining modern Mexican political structure is provided by Chevalier (1967). For a discussion of the merits of agrarian reform in general and the *ejido* system as a special variant of it see Cline (1963); Erasmus (1969); Stavenhagen (1970); Weitz (1971).

Itel actively exploits its *ejido* holdings and is thus directly linked with various bureaucratic segments of the national society including the Agrarian Department, with the Ejido Credit Bank (see Chapter 7), with the *Confederación Nacional Campesina*, a peasant organization incorporated into the dominant national political party, the *Partido Revolucionario Institucional* (Institutional Revolutionary Party), or PRI. In Nalcan, on the other hand, the land is not productive because it lacks water and the existing *ejidos* are not exploited by Nalcaños. As a result, the *ejido* system has not provided the same link between the villagers and the nation.

We now turn to irrigation, a system which had its antecedents in the Valley of Mexico in pre-Columbian times (Sanders and Price 1968). As noted earlier it was practiced on a minor scale in the Mezquital Valley before the Conquest and some attempts were made by the Spanish colonists to elaborate the small systems which they found (Mendizabal 1947). Remains of the latter system are still evident in present irrigation works in the *municipio* of Maguey which dates back to 1685. Meaningful expansion of the irrigation system did not begin until water resources, including irrigation works, came under government control with the enactment of the Irrigation Law of 1926.

The law aimed at the expansion of irrigated areas as a means of solving the agrarian problem and was, therefore, made to depend upon Article 27 of the Federal

Constitution (Tannenbaum 1929: 276). The law declared that ". . . privately owned properties and the rights of the users of waters under federal jurisdiction became subject to the limitations which the law prescribes for the purpose of constructing, conserving, and paying for irrigation works" (Tannenbaum 1929: 276). In addition, the law created the National Irrigation Commission ". . . to study and select the most available irrigation projects, declare the specified areas as irrigation zones, formulate the irrigation plans, calculate budgets . . ." (*ibid.*: 278).

Emphasis on land development through irrigation varied with successive presidencies (Wilkie 1970). However, during Miguel Aleman's administration (1947-1953), the National Irrigation Commission was elevated to cabinet rank as the *Secretaria de Recursos Hidraulicos* (Ministry of Hydraulic Resources).[6] At present the Mexican Hydraulic program is the largest in Latin America aiming at land reclamation and maintenance (Cline 1963). In addition to the construction and administration of irrigation works, the ministry's major concern, its agencies are charged with the installation of drinking water sources within the villages, agricultural development, conservation, and other related tasks. Again, the associations created

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[6]For a study of this ministry; its structures and its operations see Greenberg (1970).

between villagers and government appear valuable. For example, the Tula Irrigation District of SRH in charge of the Mezquital Valley, in conjunction with yet another government agency, instituted an experimental program with three types of hybrid corn on an *ejido* land plot held by Pablo, an Itel villager.[7]

Historically, SRH policy in the Mezquital Valley has given priority to the expansion of the irrigation network in areas of concentrated *ejido* lands, i.e., the southern part of the valley which includes Itel (Personal communication SRH District Chief). At present SRH is directing its attention to the northern part of the valley. A canal is now under construction which will open to irrigation as much as 3,000 hectares within the dry zone of the Mezquital Valley. Included in this area are about 300 hectares part of which belongs to Nalcan. This particular project is due to be completed within the next four years, but Nalcan will have some twenty hectares of land opened up for irrigation by 1973.

The Tula Irrigation District cannot be discussed without some consideration of its unique source of water: *aguas negras* (untreated sewage water)[8] emanating from

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[7]The results of this experiment are described by Cortés in *Boletin del Comite Directivo Agricola Del Distrito de Riego No. 03* - published by the district office (1971).

[8]*Aguas negras* (sewage waters) are defined as ". . . those waters of domestic and industrial liquid wastes and includes rain waters; run-off surface waters and sub-surface drainage waters" (Heukelekian 1962; 6, translation mine).

Mexico City. Together with the river waters from the Rio Salado and rain waters these untreated sewage waters are utilized for irrigation.

Sewage waters came into use for irrigation because of drainage problems existing in the Basin of Mexico since the pre-Conquest eras. During the pre-Columbian period uncaptured rain waters produced sufficient flooding to necessitate the construction of the now famous Tacuba-Chapultepec and San Antonio-Coyoacan causeways. Following the Conquest the problem of drainage was further aggravated by the systematic destruction of the surrounding forests. In 1604 Mexico City itself was inundated for several months. Numerous solutions were examined during the next two and a half centuries. In 1888 a plan was approved to construct the Gran Canal del Desagüe to drain sewage and rain waters from Mexico City. The canal runs in a northeasterly direction until it reaches two tunnels: the Antiguo Tunel de Tequixquiac and Nuevo Tunel de Tequixquiac (see map 2) which channel the waters out of the Basin of Mexico into the Mezquital Valley. The latter tunnel was built in 1937 to accommodate the augmented volume of sewage waters resulting from the increase in Mexico City's population. The two tunnels extend for about 34 miles (57 km) and empty into a reservoir where they are combined with water diverted from the Rio Salado. Once mixed in yet a third reservoir (referred to as the *liquadora* or "mixer"), they are distributed to various

principal and secondary canals which feed numerous village lands, including those of Itel (see map 2).

Untreated sewage waters have been employed for irrigation in the Mezquital Valley from the beginning of this century but their extensive use began with the expansion of SRH. Today, approximately 500 million cubic meters of sewage and rain waters emanating from Mexico City are being used annually to irrigate about 45,000 hectares in the Mezquital Valley (*Uso Agricola de Las Aguas Negras* 1970).

These waters which became available to the villagers of Itel in 1952 add a special dimension to the ecology and economy of the villages which they reach. While its chemical composition varies with seasonal rainfall, this sewage water is rich in organic materials which generally contributes to higher crop yields. It does, however, place certain limitations on types of crops which can be produced.

Uses of sewage waters for crops including alfalfa, corn or wheat are not considered detrimental to health. The available studies do not, however, recommend cultivation of edible legumes such as tomatoes, chiles, lettuce etc. where sewage waters are used for irrigation (*Uso Agricola de las Aguas Negras* 1970).[9]

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[9]A detailed analysis of the chemical composition can be found in *Uso Agricola de las Aguas Negras* published by *Secretaria de Recursos Hidraulicos*, 1970. Heukelekian (1962) deals with the relationships between the use of sewage water and public health. A correlation exists between the use of these waters and the prevalence of

Based on what villagers say, untreated sewage waters have differential effects on crops. The peasants readily attribute high corn yields to these waters; but they blame them for decreased alfalfa yields. All villagers reported decreasing alfalfa yields during the last ten to twelve years. They recall that fifteen and twenty years ago, alfalfa fields were productive for eight to nine years. During the past ten years these same fields have required recultivation after three years. Villagers attribute the decreased productivity to a plant louse carried by untreated sewage waters.

I questioned several agronomists at the Ministry (SRH) regarding the diminishing alfalfa yields reported by villagers. These officials attributed the decreased yields to increased detergent content in the sewage waters and to the expanding chemical industries located in Texcoco. The wastes ejected by the Texcoco factories are added to the sewage waters on their way to the Mezquital Valley where they act to stifle the nodules of alfalfa roots. A regional study is now under way to determine the effects of increased detergent in the sewage waters used for irrigation. No definitive results have as yet been established.

The ecological effects of this sewage water on

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intestinal disease. This was also confirmed in personal communication by a doctor working in the region.

crops may present an economic dilemma for Itelanos. Alfalfa is a highly lucrative cash crop, but it requires a relatively high initial cash investment. The diminished lifespan of an alfalfa field decreases its profitability as a cash crop for the small landholder who now must turn it up every three years instead of every eight or ten years. To plant alfalfa may eventually be feasible only for those few who can afford the high initial costs and chemical treatment expenses.

PART II

CHAPTER 3

ITEL — AN IRRIGATED VILLAGE

The Village and Its People

This chapter intends to provide a physical and social profile of Itel village; a broad background for the comparisons and contrasts which can be drawn between this village and Nalcan.

Itel is situated approximately 5 miles north of the Tula-Actopan road intersection. At this junction direct buses leave for Mexico City; for Tula, the District's center, 16 miles away; and Tlahuelilpan. The last is a small town 7 miles from Itel where a large weekly market takes place every Tuesday. Mixquihuala, where the District Office of the Ministry of Hydraulic Resources is located, is 10 miles from this point. There is a road leading north from Itel to the headtown of the *municipio* which borders the village and lies about three miles from its center. There is no direct bus service linking Itel with Mexico City. Villagers must walk a half a mile to reach a road where buses pass. The paved roads connecting Itel to this road which

leads to the headtown and also to the Tula-Actopan road were constructed around 1965. These roads, including half a mile section leading into Itel's center, were completed during the period when Solomon Jr., one of Itel's native sons, served as municipal president.

The paved road leading to the village square ends between the school (established in 1927) and a large irrigation canal. A little foot bridge across the canal leads to the square, a large area with no structure except the recently completed little church, still lacking a belfry. The church bell hangs from a nearby tree. A short distance from the church stands an unfinished, but serviceable, *toril* (bull ring) which was recently constructed by the efforts of the *charro* (rodeo) association of Itel. Members of this organization meet to practice various rodeo acts every Sunday. Three unpaved roads lead from the square into seven *manzanas* (sections). Each section is known by a number; an individual is often referred to by the section in which he lives (e.g., Jose of *Manzana* 5).

The village territory is composed of two ecologically distinct areas: an irrigated part and a non-irrigated part. Sections 1, 2, and 3 are located within the irrigated area. The feeder canals transect these sections. The dwellings there are surrounded by cultivated crops which include alfalfa, maize or wheat, depending on the season of the year. These fields form part of privately

owned small *pequeña propiedad* (land holdings) which border on the *ejido* lands referred to as the *ejido viejo*. Sections 1, 2, and 3, each contain fewer households than the remaining sections. Because of the fields surrounding them, the dwellings are separated by as much as half a hectare of land. Sections 4, 5, 6, and 7 consist of the dry, scrubby land characteristic of the Mezquital Valley. Around the dwellings in these sections are combinations of nopal, organ-pipe cacti, *palmas de campo*, and a few maguey which provide the *pulque* consumed by the household. In these sections dwellings are separated by shorter distances and often stand adjacent to each other. Unlike sections 1, 2, and 3, these groupings are typical of the semi-desert environment before it was altered by irrigation.

Parts of sections 6 and 7 are often referred to as *colonia*, non-arable government lands (see Chapter 5) which are used for dwelling sites. There are seventeen households which stand on *colonia* land. Unlike all other household sites in Itel these seventeen cannot be sold by their holders. The wealthier individuals, those with the largest number of private holdings, live in Itel's irrigated sections 1, 2, and 3. Section 4 has a Protestant contingent whose founder migrated from Mixquihuala at the beginning of the century and whose offsprings now comprise eight households standing adjacent to each other.

The number of households in each section is presented in Table 2.

Table 2

Distribution of Households by Section

Section	Households
1	28
2	28
3	27
4	49
5	67
6	54
7	60
	313

Dispersed throughout the seven sections are eight stores which sell candy, beans, rice, school supplies, soaps, sugar, coffee, and alcoholic beverages. Maize is usually not sold in these stores. Every morning beginning at dawn small children carry *nixtamal* (corn prepared by cooking in lime water) to one of the three corn mills, where it is converted into *masa* (corn dough) from which tortillas are made. Other village retail services include a newly introduced bicycle repair shop (most males own bicycles), and a newly established auto repair shop which adjoins a little school supply store. There is no weekly market in Itel; however, twice a week, a vegetable-and-fruit vendor puts up a stand in the center of the square, which also becomes a gathering place for some of the

younger men. Four operate taxi services, providing villagers with their main source of transportation to the Tuesday market in Tlahuelilpan and service to the junction crossing at the Tula-Actopan road.

There are two women curers in Itel. Villagers often prefer *curanderas* or *espiritualistas*, who practice out of a nearby town to modern doctors because they charge less and are considered to heal better.[1]

Except for three masons, there are no artisans in Itel. There is one man who knows how to weave *ayates* (carrying sacks), a skill which he learned from his wife, who is from Nalcan. The peasants seek out a weaver in a neighboring village to have blankets woven from the wool of their sheep. A few Itelanos engage in commerce, but the overwhelming majority of male villagers make their living by cultivating the land. With the exception of the women who run the stores, almost all of the women dedicate themselves to household chores. (For further discussion of the division of labor, see Chapter 8.)

Several elderly village women remarked that their daily chores were made easier when drinking water and electricity became available to the village. They recalled walking approximately 5 miles to the spring in order to

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[1]Itelanos distinguish between *curanderas* folk medical curers and *espiritualistas*, who practice out of a temple, are usually clairvoyant and cure by using herbs and by entering into a trance.

secure drinking water for the household until about 1962. They were relieved of the arduous task of grinding corn manually when corn mills were established in 1963 and 1964, following the introduction of electricity to the village.

Solomon, born in 1888 and now one of Itel's oldest citizens, frequently commented on the rapid growth of Itel's population since his boyhood. This growth was due to the natural expansion of families rather than to the influx of migrants from neighboring villages. Indeed, the numbers in Itel's households have increased by 60 percent since the revolution. There were 193 heads of households in the 1918-1925 period, during which Itel received its first *ejidos*.[2] At present there are 313 households[3] containing 575 males, 502 females and 952 children.[4]

The majority of households in Itel are comprised of nuclear families. The number of female headed households and extended family households are relatively small.[5]

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[2]Solomon possesses the list of these original *ejido* grants which numbered 193 and were distributed to each head of a household (see Chapter 5).

[3]Of these 313 households, I visited 295.

[4]These figures are based on my own census in 1971. The category *children* includes only those still in the six grade school or under school age.

[5]A detailed analysis of family structure is presented in Chapter 8.

The range in household sizes is presented in Table 3.

Table 3

Distribution of Households, Classified by the Number of Persons

Number of Persons	Number of Households
Alone	5
2-3	38
4-6	106
7-9	94
10-12	40
13-15	10
16 or more	2
	295

As a general rule, virilocal residence is practiced. There is only one instance of a union in which uxorilocal residence was practiced. Generally, the woman joins the man in his father's house where the couple may reside for one to five years. After a time, the father allows his son a nearby piece of land on which the couple builds a separate dwelling. Consequently, a man's neighbors are usually also his male siblings and parents.

Three types of unions are recognized in Mexico: unions validated by the church, by the civil authorities (or by both church and state) and free union ("*union sin titulo*", or "union without a title" in the words of one

informant).[6] Of the couples represented by the 295 households I visited, 65 percent were unions which had been officially validated by civil or religious ceremony at the time of the union or later. The remaining 35 percent of these couples were living in free-union.

Unions are frequently formed by *robo* or "stealing" of the bride. Originally a union contracted in this way implied a capture -- i.e., a woman was taken by force. Female informants now laugh at this and indicate that the girls are very willing to be "stolen" and aid in effecting it. According to one informant, the advantage of establishing a marriage by *robo* is that fewer expenses are incurred. When a man formally requests a woman's hand in marriage, he must purchase her wedding dress and one or two additional outfits. In addition, he pays for the festivities and church fees. Marriage by *robo* avoids these expenses, as was explained by one informant whose daughter was recently "stolen." If the union is then legalized in a civil ceremony, a small meal is served to the immediate family but the costs are negligible. In one case, reported by another informant, the reason for the marriage by *robo* was the perceived imminence of disapproval by the girl's family.[7]

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[6]For a review of marriage and family structure in Mesoamerica, see Nutini 1967.

[7]This is consonant with Díaz' (1964) hypothesis concerning the reasons for marriage by *robo*.

Normally, a man later legalizes a union by *robo* if the girl's father exerts pressure on him. One female informant recalled that her father did not press her *señor* (man) and father of her four children. Now, she lamented, the man has another *señora* (woman) in the neighboring village to whom he is legally married and by whom he has had two children. However, he provides each woman with part of his harvest. Several women were present at the time of this discussion and all unanimously agreed that despite the fact that the man was legally married to the other woman, the informant had prior rights to him and his harvest on the grounds that she was his *first woman*. Being the first woman, they agreed, overrode legal status in terms of moral and economic obligations.

During the field stay, no weddings took place. Two sisters were "stolen" by two brothers and three other girls were also reported "stolen". In one case of which I have direct knowledge, a girl simply disappeared from the house of her godmother with whom she had lived most of her life. The godmother professed ignorance of the reason for the girl's absence and denied any knowledge of her whereabouts. After a week elapsed, word circulated that the girl had gone off with a man.

One informant reported that she had been "stolen" twenty years ago at age thirteen and did not return to see her natal family until her man finally went to ask formally for her hand many weeks later.

Monogomy is the norm. There are, however eleven men who are the acknowledged heads of two or more households. Six of these have their secondary households in a bordering village. Of course, there may be more than these eleven polygynous relationships, but they are not acknowledged publicly,

Solomon Jr., one of the wealthiest men in Itel, has two households in Itel separated by only one fourth mile and a third in the headtown. He is legally married to the eldest of the three women, who resides in Itel and who has borne him nine children. The second woman also living in Itel has borne him twelve children. The latter, when interviewed, named him as the head of her household. Because he is one of the most important village citizens, guests are received where his legal spouse resides. Children of both unions consider themselves siblings and refer to one another as such. They are often seen together and visit each other in their respective houses. It is said, however, that the two women never meet.

Discussion with female informants reveals that women do not condone polygynous arrangements on moral grounds but disapprove of them only when the man cannot support both households. However, when two women are known to be feuding, it is a sure sign the two are unwillingly sharing the same man.

The majority of unions are contracted between individuals from Itel. Of the 284

couples for which data were available, only 83 men took women from outside of Itel; and of the latter cases, only five of the women originated outside of the State of Hidalgo. The non-Itelano girls who mated with Itel men came primarily from one bordering village. The five who came from outside of the state had all met their husbands while working in Mexico City. Marriages involving girls from distant villages is a comparatively new phenomenon and is evidenced by the fact that all of these males are less than 25 years old. In the ascending generation, there were 42 exogamous unions, of which only two women originated from outside of Hidalgo.

Seven men came to live with their mates in Itel. Of these, five are native to Itel's immediate neighbor and two are from villages within the Mezquital Valley. In the next older generation, however, forty-three men mated with Itel women and then came to settle in Itel. Two of these originated in other states, but the majority are native to the Mezquital Valley.

These data suggest that, in the past, land may have been less scarce and women were allowed to inherit land which made uxorilocal residence possible. Or, it may point to a greater imbalance in the sex ratio due to the revolution and internal dissension which had plagued Itel and its neighbors at that time. According to villagers, until twenty years ago killings were common.

Villagers agree that present-day life is more

peaceful than it had been ten or fifteen years ago, when it was dangerous to leave one's house after sunset. However, people still move swiftly and are rarely seen lingering for long periods excepting Sundays. On this day a group of five to six younger men may be seen congregated with their bicycles around the school. Three out of four Sundays in each month a mass is held in the little church. A small number, mainly women, congregate on that day. Once the mass is finished they quickly disperse and the plaza remains empty once again. The men meet on Sunday afternoons in the small store bordering the plaza where beer, soda and, on Sundays, enchiladas are sold. All eight stores in Itel serve as *cantinas* where men meet and drink together.

Unlike Nalcan where few men are encountered in the village during most of the year, men work in Itel throughout the year. The demands of the agricultural cycle and the kinds of crops cultivated (i.e., alfalfa) keeps Itel's males in the village. Again in contrast with the Nalcaños, few Itelanos ever leave the village in search of wage labor. Ninety-two men and fifty-nine women had worked outside of Itel at one time or another in their lives.[8]

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[8]These data are based on responses to the portion of the socio-economic census dealing with extra-village employment and emigration. Additionally, twenty-eight males left Itel permanently. Fourteen of these married girls from neighboring villages or out of state and are now living in their wives' villages. Sixty-four females emigrated. Forty-eight married men from neighboring villages (the

Of these, fourteen males (2.5%) and thirty-two females (6.3%) were employed outside the village at the time the census was carried out. Not one of these fourteen men is the head of a household.[9] Most of these villagers work in Mexico City; but some work or have worked in the neighboring towns of Tula and Apazco. (While other work locations exist, they are not significant in number.)

An annual fiesta brings most Itelanos to the village center at one time or another during the five-day celebration. The fiesta begins on May 13 in honor of the Virgin of Fatima who became Itel's patron saint when her statue was donated to the church a few years ago by an Itelano woman. In 1971, villagers collected contributions totalling 2,600 pesos for the purchase of a bigger statue of the Virgin of Fatima which was ceremoniously installed on the first day of the fiesta.

Villagers say that, long ago, Itel had a church situated in another spot whose patron saint was San Juan Bautista. They say that about 100 years ago the patron saint went to live in the headtown because he did not like the dwelling in which he was housed. Solomon claims, however, that it was not the saint's displeasure which caused him to leave his abode but rather the *hacendado's*

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greatest majority) or from Mexico City. These figures include one couple who migrated to Mexico City where they both work.

[9] See Table 21 of appendix comparing wage labor migration figures for Itel and Nalcan.

need of the area for cultivation, or the like, which forced the saint to move. The church was destroyed and the saint taken to the headtown. The foundations of the structure can still be seen in the confines of one household's yard.

For many years, Itel and the headtown celebrated their religious fiesta together, but tradition ceased when Itel acquired its new patron saint. In 1968 Itel inaugurated the fiesta to the Virgin of Fatima, despite vigorous opposition and interference from the headtown. Formerly the largest celebration in Itel centered around Independence Day, September 15, when festivities lasted for four to five days. These activities are now reduced to a one day celebration centered around the school.

The religious fiesta is a happening about which villagers talk for weeks in advance. They like to list all the events that take place, including bull fights, music, fireworks, mass, a *mojiganga* (masked disguises, men dressed like women and much buffoonery) and finally the contest between Itel's rodeo team and a guest team.[10]

To meet the expenses of the fiesta, each household pays an assessment per hectare of *ejido* land held, with irrigated land assessed at twice the rate for non-irrigated holdings. The planning and administration of the fiesta is in the hands of a committee selected for that sole function

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[10]This year the guest team came from a town in the neighboring state of Mexico (Tepotzotlan) and villagers agreed that the Itel home team was no match for the professionalism of Tepotzotlan.

each year.[11]

The other community-wide social affairs are organized and produced through the school. On Flag Day, Juarez's Birthday, Mother's Day and Graduation Day, the school organizes programs which generally consist of dances in home-produced costumes performed by each class. In addition to the activities at the school, a child's graduation is also celebrated in the homes, where parents make a meal in honor of the *padrino* (god-father) or *madrina* (god-mother) of the graduating child. (The *padrino* or *madrina* are sponsors of the graduating child, who are required by school regulations and who present themselves with the child at the graduation ceremony.) Usually on these occasions, honored guests are invited such as school officials, employees of the Irrigation District Office, or other public officials.

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[11]The 1971 budget totalled 11,360 pesos which represents the following expenditures for the five days:

Item	Pesos
Castillo (fireworks which culminate the fiesta)	3500
Music (10 musicians paid wages and food)	5760
Mass	1500
Bullfighters	600
	11,360*

(The bulls are local steers from the stables of one or two Itelanos and usually several individuals from a neighboring village.) In 1970 and 1971 each household was asked to contribute 40 pesos per hectare of irrigated land and half that amount for non-irrigated *ejido* lands.

*One peso equals eight cents in U.S. currency (or $1.00 = 12.49 pesos).

The formal organization of the state government reaches down only as far as the level of the *municipio*. At the village level, necessary services are provided through a community system of cargos. Cargos are offices held on a rotating basis by the men of the community, and the cargo system is the sector of public life in which male residents are required to participate at one time or other during their life time. The office holders are obligated to serve for a year and then are relieved of their responsibilities, leaving the office to another man. The cargo holders receive no pay for their year of service.

The planning activities are divided among six unrelated, local committees of five men, cargo holders each. Two of them, the *Comité de Obras Materiales*, dealing with village roads and buildings, and the *Comité de la Sociedad de los Padres de Familia*, dealing with the school's operation, entail a cargo of two years for their members. The remaining four are committees which are directed to the production of the religious fiesta, *Comite de Festejos Profunos* and the Independence Day celebration, *Comite de Fiestas Patrias* and the advancement of the construction of the church and the bull ring respectively.

The more administrative than planning oriented cargos at this same village level are the functions of: the representative to the *Comisariado Ejidal*, which is the municipio-level body concerned with *ejido* titles and succession, and thereby one of two most powerful cargos

because the representative can be influential in manipulating ownership of or succession to an *ejido* in the event that an *ejidatario* (a holder of an *ejido*) is faced with a problem of this nature (see Chapter 5); the representative to the Municipal Assembly, which theoretically provides a rein on the activities of the president of the *municipio*; the foremost powerful cargo, the *Juez auxiliar* (Justice of the Peace), who has the power to arrest and to fine and to impose jail sentences in misdemeanors; the *Jefe de la Policia* (chief of Police); and a number of *Zanjeros*, who are inspectors charged with overseeing that the irrigation ditches are cleaned semi-annually. The *Zanjero* must certify that a peasant has cleaned his section of ditch before he is sold water. As compliments to these village-level cargos, two policemen, an inspector of roads and a collector of village assessments are established for each *manzana* (village section).

The weekly maintenance of communal property as well as the provision of labor for village projects is an ongoing responsibility shared by all male Itelanos and is carried out by *faenas* (communal work groups). These work groups are called for tasks including cleaning of village paths, or the clearing of unpaved roads, or the laying of the foundation for an additional schoolroom as was the case in 1971 when two new additional classrooms and a room to house

an additional teacher were under construction.[12] Depending upon the honesty of the Justice of the Peace, whose collected fines are intended for use in village projects, there are three persons on the village payroll. These are the two paraprofessional, auxiliary teachers who assist the eight school teachers provided by the Federal government and a part-time secretary to the Justice of the Peace.

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[12]This project was initiated by the joint efforts of the *Comité de Obras Materiales* and the *Comité de la Sociedad de los Padres de Familia*. Jesus, the head of the former committee declared an assessment of 100 pesos (per hectare of irrigated *ejido*) for this purpose.

CHAPTER 4

WATER ALLOCATION

Peasants in Itel are not required to build or to maintain the irrigation networks except for cleaning the section of ditch on their land, nor are they concerned with problems of flood control. These are functions of the office of the Irrigation District, a branch of the government's Ministry of Hydraulic Resources (SRH). Itelanos gain access to water by dealing with this segment of the government and it is this water-gaining activity which is the subject of this chapter.

The irrigation of Itel's land is under the control of the Tula Irrigation District, one of a number of administrative districts in the country. The District encompasses most of the Mezquital Valley[1] and two townships out of the

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[1]Of the 53,000 hectares of irrigated land within the Mezquital Valley, about 40,000 hectares are the responsibility of the Tula District Office. The *Patrimonio Indigena del Valle del Mezquital* located in Ixmiquilpan is responsible for another 4,200 hectares in conjunction with SRH. The remaining hectares fall under the jurisdiction of various *Juntas de Aguas*, which are local bodies responsible for the distribution of water within a *municipio*. The irrigation system which these *Juntas* administer usually consists of small dams and reservoirs often of ancient origin, such as those in the Maguey *municipio* where the *Junta* distributes water to 416 hectares of land. The *Junta de Aguas de Tlaxcuapan* (about 12 miles from Itel) has 900 hectares under its jurisdiction. These *Juntas* have remained relatively autonomous bodies.

valley in the State of Mexico. The District Office is divided into subsections for purposes of water distribution. In an administrative pyramid, the heads of the sections are responsible for a number of inspectors within their sections, who in turn supervise a number of *canaleros*. The *canaleros* are the individuals who effect the water distribution by opening and closing the sluice gates and are the officials with whom the cultivators have the most frequent contact.

Two or three *canaleros* are in charge of allocating water to these sections which vary from 800 to 1,000 hectares. It matters not whether the land is privately owned or held in *ejidos*. The *usario* (user) must contact the *canalero* to obtain water for his land. Viewed from the vantage point of the Ministry (SRH), the *canalero* is at the end of the administrative chain. To the cultivator, however, the *canalero* represents the principal contact with the Ministry. The *canaleros* are generally local peasants who have become government employees. They are individuals who originate in the region which they serve, but are not assigned to irrigation sections which service their own village. Two Itelanos, a father and son, are *canaleros* in two sections servicing nearby villages.

Canaleros possessed *de facto* control of water distribution until 1968 when a newly appointed district chief instituted administrative procedure which placed some checks on the power of the *canalero*. Prior to that time, the user purchased a voucher from the SRH District

Office which he presented to the *canalero*. It was left to the *canalero* to provide the water at his own convenience. The older men recalled travelling the sixteen miles to Tula for a water voucher each time they wanted to irrigate land. Hundreds of people would descend upon the cashier's office. Because of the large crowds, many stayed overnight to reach the cashier the next day. During these waits they often would spend their voucher money on food and drink and would return home without a voucher. During the period since 1960 several voucher purchase stations have been established and much of the problem of long travel and delay has been eliminated.

