

## ADAPTIVE STRATEGIES IN CHANGING CULTURAL ENVIRONMENTS

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A major theme in current anthropology is the study of adaptive strategies employed by man in changing environments. The environment is understood to consist of both natural and social forces which produce internal and external stresses on a cultural system. The system is composed of established adaptive strategies that are employed at any time. This paper is intended to present some observations on the integration process of a formerly independent system (a small Highland Mexican village) into a larger expanding system (urban Mexico City).<sup>1</sup>

San Luis is a long-established, traditional Mexican village located in the Mexican Highlands directly south of Mexico City. The immediate area has a long span of human activity dating from Pre-Columbian times up to the present day. The village itself was founded in the post-Conquest era during the early 17th century. This is when the Spaniards constructed a church where a group of Spanish colonists had established themselves as "overlords" of the indigenous population.<sup>2</sup> During this era, the village more or less followed its own style of development, with very little consequential contact with the seat of government in Mexico City.

In the mid-1800's, the government of Mexico began to extend its rail system throughout the Republic.<sup>3</sup> Because San Luis lies on a natural access route to the Basin of Mexico from the south, the railroad tracks were laid quite near the village. This resulted in increased contact between the village and Mexico City.

The strategic location of the railroad at a southern entrance to the Basin of Mexico was to prove of great importance during the Mexican Revolution.

Many of the local leaders, or jefes, of the area aligned themselves with the revolutionary forces; consequently, the majority of the villagers followed suit. These Zapatistas (followers of General Emiliana Zapata) periodically lay siege to the railroad passing near the village, thereby sealing off Mexico City from the south. A few of the older villagers today remember several skirmishes between the Federal troops and the revolutionaries. The fields after the battles were described as "con la sangre corriendo hasta las barrancas" (with blood flowing down to the washes).

During the period of disarming and demobilizing the Gran Ejercito Libertador del Sur (Grand Liberation Army of the South) under General Emiliano Zapata, many of the high-ranking officers, in exchange for relinquishing their command, received money or land. One of the more influential families in the village today received its original prestige and wealth from a paternal grandfather (a general in Zapata's army) who received large tracts of land in the area.<sup>4</sup>

After the Revolution and the implementation of the ejido system (land held in common by a community), the village continued to employ the traditional way of life, i.e., small-scale farming (mainly of corn and horsebeans), herding of sheep and goats, and woodcutting.

Cutting wood for making charcoal and building materials was probably secondary to the other activities. The charcoal was chiefly for local consumption, but the logs for building materials were sold either to a papermill farther down the mountainside, or to the villages located in (by then) deforested areas closer to Mexico City.

Water for domestic purposes as well as for watering of animals was supplied by free-flowing springs located in the surrounding mountains of the village.

This way of life persisted well into the 1940's. However, it was drastically affected in the early 1950's when a rapidly increasing population in the Basin of Mexico began putting strains on its own water supply, concomitant with an accelerated demand for building materials. These conditions prompted the government of the Distrito Federal (equivalent of Washington D.C.) to begin a policy of large-scale annexation of surrounding areas not yet politically affiliated within its local government.

The first effect of this policy felt in San Luis was the diversion of its water supply. The free-flowing springs were sealed and the water transported via pipeline to Mexico City. As a result, the villagers no longer were able to merely walk down to the stream for water, but now had to walk to places where taps on the waterline had been placed. The stream channels eventually dried up and, as will be shown later, became the repository for waste.

Today, in order to get water brought into an individual household, a lengthy process is involved; also, a moratorium on new permits for bringing water into a house has been declared by the Departamento del Distrito Federal (D.D.F.: city/county government).<sup>5</sup> This moratorium was effected in order to allow the government time to regularize land ownership and tenure.

As a result of the moratorium and the lengthy permit process, the local people have resorted to a practice known colloquially as roba agua, which is an illegal hookup to the watermains. The official currently in charge of checking and monitoring water usage (el Aguador) in San Luis is a non-local person who was appointed by the D.D.F. He will normally overlook illegal water hookups if presented with a sufficient amount of money. Thus, the practice of roba agua is practically institutionalized as a means of eliminating the need to haul water from a distance.

In addition to the consequences on the local water supply due to urban growth, the woodcutting industry also experienced changes. Early logging endeavors were conducted as small family activities. No large-scale deforestation of the land occurred. However, the growing demand for construction materials in Mexico City, primarily for wood, resulted in rapid deforestation of the surrounding mountains of San Luis. The peak of logging activity in the area occurred in the 1950's, when it was still relatively cheap to transport logs. Logging was now being conducted as a large-scale enterprise with no consideration of conservation practices.

Today, due to the depletion of the forests, the lumber industry is tightly controlled by the government. A national campaign of reforestation with specific emphasis in the D.F. was begun during the early 1970's. In springtime, saplings are planted by the Servicio Militar Voluntario (Volunteer Military Service) under the direction of the D.D.F., or are distributed to a few local participants.

As part of the reforestation program for the area, a ban on grazing has been imposed by the D.D.F. However, there is little enforcement due to a limited number of agents and, often, the corruption of these same agents. As a result, grazing continues and the livestock often eat and trample saplings. The local people seem unaware of, or indifferent to, principles of conservation, and are more concerned with the economic benefits they can gain from the forest. So there is little concern for the program.

Those who control the logging industry (mainly locals) manage to sidestep the rules which have been instituted in order to prevent over-exploitation of the forests. This has created a contraband market for logging.

Weekend excursions by people from the city also appear to have an effect on the forest in terms of pollution (litter), occasional forest fires, and crime (vandalism).

The conflicting interests of reforestation, grazing, illegal logging, and occasional squatters have all combined to create competition for land use in the area. The local village people are constantly having to accommodate these interests with their own interests of farming and herding. They are being forced to go further and further back into the mountains in order to graze their herds or to find new arable land.

The introduction into the area of granjas (chicken and pig farms) brought about the extension of electricity into the immediate area in the early 1960's. These two enterprises became located in the area primarily because of the availability of land. Their products are intended for consumption by the people of Mexico City and only secondarily affect the economy of San Luis.

The first granja (a chicken farm) was established in 1960 by a lady originally from the state of Michoacan. Until that time, there was no electricity in the area. Because chickens, in order to produce to their maximum capacity, require warmth, it was necessary that some source of heat be provided. The lady began the process of getting electricity lines extended into the area to provide a source of heat for her chickens. Today, this farm is the largest single business in the district.<sup>6</sup>

The extension of electricity to the area primarily for use by the first chicken farm presented the local people with another modern convenience. Because of economic factors however, few people could afford to have electricity legally installed in their houses. Thus, as with water, there arose a practice of roba luz, which differed slightly in that illegal connections

are hooked/unhooked daily to the electricity lines. Only occasionally are people caught stealing light in this manner. As with the water agent, the person in charge of monitoring the electricity lines will look the other way for a sum of money.

The pig farm in the area required a means by which to dispose of the large amount of waste produced by the pigs. Thus, a sewage line was constructed, running from the farm down to the dry stream bed. This has resulted in the accumulation of waste in the channel during the dry season when no water washes it further down the mountainside. Unfortunately, the local government today has taken no measures by which to deal with this problem.

In addition to the railroad mentioned earlier, there are two other major means of communication with the metropolis area of Mexico City. With the advent of large-scale logging in the 1950's, there arose a need to establish a road capable of handling the increased volume of traffic going up the mountain. The original road up to the area was little more than a trail wide enough to accommodate a horse-drawn wagon. This trail ascended the mountain in a direct fashion. When logging began to take on large proportions, the original road was found to be inadequate for the mule trains hauling the logs. So the construction of a new road was undertaken, which followed the natural contours of the mountainside and rose much more gradually. This type of planning has proven quite dangerous in the era of modern transportation. An average of one serious automobile accident per month occurs on this road, due mainly to failure to negotiate curves at higher rates of speed.<sup>7</sup>

The other major means of communication with the outside is by means of telephone, which is a new arrival into San Luis. Within the last two

years, a total of six telephones have been installed. Five are in public businesses. The cost of placing a call to Mexico City, for example, is charged as "long distance." Thus, most calls out of the area are quite expensive, which discourages most people from using them for other than very important matters.

Currently, San Luis is located within the political boundaries of the D.F. The present political subdivisions of the D.F. find San Luis located in one of the approximately two dozen delegaciones comprising the D.F. The Delegacion Magdalena geographically encompasses an area that includes typical urban areas, while at the same time containing areas such as San Luis. San Luis, a traditional rural community, is administered by a unit of government whose major problems, efforts, and expenditures are oriented to an urban society. The dearth of organized political and economic power and lack of numbers in the San Luis area (when compared to other more densely populated areas within the Delegacion Magdalena) mean that the San Luis area is nothing more than a vassal of the more influential powerful forces in the Delegacion.

The gradual intrusion of urbanism and modern developments into San Luis began mainly as a result of the area having certain desired resources needed by Mexico City. Subsequent conveniences established in the area were not for the purpose of servicing the villagers, but rather were intended for use by private enterprises. Although too poor to afford these conveniences, the villagers developed alternative means by which to take advantage of them. These distinct ways of acquiring things that otherwise could not be afforded might be labeled as "adaptive strategies" to a changing environment caused by encroachment of external forces. These

forces, in turn, are the adaptive strategies employed by an urban center to cope with internal pressures.

Because the growth rate of Mexico City has been estimated at 900,000 people per year,<sup>8</sup> there is little doubt that the village of San Luis will soon experience increasingly intense pressure to abandon a traditional way of life.

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#### Notes

- <sup>1</sup> The bulk of the information herein presented was garnered from conversations with individuals of the village and local government officials over the last three years. The content of each of these conversations was corroborated with that derived from other individuals.
- <sup>2</sup> This date was provided by the current local pastor of the church.
- <sup>3</sup> Parks, Henry B. A History of Mexico. Houghton Mifflin, Co. 1969, p. 297.
- <sup>4</sup> This family is engaged in a variety of activities utilizing their land thus acquired. Perhaps at the forefront of their livelihood is dealing in cattle and horses. A nephew of this grandfather was a little boy at the time of the Revolution and recalls the period quite clearly.
- <sup>5</sup> "Excelsior" (Mexican newspaper) 10/3/79.
- <sup>6</sup> The original family still owns and operates the farm. The neighborhood all agrees that were it not for the farm's founder, who knows when and under what conditions electricity would have arrived.
- <sup>7</sup> This estimate was provided by Chief of the Topographic Department, Delegacion Magdalena.
- <sup>8</sup> "La Prensa" (Mexican newspaper) 2/27/80.