The changes recently instituted under the new procedures are founded on a system of supplying water to portions of a section on a rotation basis. Each section is divided into three zones to each of which water is assigned every third day. Each time a user wishes to water land, he buys a voucher and presents it to the *canalero*. The *canalero* must then place the user's name on a waiting list, and the user normally receives his water within seventy-two hours.

Before this rotation system was introduced, the *canalero* had free rein to open and close the sluice gates and it was common for the users to resort to bribing him to obtain water. Instead of purchasing a voucher, they would pay the equivalent to the *canalero* or would make him a "partner" to one fourth of their harvest.

At present the district office keeps a closer watch on the *canaleros*. Unless there is a shortage of water, the *canaleros* must provide service to an individual within seventy-two hours from the time his name is placed on the waiting list. The rotation system was instituted in response to vigorous complaints from peasants in Itel and other villages within the district. These peasants, holders of one or two hectares, claimed they could not afford to wine and dine and bribe the *canalero* in order to obtain water. Most villagers agree that the rotation system eliminated rampant bribery of *canaleros* by curbing their powers to establish personal priorities.

However, several wealthier villagers expressed their dissatisfaction with the new procedure on the grounds that water was allocated more rapidly under the old system. Previously, they simply found the *canalero*, gave him money and received their water. Now, they must travel to a payment station, obtain a voucher, have their names placed on the waiting list and wait their turn for the water. What is worse, during the dry months (May and June) when there may not be enough water to serve all who signed up for a given day, they must wait until their section zone receives its next water supply three days later.

Prior to 1968, the power of the *canalero* did much to foster sharecropping arrangements. Access to a *canalero's* favor enabled some individuals to work more land than others, and they would do so on sharecropping basis. Those individuals who could sway the *canalero*

to give them water would enter into sharecropping arrangements with peasants holding one or two hectares but lacking the means to sustain good relations with a *canalero*. A peasant's decision to enter into a sharecropping arrangement often rested on this lack of influence with the *canalero*. The form of sharecropping practiced in Itel will be discussed in detail in Chapter 5.

The rotation system considerably reduced the *canalero's* manipulation of water distribution to his or another's advantage. Nevertheless a *canalero* continues to wield considerable power with respect to water allocation. A *canalero* must be available if the user is to present his paid voucher and have his name placed on the waiting list. One elderly informant said that he had recently turned his land over to a sharecropper, because "I have no strength to keep running after the *canalero*." Water stealing is not uncommon and again in this situation the good will of a *canalero* is important. Although Ministry policy is to fine the transgressor 300, 600, and 1,200 pesos for respective first, second, or third offenses -- and several villagers admitted paying such fines -- the *canalero* can ignore the theft. If for some reason a man is unable to irrigate at his appointed time, he loses his turn and must wait until the next rotation. A *canalero* can prevent an individual from forfeiting his turn when he misses his schedule. The *canalero*, in preparing the schedule, decides whether an

individual irrigates during the day or at night, and can also place a name on the waiting list before the user has actually purchased a voucher. The very real power of the *canalero* can be seen in the following incident. Jesus, a prominent villager who sharecrops at least ten hectares, was returning home from an evening of drinking when he stopped to visit the household in which I lived. He remarked that he had just spent about 800 pesos on drink with several *canaleros* and one of their supervisors. I teased him about it and jokingly pointed out that he has just wasted the 800 pesos if he had nothing to show for it. He immediately and soberly responded, that it had not been a waste at all, but an "investment" in obtaining water without undue wait and difficulties.

The District Office does not limit the quantity of water to any user who pays for it. In fact, agronomists at SRH have been heard to complain how users in this region tend to overflood their fields, because water is not rationed. A user can plant any crop he chooses, requiring an unlimited amount of water. He must sign up a month or two in advance for crops such as alfalfa and wheat. No advance registration is necessary for corn. No one in the village reported that he had been refused water for any crop he wished to plant at any time.

Primary and secondary canal maintenance is the responsibility of the Ministry (SRH) and its district

offices. The tertiary canals or ditches which conduct water to individual land plots are cleaned by the individual user. Generally, each user is responsible for ten meters of ditch for every hectare he irrigates. The Ministry requires that these ditches be cleaned twice a year. The *canalero* is required to ask for certification that the user has performed this semi-annual operation; the *zanjero*, or ditch inspector, in the village's cargo system, provides the semi-annual certification.

The amount of money paid for water by irrigation users is based on the number of hectares to be irrigated. Until about 1935 the cost was 3.17 pesos per hectare for each watering. In 1936 the price per hectare became 3.50 pesos at which level it remained until the latter part of the 1940s when it rose to 8 pesos. In 1952 it was raised to its present level of 20 pesos per hectare.

Several years ago a district chief imposed an additional 10 pesos per hectare for each watering. This added tax was ostensibly to cover costs for new construction and improvement of the irrigation works. About two years after this tax was imposed and no new improvements were being made, villagers from Itel and its vicinity protested the tax to the Ministry administrators in Mexico City. Moses, who had been at the fore of the protest, recalled with some relish that the tax and the district chief were both removed as a result of this concerted effort.

Irrigation makes it possible for the Itelano peasant to produce both crops to sell and crops for family consumption. This double cropping forms the basis for the village economy, which is the subject of the following three chapters.

CHAPTER 5

LAND TENURE AND USAGE

Ejido Holdings

Ejido tenure forms the main type of arable land holding. There are 313 households of which 292 own or hold land. Members of 238 households hold title to *ejido* plots of arable crop land which average size is 1.11 hectare, and 168 own private land. There are 168 households which hold both *ejido* and private land.[1] Of approximately 145 hectares of non-arable *ejido* land held by 170 individuals, only 54 plots were reported having been worked in 1971. Of these, 16 hectares are irrigated by pump and the remaining 38 hectares are under rainfall cultivation.

Brief History of *Ejido* Distribution

The *municipio* of Aguas, which includes Itel,

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[1]This figure was obtained on the basis of 308 *ejidatarios* (individual title holders) who hold 353.35 hectares of land irrigated by its system of canals. The data were supplied by the District Irrigation Office and by three Itelanos (Solomon, Moses, Jesus) who possess the lists of *ejidatarios* in Itel.

petitioned for *ejido* lands immediately following the introduction of the land reform program. In his writings, Huizer (1968) has emphasized the resistence of the hacendados, supported by the priests, to expropriation of their lands. When questioned, elder informants indicated that this was not the case in Itel. There were individuals in Itel, they recall, who were initially afraid to seek *ejido* plots but, when they saw there was no danger involved, everyone tried to obtain land. When Aguas *municipio* petitioned for land in 1918, a census was to be taken and each village was to receive an amount of land which would be based on the number of heads of households. The census was never taken; the amount of land awarded to each village depended principally on how vigorous and forward-looking their respective representatives were. At the time of the first grant, the sizes of the plots varied. One or two villages received as much as eight hectares per household by submitting a false head count.

In 1926, the heads of Itel's 193 households each received a *parcela* (plot) of one hectare. The certificates of award are dated July 4, 1927. New clearing or preparation for cultivation was not necessary inasmuch as these lands were arable. These 193 hectares bordering the village were irrigated at the time of their distribution with rain waters harnessed by a dam built by a private company around 1910 or 1915.

In 1936, 115 eligible individuals in Itel were

allotted 160.35 hectares of land about six miles from the village. A portion of these lands was arable but other parts contain virgin soils which needed clearing. In this case the size of each individual plot varied with the amounts which could be cleared by each head of household. As a result land plots range in size from one to two hectares, although one individual managed to clear 2.78 hectares, the average plot is approximately 1.40 hectares.

During the 1930s Solomon was president of the *Comisariado Ejidal* and at that time he distributed some non-arable tracts which are referred to as *colonia*. This land was given to sons of *ejidatarios* for house lots. No one knows how many hectares are involved but there are today seventeen households in Itel living on *colonia* land.

A third grant was made to Itel in 1961. One hundred thirty individuals received one hectare each of non-arable, non-irrigated virgin lands. These lands are approximately 17 miles away from the village toward the mountain foothills.

In 1967, 30 individuals each received 44 or 45 *arias* (a little less than half a hectare) at the very base of these foothills. This grant, like the one of 1961, consists of arid hill land which some villagers have now begun to clear. The thirty new *ejidatarios* have not as yet received their titles because the distribution of these lands was never formally authorized by the Agrarian Department in Mexico City.

The Contingencies of *Ejido* Tenure

The 1961 apportionment generated a clash between five recipient villages. An actual confrontation was avoided when the protagonists -- two villages -- recognized that this would lead to a chain of *vendetas*. Yet it is not land distribution as such but the stipulations on *ejido* land tenure which villagers view as a source of conflict. Villagers certainly see advantages to the *ejido* system. As one informant put it, "If there were no *ejidos* then the wealthy would buy up all the land and we would be back to the days of the *hacendados*." And another indicated that the *ejido* plots guarantees every poor man his maize. But, at the same time, numerous informants were very quick to point to the contingencies of *ejido* tenure as the crux of all conflict related to the *ejido*.

Tannenbaum (1929) refers to the *ejido* system as "conditional tenure." Indeed the Agrarian Code specifies the conditions under which a holder of an *ejido* can forfeit rights to his plot of land. An *ejido* holder can lose his right to the plot only by failing to work his land for two consecutive years or by failing to pay his assessments. Members of a married couple cannot each be separate holders of plots, and a designated holder must take possession of his plot within six months after it is awarded to him. The land must be worked by the holder

himself or by members of his family. If he leases it or hires an outsider to work it, he can lose his crop but not his plot (Whetten 1948: 142). *Ejido* land may not be sold, transferred or mortgaged.

Article 162 of the Agrarian Code (*Codigo Agrario* 1970: 61) defines the laws of succession. An *ejido* holder has the right to designate as a successor any economic dependent, irrespective of kinship. In the event that a holder does not designate a successor prior to his death, the woman who is the mother of his children becomes the successor to his *ejido*. If the holder has neither wife nor children, any person adopted or sustained by him and who is not already a possessor of an *ejido* can succeed to the plot. If he lacks any such heirs, the authorities are charged with designating a successor.

Villagers claim that one can never be certain of his holding because of the jealousy of his neighbors who will always try to demonstrate that he is not working his land and that he is certain to lose his holdings if a member of the *comisariado ejidal* is a friend of such neighbors. Indeed, informants described a number of instances of this kind. Solomon, who was also an ex-president of the *comisariado ejidal* recalled that at the time of the original grant village strife over *ejidos* did not exist. Every *ejido* holder was satisfied to have received a piece of land to work. Today, he emphasized, the major source of conflict among villagers revolves

around *ejidos*. He explained that children are growing up and there is not enough land and that every man is trying to get a plot for his sons, leaving no *ejido* holder certain of his land. Widows with small children are the most vulnerable. There is always somebody quick to fabricate a rumor that the widow's plot is not being worked and that she is, therefore, not entitled to retain it. In such instances, the relationship with local *ejido* officials becomes decisive.

The older villagers interpret the conditional nature of *ejido* holdings in terms of governmental ownership and rights. They are usually the ones who observe that the government is the owner of the land and, as such, is able to both give it and can take it away from them. In contrast, younger Itelanos regard their rights to an *ejido* as inalienable provided they work it. However, both groups expressed the belief that the major threat to their holdings is the envy of a neighbor who has the support of the local *ejido* authorities. As a result, *ejido* holders of all ages indicated that they make no effort to improve their *ejido* lands because they feel uncertain that their possession will continue.

In addition to working his land the *ejidatario* has the absolute obligation to pay assessments. The Agrarian Code requires *ejido* holders to pay a given assessment for the improvement of the *ejido*. All Itelanos must pay assessments for village works -- e.g., school

construction, the installation of electricity, *fiestas patrias* (secular fiestas), or any other communal undertakings. Each *ejido* holder must meet his assessment obligations for the year in order to retain his *ejido*; non-payment provides grounds for the local authorities to confiscate the *ejido* parcel. Assessments for the various projects are made on each hectare of *ejido* land held. Holders of non-irrigated *ejidos* pay half the rate charged to irrigated *ejidos*; no assessments are levied on privately owned lands. However, those villagers who hold no *ejido* lands pay assessments as though they possessed one hectare of non-irrigated land; their assessments are based simply upon their citizenship in the village.

A family's village citizenship is determined by the location of its *ejido* not by that of its dwelling. There are four families who live within Itel boundaries but who have their *ejido* in a neighboring village. These families pay the assessments of the village to which their *ejido* belongs, and they do not consider themselves members of the Itel village community. The families have been a minor source of friction between Itel and the headtown, but they are steadfast in their identification with the other village.

Private Holdings

Distribution

Private holdings of irrigated crop land vary in size. One hundred sixty-eight individuals own a combined total of 174.68 hectares of land within the village.[2] This privately owned land within Itel's boundaries is distributed as follows:

Table 4

Distribution of Private Holdings

Land (hectares)	Number of Households
0.01-1.00	125
1.01-1.99	24
2.00-2.99	10
3.00-3.99	0
4.00-4.99	2
5.00-5.99	1
6.00-6.99	3
7.00-7.99	1
8.00-8.99	1
17.28	1
	168

[2]Of these, nine individuals also own land outside of Itel. These land holdings vary in size. Five individuals own about 1/2 a hectare each; three own about 2-5 hectares and one individual owns somewhere between 15 and 25 hectares. These data are approximations based on informants' reports.

All private holdings reported above are fractionated into scattered lots; even holdings of one hectare are not normally represented by one plot.

Valuation

Land values have been rising rapidly though the rate of increase varies from year to year, since the post-revolutionary period. Informants say that in 1922, a piece of land could be obtained in exchange for a sheep or a horse. I was told of land purchases which reflected the rise in prices per hectare from 50 pesos in 1932 to 800 pesos in 1936, at which level they remained constant until at least 1949.[3] By 1959 the price had jumped to 20,000 pesos per hectare. At present, the price per hectare varies from 20,000 to 30,000 pesos in accordance with soil quality, location, and the eagerness of the seller and the buyer. Thirty thousand pesos per hectare is the most frequently quoted price.

Generally it is assumed that land prices increase with the introduction of irrigation and, indeed, this is now taking place in Nalcan. But in Itel prices began rising rapidly only in the early 1950s and nearly reached their current level about 1958, a period during which irrigation was already present. This period of inflation does coincide, however, with the installation of the

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[3]In 1932 Solomon purchased several hectares (probably between five and ten) situated outside Itel's limits at 50 pesos a hectare from the *hacendado's* widow who liquidated her land holdings which she still retained at that time.

Ministry (SRH) as the irrigation administrative agent and the expansion of irrigation operations to include the use of untreated sewage waters. There is evidence to indicate that, prior to the installation of such a well-organized, centralized authority, dissension over access to irrigation waters prevailed among the neighboring villages of the *municipio*. The presence of SRH assured a stable supply of water and eliminated conflicts among villagers over the control of water; in addition, the introduction of untreated sewage water increased the productivity of the land.

Alone, the introduction of sewage water for irrigation supply would probably not have increased prices significantly. A cursory examination indicates that land values are equally high in all areas of the Mezquital Valley where irrigation is available, irrespective of the nature of the water supply. At the same time the valuation of irrigated lands throughout the valley seemed related to the initiation and presence of a centralized system of authority involved in the administration and the distribution of water.[4]

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[4]It would be interesting to compare land values in various regions of Mexico where water distribution is effected by pump and the irrigation network is not subject to supervision by the centralized agency. Such data would make possible the testing of the assumption that a correlation exists between land values and the nature of the system of water distribution, other factors being equal.

Villagers note that land is rarely, if ever, sold. "The land feeds one," remarked Pablo. In the event of a sale, the closest neighbor is granted the first option; but only extremely rare circumstances lead a peasant to sell his land.[5] The following two incidents provide some feeling for the circumstances which can be involved. In one case a feud between two wealthy individuals gave rise to the sale of some land. The feud led to the death of one of the disputants who owned numerous hectares. His heir was run out of town for alleged drunken and improper conduct, and the land was sold to the other party involved in the dispute, Solomon Jr., who now owns seventeen hectares in Itel. In another instance, after her husband had been murdered, a widow sold her land and emigrated with her children to Mexico City.

Unlike that in Nalcan, privately owned land in Itel is a major item of wealth but it is not considered to be a commodity. That is, it is not bought and sold for profit. Itelanos sell land only in exceptional circumstances which require more money than can be obtained in any other way. In the more usual cases of emergency some form of usufruct is preferred.

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[5]Data collected from the civil authorities with respect to land sales are not reported here because all transactions including land transferred by inheritance are recorded as sales.

Tenure by Usufruct

Use of Land by Non-Title Holders in General

The system of land use by individuals not holding title to the land has both a legal and an economic foundation.

Usufructuary practices of renting and pawning result primarily from an interaction of the non-negotiability of *ejido* lands and the title holders need for a significant sum of money.

Sharecropping arrangements are more common, but they do not provide solutions for large cash needs. The system of sharecropping in Itel is based on a much more complicated set of economic conditions. It tends to produce mutual advantages to participants who experience conditions of income needs and scarce land rights on one hand and a scarcity of either or both labor and working capital on the other. It must be noted that *ejido* holdings are not distinguished from private holdings in any of the following arrangements to be discussed.

Rental

Of the three types of land use by non-title holders, rental is the least common. There is no fixed price for renting a hectare of land. As noted by one villager, it depends on how much one allows oneself to

be taken.[6] In land rental, the tenant pays the owner an agreed upon sum for the right to work the land and harvest its crop over a specified time. An average size holding of about one hectare might be rented for two years for as little as 500 pesos or as much as 2,000. Rental arrangements usually span two years.

Pawning

A more common form of trading land use for money is pawning. In this type of arrangement, the land owner agrees to turn over his rights to the use of his land as in pawn for a loan. When the money is returned to the creditor, the land owner receives his land back. Many land holders are said to acquire land this way. The sums involved range from 5,000 to 8,000 pesos. The higher the original sum borrowed, the less likely the landowner is to be in a position to pay it back quickly. In speaking with tenants who obtained land as pawns the suggestion emerges that they prefer to lay down relatively large sums to assure themselves rights to work the land for an extended period of time. The agreed upon sum is not usually contingent upon the size of the plot; it usually reflects the amount which the landholder needs in cash.

Clearly, land renting offers an advantage to the

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[6] "*Como se deja uno*" was the expression used by the informant.

landowner in that he keeps the money paid. Pawning provides advantages to the creditor inasmuch as he has the use of the land until the money is returned.[7]

To anticipate somewhat a later discussion, taking pawns is a common form of investment by individuals who find themselves with some extra cash. For example, Pablo had 5,000 pesos, 4,000 of which he invested in a pawning arrangement. He pointed out that, after the first two months, he would have received 600 pesos from two alfalfa cuttings, indeed a sizeable return on his investment. Obviously, the longer the creditor retains the land, the greater is the return on his initial investment. Generally, pawning is resorted to in an emergency when a large sum of money is urgently needed. These emergencies are usually related to illness and death; although recently one household pawned a piece of its land in order to raise funds for the release of one of its sons from jail. In fact, several cases were reported of widows who have had their land pawned from the time of their husbands' deaths, many years ago.

Sharecropping

Sharecropping is the most common form of land use

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[7]I asked Jesus, who is known to work land on these bases, to compare renting and pawning (*empeño*). He defined each as follows: "Renting means '*Un dinero que hay muere*' (Money that dies); pawning means '*Devolucion de dinero*' (Restitution of money)."

by non-title holders in Itel. Of the 295 households I visited, there were 133 which let land to sharecroppers and 129 from which individuals worked another's land as tenants.[8] Twenty-nine of these simultaneously let land and worked as sharecroppers for others.

The sharecropping practices in Itel have some interesting features not reported elsewhere in the literature. In general, the nature of these practices reflects the scarcity of both land and readily available labor. It can also be used to foster economic mobility within the village.

When speaking of crop sharing arrangements, Itelanos refer to five factors or inputs which they call *puños* (fistfuls or handfuls): *land, seed, water, labor* and *traction,* which refers to the use of tractors or animal teams for plowing and cultivation. They calculate the provision of these factors on the following basis: the provider of water is entitled to 25% of the crop. The remaining 75% is then divided among the other four factors, breaking down to 18.75% for each. Thus, the provision of any of these inputs (except water) entitles the provider to 18.75% of the crop. Supplying the water

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[8]The discrepancy between the total number of households that work land on the share and the total number of households that give their land to sharecrop is explained by the fact that several Itelanos sharecrop land in neighboring villages and a few individuals from the headtown work some holdings which belong to Itelanos.

entitles the provider to 25 percent of the crop.[9] The parties to an agreement can also agree to provide complementary fractions of any input except, of course, land. The actual agreement, or division of these inputs, can be any of a number of possible permutations. Table 5 displays the variety of sharecropping agreements entered into by tenants and landholders in 1971 and their frequencies. The provision of water and seed involve only the purchase of these components and entail no labor. The landholder is, of course, responsible for the assessments on the land and the semi-annual cleaning of the irrigation ditches, but these are not considered elements of the sharecropping arrangement. If he is not also providing the labor input, however, the land provider is expected to supply labor for the actual harvesting of a corn crop. On the other hand, the provision for traction includes both the cultivating equipment and team and also the labor involved. Finally, the supplier of the labor input is responsible for the planting of the seed, the care and maintenance of the field, the operation of the irrigation system (including the actual purchase of the water vouchers from the Irrigation District administrators and the interactions with the *canalero*), and the harvesting of the crop, except

[9] In the only exception to the values placed on these inputs, sixteen hectares in Itel are irrigated by pump and the owner of the pump provides water on a sharecropping basis. Because the cost of operating this pumped water irrigation system is higher (220 pesos per hectare for each watering) than that of the normal system, this tenant provides the first plowing and the water only and receives 50 percent of the harvest.

TABLE 5
Nature of Sharecropping Arrangements in Itel in 1971 Based on Census of Landholders

Factors supplied by a Tenant				A Tenant's share of Production	Frequency (Total=133)	Percentage of total number of arrangements
Labor	Traction	Water	Seed	%		
1				18.75	42	31.6%
1	1	1/2		50.00	34	25.5
	1			18.75	20	15.0
1	1			37.50	7	5.3
1/2				9.37	7	5.3
			1	18.75	4	3.0
1		1/2		31.25	4	3.0
1/2	1			28.12	3	2.3
	1		1	37.50	2	1.5
	1/3	1*		50.00	2	1.5
1	1	1/3		45.83	1	0.7
	1	1/2		31.25	1	0.7
	1	1/4		25.00	1	0.7
1	1	1		62.50	1	0.7
1	1		1/2	46.87	1	0.7
	1/2			9.37	1	0.7
1/2	1/2			18.75	1	0.7
1	1	1	1	81.25	1	0.7

*The water in these two instances is supplied by a pump owned by the tenant. This situation is described in a footnote on page 85.

in the case of corn.

One can enter into a sharecropping arrangement by furnishing only the water. Prior to 1968 this was a fairly common arrangement between holders of small tracts and the *canaleros* who controlled their irrigation supply (see Chapter 4). Today a similar arrangement has been established in which a tenant provides only the seed input. Four men have relationships with suppliers of wheat seed, who provide them with a credit purchasing power not available to the landholders with whom they sharecrop. By purchasing the seed on credit, which they provide to the landholder, they obtain a share in the landholder's wheat crop.

During the decade prior to this study, this "handful" of five factors has included a sixth requirement which has become a *sine qua non* to many sharecropping arrangements and, as such, should be considered here with the formal components of these agreements. The sixth requirement is that the tenant, in addition to supplying the agreed upon inputs, lend the landholder a sum of money in order to sharecrop his land. Several informants expressed a rule of thumb that, in any cropsharing arrangement providing the tenant with 50 percent it is almost certain that a loan exists. Thus we can assume that in 25.5% of the cases shown in Table 5 such loans became required negotiations. The loan is not interest bearing and not repayable until such time as the landholder

decides to discontinue the sharecropping agreement. When this practice began, the size of the loans was between 100 and 200 pesos; by 1971 the figure had increased to between 1,000 and 1,500 pesos. As a result of the competition for land to sharecrop which is reflected in this trend, sharecropping arrangements have lost the stability which once characterized them and some tenants have been motivated to increase their production. Examples abound. One landholder reported that in 1970 his tenant loaned him 1,000 pesos and that in 1971 another offered to lend 1,200 pesos. He explained that, inasmuch as he was in need of money, he transferred his sharecropping arrangement to the second man. After repaying the 1,000 peso loan from 1970, he had made a "profit" of 200 pesos. Jesus expressed a tenant's point of view when he told me: "I must be in Itel at all times in order to watch the fields I work. If I do not produce a good crop, the landowner will turn over his land to another tenant."

Division of harvest: Of the three crops which dominate the irrigated land, corn is considered a subsistence crop and it is always divided as in kind. The corn stalks and leaves, which provide excellant animal fodder, are also divided in accordance with the proportions of input. Alfalfa is a marketed or cash crop and is always divided in cash. Both parties are reimbursed for all expenses incurred in providing their input factors (labor, water, etc.) and the net profit is then divided in

proportion to input. Wheat is normally divided as a cash crop but may occasionally be divided as produce.

The two methods of division, depending on the nature of the crop, yield somewhat different shares of income from the labor input. In the case of the corn crop, the money paid by the labor-provider for workers other than himself is deducted from his share of the harvest. For example, at the level of sharing in which the tenant provides only labor, he receives 18.75% of the corn yield. At the 50% level of sharing in which the tenant provides labor, traction and half water, the landholder gives the tenant 50% of the crop. In the case of an alfalfa harvest, on the other hand, the labor-provider is reimbursed not only for laborers he has hired but also for his own labor prior to any division of profits. Thus, taking the above levels of sharing 18.75% and 50% as examples, the landowner pays the tenant cash for his labor *plus* his share (18.75% or 50%) of the net profit. This is so because in the case of alfalfa the labor cost is figured into the total cost of production and the labor input is included as part of the labor expenditure for which the tenant is paid. When the profits are calculated, the tenant receives his share as labor-provider.

As was noted earlier, the landholder is responsible for supplying the labor for the corn harvest, while the labor-provider normally carries his responsibility through

the harvest. The tenant may however assist the landholder in harvesting the corn crop, if they enjoy an amiable social relationship.

Years ago it was common to celebrate the division of the harvest with a ceremonious meal in the field which was called a *combate* (battle); today, however, a *combate* is held only in conjunction with the division of a large harvest.

Landholder-tenant relationships: The Itel landholders who seek sharecropping tenants usually do so for at least one of three reasons: access to labor, cash or water.

The seasonal labor shortages in Itel are discussed in detail in Chapter 6. Holders of alfalfa land require a steady supply of labor, especially to maintain their schedules of monthly irrigation. Not only are day-laborers unreliable, seasonal peak labor demands can render even them unavailable. Therefore, landholders seek sharecropping tenants to assure themselves of a labor supplier who is both reliable and constant. Of course, a widow, who risks losing title to her *ejido*, if it is not worked, has even more obvious labor needs.

A landholder might also seek a sharecropping arrangement for financial reasons. The difficulties Itelanos face in obtaining credit from national financial institutions can make a sharecropping arrangement a very

practical means of financing the seed and monthly irrigation costs of their crops. The number of arrangements in Table 5 in which tenants provide either the water or seed factors and the recent practice of tenants providing substantial loans in order to obtain a fifty percent share of the crop are both evidence of a financial basis to many arrangements.

An assurance of easy access to water is yet another reason for landholders, especially those with only one holding, to seek sharecroppers. Those tenants who work several parcels of land have usually established favorable relationships with *canaleros*. As was noted previously, a number of landholders told me that they became tired of searching for a *canalero* every time their fields required irrigation and that they, therefore, sought a tenant who did not have similar difficulties.

Tenants look to sharecropping as a means of enhancing their economic position. It provides non-holders of land with an entree to the agricultural economy of the village. It provides holders of only one parcel with a cash supplement to their own subsistence maize crop. And for several men, it offers the opportunity to prosper by functioning as agricultural entrepreneurs.

In 1971 there were twenty-nine landholders who obtained tenants to work their land while they themselves functioned as tenant sharecroppers to other landholders. This way they were able to use their own labor to obtain

a share of a larger alfalfa crop, the value of which more than offset the cost of their own tenant, thus bringing a higher net profit than by working only their own land. The lucrative characteristic of alfalfa cultivation is what makes these arrangements profitable. There is, however, a small group of men who have truly been able to prosper by exploiting the profitability of alfalfa cultivation and the labor requirements faced by holders of alfalfa fields.

Table 6 displays the varying number of Itel land plots worked by individual tenants in 1971. A predictably high percentage of these tenants sharecropped only one or two parcels. However, those four who worked five or more parcels are men who have obtained high financial status in the community by virtue of their ability to organize and capitalize multiple sharecropping arrangements and not by virtue of the actual ownership of land.

Individuals who sharecrop a number of holdings generally do not agree to provide only one factor, e.g., only seed, or only water, or only traction. They usually demand a fifty percent share, on the grounds that one factor alone does not produce a sufficient return. Those individuals who sharecrop a large number of plots almost always insist on providing at least the labor and traction factors. This is because they have in their employ day-laborers whom they must keep steadily occupied. Jesus, Alto, and Moses, are cases in point. These men are an

Table 6

Tenants who Reported the Number of Land Parcels they each Work

Number of Tenants	Number of Parcels They each Sharecrop
68	1
29	2
11	3
4	4
1	5
1	6
1	8
1	10
116*	

*Of those 129 who reported they sharecrop land, only 116 indicated the number of plots they each work.

interesting example of how tenants become agricultural entrepreneurs by maintaining a labor force of their own.

Jesus, through his multiple sharecropping arrangements, was able to accumulate sufficient cash to purchase a tractor and a truck, which now, in turn, increase his ability to sharecrop multiple plots of land. Pablo's experience in 1971 illustrates the potential profit in these multiple sharecropping arrangements. He worked five pieces of land simultaneously, taking fifty percent of the harvest from each. A calculation based on the figures provided in Table 7 establishes his minimum net profit from these operations at more than 3,400 pesos. Although there were only four men who sharecropped five or more parcels in 1971, their success indicates that sharecropping is a definite vehicle for economic mobility.

Family relationships are obvious in many sharecropping arrangements. A full forty percent of the tenants in 1971 were working land which was titled to their parents, their in-laws, or their cousins. The distribution of these arrangements is displayed in Table 8. However, considerations of efficiency often override kinship. Solomon gave his grandson land to sharecrop but then revoked the tenancy when the young man failed to work the land efficiently.

Even among non-relatives, however, the tenant-landlord relationship is not solely an economic arrangement; socio-economic obligations are implied as well. In fact,

Table 7

Cost and Net Returns per Hectare for Major Crops Grown in Itel in pesos

Crop	Cost	Value at Harvest*	Net Return
Maize	1183	2250	1067
Wheat	1202	1350	152
Alfalfa	1200	2592	1392

*Each calculation is based on annual average yield and average price at harvesting as reported in text. (See Chapter 6).

Table 8

Number of Landholders who Indicated Their Tenants were Kinsmen

Tenants' Kinship Relationship to Landholders	Number of Landholders
Brother-in-law, nephew or brother	28
Sons	18
Sons-in-law (working for either mother-in-law or father-in-law)	8
	54

the landholder frequently becomes dependent on his tenant, and a type of symbiotic relation emerges from the economic arrangements in those instances where the two parties are not kinsmen. For example, a widow's tenant is, in some fashion, her protector. In one particular case, a widow was threatened with the loss of title to her *ejido* but fortunately her tenant, Solomon Jr., had the necessary knowledge and connections to help her retain it.

In an emergency, individuals will borrow money or seek assistance from their tenants. Jesus noted that he had recently paid the hospital bill of one tenant and had extended a loan to another. In yet another case, Moses financed the funeral expenses of a deceased landholder and continued to work the land for the widow. The social relations which emerge from the economic ties between the tenant and the landholder are admittedly to the advantage of the former. The few tenants who have succeeded in obtaining the greater numbers of plots to work (see Table 6) no doubt encourage this dependency relationship. In fact, Jesus, after criticizing fellow villagers -- *ejidatarios* -- for spending their time in the *cantina* and letting their land to tenants to sharecrop ended by saying, "I wish I had more of those."

Summary: In Itel one does not encounter consolidation of large tracts of land by tenants such as have been reported for example by Erasmus (1961) for the Mayo area. The sharecropping arrangements in

Itel, based upon permutations of the five inputs, mitigate against such consolidation. The five factor system allows for a degree of flexibility and opens various alternatives to landholders from year to year. For example, it is not uncommon for a landholder to look for a tenant only for a year in which he is short of cash. Some informants reported that in a year when the household was not burdened by medical expenses, they were able to invest in working their land themselves; whereas in other years, when cash was necessary for medical expenditures, they would resort to sharecropping or pawning. Regretably it was not possible during this field stay to collect detailed histories of sharecropping agreements from a sample of households in order to investigate the various circumstances which lead to sharecropping arrangements from year to year.

Another factor which serves to explain why consolidation of numerous plots has not occurred here as in the Mayo region is the shortage of readily available labor. Some wealthy individuals reported that twenty years ago they had sharecropped fifteen to twenty hectares of land. Today, they lamented, this is not possible because there are not enough day-laborers to work land. They also point to the extreme scarcity of land available for sharecropping.

At the beginning of this discussion it was noted that the sharecropping system fosters an avenue for

enhancing one's economic position. Several informants declared that whatever economic improvements they had achieved were due to working as tenant farmers. Thus the tenancy system has helped foster economic differentiation within the village. Moreover, it has produced at least four individuals whose businesslike operations involving multiple sharecropping arrangements have placed them in the category of farmer rather than peasant (Wolf 1966).

CHAPTER 6

TECHNIQUES OF PRODUCTION

The productive activities of Itel, unlike those of Nalcan, are tied exclusively to the land and the agricultural cycle. This chapter focuses on the agricultural pursuits in Itel including crops grown, the agricultural cycle, techniques of cultivation, available technology, and the costs and labor requisites for each crop and for animal husbandry. We shall see that the types of crops and the patterns of cropping serve to structure a continual cycle of activities with peak periods in September, October, November, April and May. During October and November, labor becomes so scarce that a few Itelanos who own large holdings may even seek day-laborers from outside the village.

The Crops Grown

As noted previously, Itel villagers cultivate a variety of crops; among these are maize, wheat, barley, oats, alfalfa, beans, and chiles. Maize is the basic subsistence crop and at least some is cultivated by every household. The major cash crops are alfalfa, wheat, and, to a lesser extent, oats and barley. Wheat, oats, and barley are winter crops; alfalfa is a perennial fodder

crop. Beans and chiles are planted only occasionally and only by a small number of households. Chiles are almost always planted on a sharecropping basis. With the exception of one peasant in the village, Itelanos claim to lack the knowledge required for chile cultivation. The few who mentioned having planted chiles enter into a fifty percent sharecropping arrangement with tenants from a neighboring village who specialize in chile cultivation.

Itelanos do not generally exploit their non-irrigated holdings to the same extent as Nalcaños (see Chapter 11) and depend on crop cultivation by irrigation. In fact, when the non-irrigated *ejidos* were distributed, Itel peasants planted the crops which they had become accustomed to cultivating, including maize, beans, wheat, and barley. Villagers reported some success with beans and even with barley; however, wheat and maize proved to be total failures.

Tools and Technology

Mechanization came to Itel in the early 1960s in the form of the tractor. Some villagers still recall how monstrous the machine first seemed. Today a tractor is a common piece of machinery and there are now ten of them in the village. Five of these are owned by the same family but not the same household. With the exception of Solomon, all tractor owners rent them out. David uses his tractor to power an irrigation pump as well as

to provide the first plowing for two landholders on a sharecropping basis. There are fifty-nine households who own and use either oxen or horses for traction. Those who own neither animals nor tractors rent a tractor for the first plowing and rent a team of horses or oxen for the remaining steps in the planting and cultivation.

Villagers readily acknowledge that tractors are cheaper to use than animals. A tractor can be rented to plow one hectare of land in a day at a cost of 120 pesos; a team of animals requires five days to plow the same hectare at a total cost of 200 pesos. However, draft animals produce a more successful and efficient seeding operation and are less damaging than the tractor in moving from furrow to furrow during the cultivation of maize. Additionally, to produce the same number of maize seeds which take root in a draft animal seeding, a tractor powered operation requires at least fifty percent more seed.[1] Similarly, in cultivating alfalfa, a team of animals is much more maneuverable and more suited to the narrow confines of the *melgas* (patchwork fields).

Fertilizers are not normally used on irrigated

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[1]One informant explained that, until ten years ago, the regional land measure "*cuartillo*" was used in Itel. (It is still used in Nalcan.) The ten *cuartillos* represented the amount of maize seed necessary to plant the equivalent of a hectare of land. (A *cuartillo* equals 1.400 kg.) When the tractor came into use, 15-20 *cuartillos* of seed were needed to comparably seed a hectare.

land because the use of untreated sewage waters in irrigation agriculture make it unnecessary. Several villagers voiced misgivings about chemical fertilizers. They recall that twenty years ago a government agency supplied a fertilizer which they were persuaded to use. Some threw it away, but the few who used it now relate that their harvests were destroyed and that they received diminished yields for two or three years.

Agricultural Cycle

Maize is planted between late February and May, depending on the variety sown. *Maiz grande*, a local high yield variety is seeded in late February or early March and harvested in late October. *Maiz chico*, a faster growing, sturdier variety with a smaller yield is planted between April and June and harvested between October and November. Wheat is planted in December or January and harvested in May, overlapping the *maiz grande* growing period. In order to plant both maize and wheat in one year cycles, the *maiz chico* variety must be planted.

Alternative winter crops are barley and oats. Oats can be planted between August and December and harvested within three to four months of the time of planting. Barley can be planted in November and harvested in March. The short growing season of these cultigens allow for *maiz grande* to be planted.

Beans are planted most frequently in non-irrigated

ejido plots, where they are usually successful. These are seeded in May or June and harvested in September.

Alfalfa is planted during September and January. The first cutting takes place three months after planting and thereafter the fields are mown monthly for three to four years.

Cultivation Techniques and Crop Yields

The soil is prepared for all crops by turning up the top soil with a mechanical rake, and subsequently by deep plowing. Following these first steps, each crop requires a different cultivation technique.

Maize

Following the deep plowing, the land is irrigated. About eight days later sowing takes place and the seeds are covered. During the second month following planting, the field is cultivated by passing a plow between the rows. The soil thrown over the young plants anchors their roots more firmly in the ground and allows for more efficient watering. Day-laborers remove the chunks of sod which have not been sufficiently broken up in the plowing process. This operation is very important. During its growing season, fields of maize are usually irrigated about five times; however, a reasonable amount of rainfall reduces this need to four. Harvesting is done by hand.

According to the older villagers, prior to the

introduction of the untreated sewage water a hectare yielded approximately 535 kg[2] of maize. This level of yield was also reported by one informant whose irrigation does not include any of the sewage water. On land reached by the untreated sewage water, today's average yield is 4,828.91 kg a ninefold increase in productivity.[3]

Beans

Beans are cultivated separately from corn. This practice was introduced once sewage water was introduced because, as one villager explained, untreated sewage water produces very tall corn stalks which overshadow the bean plant. Others give the reason that a plant louse carried by the sewage waters destroys the beans when they are planted simultaneously with corn. Beans cultivated in Itel (*Frijol de mata*) are a type of bean which is very fragile and requires both careful cultivation and regular fumigation. Jesus and David have devoted their irrigated lands to beans, but the necessity of insecticide creates a sizeable investment which most cannot afford. Some peasants plant a few furrows of beans alongside their maize for home consumption, but most households usually

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[2]The local measure is a *fanega* which equals to about 107 kilograms.

[3]I arrived at this average of 45.13 *fanegas*, (or 4,828.91 kg) on the basis of reported yields in the socio-economic census. The figure for maize yields for Mexico as a whole as reported in Food and Agriculture Organization of the United Nations (1970) is 1,200 kg per hectare.

buy beans.

Wheat

Wheat cultivation is the most mechanized in Itel. Plowing and planting operations utilize tractors and harvesting is often done by a combine. One Itelano owns a harvester-thresher which he also rents out. Wheat fields are irrigated six times during the growing season. In general, wheat production costs are high in proportion to yield and the danger of late frosts adds a higher than normal element of risk. In 1971 everyone lost most of their wheat crop due to an extreme and unprecedented frost the early part of April. Reported yields tend to range between one and a half and two tons per hectare. Pablo, who plants wheat annually, indicated that he was aware of the risk and low profit but added, "The land does not lose time and it gives me work." Solomon Jr., who owns numerous hectares, never plants wheat because he considers this crop as a losing proposition.

Alfalfa

Alfalfa is the most lucrative crop cultivated in Itel. However, its susceptibility to insect damage, has caused a marked decrease in the average life span of an alfalfa field.

Prior to the planting of alfalfa the land is deep plowed twice and then saturated by irrigation. In a third plowing operation, teams of animals are used to turn up

ridges of soil around *melgas*, ten meter square sections into which the field is divided. Following this creation of a patchwork of smaller fields by which the distribution of water can be carefully controlled, the alfalfa is planted and then irrigated carefully every thirty days. The monthly mowings or harvests of the crop begin three months after the planting. After each cutting, the field is irrigated again.

Alfalfa yields vary with the season and with the age of the plants. In the first year an alfalfa field might render ten or even fifteen metric tons per hectare in the summer. The yield diminishes as the field grows older; monthly yield in the last year is likely to be two or three tons per cutting. In addition, growth slows in the winter and production levels are, therefore, quite seasonal. One key informant indicated that seven tons per hectare is the average yield for the first year and this average drops to three tons during the third year.

It is interesting to note that alfalfa was first planted in Itel in 1942 when it was initially introduced to the region as the primary feed for household livestock. David, the first villager to plant alfalfa in Itel, recalled that he planted it as he had maize, by placing a few seeds apart within furrows. Somehow he hit on the idea of broadcasting the seed, and gradually he learned to control the watering by preparing the land in the square patches with raised soil ridges.

Maguey and nopal

With the exception of older villagers, the Itel peasant is ignorant of cultivation of the extant varieties of maguey. Those familiar with the *pulque* producing variety described five types -- *manzo, chalcano, samni, mexicano,* and *penca larga* -- varieties which originate in the *pulque* growing region of Hidalgo state. These varieties mature within seven or eight years of planting at which time they render from five to ten liters of *pulque* by tapping the plant two or even three times a day for three to four months.[4] These are high *pulque* yielding varieties which are planted for this purpose. Itelanos plant maguey around the borders of fields for both *pulque* production and erosion protection. A few magueys are planted near the dwellings in sections 4, 5, 6 and 7, the non-irrigated sections of Itel. The giant maguey leaves are sometimes used for kindling or animal feed but are usually left to rot. David planted a maguey orchard in his son's non-irrigated *ejido* in the early 1960s and is now enjoying the *pulque* of these plants. As he offered me some, he added, "I was the only one to plant maguey there when the *ejido* was divided. People here are impatient, they cannot wait eight years for a plant to render fruit."

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[4] *Pulque* production is discussed more fully in Chapter 12 which deals with techniques of production in Nalcan where *pulque* is a primary resource.

Nopal (*Opuntia sp.*) grow without cultivation and provide the households with *tuna* (prickly pears) during the summer. The prickly pears are usually not sold.

Obtaining Seed

Corn seed is obtained by selecting the best ears from the year's crop. Introduction of a hybrid variety to one *ejido* plot resulted in the holder of that *ejido* using the hybrid seed the next year in another field which he owns, quite against the advice of the government agronomists who were in charge of the experimental plot. When questioned why he planted the hybrid seed against the advice of the agronomist, the peasant Pablo indicated that he saw no reason not to use it and that the government simply wanted to keep selling him new seed.[5]

Seed for wheat, barley, oats and alfalfa must be purchased. Villagers who plant wheat or have planted it in previous years buy their seed on credit. There is one wholesaler and two wheat mills within short distance of Itel that distribute wheat seed on credit. According to key informants, this wholesaler and the mills set the prices of wheat for the region. Villagers say that for this reason wheat prices have not changed in the last ten years. Wheat seed is especially expensive. A hectare

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[5]Regretably the agronomist never explained the basis for his advice and subsequently I explained to Pablo some very elementary Mendelian genetics which also apply to hybrid corn.

requires from 100 to 150 kilograms of seed at a cost of from 150 to 200 pesos. Villagers complainingly noted the seed costs approximately 1,500 pesos per ton and the sale of the wheat harvest brings approximately 1,000 pesos a ton. Some informants referred to this differential as an interest on seed.

The wheat, bean, and barley seed are obtained from the wholesaler through four individuals who could be called "seed brokers." These are men who, in the course of time, have established a good credit rating with the wholesalers. The seed brokers obtain the seed from the wholesaler or from the mills and transport it on trucks which they own; but while they charge for transportation they do not charge for the seed itself. The seed broker either enters into a sharecropping arrangement for the seed factor, 18.75% of the harvest, or he agrees in advance to accept a certain fixed amount of the harvest in payment for the seed.

Alfalfa seed is also very costly and is generally obtained from dealers. These dealers buy uncut alfalfa from the peasant, then mow it and transport and distribute it to one of two drying companies in the nearby town of Tlahuelilpan or to stablemen in Mexico City. They usually sell the seed on credit in advance of the harvest. The seed sells at 22.50 pesos a kilogram. To seed one hectare requires fifty kilograms. By advancing the seed and obtaining exclusive rights to the produce, the dealers are provided with a steady supply of alfalfa because the

peasant must then sell all of his alfalfa to the man who sold him the seed on credit.

Inasmuch as the peasants buy seed on credit in advance of the harvest they become perpetual debtors to the seed distributors. Those who had planted wheat in 1971 when the crop was partially destroyed by frost said they would need to pay for the wheat seed with their corn harvest. In the case of alfalfa the situation is not as grave because alfalfa provides a sufficient margin of profit which enables the peasant to pay for the seed with three or four cuttings depending on the season (see Table 7).

Livestock

With few exceptions, most Itel villagers own some livestock including teams of oxen or horses, cattle, sheep, goats, pigs, chickens, and turkeys.

As previously indicated, fifty-nine households in Itel reported they own a team of horses or oxen. Only a handful of households own milk cows and about two dozen own beef cattle. Most all households keep sheep and occasionally a few goats, which reportedly do much damage to crop lands and are difficult to contain.

Villagers were generally reluctant to discuss how many animals they own, if any; however informants indicated that, as a rule of thumb, the only households which do not have animals are those which do not have children to care

for them. A few households "borrow" a child for grazing their animals. In these instances the shepherd becomes incorporated into the household. Where there are no children available at all, the woman of the house generally takes the animals to pasture.

Pasture land is becoming increasingly scarce and individuals must walk further and further from the village to graze their animals. Some informants indicated that people keep fewer animals than in past years because of the scarcity of grazing land. One source of animal pasture is alfalfa stubble. Some people charge for access to stubble after a monthly alfalfa cutting and others permit grazing without charge.

Labor Requirements for Each Crop and Cost of Production

This section focuses on the labor demands and the general cost of production. Tables 9 through 11 present a generalized accounting of the costs per hectare in producing maize, wheat and alfalfa. Table 12 provides a breakdown of the alfalfa labor requirements. Table 7 given earlier shows the net return on each crop. Close inspection of the number of man-days needed per hectare for each step of the process reveals that the simultaneous cultivation of alfalfa on one holding and rotational crops on a second makes it necessary for continual supply of labor from outside of the household.

As was shown in the discussion of land tenure (Chapter 5) 168 households own more than one plot of

Table 9

Cost of Growing Maize per Hectare in Itel

Activity	Pesos	
Rented Equipment for		
Ploughing (tractor)	120	
Seeding (2 teams of horses) @40	80	
Disking	70	
Cultivation	80	
		350.00
Seed (25 *cuartillos* @1.50)		37.50
Water (6 waterings @20)		120.00
Labor (man days)		
Man-days for planting (2 @15)	30	
Man-days for cultivation (5 @15)	75	
Man-days for weeding (5 @15)	75	
Man-days for watering (2 @15x6)	180	
		360.00
Man-days for harvesting		225.65*
Transportation		
2 pesos per *fanega*		90.00
Total cost		1183.15
Total number of man-days of labor - 39		

*Harvesting is paid 5 pesos per *fanega* harvested. Average yield per hectare is 45.13 which equals to 15 man-days.

Table 10

Cost of Growing Wheat Per Hectare in Itel

Activity	Pesos	
Rented Equipment for		
First ploughing (tractor)	120	
Disking and seeding	70	
		190
Seed (150 kilograms @2)		300
Water (6 waterings @20)		120
Labor		
Man-days for planting (1 @15)	15	
Man-days for watering (2 @15x6)	180	
		195
Harvesting*		
4 1/2 tasks per hectare @45		202
Baling (4 man days @15)		60
Threshing (machine - 15 *bultos*** @7)		105
Transportation		
Man-days for loading (2 @15)		30
Total cost		1202
Total number of man-days - 19 (not including harvesting)		

*Harvesting is frequently done by hand. Manual labor is paid by a *tarea* (task); each task which measures 84 meters by 21 meters is paid 45 pesos this equals to approximately 14 man-days.

**One *bulto* = 105 kilograms.

Table 11

Cost of Growing Alfalfa per Hectare in Itel

Activity			Pesos
First Year			
Rented Equipment for			
Two ploughings	@120	240	
Disking	@ 70	140	
Patching (2 teams of horses)	@ 40	80	
Seeding (1 team of horses)	@ 40	40	
			500
Seed (50 kilograms)	@22.50		1125
Water (11 waterings)	@20		220
Labor			
Man-days for patching	10 @15	150	
Man-days for seeding	1 @15	15	
Man-days for 1st watering	4 @15	60	
Man-days for 2nd watering	3 @15	45	
Man-days for 3rd watering	2 @15	30	
Man-days for monthly waterings = 8	2 @15	260	
			560
Total cost first year			2405
Second and Third Year			
Labor			
Man-days for each watering (24 x 30 pesos)	2 @15	720	
Water (24 waterings)	@20	480	
			1200
Total cost (not including harvesting)			3605

Table 12

Labor Requirements for Growing Alfalfa per Hectare in Itel

Activity	Number of man-days required	
Patching	10	
Seeding	1	
1st watering	4	
2nd watering	3	
3rd watering	2	
Subsequent monthly waterings - 8 x 2 (man-days)	16	
Total number of man-days required for cultivation		36
Cutting		
8 cuttings - 4 man-days for each cutting		32
Total number of man-days required for *first year*		68
24 waterings - 2 man-days for each watering	48	
Cutting		
24 cuttings - 4 man-days for each cutting	96	
Number of man-days required for *second* and *third year*		144
Total number of man-days required three year period		212

land, and thus over half (53.4%) of the total number of households need to hire labor. As a general rule, those individuals who own only one holding or none (36.6%) reported that they hire themselves out as day-laborers in Itel. In fact 174 (out of 575) men, or 30% responded that they work as day-laborers. Added to this, is the fact that harvest labor needs require households with the larger holdings to hire day-laborers from outside of Itel suggests that in Itel itself there is a relatively short supply of laborers.

Some additional comments are necessary with reference to labor demands and costs for each crop as shown in Tables 9, 10, and 11. Itel villagers who work as day-laborers are paid fifteen pesos a day (three pesos less than the regional minimum wage for common unskilled labor). In addition to the wage, laborers are usually given two or three liters of *pulque* during the course of a work day. Households which do not have maguey plants from which *pulque* is extracted, must purchase the beverage at fifty centavos a liter. This additional cost is not represented in the tables.

The tractor operator and the men behind the team are not included in the total number of day-laborers necessary for each crop. The operator is included in the cost of renting a tractor or a team of animals. As is shown, alfalfa requires sixty-nine labor days per hectare the first year of cultivation; this does not include the

plow men. Seventy-two labor days per hectare are needed in succeeding years.

Irrigation requirements for alfalfa include four to five day-laborers at the first watering of a field in preparation for planting. As was noted earlier, the first preparation is crucial for a productive harvest because careful attention must be given to how water is spread through the field in order that moisture penetrates evenly within each patch or subsection. The second watering occupies three to four day-laborers and two laborers are necessary for each watering thereafter. Alfalfa is cut and watered every thirty days. From ten to fifteen men are needed to prepare the field with the ten meter square patches. In cutting alfalfa, a team of four men working together can cut about two hectares in a day. Cost of production shown in Table 11 does not include the cost of cutting alfalfa, because most peasants sell alfalfa uncut.

Unlike alfalfa, maize and wheat have peak periods of labor demand, specifically during the maize harvest time. The maize plant can be left to dry on the stalk, for as much as 20 days, after it has ripened but two factors make an immediate harvest necessary. First, the faster the maize is harvested the sooner the soil can be prepared for a winter crop; second, unharvested ripe maize is invariably stolen. People claim they do not know who steals it. They note thatsometimes

people come from as far as Mexico City to cut corn ears. For these reasons maize harvesting is effected as soon as ripeness allows.

In addition to harvesting, which is done by hand, labor demands for maize include cultivation and weeding which require from ten to fifteen man-days each per hectare. Maize is irrigated five times in the course of the growing period, depending on rain conditions.

As shown by the table, a hectare of maize including harvesting requires thirty-nine man-days. But unlike alfalfa, maize labor requirements are periodic. Peak labor load is carried during cultivation, weeding, and harvesting, which corresponds to spring and fall. Inasmuch as there are two types of maize cultivated in Itel -- *maiz chico*, the 3-4 month variety, and *maiz grande*, the 6-7 month variety -- one may speak of four peak period loads.

Wheat harvesting is done by combine or by hand. In terms of costs there is no difference between using manpower or machine power. Choices depend upon the availability of either. Unlike maize, wheat must be harvested immediately after ripening. Otherwise the "grain separates itself from the shaft and is carried away by the wind," to quote Solomon.

Data for other crops including barley, oats, beans and *calabaza* will not be reported here because these crops are planted infrequently and by relatively few households. It might be noted that production costs of barley and oats

correspond to those of wheat. Beans require great care and as indicated above only two individuals reported devoting their fields to bean production. As a legume, beans are an excellent rotation crop. Villagers are cognizant of this fact but the high investment and risk involved in planting beans is a major deterrent to their popular production in Itel.

Labor Exchange

One means for dealing with labor costs and labor shortage is to enter into exchange labor arrangements. Erasmus (1961) points to the fact that the system is declining. This is not as yet evident in Itel. Of the households visited, 136 indicated that they exchange labor with friends. Exchange of labor usually takes place during peak periods of labor demand, e.g., harvesting, weeding and cultivation. Exchange labor parties which may consist of five to twenty-five individuals are organized because many individuals have no money to pay for day-laborers and they are assured that the job will be done well and quickly.

Reciprocal exchange labor arrangements require a man to return a day's work for a day's work. It is understood however that one cannot be expected to reciprocate with watering a field. It was explained to me that exchange labor is not applied to irrigation because a man's turn for water cannot be predicted and another man cannot be

expected to stand ready to reciprocate at any given moment. To meet irrigation needs, therefore, either day-laborers are hired on a wage basis, or a tenant is sought for the labor factor. Either practice is certainly more adaptive than work reciprocation to meet irrigation needs.

CHAPTER 7

DISTRIBUTION AND CONSUMPTION; CREDIT AND SAVINGS

Distribution and Consumption

Distribution of produce joins the Itelanos to various sectors of the wider society represented by small scale middlemen, wholesalers, regional power holders and the government purchasing agency.

Maize not consumed by the household can be disposed of in several ways. Twenty-five years ago, one villager recalled, he and others packed a burro and walked over twenty-five miles to Ixmiquilpan to sell their maize. Today corn merchants from neighboring towns come to the village with their trucks to buy the corn. Selling to these merchants is the most common method of disposing of unconsumed maize. Prices paid by these corn middlemen vary seasonally and are highest in May and June and lowest at harvest time. One villager explained that corn prices in this region were recently affected by a supply of a cheaper corn originating from the gulf coast region. He noted that corn coming from Tuxpan was a lighter and more watery variety and that it depressed prices in the Mezquital Valley. He indicated that in June of 1970 he

received 1.52 pesos a *cuartillo* and in June of 1971 he was paid only 1.35 pesos. Another informant, who had sold his maize in June, was paid 1.40 pesos a *cuartillo*. Around harvest time corn merchants pay between 90 centavos and 1.00 peso a *cuartillo*. The government guarantees 1.30 pesos a *cuartillo* or 940 pesos a metric ton at all times.

However, as was explained by another villager, selling to the government is advantageous only when large quantities are involved. This informant, who sharecrops several hectares, described how at one harvest time he took his maize to sell to the government agency. He did obtain a better price but he had to pay a *mordida* (bribe) to the purchasing agent, so any gains he made were offset by the bribe. He added that one year he had rotten maize which the corn merchant would not purchase from him, but which he then sold to the government agency with the help of a bribe. In that instance, he noted, the outlay for the bribe compensated for what otherwise would have been a total loss.

Most villagers do not have sufficient surplus maize to store in anticipation of higher prices. Parenthetically, it is of interest that Jesus calculates little advantage to storing surplus maize in expectation of higher returns. He figures that at harvest time he sells a sack (about 70 *cuartillos* or 98 kilograms) for about 19 pesos less than what he would get if he were to store it until the spring, when maize prices are

higher. The basis for his calculation is this: 1) A sack containing 70 *cuartillos* at harvest time diminishes in weight to about sixty *cuartillos* as the maize becomes drier. 2) The transportation from field to house, graining, and storage all represent additional expenses. 3) Maize when stored must be fumigated, otherwise it is consumed by maize-eating insects and rats. In view of all these considerations, Jesus finds it more advantageous and profitable to sell the maize when it is harvested inasmuch as prices do not rise sufficiently during scarcity to warrant the trouble of storing it.

The majority of villagers do not produce enough quantities to require alternative means of distribution. More commonly, an *ejido* holder sells his maize as soon as it is harvested. At that time maize prices vary between 30 to 50 pesos a *fanega*, or 107 kilograms, of ears of corn; or 90 centavos a *cuartillo* in grained corn.

Irrespective of these economic considerations, the peasant is usually forced to sell maize at harvest time for any of three reasons: 1) If the corn merchant loaned the peasant money during the maize growing period, the villager is committed to sell the maize to the merchant at harvest time; 2) if he intends to plant a winter crop, the peasant probably needs cash to meet planting expenses; and 3) the peasant does not have sufficient storing facilities.

Another very common means of corn distribution is to sell the maize standing, in advance of harvesting. To do so, all villagers agree, represents a severe loss to the peasant. One sharecropper reported he had recently purchased ten sacks of corn, before it was harvested, at 10 pesos a sack less than what he would have paid at harvest time. Informants were usually hesitant to admit selling maize in this manner. Numerous informants, however, indicated that selling the harvest standing is a common means of disposing of it when peasants are desperate for cash. In effect, those who sell maize before it is harvested do not retain any for subsistence. They must later purchase maize at from 20 to 40 centavos more per *cuartillo* than they had sold it for.

Maize is usually not sold in the stores, but may be purchased from neighbors. Some households sell maize by *cuartillos* to provide a small income supplement. Most households reported retaining at least half of their maize crop for subsistence. The remainder they sell to neighbors whenever the occasion arises or when extra cash is needed.

Maize is sometimes bartered for vegetables from itinerant female vendors from neighboring villagers. Similarly, workers may be paid in maize rather than cash. In instances of barter, the cash value of maize at the particular time is always used as the basis of measure.

Turning to winter crops, barley and oats are

usually planted for fodder by households owning teams of horses or oxen. Thus these crops may be regarded as forms of capital investment.

Although wheat is purely a cash crop, lack of alternatives for distributing it, in addition to the high risk of cultivating it, noted earlier, was cited as a drawback to its cultivation. Those that continue to plant wheat, frequently do so because wheat planting and distribution revolves around wholesalers who advance the seed to the peasants, as in the case of alfalfa. But unlike alfalfa, wheat is not profitable; therefore the peasants find themselves constantly in debt to the broker and forced to continue the arrangement indefinitely.

Because seed is obtained from wholesalers to whom the harvest must later be sold, wheat distribution involves those that plant the crop with regional wholesalers. In addition, wheat planting and wheat distribution create a type of "seed broker" within the village itself. The "seed brokers" as described earlier in Chapter 6 create a situation for potential intravillage socio-structural differentiation. However, because wheat is not of major importance, these brokers are only potential sociological types within village social structure.

Distribution of alfalfa engages the peasant in contacts with local middlemen and occasionally with merchants from Mexico City. Of ten households owning trucks, several engage in the buying and selling of alfalfa in addition to its cultivation. Five of these are now the wealthiest households in Itel. These men buy the alfalfa uncut. A

team of day-laborers, who are usually in their employ, cut and transport the harvest either to Mexico City or to one of the three alfalfa drying operations, which have been established near Itel within the last six years.

Those who sell alfalfa to the driers usually have a contract with the company to deliver a specified quantity each month. These contracts assure them of a market during the rainy season when most markets are flooded with alfalfa. However, in times of scarcity the Mexico City middlemen pay higher prices than the driers and there is a good chance that the contracted driers will receive something less than their normal quantity.

According to informants, alfalfa prices respond quickly to supply and demand. During months of scarcity -- between November and March -- prices rise to 70 pesos, or even 100 pesos per ton. In the spring and summer, prices plunge to 30, and sometimes 10 pesos a ton. It may be recalled that a hectare renders an average of three to seven tons per cutting depending on the age of the plants. These local harvester-dealers charge 30 or 35 pesos per ton for mowing and transporting the alfalfa. Distributing alfalfa is obviously one way to advance economically. The cost of mowing and transporting alfalfa to the primary producers is 30-35 pesos per ton. These local harvester-dealers may buy alfalfa from the dealer or simply perform a marketing function.

Before the drying operations opened in the region, those who had trucks sold alfalfa directly to stablemen in Mexico City. At that time, some of these

truckers joined the *Union de Foragistas* which provides various services to its members including storage space for trucks and protection from theft. Membership in the *Union* is gained by buying stock. A share of which costs 1,000 pesos until 1967 when it jumped to 5,000 pesos. An ex-member indicated that, when the drying operations became so accessible, he cancelled his membership by selling his share at a 4,000 peso profit.

Villagers go to the weekly market in Tlahuelilpan to buy rather than to sell, although village women may occasionally take chiles to sell to the market.

From what has been said, we see that Itel villagers need not leave the village to dispose of their produce; either the wholesale buyers come to them or their fellow villagers act as middlemen.

In this discussion reference has been made to price setting mechanisms. Fluctuations in prices tie the villager to the economy of the wider society but do not affect his decision-making with regard to production. This decision-making process is encouraged by villagers awareness of their lack of leverage in affecting prices. Three especially articulate Itelanos noted that prices are controlled from outside. As Moses put it, "Our produce does not get more expensive and has not risen in price in the past twenty years. But the shirts I wear go up in price all the time." This reflects the view of several informants, and therefore may enter as a factor

in the decision-making process related to planting. Decisions bearing on crop production are rooted first and foremost in the villager's understanding that crops must be rotated for the land to produce.

Although Itel villagers produce cash crops, Itel's economy cannot as yet be characterized as commercialized (Neale 1971). However, following Weitz' (1971) recent suggestion of an evolutionary scheme from peasant to farmer, several Itel villagers may be on the path to becoming farmers. "The object is no longer to grow food for the family and market the surpluses, but to earn money by getting the most out of the natural and man-made resources" (Weitz 1971: 18). The farmer is a kind of businessman who reinvests his capital to expand his operations and his profit. Five individuals in Itel have invested in capital equipment. One owns in addition to a tractor, an alfalfa drier and a balier for alfalfa which he rents; another owns a combine, and a third an irrigation pump, which has enabled him to sharecrop on non-irrigated *ejido* lands. Of these five, Jesus and David put all the land they sharecrop to beans as noted earlier. Their decision to plant beans on a larger scale than is customary was based on anticipation of higher income and on the soil restoration role of beans in the rotation cycle.

While these men may be regarded as potential farmers, several factors mitigate against the expansion of their operations into fully commercial enterprises. As is seen from Table 7, Itel's agricultural activities generate

small gains and, since credit is not readily available, only a few determined individuals succeed in accumulating sufficient cash to extend their agricultural operations by investing in capital equipment. For example, David built a small irrigation system by his own efforts. In the 1961 *ejido* apportionment his several sons received dry land. David obtained a concession from the Ministry of Hydraulic Resources headquarters in Mexico City to utilize waters from a canal which passes below the *ejido* and built a small irrigation system. He leveled the land, installed pipes and purchased a used pump which he powered off his second-hand tractor. This little irrigation system now waters sixteen hectares, which David works as a sharecropper by providing the water factor and the first plowing; in return David receives fifty percent of the crop. But according to David, this effort represents seven years of extreme austerity. David recalled that in order to accumulate the necessary cash, he sharecropped land and pawned every second alfalfa cutting for seven successive years.

On the other hand, Jesus sought to exchange one of his trucks for several hectares some distance from Itel. The transaction never materialized because the sellers demanded an additional sum in cash which Jesus could not raise.

From yet another perspective, it might be said that the present size of land holdings limit the utility

of large capital equipment and that, because most of the land is non negotiable, *ejido* land, the possibilities for expanding one's holding are limited as well. Thus Jesus, like others who may have had a good year, seeks to rent or take pawns with his extra cash. Acquiring a piece of land as a pawn is, by all accounts, a profitable form of investment. In the discussion of land pawning, I described how Pablo obtained a mortgage on a piece of land by giving the owner 4,000 pesos. Pablo calculated that the parcel would still yield alfalfa cuttings which would bring him 600 pesos within three months. Thereafter, if the money was not repaid, he and the landholder would decide what to plant. In the meantime Pablo was certain of 600 pesos gain, or fifteen percent return on the loan.

Credit

Firth (1964) makes the useful distinction between "borrowing for consumption" and "borrowing for investment" (p. 29). Institutional provisions for borrowing for investment are extremely limited. An Itel villager may acquire money by savings, by borrowing from private individuals such as one's tenant, by renting or pawning his land, and theoretically, by borrowing from national institutions.

National institutions which are sources of credit include the *Banco Ejidal*, the *Banco Agricola* and the *Banco de Comercio*.

In 1936, after redistribution of land was accomplished, the National Bank of Ejidal Credit was established to provide a source of credit to *ejido* landholders. The broad range of its operations is discussed by Whetten (1948). According to the chief of the *Banco Ejidal's* branch for the Mezquital Valley, the holder of an *ejido* is eligible to secure a loan if he fulfills several conditions. He must form a credit association consisting of a minimum of ten *ejido* holders. The association then becomes a member of the *Banco Ejidal* by paying a yearly membership fee equal to one percent of the loan. The *ejido* holder must present a statement from the Ministry of Hydraulic Resources which guarantees him a supply of water; and, finally, he must insure his crop with a specified government agency. The *Banco Ejidal* will then issue a loan of up to seventy percent of the production cost of the crop for which the loan is requested. The amount of the loan varies in accordance with the crop planted. In this region credit is extended for maize, alfalfa and wheat only. At present this form of credit is available to Itel villagers only theoretically. The reason for this goes back to 1956 when the bank extended cash loans and seed to an *ejido* society which included associates from Itel and the villages of the *municipio*. When the *ejido* society failed to repay the loan, the entire *municipio* lost its good standing and forfeited any future opportunity to seek credit from the *Banco Ejidal*.

The *Banco Nacional de Crêdito Agricola* serves holders of privately owned land. Individuals may obtain a loan from this bank by presenting the deed to the land as evidence of ownership, a precise plan of the property, proof of payment of all taxes, proof that no garnishments are attached to the property, and the signature of the owner and his wife. Once these prerequisites are met, the bank assesses the value of the land, normally at half of its actual market value and the land is used as collateral for the loan. Furthermore, the borrower must indicate the crop for which the loan is requested. However, the bank lends seventy percent of production costs in accordance with its own schedule of costs. These amounts correspond fairly well to what informants report. The bank charges one percent interest per month. Loans are repaid in installments, the first of which falls due six months after the loan was issued.

Solomon Jr. was the only one to indicate that he had obtained a loan from this bank. Felix, another villager, recalled that he attempted to obtain a loan from this bank but became discouraged by the numerous requirements. Because of the bank's insistence on the land as the collateral, the bank shows *de facto* favors to individuals with larger holdings. Based on discussions with informants, it may be safely assumed that no Itelano will venture to risk his land in exchange for a loan. And, because a borrower must show evidence of ownership, sharecroppers

of several hectares lack access to the bank in order to expand their operations.

To obtain a loan from the *Banco de Comercio* (Bank of Commerce), a private institution, the borrower must find a guarantor who has established credit with the bank. In addition to such guarantees, the bank makes a thorough investigation of the applicant's character, and the applicant must use his land for collateral. Based on responses obtained in the survey, four individuals indicated that when they need money, they borrow from the bank. These four men are not all equally wealthy nor do they have equal holdings. However, they possess similar connections with municipal authorities, who are known to have accounts with the bank. It can only be assumed that these four individuals were aided by their personal connections.

Informal arrangements for loans can be made through friends, family, or neighbors, or by going to a money-lender. Borrowing from neighbors or friends or one's tenant is a common practice in Itel. Usually amounts borrowed from these sources vary between 10 and 15 pesos, interest free. In fact, only one informant reported that he had borrowed from a money-lender. Itel does not have a known money-lender although one individual is reported to lend money at five percent interest per month in cases of extreme emergency. A well-established money-lender lives in a neighboring village who charges fifteen

percent per month interest.

Alternative access to cash to meet emergency needs include renting or pawning one's land. These were discussed in Chapter 5 on land tenure and need not be reviewed again.

Savings

Livestock is a major source of access to cash. Indeed, a majority of responses indicated that when the household is in need of cash it would sell one of its animals. Animal ownership represents a savings fund as suggested elsewhere (Finkler 1969). That is, individuals keep animals to meet emergency needs.

With very few exceptions, most Itel villagers own some livestock. Most villagers keep animals not for profit but for savings. Animal ownership represents a ready source of cash, an investment in savings. Itel villagers indicated that they sell a chicken, a sheep, a turkey, or a head of cattle when they need money. The decision relating to what type of animal to sell depends on the amount of cash needed at the given time.

Firth notes that capital may be regarded from three major points of view. "Capital as productive assets, capital as affording control over purchasing power, and capital as a fund for investment" (1964: 19). Like tractors and trucks, teams of oxen and horses and milk cows are capital and may be regarded as productive assets

because they are used for traction and milk production respectively. However, chickens and turkeys and, in some cases, cattle raised by villagers need be viewed as savings, or as an investment in savings.

The major expense related to animal keeping is pasturing, particularly when the household lacks someone to care for the animals. A shepherd charges three or four pesos per head a month. With the distribution of new *ejidos* in the 1960's pasture land became less accessible. Fodder is available in corn stalks and alfalfa stubble left after the monthly cuttings. Both these sources of fodder are by-products of regularly cultivated crops and do not require special investment. Only a few households reported putting some land to oats or barley, which they then used as fodder for their teams of oxen or horses.

Milk cows are potentially very profitable, yet only a small number of families keep them. People do not raise milk cows both because they do not know enough about the special care the animals require and because of the problems related to the distribution of milk. The milk must be sold to milkmen who have proven unreliable in the past. The owner of a milk cow suggested that cows could be very profitable if the milk could be more easily sold. He also revealed that a cow which he had purchased in 1964 for 300 pesos was worth 2,000 in 1971; moreover, during these seven years, she had produced four calves.

Two-year-old bulls are worth about 1,500 pesos and

at three or four years, they can be worth as much as 2,500 pesos.

A chicken generally sells for 20 pesos but the price is negotiable. A lamb may cost from 10 to 20 pesos; after a year and a half, it lambs twice a year for four or five years. Sheep sell at 6 pesos a kilogram and therefore can cost from 180 to 200 pesos. In addition, the sheep's wool provides the household with blankets. Thus over time sheep can produce a handsome return on a small investment.

Cattle, of course, represent larger savings. Felix told me that when he failed to get a bank loan to purchase a truck in 1949, he sold his heard of cattle to buy the truck.

Solomon believes that banks cannot be trusted for various reasons not the least of which is the fact that they might be easily robbed. He maintains a sizeable herd of some seventy animals, each worth from 1,200 to 1,500 pesos. He complained that because he must pay about 1,100 pesos each year for two herdsmen to care for them, these animals are not worth keeping. However, he does not sell them unless he needs money for a specific purpose.

Pablo explained that lack of pasture land makes his five cows difficult to maintain. He considers the alfalfa he grows too expensive to feed them; but he says he will not sell the cows until he needs the money to cover an emergency situation.

One point still remains to be made with regard to livestock. Animals are consumed on special ceremonial occasions only by the wealthier families. These special occasions include baptisms and graduations and, in the wealthiest of families, a sheep is killed on the saint's day of the household head. Otherwise, with the exception of pigs which are killed for lard, animals are not usually kept for regular consumption.

CHAPTER 8

HOUSEHOLD ORGANIZATION

In the preceeding chapters we have seen the economic order of the village as a unit; in this chapter the focus turns to the family and household structure.

Family Structure

Unlike the households in Nalcan, nearly all of the households in Itel are headed by males. I visited 295 of Itel's 313 households. One hundred ninety-five, 60 per cent, of these are composed of nuclear families with male heads. Included in this category are six households in which grandchildren of the head reside. These tend to be the children of an unmarried or unmated daughter who remained in her parents household until she found a new mate. Usually males are not willing to take offspring from a previous liaison to their newly established households. Maternal grandparents rear those children in their households; in the several cases encountered in Itel, they did not distinguish them from their own children. The distinction between the children and grandchildren was made when informants were questioned.

Fifty-two other households, 17.5%, are comprised of extended families with male heads. In addition, there

are forty-three households, 14.5%, which have female heads and five households which consist of three males and two females living alone. (See Table 20 of appendix).

Of the forty-three females heading households, thirty-one are widows and twelve are women who remained in the households of their birth and inherited their father's patrimony.

The fifty-two extended family households include one or more married sons. The family structure evolves from a patrilocal joint family to a patrilocal stem family in which the youngest son continues to reside in his natal household. Twenty-six of the fifty-two households are comprised of patrilocal joint families; twenty-six consist of patrilocal stem families, one of which includes a daughter and her husband.

Of the 295 households, only four incorporate individuals who are not direct kinsmen of the family head. These include one with godchildren, two with shepherds, and one with a girl who was described as a "servant." The two shepherds who reside in Itel households originate from the northern region of the Mezquital Valley.

The data presented above simply reflect the general prevelance of the nuclear family-type so characteristic of Latin American family structure (Goldschmidt and Kunkel 1971; Nutini 1967; Nutini and Murphy 1970).

Inheritance and Ownership of Property

In Itel, as in most of Hispanic America, bilateral inheritance rules ideally prevail. However, unlike in Nalcan bilateral inheritance is not actually practiced and only males inherit property. When an Itelano woman leaves her natal household to marry or mate, she does not usually receive land or property from her parents to bring with her to the newly formed household. When a woman remains in her natal household and there are no male heirs, she becomes the household head after the death of her mother and father and remains with the parental house and property.

There is one instance of a deceased wealthy land owner who divided his land in equal shares among his daughters and sons. One daughter is married, and when villagers were asked about the economic position of her household, they pointed out that the land owned by the household was titled to the woman herself. I recorded two other instances of married women who reported holding title to land of their own. The fact that land ownership rests primarily with the males is further supported by the data related to land ownership which were provided me by the Irrigation District Office. These data show only five females as official holders of plots.

The prevalence of the nuclear family in Itel does not support Goldschmidt and Kunkel's (1971) findings

correlating the nuclear family type with bilateral land inheritance. In fact, the patrilocal stem families found in Itel are very similar to the three cases reported by these authors for Southeast Asia, where ". . . one child remains with the natal family and inherits the house while the others receive their share of the land and establish independent households . . ." (1971: 1062). In the case of Itel, the youngest son receives the father's house and the land on which it stands. The *ejido* plot usually goes to the oldest son, if he does not already hold one, and any private holding is divided among the remaining male children who do not hold *ejidos*. The twenty-six patrilocal joint families currently found in Itel reflect a stage in the family developmental cycle which evolves from joint to stem to nuclear structure.

Mechanisms for property transmission are not clearly delineated. For example, a man may transmit his land and other property before he dies. But to do so, he risks being actually unprovided for by his children. Villagers relate several stories of old men who turned over their land to their children before their death and were then left to starve; their coffins remained unpaid. In fact, the deceased wealthy landowner mentioned earlier is usually cited as having suffered this fate. On the other hand, when a man fails to designate his heirs before his death, bickering among all the children ensues. In fact, Solomon's daughter, already anticipating conflict

among her siblings, stated that she thought it best when one does not have any land to will to his children. David, who was present at the time of this discussion, agreed that many problems exist relating to land and property transmission. These conflicts are further compounded by the conditional nature of *ejido* holdings and the rules of transmission of *ejidos*, which was discussed in Chapter 5.

Animals are not usually willed because they are sold and the money is utilized in meeting expenses related to the death and burial of the household head.

Property Ownership within the Household

Unlike in Nalcan, respondents in Itel were, for the most part, surprised when asked to distinguish between property owned by the man and the woman. Itel villagers on the whole regard household possessions, including animals, as belonging to the house. However after some questioning, informants would indicate that the head of the household is the owner of the house and the site on which the dwelling stands. Ownership of the animals is less clearly defined. The majority of respondents indicated the animals belong to both the man and woman of the house; frequently respondents simply stated that they belong to "the house." However, a few informants noted that animals such as chickens, turkeys and sheep belong to the woman because she is the one who cares for them,

while draft animals and cattle are considered either the man's property or part of household belongings.

Division of Labor

The household is the basic economic unit in Itel as in Nalcan and all personnel within the household participate in its operations. However, unlike in Nalcan, the interaction of crops, seasons, and techniques of food production create a typical annual cycle within the Itel household. The content of that cycle can be largely inferred from the preceeding discussion of village economic activities. However, some points remain to be made with reference to the male and female roles in income, spending and decision-making.

With the exception of four men who operate taxis, agriculture is of course the primary source of income for the household in Itel. Additional income may be derived from rental of teams of horses or oxen, or in some instances from the sale of *pulque*; but sources such as these are secondary to the land.

The Man's Role

Unlike in Nalcan, field work is solely man's work. The men work in their own plots of land, or participate in exchange labor arrangements. Men from 30 percent of the households also work as day-laborers in the fields of their fellow villagers. I questioned informants in a random sample of 10 percent of the population as to the number

of days they work during the year. Very few men knew exactly the number of days they had worked, so it was not possible to calculate the number of days worked on specific tasks. Several respondents were able to provide estimates and indicated that they usually work three days a week in the fields during nine months of the year. During December, January and February there is very little work done because the alfalfa fields are least productive and wheat is still in the germinating stage. To understand why Itelanos work only three days a week despite the existence of a shortage of day-laborers in the village, it need only be recalled that a day-laborer is paid 15 pesos a day plus *pulque*. This is consistent with the more general theory of peasant economics advanced by Chayanov (1966) who holds that peasant families work in order to strike a balance between satisfaction of consumption needs and the degree of drudgery of labor (1966: 81-89).

Additionally unlike in Nalcan, the demand of the agricultural cycle in Itel requires villagers to remain in the community the entire year. In fact, villagers commented that the labor demands of cultivation and of irrigation do not permit permanent working commitments inside the village, much less outside.

The man of the house decides what to plant and when to plant it. In the survey I asked what crops each household had planted since 1965. The responses indicate

that planting decisions are dictated by a crop rotation cycle. Households with one holding (see Table 4) usually follow a strategy of planting either *maiz chico* followed by wheat; or only *maiz grande*. Households with more than one plot put one field to maize followed by either wheat or barley or sometimes oats and the second field to alfalfa. After about three years the alfalfa is turned up and the cropping pattern is reversed. When I asked informants whether the market price of the crop ever entered into their decision to plant, their responses were almost always in the negative. As I noted earlier (Chapter 5) only Jesus who sharecrops some eight plots of land and David who with his pump irrigates sixteen hectares which he works on the share, reported that in 1971 they had for the first time planted beans and that they had done so in anticipation of a favorable market for the crop.

In summary, it can be said that the Itel household head gives first priority to corn cultivation. Only once he has assured the household's daily subsistence will he plant a cash crop such as alfalfa.

In addition to working his fields, an enterprising man such as Pablo does not hire a mason but builds his own house with occasional assistance from his younger brother, even to the extent of preparing cement blocks himself. At other times when he is not working in the fields, Pablo may plant some trees, a maguey, and build fences. Other

men spend their time at similar tasks, but by late afternoon however more drinking than working is done.

The diet of most Itel households consists of tortillas, tomatoes, chiles and beans, ("The meat of the peasant" said Solomon). Maize is of course produced by the household, some grow a few rows of tomatoes and even chiles and beans for daily consumption.

Most households raise chickens and consume the eggs. Only the few households that own milk cows include milk in their daily diet. These then represent the items produced and consumed by the households and the daily basic diet. Coffee, rice, noodles and sugar must be purchased. But more importantly, cash is needed for items such as clothing, school supplies and other expenditures related to the children's activities in the school (e.g., costumes for school plays); household furnishing, and utensils, electricity, water, assessments and curing expenses. Table 13 displays annual cash-outlays for water, electricity and assessments by all citizens in 1971. The head of the household is responsible for meeting these expenditures.

Table 13

1971 Annual Expenses for all Households

Expenditures	Pesos
water	30
electricity	30
assessment per hectarefor Independence Day fiesta	20
assessment per hectare for Religious fiesta	40
assessment per hectare for School expansion	100
assessment per child for auxiliary teachers	20
	240

Daily subsistence activities in Itel present the man of the house with concerns related to cultivating his fields and with proper weather conditions to make his fields grow. The villager worries about meeting payments for water, the need for which cannot be deferred; about payments of assessments which cannot be postponed too long for the man stands in danger of forfeiting his *ejido* holdings when payment is not made in time. Disposing of his cash crops at the best possible price is yet another of the man's worrisome problems and which contrast with the day to day concerns of the Nalcan male.

Unlike his Nalcan counterpart, the man of the house in Itel rarely leaves the village; he frequently interacts with other men in the course of his daily subsistence activities. Men meet in the fields, in exchange labor work groups, in the local store, at the voucher payment stations, where, according to Pablo, gossip is exchanged as the men wait in line. The woman's role is complementary to that of the man and her chores are centered on the home.

The Woman's Role

The woman's economic contributions to the household, in addition to cooking, washing, cleaning, and rearing children, include raising chickens, turkeys, sheep and in a few cases, milk cows.

The woman's routine is one of unceasing chores

which begin at dawn and end in late evening when she and her children retire. In addition to preparing tortillas, she goes out to gather firewood and care for animals and performs a myriad of minor chores for the children. These activities are generally carried out with a *rebozo* wrapped infant hanging on her back.

The tasks of women in Itel, unlike their Nalcaño counterparts, do not include responsibilities related to field cultivation. Female household heads with small children almost always give their land to sharecrop leaving the responsibility for the fields to the tenant.

At this juncture it is of interest to note that, again unlike Nalcaño women, Itel's women enjoy very little physical mobility. They cannot leave their household without the prior permission of their spouses nor do they participate in town meetings.

Supplementary income earned by the woman goes towards meeting the household's daily expenses. An enterprising woman may have a little business on the side. In Itel there are eight stores all tended by women. In households with stores, the men usually referred questions about the store's operations to the woman, indicating that it was her domain. Three women have little stands in the school yard where they sell sweets to children at recess time. Women put up stands during the fiestas where beer, enchiladas, and cooked food are sold. Two women in Itel prepare and sell enchiladas every Sunday.

Because women do not work in the fields, girls from households in which there are several unmarried sisters between the age of 15 and 18 may seek employment in Mexico City and assist the households with their earnings.[1] It must be noted that mothers often discourage girls from leaving the village to work in Mexico City. A few women remarked on how girls who go to work in Mexico City come back snobbish and proud.

Women commonly raise chickens, turkeys and sheep on share basis. Newly established households build up their stock of animals by raising them on the share. In share arrangements, the first offspring belongs to the owner, the second to the tender, the third to the owner, and so on. Decisions relating to the sale of chickens and eggs rests with the woman. With these occasional sales she supplements her cash needs when her husband does not give her enough money to meet the household's weekly needs. Some households no longer have maize by April or May and at that time the woman buys maize from a neighbor for her daily tortillas. The neighbor who

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[1]Itel girls prefer factory work, which is difficult to obtain, to domestic work. One informant indicated that factory employers demand character references from applicants and Itelanos do not know city people to recommend them. This same informant however commentedthat it is sheer snobbery to work in a factory when working for a household is more profitable in the long run, because it eliminates food and shelter expenses. Maids' wages in Mexico City vary from 200 to 500 pesos a month, while two sisters who work in a factory reported they earn 800 to 1,000 pesos respectively.

sells maize often does so without her husband's knowledge, to cover other expenses including minor clothing items, sodas, rice, and even *veinte* (twenty centavo coin) which is a common request of children to buy sweets.

The Children's Role

Children are an indispensible asset to the household, and are charged mostly with animal grazing. The head of the School Committee indicated to me that villagers often do not report all their children to the annual school census takers in order not to be forced to send them to school.

In addition to caring for livestock, children are responsible for the care of their next youngest sibling. Children are required to help in daily household chores including grinding corn for the daily tortillas and for the chickens, taking the corn to the mill every morning, and running errands to the nearby store. Children are always employed as messengers between households, and they are frequently heard reporting the local gossip to their parents which they hear during the course of their activities outside of the household. When time remains from the multitude of chores, including school homework, they are permitted to play.

The Extended Family Household

Extended families tend to be patriarchal. The father is usually responsible for distributing income

within the household, though actually there is no clear definition of income management in extended domestic units. When both father and son hold *ejido* plots, the son usually retains the right to dispose of the harvest from his plot. But in many households it is pooled and shared.

All informants agreed that if a son had met his obligations to the household and time remained for him to work as a day-laborer, the money he earned from his labor was his alone to spend. The household shares all household expenses including clothing but for curing and laundry soap. Within the extended family these are expected to be borne by each son for his immediate family. In cases where sons do not hold *ejidos* and time does not permit them to work as day-laborers, the father and head of the household gives the son a weekly sum of cash. Pablo's younger brother, thirty years old and father of two children, receives between 50 and 70 pesos a week.

The women in extended family households divide domestic chores on a rotating basis. Each woman does a different chore each week, e.g., one woman cooks, another washes, a third cares for animals when children are in school.

When a son leaves the extended family household to establish his own, the newly formed domestic unit must begin to build up its economic stock from scratch. The father provides the son with a piece of land on which to

construct his dwelling. Indeed, those dwellings of newly formed nuclear households, constructed of maguey leaves, organ-pipe cactus, or adobe brick, are often the most impoverished in Itel.

CHAPTER 9

POWER AND PRESTIGE

Extra-village Power Relations

In Itel, as in Nalcan, men are ranked in prestige. However, the criteria for ranking differ in the two communities. In Itel, distinctions in social rank result from extra-village relations with the bureaucratic segments of the larger society. Prestige is accorded to those with knowledge of and access to these segments.

In the view both Itelanos and Nalcaños, authority and power emanate primarily from the *municipio* and only secondarily from the state and Federal government. Studies of Mexican communities are usually of communities which are the headtown of the *municipio* (e.g., Diaz 1970; Foster 1967; Lewis 1951). Socio-political relationships between the *cabecera* center of the *municipio* government, and its satellite villages from the view of those villages are less well known in the literature.

Both villages, Itel and Nalcan, are satellites of their *municipio's* headtown. The Mexican constitution (Article 115) invests the *municipio* with autonomous rule under the supervision of the state of which it is part. The headtown-village relationship is a continuous source

of conflict which most closely affects a villager's daily existence. People in both villages regard the headtown as an inhibitory factor in community development. They claim the *municipio* hinders village growth by blocking funds from the state, federal government and their own taxes for village developments such as roads and schools. Villagers claim that whatever funds are earmarked for local improvements are either pocketed by the president of the *municipio* or used for the benefit of the *cabecera*.

The *municipio's* authority to tax and to fine is the single most important factor affecting village-*municipio* relationships. The *municipio* has the authority to issue permits for stores and bicycles, to tax stores and land transactions (the revenues from which are shared with the state) and to tax any stands put up during the fiestas. A few years ago one Itel *juez* (justice of the peace) objected to this latter tax on the grounds that the beer and enchilada stands for the religious fiesta were on church property. The justice of the peace instructed the stand owners not to pay the collectors when they came around. The ex-justice of the peace indicated that the *municipio* has complied with his ruling that year but that, after he was relieved of his office, the practice of taxing stands during fiestas was reinstated.

The headtown's major hold over its satellite villages however, rests with the power to fine. The

municipal president exercises his authority to fine through the justice of the peace whom he often appoints. This power is considerably reduced if an elected justice of the peace, as in the above instance, stands in opposition to him. As noted in Chapter 3 it is not uncommon for the municipal president to hand-pick his man from the village and to arrange his election to justice of the peace. In this manner the justice of the peace's power is reinforced when he arrests and fines fellow villagers.

An example of the uses of this power to fine occurred during the field stay. The municipal president proclaimed that all adult males must go to Mexico City to participate in a demonstration called by the national president in support of his government. The proclamation further stated that those who failed to participate would be fined.

One villager refused to pay the fine on grounds that it was "anti-constitutional" to force a peasant to demonstrate when he must work his land in the village. He was promptly arrested on the fabricated charge that he had been seen swimming nude in the Tula River six months earlier. His continued refusal to pay the fine resulted in his incarceration. Attempting to gain his release, friends mobilized resources and with the help of lawyers from *Confederación Nacional Campensina* (the peasant arm of the ruling political party, PRI) he was freed but only

in the face of great efforts on the part of the government lawyers. The villagers were encouraged by the favorable response from the federal lawyers and they collected 700 pesos to pay for an article in one of the national newspapers reporting on the injustices of the municipal president and the "revolt" by Itel villagers.

It may be noted that in the 10 percent random sampling, two villagers reported having already paid the fine for not having gone to demonstrate on that occasion. With the exception of one male in the sample, a friend of the village justice of the peace, all who had been fined had not paid, pending the outcome of the case brought to the *Confederación Nacional Campesina*.

Numerous instances of fines imposed on individual villagers on trumped-up charges were reported to me, but these had gone unchallenged. The above "revolt" was the first of its kind.

Intra-village Prestige System

Prestige is accorded by the villagers to those individuals who link the village community with the external socio-political hierarchy. The important resources in Itel are water and land. Access to the *municipio* leadership and to the authority structure controlling these resources forms the basis for individual prestige in Itel. These individuals are distinguished by virtue of both their knowledge of the larger society and the

extent of their social networks. They have no counterparts in Nalcan.

Mexican village communities have frequently been regarded as homogenous and egalitarian (Foster 1961; Redfield 1950; Redfield and Villa Rojas 1934). In referring to Tzintzuntzn, Foster states: "Social classes are absent, and there are no families or individuals of disproportionate power and influence" (1961: 1176). A contrasting picture emerges from Goldkind's (1965; 1966) recent reinterpretation of Redfield's (Redfield 1950; Redfield and Villa Rojas 1934) original Chan Kom material. In his analysis, Goldkind clearly shows the existence of a system of social stratification in Chan Kom anchored in differential wealth and power. A look at the Itel data however reveals that the individuals who emerge as an incipient upper strata are those who link the village with the wider society by means of their personal social networks.

In the survey I asked villagers to name the most important persons in the village and to indicate the reasons for singling them out. The people identified ten persons with varying frequencies. Of these ten, two were named because of their wealth alone by five respondents. The eight other individuals were singled out as consistently by the majority of respondents for one of two other reasons: "They most helped the village to develop and advance," or "They know people of a higher

class outside of the village." It should be noted that Solomon, the wealthiest man in the village, was never selected because of his wealth. The ten persons cited are, by any classification, among the wealthiest in the village; but, as the basis for judging Solomon indicates, wealth did not appear to be the reason for singling them out. In fact, four taxi drivers who enjoy equally high standards of living were never mentioned by villagers. This suggests that in Itel prestige is not contingent on wealth alone; that is, while the obtaining or maintaining of prestige may require wealth, wealth alone does not create prestige.

The eight which were cited for their contributions to the village enjoy access to power and authority rooted in the *municipio* and have personal networks which link them to state and federal officials.

Such individuals of course are found cross-culturally and have been referred to in the literature as brokers (Wolf 1956), mediators (Silverman 1965). The distinctive feature shared by these persons is their networks which can link the village with the wider society.

Solomon, a one time *mayordomo* of the hacienda and a man who had served twice as municipal president and as president of the *comisariado ejidal*, was mentioned most frequently by villagers as the man who had most helped the village to progress. Solomon was active during the

apportionment of *ejidos* during the 1930's. In the 1940's, while he was still president of the *comisariado ejidal*, he was selected by the national *ejido* authorities to acquaint the other eighty-two *ejido* representatives within the Mezquital Valley region by lecturing to them about the workings of the *ejido* system. Such experiences provided an opportunity for him and those around him to acquire knowledge of the authority structure and its operation.

Solomon also likes to recall how, during the early 1950's, he had urged the newly appointed Irrigation District Chief to renovate an old canal in Itel -- remaining from hacienda days -- in order that untreated sewage waters might be conducted to Itel. Solomon remembers with pride how he had called a meeting of Itel villagers and how he had persuaded them to contribute a required tax to the Ministry of Hydraulic Resources in order to rebuild the old canal and bring the untreated sewage waters flowing to Itel fields.

More recently Solomon heard that the irrigation system would be altered in some fashion in the region. There was talk of the Ministry redirecting the water flow. The Itel villagers promptly went to the governor to inquire whether the expansion of the irrigation system would adversely affect Itel. Arranging that meeting with the governor was Solomon's last effort on behalf of the village. Today he no longer participates in village affairs but continues to be accorded the honor and

prestige due an elder statesman.

The others noted by villagers as individuals of prestige are men with less illustrious records. But unlike the eighty-three-year-old Solomon, these men are still relatively young. Most are men in their forties, and early fifties, and Jesus is only twenty-nine.

Five of these eight, including Jesus, are members of Solomon's family but now form two factions. Solomon Jr., the head of one faction and like his father before him served as *municipio* president for one three-year term. On the other hand, Hector, his brother is also the acknowledged adversary of Solomon Jr.; he is said to be controlled by the current president of the *municipio* and was serving as Itel's representative to the *comisariado ejidal* during the field stay.

All who were named enjoy vertical personal networks which can be activated either for their own interest or for that of the village. A few instances of how these men act on behalf of the village and the villagers is seen in the following examples.

The man who was arrested for refusing to demonstrate was aided by Solomon Jr., who provided information as to which offices to go to, where they were located and whom to see. It cannot be emphasized enough that a basic knowledge of the big city and its institutions is an important asset to these men.

The next is an example in which Jesus worked on

behalf of the village. He had recently become head of the committee of Material Works, charged with school expansion and improvements, but, in addition, he had been involved in monitoring the school's operation and the teachers' professional conduct together with the head of the *Comite de la Sociedad de los Padres de Familia*. For about a year the school had lacked a permanent director, so Jesus and the head of the parents association petitioned for a permanent director. Promises were made by the district's school inspectors, but by September no appointment had been made. Jesus activated the network of influence of his cousin, Solomon, Jr. This network included Solomon Jr.,'s *compadre* from a neighboring satellite village in the *municipio*, who then worked in Mexico City's Police Headquarters. This individual referred Jesus to another official who holds a high post in the Conasupo.[1] This official gave the two men his calling card which gained them entry to the Federal Director of Schools in Mexico City. In one day the two man delegation obtained the firm commitment to have the acting director declared permanent. The speed with which this was accomplished was greeted with astonishment by the village.

The ten individuals do not enjoy equal access to

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[1]A government purchasing and distributing agency.

the power structure of the *municipio*, the state or the Federal government. Those who held office, Solomon and Solomon Jr., have wider networks and, at one time, were part of the *municipio* power structure themselves. (Solomon Jr., likes to point to the picture hanging on his wall showing him embracing an ex-governor of the state.) However, in open-ended discussions, it became apparent that each of them still has some direct or indirect relation to the authority structure. In fact, they all share one characteristic -- "social grace" -- when dealing with representatives of the larger society.

School inspectors, and other authorities in position to aid the village are wined and dined by these men of prestige; indeed, truly opulant meals were served to the state and school authorities who promised two new teachers. In the case of a school inspector who was known not to accept bribes, Jesus, Solomon Jr., and two others, contributed to the purchase of a typewriter to gain his good will.

The presence of men such as those described above is largely made possible by the presence of the systems of irrigation and *ejido* land tenure. Regional governmental institutions which administer these systems link the community with the national government but also provide for the emergence of men who can less officially link the community with these regional institutions. There is no doubt that these individuals also use their positions

to their own advantage. For example, earlier it was mentioned how Solomon Jr., once protected the rights of a widow to her *ejido* which he worked on a sharecropping basis; it was obviously beneficial to him for her to retain her land. On the other hand, these men cannot always transfer their networks to the private sector of the wider society. For all of his contracts, Jesus was unable to obtain a loan from a commercial bank and had to turn instead to the regional grain wholesaler.

That association with or access to the authority structure outside the village should become the basis for prestige in the village is quite understandable in the light of the other elements of this discussion of Itel. The irrigated land allows the sedentary Itelano to sustain himself; but his reliance upon the productivity of his land is also a dependency upon the governmental bodies which control both his title to the land and his access to the irrigation water. As a village within a *municipio*, Itel is subservient to the political powers of the headtown. Except for such periods during which individual Itelanos hold positions within the *municipio* government, the political structure is another life-affecting authority with which the villagers must deal rather than one in which they directly participate. Therefore, the degree to which Itelanos can personally influence these authority structures determines the degree to which the latter assist or impede them in extracting a livelihood from the soil.

When they assigned the greatest local prestige to holders of personal networks of influence and not simply to holders of wealth, it is almost as though the Itelanos were accepting influence as a prerequisite to community wealth while recognizing that individual wealth could be obtained or maintained without it.

PART III

CHAPTER 10

NALCAN—A NON-IRRIGATED VILLAGE

The Village and Its People

Nalcan is situated three miles west of the Mexico-Nuevo Larado Highway. From this highway, an unpaved road leads to Nalcan's plaza, passing first through the little village of Tzu. Tzu has no plaza, and aside from the small dwellings the only structures in this village are the school and a large cement shed which once housed a weaving factory run by a government agency. In 1968 Tzu received irrigation waters and the weaving factory was abandoned by the villagers.

About one and a half miles past Tzu, surrounded by steep rocky foothills, lies Nalcan. The villagers do not know how long Nalcan has existed. The church bells are dated June 27, 1872. The old school building in the plaza has the date 1899 inscribed on its facade. There are two circular threshing floors thirteen meters in diameter in the village. The villagers say these are very old but have no idea when they were laid or by whom. A manuscript dated 1724, which is stored in the vaults of the church, indicates that Nalcan was founded in the early 17th century.

The road connecting the headtown with Mexico City was constructed in 1934. The three mile unpaved section leading into Nalcan from the main highway was built in 1954. Prior to that time there were no roads connecting the village with either the headtown, six miles away, or the rest of the *municipio*. Homer, a store owner considered by the villagers to be one of the wisest and also one of the richest men in town, remarked: "Today we live in glory. In times past, life was impossible until roads were built. Once a road is built then you have progress, without roads there is no progress."

The bus service which leaves Nalcan around 8:00 a.m. for Mexico City and returns at 6:00 p.m. was inaugurated in 1968. Prior to that time Nalcan villagers walked to the headtown, from where busses leave frequently for various points north and for Mexico City. Taxi service exists between the headtown and Nalcan at considerable fees.

In the center of its plaza stands the *kiosco*, built about 15 years ago. A short distance away is the water faucet from which the villagers draw potable water.

There are eight stores in the village, three of which are located around the central plaza. The major items among their stocks are maize, beans, chile, *pilon* (brown clayed sugar), cinnamon tea, soft drinks, bread, tea biscuits, salt crackers, canned milk, canned salmon, rice, tomatoes, eggs, onions, pottery, *comales* (tortilla

griddles), *ollas*, aspirin, votive candles, tequila, beer, sewing machine oil, flashlights and cotton thread. The dry goods store sells men's pants and hats, woolen blankets woven in Nalcan and *ayates* (carrying sacks) as well as corn and beans.

There are two corn mills, one of which is also situated in the central plaza. These mills were established following the introduction of electricity to Nalcan in 1968. Prior to that time women ground their own *nixtamal* by hand. Each village household head contributed a sum of 100 pesos to establish electrical service.

Drinking water was provided around 1964 when villagers petitioned the President of the Republic for a water pump. Prior to that water had been drawn from cisterns. These cisterns continue to be a dependable water supply. During the field stay, the village pump broke down and remained inoperative for six months. When efforts on the part of village authorities failed to obtain a new one, it was finally repaired at considerable expense to the village.

As for population, in 1971 there were 458 males, 509 females and 852 children[1] living in Nalcan's 310 households. As can be observed in Table 14 below, these households are distributed somewhat unevenly across the four *barrios* in which the village is divided. However, these *barrios* seem to have no significances other than address reference.

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[1]See footnote #4, Chapter 3.

Table 14

Household distribution by *barrio*

Barrio	Number of households
De la Cruz	105
Guadalupe	91
San Nicolas	73
San Antonio	41
	310

In contrast to Itel's partially nucleated settlement pattern, Nalcan's households increase in distance from each other as they become farther removed from the central plaza. The density of households can be visualized in terms of three concentric bands or zones radiating from the plaza. The dwellings clustered around the plaza are quite close to each other, with many actually touching. In the second zone, a band of approximately a half mile in width, the house sites become more dispersed and are, on an average, eighty or more feet apart. The household distribution in the second zone is similar to that of Itel. In the third zone, the amount of space separating households continues to increase in a geometric progression. This band varies from one to three and a half miles in width; and, at its outer limits, the dwellings are as much as two miles apart. The steep rocky foothills surrounding the village form a natural outer boundary to this third zone at a distance of from one and a half to

four miles from the plaza. In these parched, rocky hills there are six *rancherías*, small settlements, which might be considered a fourth zone, because these populations rely on Nalcan for their purchased supplies. However they are not considered actual components of the village of Nalcan.

Table 15 displays the size of the Nalcan households. Except for those which are on or quite near the plaza, the dwellings tend to be well shielded from view by plants and shrubs. They lack defined pathways to them. Milpas are rarely planted near the dwellings. The dwellings themselves are of any of four different constructions. Some are made of dried maguey leaves and organ-pipe cacti or firewood, or both. These are generally windowless with uncovered dirt floors. Other houses are made of stacked, rough stone with roofs of firewood and maguey leaves or tarpaper board, or adobe walls with tarpaper roofing. Cement block structures are becoming more common, usually having windows and finished floors.

Three elderly villagers noted that the population of Nalcan has increased in the last forty years because people have come down from the mountain hamlets to settle in the village. Five new stores have opened in the past twenty years. An eighty-eight year-old informant reported: "Before this revolution (i.e., 1910) there were five dwellings in Nalcan and only one store."

A couple may establish a new household on land

TABLE 15

Distribution of Households Classified by Number of Persons

Number of Persons	Number of Households
1	14
2-3	45
4-6	98
7-9	96
10-12	32
13-15	8
16 or more	none
	293*

*Seventeen not visited; total number of households 310.

provided them either by the man's family or by the woman's family. For this reason, unlike in Itel, one's neighbor is not necessarily one's sibling or one's direct kinsman. In a few cases the couples were formally mated but continued separate residence in their natal homes until the man accumulated the funds to build a house on his land, at which time the couple established residence in the new dwelling.

The types of unions existing in Nalcan are quite similar to those in Itel (see Chapter 3), however, the proportions choosing free union over civil or religious ceremony are reversed: only 32% of the couples interviewed reported having had their union validated by civil or religious ceremony; the remaining 68% described themselves as living in free union.

Monogamy is the norm in Nalcan. While key informants of both sexes reported that it is common for men to illicitly have more than one woman within Nalcan proper or elsewhere, there are no formally acknowledged polygynous unions such as exist in Itel. Numerous males were singled out for having women in other places such as Mexico City or Guanajuato, where they may have worked. Two men, who legally reside in the United States and who are known to have families there, also have wives in Nalcan.

Nalcaños predominantly practice village endogamy. Thirty-one of the 185 couples interviewed include women

from places other than Nalcan. Twenty of these thirty-one women came from the neighboring *rancherías* or from the headtown, while the remaining eleven originated outside the State of Hidalgo, including one woman from Guatemala via the United States.

There are two instances of Nalcan women mating with males from other areas and the men coming to settle in Nalcan. One came from San Luis Potosi where allegedly he was a curer. It is illustrative to note that Nalcaños talk about this man with humor, because they do not normally deal with curers. Practically every Nalcaño knows how to employ local herbs for curing. However, and unlike Itelanos, Nalcaños frequently seek out medical doctors for illness they cannot cure with their herbs.

Fewer exogamous unions were contracted in the ascending generation. Only nine individuals indicated that their fathers were born in neighboring hamlets. The increased number of exogamous unions in this generation reflects its greater physical mobility.

Mating by *robo* was rarely mentioned and only as a practice of the past; it is not as common a method of union formation in Nalcan as it is in Itel. Usually, mated pairs lived in the same *barrio* and form a union without ceremony. Several women indicated that they had mated with Nalcaños whom they had met in Mexico City, where they had gone to seek work. Once the liaison

was made, the girls returned to live in the village.[2]

During the field study, only one couple had a church wedding, typically at the expense of the groom who had recently returned from the United States. He financed the entire wedding (and with the help of godfather and godmother of the wedding) including payment to the priest, a sizeable feast, music, his bride's wedding dress and other garments.

The year before three church weddings took place. In each case, the man had re-entered from the United States and had built and furnished a home before the marriage, bringing his bride to the new house on the day of their wedding. Usually the man leaves Nalcan following the wedding to seek employment because there is none in Nalcan. Consequently, few males are seen in the village, particularly during the week. Those men who work in Mexico City or its environs (see Chapter 13) return to Nalcan on Saturday afternoon and leave again Sunday evening.

On Sundays men and women gather for brief periods in the central plaza. In fact, the weekly Sunday market in Nalcan regularly brings together villagers and inhabitants of the neighboring *rancherías* who come down

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[2]Most households employing maids do not wish to retain them with children of any age. In the few cases where the male does not acknowledge paternity, the girl is forced to leave her baby with her mother in Nalcan and return to work in Mexico City.

from their mountain hamlets on donkeys or on foot to make purchases in Nalcan. The market consists of four stalls two of which are permanent. Three of these sell *barbacoa* (sheep or goat's meat wrapped in maguey leaves and roasted in an open fire) and fruits and vegetables which are in season. One old woman, the mother of three of the stall owners, sells hot tamales and sometimes pop corn, which she herself prepares.

In addition, all the stores are open; Sunday being their most active day. During the week one rarely sees people congregating in the plaza. Normally it is empty, with the exception of school children playing during a recess, and the older boys playing soccer or baseball.

The church is usually closed on Sundays because masses are said only on special occasions when the priest is invited by a villager for a requiem mass for a dead parent, an occasional wedding and during the village fiestas.

Nalcan celebrates two annual fiestas on June 24 in honor of its patron saint, San Juan Bautista, and on December 12 in honor of the Virgin of Guadalupe. The latter ushers in three weeks of festivities which terminate on January the first. On December 16 the Christ Child is removed from the Church where it is housed and begins its travels from house to house till the New Year when it is returned to the church. Each night a *posada* is made by the host household to celebrate the visit and overnight

stay. The sponsors of a *posada* serve coffee, sweet rolls, peanuts and *pulque* to the guests. All villagers who wish to attend may come and are entertained by Nalcan's local musical group which consists of a guitarist and two fiddlers.

During the year of the field stay, there were an insufficient number of households willing to sponsor a *posada*. Consequently two households made *posadas* in two consecutive nights. The heads of these households complained that people do not like to make *posadas* anymore.

The fiesta in honor of the Virgin of Guadalupe is second in importance to that of San Juan Bautista; however, because it is celebrated during the month of December, it has gained a *de facto* prominence greater than the June 24 fiesta. This is due to the fact that more people are present in the village during the winter months and are able to participate in the festivities. Most Nalcan men are employed outside of the village but they tend to be unemployed during the month of December. Those men who go as wetbacks to the United States usually return to the village by winter. Moreover, employment in Mexico City seems to drop during the Christmas-New Year's period, enabling villagers to return to the community for the holidays. During the month of June, on the other hand, most men are still away in the United States, and there are no corresponding nationally celebrated events which

would enable those Nalcaños who are employed in Mexico City to return for the occasion. In 1971 there was some confusion in Nalcan as to when the fiesta would actually be held. Two brothers, who were elected during the December 12th fiesta by the outgoing *mayordomos* to serve as *mayordomos* of the June 24th fiesta, have steady jobs in Mexico City. The two brothers usually return to the village only on two or three week-ends a month. In 1971 June 24th fell on a Thursday and the *mayordomos* announced that, because of their jobs, they could not return to the village on the day of the 24th. They, therefore, decided to postpone the fiesta to June 26, a Saturday. However, the village justice of the peace objected vehemently to a postponement on the grounds that the saint's day is the 24th and not the 26th and that God and the saint did not intend for the fiesta to be deferred to another day. The *mayordomos* responded to the justice's objection by renouncing their sponsorship and by leaving the arrangements for the fiesta and many of the expenses to him.

Expenses for the fiesta are met by voluntary contributions made by villagers and supplemented by two elected *mayordomos*. Unlike in Itel, in Nalcan there are no enforced assessments to cover community expenditures. Every household head is asked to contribute to village cooperative undertakings including communal projects and fiestas. As a general rule contributions are expected to be commensurate with ability to pay. The village merchants

are expected to make the largest contributions, usually from 100 to 200 pesos, and the laborers are called upon to donate lesser amounts. Female household heads with no sons over eighteen years of age are not expected to make any contributions, but those with sons that age or older are asked to contribute a minimum of 10 pesos. The two *mayordomos* selected for each fiesta are responsible for the cash outlays not covered by the villagers' contributions.

Competition games such as bicycle and sack races are held between boys from Nalcan and the *cabecera*. Musicians are hired, and beer, tamales and enchilada stalls are set up by the merchants from the plaza. The high point of the fiesta is the setting off of the *castillo* (elaborate fireworks) which also marks the termination of the festivities. The *mayordomos* are expected to prepare a meal which includes tortillas, chicken soup, *mole* and beans, for the musicians and for any Nalcaño who wishes to partake of it.[3]

These one day fiestas are the two principal public celebrations which take place in Nalcan. The school does not usually organize celebrations on national

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[3]An itemized list of expenditures for the June 24, 1971 fiesta was not available but the justice of the peace estimated that the fiesta had cost about 3,500 pesos, the major expense being the *castillo* which usually costs about 3,000 pesos.

holidays. In fact, the year of my field stay, Mexico's Independence Day -- September 15, was publicly celebrated in Nalcan for the first time in over five years at the insistance of the villagers. Parents accuse the teachers, who originate from the *cabecera*, of laziness and disinterest in their children and in the school.

For the purpose of the Independence Day celebration in 1970 a queen was chosen by the school to represent Nalcan in a municipal celebration. The girl, in a bridal gown purchased for her for this purpose by her father was paraded through the village in a truck supplied by a Nalcan merchant. The village justice of the peace mobilized a communal work group to clear paths of shrubs and other debris in order to make the way clear for the procession. The village authorities entertained the visiting dignitaries, municipal school officials, with soft drinks.

Services deemed essential to the village are supplied through a cargo system which is similar to but simplier than that which exists in Itel (see Chapter 3). The most obvious difference in the Nalcan system is the lack of committee structures to provide planning services. There is only one committee of five men charged with the maintenance of the water pump and the collection of monthly fees for drinking water, the *Junta de Aguas*; the body is administrative and the members do not operate as a cohesive group. A *Sociedad de Las Padres de Familia* exists to oversee the operation of the school, but only

the presidency of this group is considered a cargo. As was noted earlier, the planning and production of the two religious fiestas in Nalcan are in the hands of two pairs of men, *mayordomos*, with which cargos also goes the responsibility to personally provide whatever needed funds are not donated by the villagers.

Nalcan elects a man referred to as *represetante popular* (popular representative) every three years whose task is to act as liaison between the village and extra-village authorities, however the man serving this cargo during the field stay had been doing so for the previous ten years. This position and that of the president to the *Sociedad de los Padres de Familia* are three year responsibilities and the only cargos to exceed one year.

There are two justices of the peace, one of which is an alternate with the title *juez suplente* (supplementary judge), who are elected annually but who lack the power of their Itelano counterpart to fine. There is no separate chief of police. Sixteen *ayudantes* (helpers to the justice of the peace) are selected from the four *barrios*, with the number of each *barrio* in proportion to the *barrio* population. Whereas in Itel the determination of *ejido* titles and successions is partially the function of a *municipio* level commission to which the Itelanos provide a representative, in Nalcan, this authority is vested in a single man and his clerk. Worthy of note is the fact that the clerk's cargo is being performed by a woman.

Unlike the women of Itel, Nalcaño women do participate in village elections and, to the extent of this clerkship, in the cargo system itself. This litany of cargos is made complete with the inclusion of the *Encargado de Iglesia*, or church sexton.

The provision of labor for communal projects is the theoretical responsibility of all male villagers. However, these *faenas* are not organized by the justice of the peace with the same scheduled regularity found in Itel. The Nalcaño male's obligation to provide a fixed number of days' communal labor can be, and usually is, satisfied by his paying another more available male to serve in his place.

There are no village employees such as Itel's teacher assistants and secretary to the justice of the peace. Indeed, the lack of authority to levy fines eliminates even the possibility of financial gain for the two justices of the peace. In general, the more a particular cargo requires the continued presence of its holder in the village, the more it interferes with the livelihood of the average Nalcaño.

We have seen that Nalcan is a village consisting of dispersed settlements and set in a barren environment. The population fluctuates according to seasons. During the winter months the residents congregate in the village, but for the rest of the year they must seek employment elsewhere. The system of village government is more

loosely structured than that of Itel.

CHAPTER 11

LAND TENURE AND USAGE

Ejidos

Ejido lands exist in Nalcan but do not constitute the predominant mode of land tenure, as they do in Itel. Nalcan received its first *ejidos* in 1935-36. At that time, however, only thirty-five individuals applied for them. These thirty-five *ejidatarios* received plots of 200 x 45 meters each -- just short of a hectare -- of non-arable land. Informants gave no specific reason why most Nalcaños rejected *ejido* lands at that time but suggested that people were afraid to apply.

In 1969, 52 of 268 eligible family heads signed up for a newly distributed *ejido*. Each of them received two hectares of non-arable wasteland. Villagers are still waiting for official legalization of this land grant. The original owners of the former hacienda land are disputing Nalcan's rights to it, and the villagers were still uncertain of the outcome in September 1971.

In the past, many villagers expressed disinterest in *ejido* land because it required their contributions for travel expenses incurred by village representatives relating to *ejido* matters, e.g., trips to Mexico City

and Pachuca. Now that irrigation is imminent interest in receiving *ejido* land has increased but there seems to be no more land available for distribution. One woman informant reported that her common-law husband was against signing up for the *ejido* two years ago on the grounds that they have no sons and that he, as a construction worker away in Mexico City and other parts, did not wish to bother with *ejido* land. She signed up anyway.

Only about four or five individuals are currently working their *ejidos*. Almost all *ejido* lands, and much of the private holdings as well, still require clearing and leveling in preparation for cultivation.

Private Holdings

Private holdings are the predominant mode of land tenure. Of the 293 households I visited, 258 reported owning land in Nalcan proper. Of these, 11 individuals reported owning land in neighboring hamlets and one Nalcaño reported owning a small holding in the headtown. Nalcaños would only indicate the number of land plots they own without specifying the sizes. Table 16 shows the number of land plots held by Nalcan households.

Because villagers were reluctant to divulge the dimensions of their holdings, the size of the holdings shown in Table 16 can only be guessed at. However the Municipal Rents Office made their records available to

Table 16

Distribution of Private Holdings

Number of land plots held by households	Number of Households
0	29
1	115
2	76
3	34
4	16
5	7
6	4
7	2
8	2
10	1
14	1
?	6
293	

me. These records refer to a sale or transfer of a land plot and show the size of the plot. Based on these data, Table 17 shows the sizes of the plots registered or transferred from one Nalcaño to another between 1960 and 1970.[1]

These tables demonstrate that in Nalcan, as in Itel, most households do hold land and that the majority

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[1]Records prior to 1960 were incomplete and missing.

Table 17

Number and Size (in Hectares) of Land Holdings Registered or Transferred From 1960-1970

Land (hectares)	Number of Transactions
0.01-1.00	170
1.01-1.99	35
2.00-2.99	16
3.00-3.99	9
4.00-4.99	4
5.00-5.99	7
6.00-6.99	6
10.44	1
13.55	1
19.30	1
23.71	1
24.00	1
37.80	2
38.57	1
45.97	1
	256

of holdings (170 out of 256 transactions or almost 70%) involved transactions of less than one hectare. Interestingly however nine individuals in Nalcan own holdings much larger than any owned by an individual in Itel (see Chapter 3). These holdings range in size from 10 to 45 hectares. It is noted here for purposes of later discussion that these large land owners are generally not considered to be wealthy. Only two of the five wealthiest families own relatively sizeable holdings and their lands are located in a neighboring hamlet.

Valuation

Land prices have risen rapidly within the past five years. Villagers recall once being able to obtain a piece of land for a "piece of *barbacoa*." In 1971, however, one informant reported that he had been offered 12,000 pesos in 1970 for a piece of land which he had purchased in 1968 for 4,000 pesos. Another informant said that he had purchased less than one hectare in the mid 1950's for 250 pesos and that he now estimates the same piece of barren land to be worth 15,000 pesos. A third informant purchased 50 square meters for 100 pesos in 1952; he estimated that this lot is now worth 150 per square meter. A fourth had sold just short of half a hectare (four *cuartillos*) for 18,000 pesos; however because the land contained young magueys its value was undoubtedly enhanced. Villagers attribute the

high price of land today to the prospects of receiving irrigation. Indeed, the spectacular rise in land prices and talk of the introduction of irrigation both began in the middle 1960's. In addition to rising rapidly since talk of irrigation began, land prices may have also become inflated by the increased availability of relatively large sums of money which wetbacks bring back from the United States (see Chapter 13) and seek to invest in land.

Irrigation

In 1967, when Nalcaños saw that the Ministry of Hydraulic Resources was expanding its irrigation networks, they petitioned the authorities in Mexico City for irrigation waters. As indicated in Chapter 2, a canal is now under construction. Villagers constantly expressed their hope for the introduction of many changes with the inauguration of irrigation.

There is now a small dam in Nalcan but no one in the village knows when or by whom it was constructed. Two older informants say it was constructed by a wealthy man from the headtown at the turn of the century. The dam, which accumulates water during the rainy season, has the capacity to irrigate about forty hectares of land, but the exact number of hectares currently watered by this dam is not known. This miniature irrigation system makes only one crop a year possible and even that crop is dependent upon seasonal rains adequate to fill the

reservoir.

Because of the prospect of irrigation land is no longer being sold. Discussion of irrigation is now leading many villagers to measure and officially register their holdings. By officially recording property boundaries, neighbors hope to avoid potential disputes. However, the recording has itself partially resulted from an increase in disputes over the boundaries of land ownership. One such dispute between a young man and an old villager ended when the younger man, recently returned from the United States, paid the municipal authorities 3,000 pesos in bribe to have the land formally registered in his name and the older Nalcaño was dispossessed of the property he claimed.

Tenure by Usufruct

Unlike in Itel, tenancy arrangements in Nalcan are simple wherever they exist. Several informants reported sharecropping land. Sharecropping arrangements, as practiced in Nalcan, require the tenant to provide all the necessary inputs while the harvest is divided in half. The tenant is usually responsible for all expenditures related to cultivation and harvesting. The landowner may or may not assist the tenant by providing a peon or two for harvesting or weeding however. The kinds of assistance extended by the landowners to their tenants largely depends on the nature of the personal relationship between the landowner and the sharecropper. The tenant

usually has the right to the stalk which is generally the sole product gained from planting maize (see Chapter 12).

The several instances of sharecroppers include itinerant merchants who sharecrop irrigated lands in the headtown and also in Tzu, the neighboring village which received irrigation waters three years ago. A few Nalcaños sharecrop the semi-irrigated lands around the small dam within Nalcan. At one time these lands were owned by a family from the headtown, however some of the land was recently sold to two Nalcaños, one of whom has legal residence in the United States. This man's Nalcan wife lets his two hectares to a sharecropper, the butcher's wife. There are several instances of men who migrate in search of work and leave their land to a female tenant who becomes responsible for cultivating the *milpa*.

Land rental and land pawning are known but uncommon forms of tenancy. One informant indicated that she works a piece of land which has been rented for 600 pesos by her daughter, who is employed in Mexico City.

Tenancy arrangements are not a significant supplement to subsistence in Nalcan, unlike in Itel. An economic type similar to the "agricultural entrepreneur" described for Itel does not exist in Nalcan; sharecropping arrangements do not provide an avenue for economic enhancement because the land is unproductive.

CHAPTER 12

TECHNIQUES OF PRODUCTION

Nalcan villagers are dependent on three distinct sources of subsistence: land exploitation, commercial activities, and wage labor. These disparate sources of income link Nalcan in different ways with the wider socio-economic order.

Occupational Specialties

The occupational diversity in Nalcan is much greater than that in Itel. This point was called to my attention by an Itel villager after I explained to him the object of my study. In response he observed: "People in the dry zone know many more things than we here. All we know is how to work the land."

There are eight blanket weavers in Nalcan using a colonial-style upright Spanish loom. Blank weaving is generally considered a male occupation, but nonetheless two of these eight are women. There is no division of labor in the preparation of the wool for weaving, which entails cleaning, carding, and spinning.

In the survey, sixteen men indicated they were masons; seven stated that they were carpenters and three described themselves as carpenter's helpers. All these

men work outside of the village, usually in Mexico City. Additionally, there is one specialist in rope-making who produces the rope by use of a spinning wheel and a backstrap. His method requires that he be assisted by a person at the spinning wheel, which help is provided by either his wife or his godchild.

There are also three butchers and a baker. The butchers slaughter goats or pigs and prepare *barbacoa* for the market which takes place in Nalcan each Sunday. There is one candle maker who creates elaborate candles for the church fiesta and special masses.

Finally, there are fifty-four men in the village who describe themselves as *comerciante* (merchant). These men travel all week to the surrounding villages or as far as the Huasteca (in the state of San Luis Potosi) selling dry goods, vegetables, carrying sacks, baskets, etc. They are rarely seen in the village.

While the women, the artisans, and the local merchants are principally confined to the village, most of the adult males work outside of Nalcan: in Mexico City, Pachuca, San Luis Potosi, and often in the United States. Consequently, and the villagers themselves call attention to it, Nalcan is for the most part a village comprised of women.

Individuals who remain in the village and who lack an occupational specialty derive a meager income from the limited agricultural resources. These are

described in the section which follows.

The Crops Grown

The primary cultivable plant in Nalcan is the maguey (*Agave sp.*), which requires very little water. Its roots do not penetrate deeply into the soil but are able to radiate over broad areas to obtain moisture. There are some 150 varieties of *Agave* in Mexico. Informants identified at least nine types grown in the village, whereas in Itel only four varieties were described. When asked to distinguish the different magueys, Nalcaños invariably categorized them on the basis of size and the type and quantity of *aguamiel* (cactus juice) produced by the particular variety.

Two types in the village include *Maguey Chico* (A. *endlichiana;* A. *gracilispina;* A. *lechuguilla,* the latter is extremely common) which is cultivated primarily for *ixtle* (fiber); and *Maguey Grande* (A. *atrovirens*) which produces cactus juice and its fibers are longer but finer than the first.[1]

The *Maguey Grande* varieties named by Nalcaños include two types also identified by Itelanos, i.e., *samni* and *penca larga.* All varieties cited by Nalcaños

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[1]The distinction between each maguey type rests on the length and width and color of the leaves, on the direction and size of the spines eminating from the leaves and on the flavor of the *aguamiel,* particularly the degree to which the cactus juice ferments to produce a stronger *pulque.*

(including the two already noted and *santa domingo, wanthé, bosto, naskaza, bhota, sarabanda,* and *maguey corriente*) produce cactus juice. However the favorite varieties in Nalcan are *penca larga* and *samni* because these produce the most cactus juice and take only about eight years to mature. Nalcaños note however that *maguey corriente* produces the most tasteful *aguamiel* but takes approximately twenty years to be ready for tapping. It might be noted that the large-sized varieties of magueys are not native to Nalcan and were brought to the village within the last twenty years. The native variety is the *maguey corriente,* which still prevails.

The nopal (*Opuntias sp.*) is a ubiquitous part of the landscape. The nopal's fruit, the prickly pear, is but an incidental economic resource in Nalcan. These plants exist under semi-cultivation around dwellings, and only a few individuals plant them for the commercial value of the fruit.

Villagers cultivate one variety of maize, *delgado creollo* and mix their corn seed with beans: *frijol San Juan, chico* and *rojo.*

A few villagers have small gardens in which they cultivate parsley, tarragon, squash, fruit trees and in one case chiles. The gardens are usually watered with drinking water, a practice not officially permitted by the village Water Committee.

Tools and Technology

To plant *milpas*, villagers use the Moldboard plow drawn by a horse or burro.

Planting is done by hand and cutting by machete. To plant corn and beans, about four or five seeds are deposited in the ground and covered by foot. This technique of sowing is known as *tapa pie* and is considered best in *temporal* lands. Those who plant *milpas* do not always prepare the ground by plowing. It is not uncommon for individuals to plant without previous preparation of the soil by using a digging stick because of the shortage of draft animals and because of the high cost of renting a team of oxen.

Tractors are only rarely rented for cultivation. Only one woman reported that she had rented a tractor to plow a plot of land prior to planting corn.

To plant maguey rows of ridges are prepared in which the maguey is anchored. These ridges of raised ground permit the maguey roots a wider spread for absorbing moisture. Then, unwanted offshoots of mature plants are prunned with a special implement (*tajadera*). Once removed from the ground, the offshoots are left to dry for at least fifteen days and are then replanted.

Agricultural Cycle

Corn and beans are planted simultaneously in June

and harvested in November. Magueys can be planted all year round; however, informants say the best time is in February and March when the earth is driest. Inasmuch as planting magueys is not contingent on a set season or limited to a set number of days they can be planted at leisure. Only a few Nalcaños plant nopals and most villagers reported that they had had little success with this cactus.

Agricultural Products and Yields

Every aspect of the maguey plant is exploited by the villagers. The leaves provide fibers which most of the Nalcaños convert into carrying sacks. The carrying sacks provide the most stable source of cash income. It is the job of one villager to make rope out of the fibers.

The maguey leaves vary in size but informants indicated that one maguey can provide fibers for two and a half carrying bags (each carrying bag measures one meter by one meter) or almost two kilos of fiber.[2]

The fresh cactus juice, produced in the "bowl" or trunk of the tree, only incidentally contributes to the overall cash gains of the village. It is the *pulque* (fermented juice) which in Nalcan is a major subsistence resource.

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[2]*Maguey grande* has about thirty-two forms. Its leaves range in size from 12-16 inches in width and may reach thirteen feet in length. The *maguey chico* leaves are considerably shorter.

Maguey corriente, a wild variety, begins to produce juice only after twenty years, while it takes only eight or ten years for the *maguey grande* varieties to produce.

The maguey plant produces the juice to nourish its stalk which, if left intact, can grow to a height of 20 feet. The villagers cut the stalk at the precise moment when the "bowl" of sap is ready to nourish the shoot. Once the stalk is cut, the "bowl" continues to render juice daily for three to four months. The amount of juce produced by the *Agave* depends on the species and the manner in which the "bowl" is scraped after each tapping. In Nalcan, the *samni* and *penca larga* varieties yield from three to four liters at each tapping. A plant is tapped twice daily during the winter, but three times a day in the summer.

The juice is siphoned off with a gourd, poured into a jug containing a *pulque* culture, and allowed to stand for seventy-two hours. During these seventy-two hours it increases in alcoholic strength to form the beverage. After this period it begins to decompose and can no longer be consumed.

The maguey plant has many uses besides building material as previously described. The cortex of the leaf is used for tying fences and roofs of houses. The base of the leaf serves as animal browse. The leaves can also serve as *barbacoa* wrapping and meat flavoring. The trunk

of the plant is used for kindling, as a storage container, and sometimes as a flower pot. The plant is grown around *milpas* to prevent erosion.

Despite its multiplicity of uses to which the maguey plant is put, it provides only a minimal level of subsistence. However, villagers know that it is a dependable resource. Villagers would often remind me that if I fail to learn how to spin the fiber and how to make carrying bags I would not survive in Nalcan very long. Several villagers predicted that once irrigation is brought to the village there would be no more magueys. This same point is noted by Hernandez (1970). (In Itel older villagers recall the prevalence of maguey and the plants are still common in the non-irrigated parts of the village.)

Because of the minimal precipitation and the absence of irrigation waters, the fields produce small crops; usually the harvest consists of more corn stalk than corn. Fertilizers are not used.

Villagers recall that thirty years ago they reaped a large enough corn and bean harvest to enable them to even sell part of it at the market. They quickly add that at that time rain was abundant. Within the recent years they single out 1962 and 1967 as the only two good years for crops. One informant reported that in 1967 she had reaped forty sacks (approximately 2,800 kilograms) of *mazorcas* (ungrained corn ears) from one hectare. In 1969 the same field yielded only two sacks and in 1970 the yield

dimished to five sacks. Five sacks per hectare (equalling to approximately 350 kilograms of ungrained corn) is usually given as the average yield if the corn reaches the tasseling stage. More frequently the maize does not tassel at all. In the socio-economic census informants uniformly reported that corn stalks are the only crop their *milpas* produce.

Corn stalk however is an important fodder crop. Unlike in Itel where stalk is a natural by-product of the maize harvest, in Nalcan maize is frequently deliberately planted solely for the stalk; and even that is an uncertain harvest. One informant said, "It's like the cards."

Corn stalk yields are usually given in "*dobles*." A *doble* refers to a quantity of stalk which corresponds to the amount a man can embrace with his arms. Allowing for reasonable climatic conditions, one hectare yields from five to eight *dobles*.

Livestock

Wild rabbit and quail are occasionally hunted by villagers. Every household in the village possesses domesticated animals such as chickens, sheep, goats and frequently a pig.

The normal livestock diet is forage supplemented with tips of maguey leaves, burned nopal leaves and corn stalks when available. However, pigs and chickens are usually fed corn grain purchased from a local store. One

informant explained that the reason pigs are sold by weight while sheep and goats are sold by the measurements of the animal is that pigs are fed grain which needs to be purchased.[3]

Five households own draft animals. Two households own a team of oxen, one household possesses a team of horses and the other two families use their donkeys as draft animals.

The type of small livestock raised in Nalcan and Itel reflects the current ecological differences between the two villages. In Itel goats are rare for reasons already stated earlier (see Chapter 6); in Nalcan there is an almost equal distribution of goats and sheep.[4]

In the year of the field stay, Nalcaños were faced with a lack of water for their livestock. During the rainy season the animals are herded to the *arroyo* which passes through Nalcan and which normally provides ample water for the animals. In the dry season, the *arroyo* dries out and the animals are given drinking water. However, when the water pump broke down, Nalcaños had to obtain water from wells as they used to do before drinking water was brought to the village. The village women had already become

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[3]In Itel all animals are weighed and sold by the kilo.

[4]Interestingly Nalcan's sheep are predominantly brown and Itel's predominantly white. Nalcaños indicated that brown sheep are more resistant to drought and disease than are white sheep.

accustomed to water from a faucet for their animals and they complained of the new hardship in getting water.

There is a wider variety of sources of livelihood in Nalcan than in Itel. The chief village resource is the maguey which produces not only *pulque* for daily consumption, but fibers which are converted into carrying bags for sale.

The labor requirements for crop cultivation and for the manufacture of carrying bags are relatively low and are the topic of the following section.

Labor Requirements and Costs of Production

Maize: Of the 258 households which reported owning land, 149 indicated that they plant at least one field. The cost of planting a *milpa* and the labor required per hectare are shown in Table 18. As is seen, only five man-days of labor are needed to cultivate one hectare and an additional eight man-days are required for harvesting, if there is a harvest.

Maguey: It is difficult to calculate the size of maguey production factors especially those such as labor and cash investments. It is important to emphasize again that maguey cultivation is not subject to seasonal rhythm and does not impose peak periods of labor demand. Most Nalcaños plant magueys and usually hire a day-laborer to prepare the ridges described earlier. Because maguey cultivation is often done over an extended period, I was unable to determine with any degree of accuracy the amount

Table 18

Cost of Growing Maize and Beans per Hectare in Nalcan

Activity	Pesos	
Rented Equipment for		
Ploughing (2 teams of oxen) @35	70	
Cultivation (2 teams of oxen) @35	70	
		140.00
Seed		
Maize (6 *cuartillos* @1.60)	9.60	
Beans (4 *cuartillos* @2.00)	8.00	
		17.60
Labor*		
Man-days for planting (1 @12)	12	
Man-days for weeding (2 @12)	24	
Man-days for 2nd weeding (2 @12)	24	
		60.00
Total cost of planting		217.60
Harvesting		
Man-days (8 @12)	96	
		96
		313.60

*Additional labor costs include meal and *pulque*.

of time normally required to plant one maguey, but it is certainly minimal.

Craft Production

As was stated earlier, the conversion of maguey fibers into carrying sacks and rope provides the most stable source of cash income for villagers. Nearly all villagers above the age of seven know how to spin and weave carrying sacks. But this is predominantly the occupation of women and old men. The cutting of the maguey leaves is more frequently a man's task, but in preparing the fibers from the leaves there is no clear division of labor.

In fact, a woman may seek fiber under a *medias* (share agreement) in which she prepares the fibers from start to finish and divides the produce with the owner of the maguey leaves.

The production of carrying sacks takes place in five stages. The time demands of these production stages below are based on informants' descriptions of the use of forty-eight maguey leaves which yield two kilograms of fibers and, subsequently, three carrying sacks.

One man-day is required for the first stage in which the leaves are baked in a pit and then placed in a hole for a week until they are dried and softened.[5] Two

[5]Fibers derived from the "*corazon*" of the maguey (inner leaves nearest to the "bowl" of the plant) are processed without baking and are simply dried and then beaten on a stone until the fiber is easily separated from the pulp.

man-days are required in stage two to remove the leaves from the pit and then scrape them with an iron blade attached to the center of a sixteen inch cylindrical wooden bar. The third stage, the washing of the fibers, entails one man-day. After drying, the fibers are ready for spinning which demands two man-days. In the fifth stage, these fibers are woven on a "backstrap" loom to produce six one-meter squares that are then joined in pairs to form three carrying sacks. Working through a whole day from sun-up to sun-set a man or a woman can weave one and a half carrying sacks; however, most informants have other chonres and uniformly reported that they can make only one bag a week. The rapidity with which spinning and weaving is carried out would also depend naturally on individual skill and enterprise. In sum, nine man-days are required to make three carrying sacks, or three man-days to produce one.

Only eight households produce blankets. It need only be mentioned that sheep wool is converted into blankets and that the wool contributes an additional income for those households which can produce more wool for blankets than they need for their own use. Sheep are shorn twice yearly and each renders approximately 500 grams of wool per shearing. A blanket which requires up to eight kilograms of wool can be produced in three days. This includes all the steps in its production. The owner usually washes the wool before he offers it for sale. The weavers complain about a shortage of wool and for this reason their looms

often stand idle.

As these data show, labor demands are minimal in Nalcan. Consequently labor exchange is not commonly practiced. Villagers indicated that they will help each other out if the need exists. However work parties comparable to those organized in Itel (see Chapter 6) are non-existent.

Exploitation and production of these resources chiefly involve the women of the village. As was shown labor requirements are minimal throughout the year thereby releasing the men to sell their labor on the national labor markets.

The discussion now turns to the distribution and consumption of the products which are produced in the village.

Distribution and Consumption of Products Produced in the Village

Maize: Corn and corn stalk which is harvested is retained by the household for its own members and livestock. Inasmuch as Nalcan does not produce corn for sale, the villager is not involved in its distribution but must, on the contrary, buy corn which is brought to the village and sold in the local stores.

Meguey: In the main, the *pulque* produced is consumed by the villagers. A new market for *pulque* opened within the last two years when laborers came to construct new irrigation canals. Two or three women discovered this

new market and would each take twenty liter jugs to the men. The women walked three miles to the work site to sell their surplus *pulque* at 60 or 70 centavos a liter.

Carrying Sacks: The women sell the carrying sacks as soon as they make them, usually to one of the local merchants for 6 or 7 pesos each. These merchants normally stockpile the sacks during the year and in September or October take them to the Huesteca for sale at from 16 to 20 pesos each. One Nalcaño buys these sacks and then sells them regularly in the Ixmiquilpan market.

Blankets: The blanket makers sell their blankets to the local merchants by weight, at from 35 to 40 pesos a kilogram. A standard size blanket weighs approximately four kilograms and is sold by the weaver for about 140 pesos. Blankets made in Nalcan sell in the local stores for from 175 to 200 pesos each. However, because of the small supply of wool there are not many blankets put up for sale.

Livestock: Households generally own between one and twenty-five goats and sheep. Villagers rarely kill their animals and livestock is slaughtered only for special occasions such as festivals, weddings, wakes or occasionally a chicken is killed in celebration of a man's return from the United States. And animals are sold to meet emergency financial needs.

A goat or a sheep sells for from 80 to 120 pesos, depending on both the size of the animal and the buyer's ability to bargain. Because few people in Nalcan sell their animals, the butchers must usually obtain their animals for slaughter from neighboring hamlets.

Pigs are sold at 8 pesos a kilogram. Nalcaños sell their pigs when they foresee the onset of illness in the animals. Then they take the animal to the Ixmiquilpan market for sale.

Chickens are sold for approximately 20 pesos each and are a source of ready cash to meet minor expenses. There are three sisters in Nalcan who buy up chickens which they then take to the Ixmiquilpan market and sell at a peso or two profit. Similarly these women have cornered the egg market. Nalcaños almost always sell their eggs at about 50 centavos each to the women, who then earn from 5 to 10 centavos per egg at the Ixmiquilpan market.

The butchers sell raw meat on Saturday and the *barbacoa* on Sunday. They prepare the *barbacoa* before dawn and by 8 a.m. it is ready for sale. Usually by mid-day it has all been sold to individuals who have come from neighboring hamlets and to Nalcaños who come in from Mexico City for the week-end. The three Nalcan butchers usually slaughter about eight animals each week. They claim that their prices are rigidly controlled by the municipal authorities. The official fixed prices are

12 pesos per kilogram of raw meat and 24 pesos per kilogram of *barbacoa*.

From the preceding pages we see that the Nalcaño's produce is either distributed within the village or sold to the local middlemen. For the most part productive activities in the village do not entail contact with the outside nore are they affected by market demands. In sum, there is no significant outward flow of goods from the village which would serve as a mechanism of economic integration of the village with the larger society. However, the village is economically integrated into the larger society by an inward-flow of produce, goods, and cash (from wages) from the outside; and the village becomes integrated with the wider society by an outward-flow of its labor force.

CHAPTER 13

MIGRANTS AND MIDDLEMEN

The Labor Force

Since agriculture is only marginally productive, the average Nalcaño male has two alternatives to obtain his livelihood: to become a marketing middleman or to seek wage labor by migration. The majority of Nalcaños follow the latter strategy but there are, as already noted, a considerable number of middlemen. However it should be noted that it is common for an individual to alternate between these strategies. That is, a man may engage in commerce or small itinerant trade one year and then seek wage labor another year.

The Middlemen

Nalcan's itinerant vendors are predominantly male. Females involved in trade usually work in cooperation with their husbands at the distributive end of the enterprise and thereby create something of a joint household venture. Nalcan's middlemen fit Mintz' category of "genuine higgler -- a non producing specialist middleman" (1956: 19). They will deal in anything which may come their way, including spices, vessels, *canastas* (baskets), carrying sacks, rope, vegetables, *pilon* (unrefined sugar), dry goods, chiles, etc.

There are at least three categories of middlemen in Nalcan. These categories correspond to the nature and size of the operation and the cash investment in an inventory. In the first category are the local store owners, who do not usually leave the village to obtain merchandise or to sell it. The items which they sell are delivered to them. The dry-goods store owner makes only periodic buying trips to Mexico City to supply his store. Their inventories represent a relatively large cash investment of several thousand pesos.

In a second category are the five merchants who own trucks and who travel chiefly between Mexico City and the northeastern sections of the country. One man, Leonardo, deals in both dry goods and unrefined sugar.[1] Anthony, another merchant of this type, deals in vegetables which he buys at the Ixmiquilpan market or in Mexico City and cells them at Tamazunchale which is an important regional distributive center north of the Mezquital Valley. Anthony has also dealt in baskets, carrying sacks and lard which he would purchase at the United States border and transport to southern points at considerable profit. Sometimes he deals in corn, in unrefined sugar, and anything else which he can obtain on short-term credit. He indicated that he would prefer to specialize in a few

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[1]Unrefined sugar is especially profitable item because it is used for the illegal production of an alcoholic beverage.

items but that because he has so recently purchased the truck, he must "take anything that comes in order to live." Another truck owner trades primarily in the Huasteca region and rarely comes to Nalcan. Richard, the richest man in town, owns, in addition to a store, two trucks which are used chiefly for hauling cement. The demand for cement was created by a recent increase in building construction by laborers returning from the United States (see below). Mefisto attempted a cement business but with no success. He had purchased an old truck which required too many repairs and so he returned to work in the United States.

In the third and largest category are the itinerant vendors who walk or travel by bus and whose relatively small inventory investments range from 200 to 700 pesos. Five such men put up stalls in the neighboring weekly markets. Four of these stalls deal in the distribution of spices and chiles. The fifth man specializes in baskets, rope and carrying sacks which, according to him require a lesser investment. Only one of these five stall owners is a woman and she was forced to take over her husband's business when he fell ill. The stall vendors each have their specialties, but they also sell other items during certain seasons. For example, Fernando, a spice merchant, also sells toys and vessels during fiestas and at Christmas time. To obtain spices and the other items, these vendors travel to Mexico City. Bernard sells toys at a permanent stall which he owns in the headtown

from where his wife originates.

Again, it is noted that with the exception of two truckers, all these men have at one time or another worked in Mexico City or been *braceros* (legal migrant laborers) or wetbacks (illegal migrant laborers) to the United States. There is a fluidity of movement into and out of these enterprises because with the exception of the store owners they do not involve large investments. These examples demonstrate the diversity of subsistence sources drawn on by Nalcaños in contrast to those available to Itelanos. Despite the fact that the Nalcaño's commerce takes him to various places in the nation, he nevertheless remains within the same horizontal economic and social strata. The interaction with other merchants does not open vertical links to the larger society. In short, the various productive activities in which the Nalcaño is engaged do not tie the village to any regional or formal institutional structures which would serve to integrate the community with the nation-state.

The Proletariat and Village Emigration

Two sources of income have been described, i.e., cultivation and commerce. Wages gained by temporary migration from the village form a third and significant source of income. In fact, the proletariat sector of Nalcan is comprised of the bulk of the male population which emigrates from the village to seek wage labor.

There are several types of migrants, including those who return weekly, monthly or seasonally to Nalcan; those who work in Mexico City or other areas of the country and those who go to the United States as *de mojados* (wetbacks). These categories of migrants probably have differential social and economic impacts on the community. However, it was not possible to sort out the diverse types of migrants because an individual usually and frequently shifts from one category to another. In addition, because the Nalcaños knew of my nationality many were reticent to talk about their travels to the United States as illegal migrants; therefore, the exact numbers of individuals who travel to the United States could not be determined from the socio-economic census. My data on these individuals is based on discussions with key informants.

Nalcaños assert that they leave the village only because it is necessary to obtain wage labor and they predict that, once irrigation is brought to the village, they would remain in Nalcan to work the land.

Labor is exported by 200 of the 293 households which I visited; lll of these households send the male heads. Not counting the itinerant middlemen discussed earlier, 54 percent of the 458 adult males work outside of the village as wage laborers.

Nine Nalcan males are commuters because they are employed as day-laborers in the headtown and return to the village after the day's work.

Excluding the blanket weavers, the merchants, the rope maker and the baker, there are approximately 135 males who remain in the village and who do not practice any specific occupational specialty. These men are either too old, too young or unable to leave the village. The old men sustain their households by making carrying sacks. There are, of course, a number of boys beyond school age but not yet old enough to leave the village. Boys usually begin to leave for work at the age of fifteen or sixteen although informants reported that some had left at the age of thirteen -- as soon as they finished primary school. For the most part, the males who fail to seek employment outside of Nalcan are individuals who are ill or who in some other way are not prepared to cope with life outside of the village. These men process maguey fibers, and also form the core of the peon labor force within the village. They hire out as day-laborers for 10 to 12 pesos a day. Usually women hire these men to work in their fields, make ridges and plant magueys or to help build a dwelling. Many of these individuals take their meals in the same household for which they work and often become indistinguishable from the regular members of the family.

Only 46 females, or 9 percent of the 509 in the village were employed outside of Nalcan at the time of the study. Most of them work in Mexico City as maids. They return to the village every week or every month or every six months. Usually once a girl mates or

marries a Nalcaño she returns to settle in Nalcan.

The frequency with which the males return to the village depends largely on how far from the village they are employed. Those men who work in Mexico City are able to return every week, or every two weeks, and their trips are facilitated by the bus service which was introduced within the past three years. Those who are employed in other regions of the country, as far south as Oaxaca or as far north as Tijuana, return less frequently -- perhaps once a month or every other month.

With few exceptions, Nalcan males working within Mexico are employed in construction. In one case, however, Homer's son is now an engineer working in Mexico City. A few Nalcaños have managed to obtain permanent employment in carpentry and even in factories which provide them with fringe benefits such as medical coverage and vacation pay. These few men return to Nalcan regularly every fifteen days and maintain their households by giving their wives a fixed sum every two weeks. The majority of men work in construction on a daily wage basis in temporary arrangements. These men do enjoy neither job security nor fringe benefits. Because there is no fixed pattern of employment, there is no set pattern of return to the village.

Job opportunities do not seem to be lacking in Mexico City, according to informants' reports, however, wages vary. Some Nalcaños reported earnings of 35 pesos a day and several had earned 80 pesos a day.

Wages paid to the Nalcaño worker are tied to the supply of and demand for labor within the national labor market. Like the middlemen, the Nalcan proletarian moves within a horizontal socio-economic strata, and it is dependent upon the private sector of the economy. A man's position as a worker does not provide a base in which to develop vertical links with the national institutions.

Illegal migrants to the United States, wetbacks, render the United States part of Nalcan's "social field" (*cf.* Manners 1965). These monetary contributions to Nalcan's economy will be more fully discussed later. In the following pages the focus will be on this special variant of migrant wage labor, the wetback.

Nalcaños first migrated to the United States as wage laborers under the *Bracero Program*, a bilateral agreement which was instituted in 1942 between the United States and Mexico to provide the United States with badly needed cheap labor. Many Nalcaños were recruited into *bracero* service, but many also went during that period as wetbacks. In order to go as a *bracero* one needed to pay a bribe to the foreman in Pachuca who made the selection. Those who suffered from tuberculosis were ineligible for the *Bracero Program*. In addition, if one went under the Program, one went for a specific period, perhaps ten weeks whereas as a wetback one could stay for

as long as one wished.[2]

On December 31, 1964 U.S. Public Law 78 which governed the admission of Mexican nationals into the United States for temporary employment expired thereby terminating the Mexican Labor Program (Dellon 1966). Nalcaños continued to enter as wetbacks.

As was indicated earlier, most Nalcan men have been in the United States at one time or another. One man could name fifty people whom he personally knew to have migrated in this way. This figure represents 20 percent of the males who seek extra-village employment. Several key informants, however, estimated that at least 50 percent of the men annually go as wetbacks; and one informant insisted that everybody had gone as a wetback at one time or another.

However several factors operate to limit the ability of a man to enter the United States as a wetback at any given time. A trip to the border involves a cash outlay of about 500 pesos for bus fare, food and miscellaneous expenses. In addition, those who have a contact at the border pay another sum to *coyotes*, individuals who transport the wetbacks from the border to a place of

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[2]This was frequently mentioned as the average duration of their stay in the United States under the *Bracero Program*. Public Law 78 Article 14 states that no initial work contract shall be entered into for a period of less than six weeks and work contract or any extension shall be for a period of more than six months. (United States Department of Labor 1962).

employment. These *coyotes* charge from U.S. $50 to $80 depending on the destination. Money then is the first selective factor. An initial investment is necessary and one must risk the loss if one is caught and forcibly returned. The United States Immigration and Naturalization Service (1971) reports that, during 1971, 348,178 Mexicans were located and returned for illegal entry. These no doubt include the numerous Nalcaños who were returned during the field stay.

A second factor operating is a lack of knowledge of border crossing methods. My assistant observed that generally those individuals who live near the center of Nalcan go as wetbacks, while those who live further away from the center tend not to. The reason which he provided is that the latter do not have the proper contacts at the border and often do not even know how to reach the border.

The plight of the wetbacks has recently been described by Samora (1971). Nalcaños organize a party of several men to leave for the border. They like to recount how they cross the borders at night and travel on foot by night for eight or nine days until they reach a place of work. They take dried tortillas with them and usually subsist on these until they find employment. The women would report how they spend several days preparing large numbers of these dried tortillas for the men to take along.

Several individuals have steady *patrons* who employ

them from year to year. Most however shift from one place to another within the same year or from year to year. Some go toward the Pacific northwest and have worked in Oregon and Washington. Others go toward the southwest and have reported working in Colorado; and still others have worked in Michigan and Wisconsin. Some Nalcaños have even worked in the factories of Chicago, and all are quite knowledgeable of United States geography.

The less daring and those with fewer contacts remain in Texas where they find employment easily. Nevertheless, informants are cognizant of the fact that if they go further into the interior of the United States they would earn more. In Texas they earn about U.S. $5 per day plus lodging, while in other states they are generally paid by the hour. Informants indicated that they were paid between U.S. $1.30 and $1.50 an hour, with some working as much as twelve hours a day. Nalcaños work at various kinds of jobs usually in rural communities at harvesting, driving tractors, sheering sheep, as handy men, etc.; but, as noted earlier, some have managed to find employment in factories at U.S. $2.00 and $2.50 an hour.

To the Nalcaño, working in the United States represents economic benefits. He is also extremely impressed that his labor is evaluated by the hour rather than by the day. The economic advantage of earning U.S. $15 a day as compared to the maximum of 80 pesos or U.S. $6.40 earned by a small few in Mexico City is obvious.

However, a number of informants who reported having earned 60 pesos a day in Mexico City would work in Texas for about five dollars a day, an equivalent amount. These informants were questioned why they seek labor in the United States when they earn almost the same in Mexico City and do not have to experience the hardships of crossing the border. Many said that their earnings do not disappear in the United States as they do in Mexico City. In Mexico City they must eat in restaurants, which one informant calculated costs him from 100 to 120 pesos a week. Many Nalcaños share lodging; but, even with such arrangements, they report that about 50 pesos a month are spent on rent. In addition, they have all the numerous expenses which cannot be accounted for but which are easily acknowledged by anyone who lives in an urban center.

On the other hand, when going to the United States, they have only the initial investment. Because they come in illegally, their movements are limited by their fear of being apprehended by the immigration police. Consequently, the wetbacks do not spend any money on drink; their lodgings are often paid for; and their only major expense is food, which they prepare themselves. As a result of this austere life, Nalcaños return from a season of work in the United States with sums which range from 350 to 1,500 dollars depending on the length of their stay. The most common amount quoted by informants was approximately 450 dollars.

Those that go as wetbacks leave during February, March and April; if they are not caught and returned sooner, they begin to trickle back to the village during October. By November almost all have returned to rest. Some of the younger men reported having stayed for about two years without returning to the village. In these instances they returned with considerably larger sums of money.

It might be noted here that from the standpoint of the American employers, there are economic advantages to hiring Mexican labor. These advantages were noted by Gamio (1930) as early as 1927 who stated, "The United States encourages Mexican immigration because employers have neither sufficient labor nor the right sort of American labor for the jobs which the Mexicans fill, and because the wages paid Mexicans are generally lower than those received by the American workman" (p. 171).

Informants point out that their employers usually prefer them to their American counterparts because they are willing to work twelve hours a day. In some cases the employers even gain free labor by cunning. Some ranchers will report the wetback to the immigration patrol before they pay them. This practice is reported by Samora (1971). One Nalcaño came to ask me to write a *patron* (whose exact name and address he hardly knew) requesting the *patron* to send him his pay for 100 hours of labor because he was apprehended before pay day. (This occurred soon

before I left the field and I did not learn the outcome). Another Nalcaño reported that if a man leaves an employer in search of a better paying job or other reasons against the employer's wishes, the employer will often report the individuals to the immigration patrol. Hence, a man can become an indentured laborer to a rancher.

Many Nalcaños, however, spoke with admiration about their American employers. In fact, in one case the American rancher had sent a Nalcaño papers which would permit him to enter the United States legally. The informant showed me the papers and asked if I could do something for him with them. He had received them about two years previous but did not know what to do with them or who to see. He had contacted a Mexican lawyer who asked him for several thousand pesos to make the necessary arrangements despite the fact that this particular rancher sent the Nalcaño notarized statements which would guarantee the man a weekly wage of U.S. $54 and statements from the rancher's bank which guaranteed his financial integrity. According to the United States Embassy no legal services are required for those who wish to petition for a visa and who have the necessary documents.

Two Nalcan brothers have legal residence in the United States which they had acquired during the *Bracero* period. These men live in Michigan but also have households in Nalcan, to which they return periodically.

Because much of the money earned in the United

States is marked for consumption and investment in Nalcan, a part of the Nalcan economy must be viewed as a derivitive of the United States economy.

Credit, Savings and Investment

Credit: Unlike Itelanos, the Nalcaños lack even a theoretical access to formal credit institutions. *Banco Ejidal* and *Banco Nacional de Credito Agricola* will provide services only to customers with arable or irrigated land.

Similarly, the private commercial banks insist on irrigated land as collateral in addition to a guarantor to vouch for the borrower. When a Nalcaño middleman needs to cash a check received from a buyer, he pays a lawyer up to 20 pesos to guarantee the endorsee's signature. Lack of access to credit institutions became particularly apparent to me when Anthony, who had recently acquired a truck, needed some cash for emergency repairs in order to benefit from the Christmas trade. His only recourse was to sell a piece of his land. He could not obtain credit. These itinerant merchants usually extend credit to each other. Those who have been in business for an extended period of time can generally get short term credit from their suppliers. In all other instances credit opportunities are minimal even for the merchants. Those Nalcaños who do not engage in commerce have no access to credit facilities except to see out money lenders who usually charge fifteen percent per month. There are several in

the village.

Wetbacks returning from the United States sometimes lend money instead of seeking other places to invest it. In fact, the wetbacks' dollars brought back to Nalcan have several interesting ramifications. The Nalcaño's relationship with commercial banks may change as more and more men come back with relatively large sums of money from the United States, if they then deposit it in the regional commercial bank and thereby establish credit. Many, however, still retain their money in the village and change it into pesos as needed.

Investment and Savings: The money wetbacks bring back is invested in housing, for that is the Nalcaño's first priority. Many of the concrete block constructed houses take several seasons to be completed. A one room concrete block house, according to the accounting of several informants, costs at least U.S. $300 (3,750 pesos).

Some men seek to purchase land which, as was mentioned earlier, is not readily available. One returnee from Texas, with several hundred dollars, invested his money to build Nalcan's second corn grinding mill, and has not left the village since.

By way of a generalization, planting a field in Nalcan may be viewed as a form of investment in savings rather than an aspect of production; for unlike in Itel, in Nalcan a field is often planted only for the corn stalk for livestock feed. Ganzalo stated that he did

not wish his common-law-wife to plant a *milpa* with his money, because all that is produced is the stalk which she uses for her animals.

The special significance of animals as an element of savings was already noted in the discussion of their role in Itel (see Chapter 7). They take on a similar but more important role in Nalcan where they are the only source of savings. Villagers in Itel can fall back on their corn harvest to meet an emergency need; in Nalcan livestock constitutes the only resource short of sale of land by which an economic emergency can be met.

CHAPTER 14

HOUSEHOLD ORGANIZATION

Family Structure

Most households in Nalcan, as in Itel, are comprised of lineal relatives. There are seven exceptions which include adopted children and godchildren whose mothers are employed in Mexico City.

Of the 193 households which I visited, 156 consist of nuclear families; 22 consist of extended families comprising three or four generations; and 14 consist of people living alone, 11 of which are women; 101 households are permanently headed by females; however all extended families are headed by males. Ten of the female headed households consist of three generations; and nine of the women who head households have mates living with them. The twenty-two extended-family households include twelve patrilocal joint families, and ten patrilocal stem families.

Extended families in Nalcan are not the norm but reflect a transition period in the family cycle. In the Nalcan economy extended families do not confer any advantage on a household. Unlike in Itel, where there may be an advantage for men to work their land together, in Nalcan most economic activities are carried out by individuals

acting separately. It is interesting to note that the extended family households all include sons whose wives originated in other areas of the country. Because these women are not adapted to living conditions in Nalcan and cannot easily provide for themselves during their husband's long working absences, they reside with their husband's family.

Inheritance and Ownership of Property

Unlike in Itel, Nalcaño men and women inherit equally, following the bilateral inheritance rule common to Hispanic America. Goldschmidt and Kunkel's (1971) suggestion that bilateral inheritance correlates with the existence of nuclear family type is supported by the Nalcan material. However, it should also be pointed out that bilateral inheritance makes female-headed households possible as well. It will be recalled that such households occur in Itel only when the woman remains in her father's household until his death and there are no male heirs. It is equally common in Nalcan for a woman with children to build a separate dwelling on land she has inherited.

Michaelson and Goldschmidt (1971) emphasize that bilateral inheritance fosters rivalry between siblings. Based on my Nalcan findings, this proposition needs to be qualified somewhat. Nalcaños remember a time when disputes

between siblings over land rarely occurred, while such disputes do occasionally occur now they still cannot be considered common. Recalling that, because of impending irrigation, Nalcan land has only recently acquired monetary value, I suggest that it is not bilateral inheritance *per se* that gives rise to disputes, but bilateral inheritance in situations involving land which has economic value. Therefore, land value should be viewed as an intervening variable in the Michaelson-Goldschmidt hypothesis.[1]

Property Ownership within the Household

In contrast to Itel, land in Nalcan is held separately by the man and woman of the household. The separate ownership of land is even reflected in children's references to land plots as "my father's" or "my mother's". Animals are similarly regarded as the possession of a particular member of the household; but usually the woman is the owner. Individual land ownership is consonant with the subsistence activities which are pursued independently by the males and females.

Division of Labor

As in Itel, the Nalcaño household is the basic productive unit. However, unlike in Itel, the male-female

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[1]It will be interesting to see whether bilateral inheritance continues to be practiced in Nalcan once irrigation is brought to the village and the dominant subsistence mode is changed.

roles differ in the organization of labor. It will be recalled that in Itel male and female tasks are functionally intertwined and complementary. There, with only a few exceptions, the males are directly involved in income-producing activities while the females are dedicated to household chores and do not usually participate in income-producing tasks. By contrast, in Nalcan men and women frequently pursue an independent course of subsistence activities and their separate roles parallel one another. This is the case in the majority of households in which men seek wage labor outside of the village. However, in domestic units headed by the merchants and weavers, women work side by side with their men. As compared with Itel, in Nalcan there is greater diversity in patterns of household labor organization.

The various sources of income available to Nalcan households have been described in preceding chapters. However, because they differ from those in Itel, the daily expenses of the Nalcan households are reviewed here.

Of foremost importance is the fact that, unlike the Itelano, the majority of Nalcaños must purchase maize during the entire year. Maize prices are about 30 centavos higher per *cuartillo* in the non-irrigated zone of the valley than in the irrigated area. Additionally, prices in the dry zone fluctuate less during the year than they do in the irrigated zone. During harvest time in Itel maize sells at 30 to 40 centavos cheaper

per *cuartillo* than at the time of planting. In Nalcan, maize prices vary only about five centavos over the entire year.

The Nalcan household therefore requires more cash for its daily and immediate subsistence than does its Itel counterpart. On the other hand, the Nalcan household produces its own beverage, *pulque*, which is the second basic ingredient of the daily diet. Unlike in Itel, where *pulque* is consumed generally by the older people, and water or soft drinks or beer are purchased by others for daily consumption, in Nalcan *pulque* is consumed in every household.[2] According to informants every adult male and female generally drinks from four to five liters of it daily; children drink the beverage as well but in lesser quantities.

The amount of *pulque* available in a household at any one period varies with the number of magueys that mature at the same time. *Pulque* must be consumed within seventy-two hours after it is tapped; it cannot be conserved. Therefore if mature magueys produce more *pulque* at one time

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[2]Basauri (1940) notes that *pulque* is rich in vitamins particularly vitamin B. A more recent breakdown (Leung 1966) shows *pulque* to contain the following per 100 gram. Calories-43; water-93.4%; protein-0.3; fat-0; hydro-carbon-6.1gm.; ashes (*ceniza*)-0.2gm; calcium-.12mg; phosphorus-34mg; iron-0.6mg; vitamin A-0; Thiamin-.02mg.; riboflavin-.02mg; niacin-0.4mg; ascorbic acid-3mg.

than the household can consume, the surplus *pulque* must be sold to neighbors or to two or three women who live in and around the central plaza and who then resell to customers that come to the plaza.

Unlike Itelanos, Nalcaños do not have fixed assessments to meet. Their contributions to village enterprises are voluntary and vary in accordance with the individual household's ability to pay.

Nalcaños generally spend more on medical services than do Itel villagers. When a Nalcaño child falls ill, its mother will usually seek out a doctor if she has the 10 to 15 pesos for the visit. This contrasts with the Itelano practice of seeking out a *curandera* in a similar situation.

Nalcaños have lower school costs than Itelanos because their school does not sponsor as many celebrations throughout the year. In Itel, parents must purchase materials for costumes when their children participate in school-sponsored performances. Nevertheless, school supplies and costumes for the fiestas which do not take place are part of a Nalcaño's household expenditures. Nalcaños, like Itelanos, must pay for electricity and water. However, because of the dispersed settlement pattern, electricity has not reached the outer areas of Nalcan.

As described earlier, the men who are employed in Mexico City commonly share room rent with other

Nalcaños. They usually eat in restaurants, and one informant indicated that he spends at least 100 pesos a week on food alone. The cost of travel to and from the village and of diversions such as drinking are additional expenses of the males employed outside of the village. During the discussion of her common-law husband's expenditures in the big city, Boni interjected: "He must even pay twenty centavos every time he goes to excuse himself."

When the two villages are compared in terms of expenditures and income, it is evident that household expenditures do not differ greatly in kind. The same foods are eaten in both villages; however, beans are eaten more frequently in Itel. The two villages cannot be greatly differentiated on the basis of overall standard of living. It can only be said that in Itel there are some twelve more people than in Nalcan who enjoy a relatively higher standard of living which includes the possession of items of convenience such as stoves and television sets.

However, when the two villages are compared in terms of producers of income and their sources, differences emerge.

The Man's Role

As previously noted, it is normal for Nalcaño men to be absent from the community for varying time periods depending upon their place of employment. It is extremely

difficult to accurately estimate the sums of money they contribute to their household and the regularity with which it is contributed. In the socio-economic census, most informants indicated that the men employed outside of the village assist the household financially. However, in the words of Pedro, who has been employed for most of his life in Mexico City: "The tortillas are paid for with the carrying bags the *señora* makes."

This is explained by the fact that the relatively high construction earnings of a male are diminished by their daily expenses of living away from the village. Amalia and Margarita reported that their husbands have steady jobs in Mexico City and bring them 120 pesos a month. As a general rule, however, the male's contributions to the household need be regarded as irregular.

In female-headed households, contributions from the father of the children are infrequent enough to be considered windfall gains. The amount of the man's contribution to these households depends to a large extent on how enterprising the woman is in seeking assistance from him for clothing and medical expenses. In some instances, the women acknowledged that their men do not have enough money to assist the household.

When the men return to the village, they generally rest, and do not actively participate in household activities. With minor exception, men, who are employed outside of the village and return on their weekly, semi-monthly or seasonal

visits, spend their leisure time drinking with their friends. They generally leave the women to pursue their regular activities. It was my own general impression that the Nalcaño male's role in his household is not as authoritative as that of the Itelano male.

The Woman's Role

In the majority of Nalcan households, women assume the dual roles of housekeeper and provider of daily subsistence.

The Nalcan woman's daily household chores include preparing daily meal, taking animals to pasture, searching for kindling, tapping magueys, taking the wash to the *arroyo* and bringing water when the village pump is not working. These daily chores parallel those of the Itel women. Additionally, however, the Nalcan woman may hire a day-laborer to assist in the preparation of maguey fibers from which she then spins and weaves carrying bags. The women can be observed spinning maguey fibers as they walk, chat, attend funerals, or town meetings. Rarely is a woman seen without her spindle and strands of raw fibers hanging down from her left shoulder, but frequently insufficient numbers of magueys mature at the same time to provide enough fiber to a household for continuous production.

Women also supervise the field work and are responsible for hiring day-laborers to prepare the ridges for planting maguey and to assist when their men are

employed elsewhere. Except for plowing, women usually participate in all stages of cultivation.

The decision-making process in Nalcan households contrasts markedly with that of Itel. As a general statement one might say by their absence, the men by default lose whatever superordination they might otherwise claim. This was particularly evident in decisions related to the planting of fields. The men employed outside of the village usually regard themselves as laborers; many object to planting fields because they regard it as economically wasteful. The women argue that they plant fields in expectation of a corn stalk harvest which is an important source of fodder for their livestock.

Michaelson and Goldschmidt (1971) propose that peasant female roles and male dominance are correlated with inheritance practices. The data from both Nalcan and Itel support their general view that ". . . an association between strong male dominance and masculine control of basic agricultural production . . ." (p. 347) emerges from patrilineal patterns of land inheritance, while a bilateral system of land inheritance tends to diminish this male dominance. The reader will recall that patrilineal patterns of inheritance are followed in Itel and that a bilateral system exists in Nalcan. Regrettably, however, Michaelson and Goldschmidt do not provide a precise definition of "male dominance." It is true that women enjoy greater physical mobility in Nalcan

than in Itel, but only when the men are not present. When a man is at home, his mate usually does not leave the house without his permission.

If "male dominance" refers to the right of the men to exercise physical control over the women in their interpersonal relationships, then the two villages do not differ; and the Michaelson-Goldschmidt proposition is not borne out by the data from Nalcan and Itel. However, if the decision-making process within the household is examined and compared in the two villages then it can be said that the women in Nalcan more actively participate in this process. Additionally, Nalcan women participate in community affairs by attending town meetings and holding minor political offices which Itel women never do.

In Nalcan then, in female headed households and in the households in which the men are usually absent, the woman is left to decide whether or not to plant, to hire day-laborers, to work in the fields, and to obtain a little cash for her daily needs. The woman's income from carrying bag production, *pulque* and occasional sale of eggs is her surest means of sustaining her family. Minimal as they are, these sources of income allow her an economic independence which is not enjoyed by her Itel counterpart.

It is interesting to note that Homer, one of the wealthy merchants in Nalcan and father of ten children, has sent his two oldest daughters as well as his oldest

son to professional schools. The son was trained in engineering and he and his father are now supporting the two girls in professional schools. One girl is being trained as a teacher while another is preparing to be a chemist. In open-ended discussion Homer pointed out that despite considerable financial sacrifice he has encouraged the girls to acquire some profession. He went on to explain that the girls will be economically independent when they have had some professional training. This man expressed an ideology which stems from the fact that Nalcan's males and females are, in the main, engaged in independent tasks. Homer enjoys financial ability to prepare his daughter for economic independence outside of the village. In contrast, the unmarried daughter of Solomon -- Itel's wealthiest man -- wished to go to secondary school but her father opposed it on the grounds that a woman does not need to go to school and that she must prepare herself to run a household.

An exception to the general patterns of household management is evident in households in which commerce is the predominant source of income. In these households family labor organization is comparable to that of Itel where male and female economic roles are mutually exclusive. In fact, only Homer's and Leonardo's wives do not actively participate in the business. In the majority of instances the women are involved in the selling end of the business.

In the families of itinerant vendors, there is

greater variation in the degree of female participation. In some cases the woman helps sell some of her husband's merchandise in Nalcan itself; in yet other situations she does not take part in the enterprise.

In the households devoted to weaving, it was noted earlier, both the male and the females participate equally in the production process.

The Children's Role

Similar demands are made on children in both Nalcan and Itel. Additionally, however, Nalcan children at the age of seven learn how to spin fibers and, in recent years, only girls at the age of fourteen are taught to weave carrying sacks. Children assist their mother in her daily chores; itinerant vendors take at least one of their children to aid in distribution of their goods at weekly markets. Households without children seek to borrow them. A childless woman will take a godchild into her household to help her with the daily chores.

To summarize, in the majority of Nalcan households the male and female economic roles are carried out independently of one another and, unlike in Itel, are not functionally interrelated. The woman in Nalcan pursues subsistence activities which guarantee her a minimum livelihood. The contributions made by the males allow for increased consumption of food and other material possessions including beds, radios and other small

conveniences. In contrast, in Itel the female does not usually have access to an independent source of income unless she resorts to selling surplus maize without her husband's knowledge. More importantly, the Nalcan female is more actively engaged in her community's and her household's decision-making process than is the Itel woman.

CHAPTER 15

POWER AND PRESTIGE

Extra-village Power Relations

As in Itel, the relationship of the village to the *municipio* directly affects each Nalcaño. Nalcaños' reports of their relations with the municipal authorities echoed the complaints heard in Itel. Nalcaños, in very much the same manner, described the *municipio's* desire and efforts to suppress any village development. Repeatedly they emphasized that the municipal authorities bribed an irrigation engineer and as a result the irrigation canals bypassed Nalcan. When they were questioned about the *municipio's* motives for conspiring against their village, they replied: "Now the *municipio* can get cheap day-laborers from Nalcan; but, if irrigation is brought to the village, we would be working our own land." It must be pointed out that at the time the socio-economic census was taken, only nine individuals reported working in the *municipio* and several itinerant vendors indicated that they sharecrop land in the headtown.

Nalcaños accuse the *municipio* of blocking any federal and state efforts to pave the road leading into Nalcan. They claim that once a road is paved the taxi

drivers who control the route into Nalcan could no longer charge 12 pesos one way from Nalcan to the headtown instead of 2 pesos. The current municipal president and his brother, who are two of the three taxi drivers controlling the route, are almost always singled out as two of the individuals responsible for opposing the paving of the road. Similarly, the same individuals until recently allegedly blocked a petition by Nalcaños to have a direct bus service inaugurated between Nalcan and Mexico City.

The Nalcan justice of the peace is not permitted by the municipal authority to fine Nalcaños. All transgressions committed in Nalcan must be referred to the municipal president. In fact, several years ago a Nalcan justice of the peace instituted the practice of fining Nalcaños for wrongs committed within the village; the justice of the peace himself was promptly arrested.

During the field stay, the two previous justices of the peace had cooperated with the municipal authorities by sending any minor transgressors to the president to be jailed and fined. The newly elected justice of the peace who was not in the municipal authorities' favor was arrested on an apparently fabricated charge. Informally, he was questioned by the municipal president as to why he was not sending people to be fined. The justice of the peace indicated that no transgressions had taken place and that no fights had occurred because most of the men

were away from the village. The arrest of this justice of the peace coincides with the time when he was urging the village to contribute to the beautification of the plaza by paving roadways and constructing benches. It was reported that the municipal authorities viewed these endeavors unfavorably.

Nalcaños claim that they are always being fined by the *municipio* on minor pretexts. For example, the butchers are fined when they charge a peso or more than the price allowed by the *municipio;* and truck owners are fined when they are seen picking up passengers. These are only a few of many examples cited by the villagers to exemplify the power over the village exercised by the *municipio.*

Intra-village Prestige System

Both Nalcan and Itel stand in similar structural opposition to the *municipio* with one important variant which also reflects on intra-village status system. In Itel, prestige rests with those individuals who have vertical networks which link the village to the regional and national sectors. In Nalcan such individuals are lacking. In fact, villagers often pointed out that there are no people in the community who can deal with the outside, and that there are people who can read a little but don't know how to handle things outside of the village. But, precisely because such spokesmen and

representatives are not available, the municipal authorities are able to maintain a much tighter control over Nalcan than over Itel. In short, there is no one to stand up for the community.

Nalcaños usually directly petition the office of the National President with demands for their village. In this manner they petitioned for irrigation and they managed to obtain a village water pump for drinking water, a gift directly from President Lopez Mateos.

Nalcaños lack individuals who have any access to persons in authority to represent them. Moving through formal channels to meet the needs of their village is a slow and tedious process. Furthermore, Nalcaños lack the knowledge of how to deal with representatives from the wider society: specifically how to entertain them and woo their favors in order to accomplish their aims.

A glaring example of their limited access to the proper authority structures can be seen from the following incident. The village pump donated by President Lopez Mateos finally broke down after many years of use. The justice of the peace and the Drinking Water Committee sought various means to repair it. When this failed they began to explore means of getting another pump from the government. They went to the President's office in Mexico City, but were ignored. As one informant stated, "nobody paid attention to us." However, coincidentally, one of Nalcan's itinerant vendors met a lawyer of questionable

reputation, an evangelist and member of PAN, the opposition political party, who offered his services to the Nalcaños. He claimed that the President's secretary was his personal friend and the villagers believed him.

This instance is cited to emphasize that unlike in Itel, there is no one capable of representing the village, and they mistakenly resort to assistance from individuals who are in no position to provide it as in the case of the lawyer.

The formal office of popular representative is designed to create a liaison between the village and the higher socio-political units. However, Nalcaños were quick to note that the popular representative does nothing to aid the village. He is indeed mainly absent from the village because of his commercial enterprise. Villagers always attribute his lack of participation in village affairs to his interest in commerce. Indeed, the popular representative's lack of participation became manifest in the crisis of the water pump. He was never present during the various endeavors made by the justice of the peace and the Drinking Water Committee to have the pump repaired or replaced.

Several reasons may explain why men of the type described for Itel are lacking in Nalcan. Nothing in Nalcan's past served to prepare it to deal with the wider society. Historically it existed only on the periphery of the hacienda system and, as the emphasis on the hacienda

increased. Nalcan was pushed out of the mainstream of the national society.

Secondly, Nalcan's socio-economic order does not generate any relations with the national institutions: *ejido* tenure is second in importance to private holdings and irrigation is absent. Nalcan's socio-economic relations are confined to the private sector of the wider society. Nalcaños contacts are limited to employers of construction companies, or in the instance of middlemen, their relations extend to other middlemen who belong to a similar strata. The patron-client relationships typical in Mexican villages are not present in Nalcan.

Finally, inasmuch as the able-bodied men are for the most part constantly on the move, they lack any opportunities to cultivate contacts with networks of individuals who represent the larger society and the outside authorities. In fact, the villagers themselves recognize that their continual absence from the village is a major impediment to village development.

Intra-village ranking, then, assumes a different cast in Nalcan than in Itel. Specifically, the basis for prestige is different. The merchants, who are also the wealthiest men in Nalcan, were cited by the majority of Nalcaños as the men who possess the most prestige or social honor. The reasons given for naming these men were, "They give me credit" and "They help me when I am in need." Two merchants were particularly singled out

again and again as men who assist Nalcaños in need. During the field stay, my assistant's brother fell ill and died. Nicholas, one of these two storekeepers helped my assistant to pay the cost of the medical treatment and the funeral, a sum of nearly a thousand pesos. Not surprisingly, each merchant maintains a relatively permanent clientel. In the socio-economic census I asked informants to indicate where they make their purchase. Invariably the names of their storekeepers were repeated when they were later asked to name the most important members of the community. It should also be emphasized that two of the three merchants noted that they could not maintain their operation without extending credit.

The merchants' prestige in Nalcan stands in marked contrast to Itel where not one of the local store owners was cited by informants when the same question was asked there. In some instances the justice of the peace and the popular representative were also named because they represented the village; however, the majority of respondents named the merchants with whom they dealt.

One final point must be made with regard to the merchants in Nalcan. They do not have access to the authority structure despite their relative wealth within the community. They operate purely in the private sector and generally avoid contact with the municipal authorities. These officials can interfere with their business if they

so desire by confiscating trucks and fining under any pretext they wish.

The principal on which social honor rests is different in Nalcan than in Itel. In Nalcan prestige is contingent on wealth concomitantly with the ability to give credit. Wealth does not imply that these individuals have access to the national sector; nothing in Nalcan's social and economic organization in the past or in the present has served to link it with the national bureaucratic institutions. Nalcaños are linked to the private sector of the larger society through the outflow of its labor force and its middlemen. This linkage is individual, atomistic, and does not mesh with group politico-economic interests. The Itelano's socio-economic order on the other hand, is tied directly to the national structure by which his land and his water supply are controlled.

CHAPTER 16

COMPARATIVE ANALYSIS OF ITEL AND NALCAN

My study described two Mexican villages similar in many ways but contrasting in present environment and in recent history. I have stressed the effect of irrigation in fostering an agricultural economy in Itel and in involving the village community in the national polity in a more effective way because the irrigation system is a branch of the national government. I have also demonstrated that without the presence of irrigation, Nalcan village is only minimally linked to the national political institutions and Nalcan's land is not sufficiently productive to allow agriculture as a dominant form of subsistence thereby requiring Nalcaños to seek other forms of livelihood. Consequently, the factor of irrigation has caused a contrast in land uses between the two villages: Itel villagers work to gain high productivity from their land, while Nalcan villagers are able to glean only sparse yields from their barren fields.

Land productivity is manifested in population density. The irrigated *municipio* of Aguas, which includes Itel, has twice the population density of Nalcan's *municipio*, Maguey.

My study has shown how the irrigation factor must be considered along with the historical context in demonstrating how much physical contrasts as those mentioned above have led to the differing social and economic organization found in each village. Historically the two villages diverged at the point when haciendas expanded into the region of Itel, but not into Nalcan's vicinity. The presence of haciendas led to the peonage of Itelanos, while also preparing them for present-day dealings with the larger society. The villagers benefited from the hacienda's levelled and partially irrigated land when it was appropriated to them in *ejidos* following the 1910 revolution. Later government projects expanded this irrigation considerably.

The Nalcaños, while enjoying freedom from peonage during the hacienda days, have not benefitted from the hacienda's legacy of productive land and preparation for dealing with the larger society. The *ejido* system was much less important in Nalcan, providing only 28 percent of the Nalcaños with *ejidos* -- and that is unlevelled shrub land. Itel, on the other hand, has productive land apportioned in *ejidos* among 76 percent of Itel households. This pervasive *ejido* tenure serves to tie Itelanos structurally to the bureaucratic segments of the nation including the Agrarian Department and the *Ejido* Credit Bank. Hence, the Itelanos are acquainted with these and related institutions (e.g., the *Confederación Nacional Compesina*)

and the Nalcaños are not.

My study has traced the history of the irrigation system and its expansion into the Mezquital Valley to show how the management of this growing system has connected Itel directly with the national government, while Nalcan remains outside of the sphere of direct administrative action. This has been a consequence of governmental control over the irrigation system, with sole jurisdiction over its management. The carrying out of these government responsibilities has exposed Itel to the relevant branches of the nation-state and created a village dependency on the operations of the government. Nalcan, on the other hand, lacks such contacts resulting from irrigation.

We have also seen how labor requirements in the two villages today reinforce a historically-produced difference between Itel and Nalcan, to generate a contrast in each community's relationship to local governing authorities. The historical factor, stemming from hacienda days, is the Itelano preparation in dealing with members of higher social strata. Today the men of Itel are able to assert their own interests and those of the village to government authorities. This ability has been sharpened by recent years of dealing with irrigation officials and by trade relationships developed while marketing produce. Nalcaños lack a facility in dealing with authorities for two reasons: most Nalcan men are gone from the village for at least eight months of the year; during the months

they are home, national government authorities have no dealings in Nalcan. The irrigation which Nalcan lacks ties Itel into the bureaucracy.

I have described how a major element in Itelano's sharecropping system can be attributed to the historical development of *ejidos* coupled with the presence of irrigation, while lack of irrigation and the diminished importance of *ejidos* in Nalcan have precluded the prevalence of sharecropping from a list of possible economic activities in Nalcan. Sharecropping is encouraged under the *ejido* system because the laws governing *ejido* tenure prohibit sale of land. The high labor demand of Itel's cash crop, alfalfa, added to the labor needed to obtain irrigation water, creates a labor shortage in numerous households. Therefore, in situations where a landholder does not have the labor available to work it himself, he must find sharecroppers in order to reap any benefit from valuable irrigated land. Men without land but with available labor gain access to *ejidos* by sharecropping it with the cash crop, alfalfa. Such an economic relationship and practice is not possible in Nalcan, and, furthermore, has produced in Itel a form of livelihood not found in Nalcan: that of the professional sharecropper, a kind of "agricultural entrepreneur." This form of livelihood affects intra-village relationships in Itel by creating a landholder-sharecropper relationship in which the traditional balance between the two is reversed: the landlord becomes beholden to the tenant.

Because of the rudimentary state of crop cultivation economy in Nalcan, sharecropping arrangements are of minor importance and this unusual landholder-tenant relationship is unknown. My reference to such entrepreneurs as Jesus, whose years of sharecropping put him in an economic position to exert control over landholders, demonstrates how Itelano social and economic organization has been greatly influenced by the productivity of the land made possible by irrigation.

While Nalcan's low labor requirements in terms of agriculture preclude the development in that village of agricultural entrepreneurs, the Nalcaños are not tied to their land as are Itelanos. Almost all male labor in Nalcan is excess labor which must be exported if it is to become productive. Hence, this study has shown how Nalcaño men travel widely in the process of finding wage labor. Itelanos, on the other hand, have been held by the high labor needs of the land (compare Tables 9, 11, 12 and 18). During peak harvesting and weeding periods, Itel men enter into exchange labor arrangements or must occasionally even import labor. Itelano men, in contrast to the men of Nalcan, thus have less knowledge of the world outside of their village and have few productive skills beyond those needed for agriculture.

This difference between the labor requirements in Itel and Nalcan has far-reaching effects on many other aspects of the social and economic order of the two villages. My investigation shows how economic advancement,

for example, is possible in agricultural terms only in Itel. Nalcaños cannot count land as a source of wealth and must turn to commerce. The five families named by villagers as the wealthiest in Nalcan achieved this status through commerce, rather than by accumulating the pesos earned through wage labor. This contrasts with Itel where wealth is derived from the land. In addition to land ownership, sharecroppers can derive profits from working the land.

As sedentary peasants, Itelanos are in a better position to increase their inventories of material possessions than are Nalcaños. Itelanos invest their surplus earnings in improvements of the family farm. Men from Nalcan travel to urban environments such as Mexico City where their daily wage is easily dissipated and what is left may supplement the income of the woman left working at home. What remains is spent in daily consumption rather than put into the family farm. Even those who work in the United States as wetbacks, which my investigations have shown to form the second most prosperous group in Nalcan, spend their earnings on housing and other modern conveniences.

The itinerant vendors and the merchants in Nalcan commonly serve as middlemen between the villages and the outside. Four of the five men deemed wealthiest by Nalcaños own stores. The fifth is a travelling vendor. No large landholder was ever singled out as wealthy, a condition which contrasts with that of Itel where land

has high value, and appropriately no store keeper was singled out as wealthy.

In both villages investment in livestock fodder serves as a method of savings. Again, however, Itel is better able to maintain this investment than Nalcan. Livestock in Itel are fed from by-products (corn stalk) of corn produced for subsistence and sale, whereas Nalcaños frequently purchase and plant corn for livestock feed.

Village cargo service is yet another sphere of difference between the two communities. As the data show, holding office in Nalcan is financially disadvantageous. Confinement to the village precludes travelling to earn wage labor; furthermore, the offices provide few remunerations unless the holder has taken it in place of another man for pay. In such cases the cargo system sometimes produces even a greater contrast between the villages by acting along with factors previously mentioned to mitigate against accumulation of funds in Nalcan.

Office holders in Itel, however, have turned the offices into sources of economic benefit. Being at home year around, the Itelanos are not inconvenienced by the offices' requirements to remain in the village. Furthermore, being adept at dealing with authorities, Itelanos have managed to take for themselves the authority to fine. Nalcaños have not accomplished this, and all fines they pay leave the village. Itelano fines frequently go into the pocket of the Itelano cargo holders, thus selected

village cargos can become a boon to its holder.

Many of the differences noted above are relevant to the question of prestige. My findings reveal separate systems of prestige ranking in each village, determined by contrast in both social and economic organization. Itelanos asked to cite the most prestigious individuals in their community named those who linked the village with the nation-state, "who know the right people." Nalcaños named as most prestigious "those who extend credit." Since maize for daily consumption must be purchased, Nalcaños become dependent on merchants who sell corn on credit when they do not have cash. Because most customers purchase on credit, the man who is in position to extend credit becomes high in prestige.

The important resources in Itel are land and water. Thus, those "who know the right people" are those with access to the authorities who control these resources. Prestige in Itel is thereby awarded on the basis of relationship to the higher authorities. This contrast in prestige ranking, also calls attention to Nalcan's lack of spokesmen who can deal with higher authorities. Consequently the municipal authorities hold a tighter control over Nalcan than over Itel -- as evidenced, for example, by the fact that only in Itel has the justice of the peace the right to fine his fellow villagers.

Summarizing these differing economic factors, my study has indicated how the overall economics of each

village are affected by the differences in what they produce. At present Nalcan's major link with the larger society takes place through the outward flow of its male labor force. In fact, Nalcan's male force ties the village not only with Mexico but with the United States as well. However, the outward flow of labor represents a horizontal link with the national sector. That is, Nalcaños come into contact only with other members of the proletariat. These contacts do not provide vertical links with other sectors of the nation. The middlemen also are linked only horizontally with the wider economic order. They are locked within the private commercial sector of Mexican society, their social relationships confined to their counterparts from Mexico City and other markets.

Data on Itel show, on the other hand, that the community is integrated with the larger economic order vertically, through its produce rather than horizontally by the labor it sends out. Furthermore, Itel's vertical integration is reinforced by the price mechanism of its agricultural system. Thus vertical or horizontal integration is a crucial structural result of the presence of the government operated irrigation system and the effects of this system on modes of subsistence.

Yet another sphere of contrast my study has covered is in the area of family relationships. The relative productivity of land influences family structure, while the consequences of labor requirements produce extensive

differences in male-female roles between the two villages.

Extended families are less common in Nalcan (7.6%) than in Itel (17.6%) (see Table 20 of appendix). The reason for this is connected with the patterns of land use in each village. In Itel, highly productive land requires labor to work it. Patrilocal extended family arrangements make labor available to work the land. But extended families are not advantageous in Nalcan, with the possible exception of exogamous unions in which a non-Nalcan woman is brought to the village by her mate. This is so because a woman coming from other parts of Mexico does not have the necessary skills to maintain herself; she may become dependent on her in-laws in an extended family arrangement. Consequently, the low number of extended families in Nalcan, as contrasted with Itel, does not support Nutini's (1970) suggestion that extended families become more prevalent and are reinforced by temporary migration. Following Nutini, comparison between Itel with its minimal migration and Nalcan with its substantial temporary migration would reverse the picture with the number of extended families in Nalcan exceeding those in Itel.

Another aspect of family structure which can be viewed as influenced by the prevalence of migration is the frequency of female-headed households. Approximately 35 percent of Nalcan households are headed by females, as opposed to only 4 percent in Itel (14.6% if widows are

included). Nalcan's data support the general proposition advanced in the literature (Gonzales 1961; Kunstadter 1963; Smith 1963) that this type of headship is related to the unstable economic role of the male and to migrant wage labor.

Gonzalez (1961) for example, links matrifocality or female-headed households with recurrent migration, when ". . . men make irregular journeys of varying lengths of time to obtain wage labor through their productive years" (p. 1268). Because the manner of their migration or the time they are absent varies with each year, Nalcaños more or less fit into this category. One year an individual may be a wetback, in which case he is a "recurrent migrant" as defined by Gonzalez. Another year he may be a commuter: he may work in Mexico City which permits him to return to the village every week, or at least once a month. The same man may yet another year become an itinerant vendor, in which case either he returns to the village every week, or he is absent for several weeks at a time. The Nalcan data in fact simply point up the difficulty encountered once an attempt is made to categorize migrant wage labor and then to correlate the categories with other aspects of the socio-economic structure.

Kunstadter (1963) suggests that matrifocality ". . . appears to be a function (in the mathematical and social sense) of the degree of physical separation of adult males and adult females involved in the division

of labor" (p. 62). Nalcan data tend to support this but do not fully bear out the proposition when the aspect of "physical separation" is emphasized. For, in many instances, there is physical separation where the men work in Mexico City and yet head stable nuclear family households in the village.

Nalcan's stable nuclear families exhibit two major patterns. In the first instance, the male has a steady wage from employment and is therefore able to provide monthly payments to the female. In the second instance the females work in some fashion helping the males. For example, among the merchants the woman may act as the distributor of merchandise which the man purchases in his travels. In these cases the woman is not economically independent of her mate. In those Nalcan nuclear families which I know well the major source of household subsistence is derived from the man's wages while the woman supplements the income by such activities as selling *pulque*, if available, or an egg, or by making a carrying sack. But in female-headed households in Nalcan the males are not steadily employed, and the females have managed to develop a *modus operendi* which enables them to provide for their subsistence independently of the male. The woman subsists by her own efforts, and whatever she receives from the father of her children is usually a windfall.

What might best be said is that migration and physical separation encourage female-headed households

but are not the determining condition. The determinant of female-headed households needs to be viewed from the perspective of the male's opportunities for steady and gainful employment which facilitates *regular* contributions to the household.

The question of migration leads to yet another aspect of family relationships: male-female roles. Again in this sphere of relationships the two villages exhibit striking differences. Data from my study indicate that women in Itel are not involved in the household decision-making process to the same extent as are women in Nalcan. The differences between the male-female roles are directly attributable to the differing means of subsistence which produce the migratory condition in Nalcan, while effectively minimizing migration from Itel. We have seen that in contrast with Itel, Nalcan women have a greater voice in economic decisions within the household particularly as they pertain to matters of whether or not to plant. Also related to the contrasting female roles we have been discussing are the different roles of women in each village's public affairs. I noted, for example, that women in Nalcan usually participate in town meetings and one woman also holds public office. Such female participation is not found in Itel.

Consonant with the distinctive female roles inheritance patterns are affected by the villages' contrasting economic organization. In Itel it is common

for men to inherit land (to the exclusion of women) from their fathers. As land is scarce, it is therefore given to the sons who will work it to support themselves and their households.

In Nalcan, on the other hand, bilateral rules of inheritance following Hispanic tradition are observed. We have seen that men and women are equally capable of extracting a subsistence from the land by working the maguey and making carrying sacks. Furthermore, this differing role of women affects inheritance of property as well as ownership. Nalcaño women inherit property while Itelano women do not, and separate ownership of land and other property within the household is usually the norm in Nalcan, while in Itel household property is generally owned jointly by the household and land by the man alone.

In fact, the woman's ability to provide for her minimal subsistence fosters greater independence for the Nalcan woman as compared with her Itel counterpart. The women in Nalcan have greater say, consonant with their parallel economic role, while in Itel the male and female economic roles are mutually exclusive and women are therefore dependent on men for their very minimal subsistence.

These data suggest that in examining rural households, an analytical distinction needs to be made between the usual peasant communities and a community in

which men and women are engaged in independent spheres of economic endeavors and each comes into contact with distinct sectors of the economy. My study indicates that Nalcan therefore cannot be viewed as a peasant community, as can Itel. Nalcan men are proletarians. Their proletariat status is well illustrated by the data concerning the issue of postponing the religious fiesta in Nalcan. For example, in this situation the normal obligations of the peasantry to the land and the community were superceded in Nalcan by the obligations of the two *mayordomos* to their city jobs.

Contrasting migration patterns and distinctive female roles are related to mating patterns as well. Because there is little source of livelihood for males, we have seen that there were fewer men coming to live in Nalcan than in Itel. Surprisingly, however, 30 percent of Itel matings were contracted with non-Itelano women, while the figure for Nalcan is only 17 percent, doubly surprising in light of Nalcan males' greater physical mobility. These findings can be explained however in terms of male and female migration patterns. Emigration data (see Table 21) show that more women leave Itel than Nalcan, resulting in a male-female ratio where men are more numerous in Itel and women more numerous in Nalcan. This may then stimulate Itel men to seek women outside the village more than do Nalcaño men.

An alternative explanation for fewer exogamous matings might be the fact that many Nalcaño men spend

as much time outside of the village as inside it, mating in other areas with women they may not necessarily bring back to Nalcan. This is not uncommon among men working in Mexico City.

Hence, while distinctive migration patterns in the two villages may be reflected in exogamous mating patterns, the distinctive female roles provide, perhaps, the most significant explanation for Nalcaño's lower frequency of exogamous unions. As the data demonstrate, the role of women in Nalcan is much more specialized than that of women in Itel. As I noted above pertaining to extended family arrangements in Nalcan, and as I have described in the text, the skills held by the women of Nalcan which include knowing how to exploit the maguey, to make carrying sacks, to supervise planting and working in the field, are skills not commonly known in other regions of Mexico. Such special skills are not needed by Itelano women. The homemaking specialties necessary in Itel are generally known by women in all regions.

Migration patterns are however clearly reflected in data on the origin of the women in the exogamous matings. The more frequent contact Nalcan men have with people from other regions explains the fact that 36 percent of the exogamous unions in Nalcan were contracted with women from outside of Hidalgo state, while the comparable figure for Itel is only 6 percent.

Much of the preceding discussion has focused on migration and migration patterns relating to economic and social organization. However, the reasons for migration still need to be considered. We have seen that what small migration occurs in Itel is due to factors not usually related to the economic structure, whereas Nalcaño migration is easily accounted for in terms of the village's economy. My findings show that Itelano migration reflects such idiosyncratic causes as disputes within the family, between two families within the village, medical needs, or flight from the authorities. Economic motives explain only a few instances of landless sons of *ejido* holders.

Nalcaño migration can, however, be seen principally as an economic "push" from the village to the city. This explanation is at variance with certain conclusions of the "push and pull" theory reviewed by Butterworth (1971) and held by Adams (1964) that "man-land pressure lies behind most migrations . . ." (1964: 53). Butterworth points out that migration is commonly explained by theories centering around the push from the land and the pull by the city. Among factors frequently cited as providing the "push," Butterworth notes "lack of land and/or its lack of productivity; lack of sanitary and medical services, poor educational facilities; rudimentary communication services, and in some regions lack of security and natural disasters" (1971: 86, translation mine). After pointing out that "usually migration outside of the community into the city

is attributed most frequently to poor and insufficient resources" (p. 86, translation mine), Butterworth concludes that emigration is selective and that poverty *per se* is not sufficient cause for emigration. Although my data for Itel support this argument, the migratory wage labor in Nalcan is best viewed in terms of economic factors making the "push" towards Mexico City and the United States in search of work.

The data I have gathered and analyzed lead to the conclusion that irrigation as seen in the Mezquital Valley produces two interrelated consequences on the irrigated community. Structurally, the presence of a government controlled and administered irrigation network serves to integrate the community as a unit into the nation-state. But paradoxically, simultaneous with this integration into the larger society, the presence of irrigation minimizes wage labor migration and actually promotes a stable peasantry which perpetuates its traditional patterns.

The data on Itel demonstrate how irrigation accomplishes this. We have seen that the non-irrigated community, while part of the nation-state, is not similarly integrated as a unit. On the other hand, while the two communities are units of the larger society, they are differentially linked to it. Male members from each village are exposed in different ways to life outside of the village, with individuals from the non-irrigated community enjoying wider exposure to the nation.

Thus the data also bear on the influence of irrigation which is consonant with Epstein's (1962) findings that government investment in irrigation, as an application of modern technology and know-how, must be considered a conservative move. A comparison of the two villages reveals specific evidence of conservative trends in the irrigated village which are absent from the non-irrigated community. There are numerous instances of these tendencies: the tradition of bride stealing still common in Itel but is no longer practiced in Nalcan. In addition, traditional healing practices are relied upon more heavily in Itel than in Nalcan. Nalcaños tend to seek modern medical practitioners for curing, even travelling considerable distances to do so, while Itelanos frequently announce their mistrust of modern curers and turn to their local *curandera* or *espiritualistas*.

Religious differences also manifest such conservative tendencies in the irrigated village. Itel peasants aggressively initiated the sponsorship, against the wishes of the municipal authorities, of an annual religious fiesta which involves them in sizeable cash outlays. Furthermore, as noted earlier Itelanos bought a large statue of their patron saint in addition to the smaller one they already possess. This purchase represented voluntary contributions of over 2,000 pesos. Once the new statue of the Virgin was installed in the church on the first day of the fiesta, May 13, a mass was instituted

on the thirteenth day of each month thereafter. As we have seen in Chapter 10, such practices are in contrast to the situation in Nalcan where there appears to be waning interest in religious fiestas, while Nalcaños were promoting a secular national fiesta instead.

Because irrigation will be introduced within a few years to Nalcan, it will be possible to test my conclusions as to its effects. I predict that the introduction of irrigation will bring a traditional peasant life to Nalcan, integrating the village as a unit into the nation-state. The Nalcan male wage laborer will look to farming as his major mode of subsistence. *Ejido* tenure will assume greater importance once land becomes productive, and may well generate new and hitherto unknown conflicts in Nalcan of the sort that now exist in Itel. The change I predict for Itel is that the several agricultural entrepreneurs discussed in my study will form a core of farmers who may eventually dominate the social and economic life of the village.

My predictions are based on the analysis presented in this dissertation, reinforced by field data. Every Nalcaño I questioned on this point said that he would not leave the village to seek employment after irrigation was brought to the village. Instead, he would remain in the village to work his land. This would curtail the wage-labor migration which has contributed so importantly to the contrasts found between the villages. The interests

of Nalcan men in this new economy would no longer involve the kinds of skills and activities of pre-irrigation Nalcan: the months spent outside the village, the acquaintance with urban environments, the knowledge of how to seek and find wage labor jobs, or how to cross the border without being caught. Instead, the Nalcan male will need to expand his knowledge and techniques of cultivation; he will acquire new concerns focused on crop production which deal with access to water, the purchase of seed and the rental of traction. Under the new economy, Nalcan will thus come to resemble Itel -- with similar day to day concerns, dictated by the agricultural cycle and requiring knowledge needed in an agricultural economy.

Nalcaños have also indicated an interest in raising their village in political importance, hoping that some day their village will become a *municipio*, an independent township. They hope that when men can remain in the village, this will enable them to look out for the interests of the community and its economic development. Nalcaños expressed constantly the desire to see their village progress. Future studies will see the validity of my predictions and the hopes of the villagers.

APPENDIX

Comparative Figures for Itel and Nalcan

Table 19

Population by Sex

	Itel	Nalcan
Men	575	458
Women	402	509
Children	952	852
Total	2,029	1,819

Table 20

Family Structure

	Itel	%	Nalcan	%
Nuclear	195	66.1	156	53.3
Extended	52	17.6	22	7.6
Female-Headed	43	14.6	101	34.4
Alone-male	3	1.0	3	1.1
Alone-female	2	0.7	11	3.7
	295*		293*	

*Of 313 households in Itel, 295 were visited; of 310 households in Nalcan, 293 were visited.

Table 21

Wage Labor Migration along Sex Lines

	Itel		Nalcan	
	Number	%	Number	%
Men	14	2.5	258	56.3
Women	32	6.3	46	9.0
Male household Heads	0		111	38.4

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