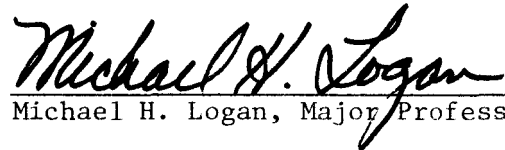
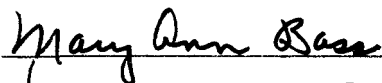
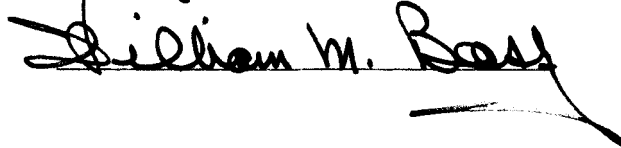


To the Graduate Council:

I am submitting herewith a thesis written by Thomas J. Ibach entitled "The Temascal and Humoral Medicine in Santa Cruz Mixtepec, Juxtlahuaca, Oaxaca, Mexico." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Anthropology.


Michael H. Logan, Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:


Vice Chancellor
Graduate Studies and Research

THE TEMASCAL AND HUMORAL MEDICINE IN SANTA CRUZ
MIXTEPEC, JUXTLAHUACA, OAXACA, MEXICO

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Thomas J. Ibach
March 1981

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DEDICATION

I dedicate this work to my beloved friends of Santa Cruz Mixtepec. I am indebted to their friendship and trust in me for all that is contained herein.

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ABSTRACT

This investigation reports on the present day use of the sweatbath among an indigenous people in Mexico. The purpose of this thesis was to provide evidence that aboriginal medicine in Mexico contained elements which were based on sets of opposing forces, and that these elements are present in the curing rites of the people of Santa Cruz Mixtepec.

Traditional views of disease causation and curing are described with particular attention given to the postpartum sweatbath ritual or temascal. A comparison of this ritual in Santa Cruz Mixtepec to that seen in neighboring communities suggests that humoral medicine is aboriginal in nature, not solely an introduced trait resulting from acculturation to Spanish culture.

It is recommended that because of the ubiquitous nature of the sweatbath in Mexico, future investigators should consider this trait for studying the amount of aboriginal views that remain in a community's curing techniques and also the amount of acculturation that the community has undergone.

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CHAPTER I

INTRODUCTION

Most authors conclude that humoral medicine was introduced into Mexico with the Spanish Conquest (Currier 1966; Foster 1953, 1967, 1978; Mak 1959); while others feel that present-day humoral medicine is an Aztec survival (Lopez Austin 1971, 1974), or as William and Claudia Madsen have argued (1955; 1965),

Hispanic humoral medicine was quite compatible with the Native American view of a universe ordered on a system of balancing forces. This compatibility undoubtedly favored the acceptance of the Hippocratic system by the Indians . . . because it could be fitted into the familiar Aztec concept of eternal war between heat and cold (Logan 1977:88).

Recently Foster (1978:6) has concluded that:

. . . in Mexico the hot/cold dichotomy is more prevalent among mestizo and heavily acculturated Indian populations than among more isolated peoples. Were the concept indigenous we would expect just the opposite.

This conclusion can be questioned in light of the present research in which an indigenous trait (that of the sweatbath ritual) provides strong evidence of humoral theory and binary opposition, yet the ritual is followed by a truly unacculturated people, the Mixtecs of Santa Cruz. The reasons this trait was chosen for study include: (1) it is a pre-Conquest curing technique, (2) it continues today throughout Mexico, and (3) it contains religious notions from the Mixtec aboriginal world-view.

Binary opposition between hot and cold, night and day, light and dark, life and death, growth and decay, good and evil, sickness and

and health was common in the belief systems of the Aztec and other native societies (Peterson, 1962:126; Valliant 1944:177). Since the world-view of aboriginal peoples in Mexico evidenced many components of binary opposition prior to the Spanish Conquest, the adoption of Spanish humoral medicine was easily facilitated, as well as the acceptance of some new religious concepts, because the Spanish version was virtually identical to the aboriginal pattern.

One religious concept that has resisted change in almost direct proportion to the degree of acculturation is the temascal, or "sweatbath." The temascal not only contains aboriginal religious notions, but also reflects an indigenous world-view based largely on hot/cold and wet/dry binary forces. Although maintaining a hot/cold dichotomy, as have many other peoples in Mexican communities, the inhabitants of Santa Cruz Mixtepec exhibit a remnant of the moisture dyad in their postpartum sweatbath ritual. The moisture dyad is a necessary element of the ritual. Currier (1966) suggests that the moisture dyad disappeared from Mexican ethnomedical systems because it played no symbolic role in the cognitive system of the villagers. This is not true for the temascal in Santa Cruz, where the sweatbath ritual is used to symbolize the restoration of the mother's body to a balanced condition from the imbalance caused by pregnancy. A communion meal that is observed on the final day of the sweatbath rite symbolizes an offering to the spirit of the sweatbath.

The community that has Spanish worship elements in their postpartum sweatbath ritual exhibits a higher degree of acculturation than the

community where this form of syncretism has not taken place. If an isolated community, such as Santa Cruz, has no Spanish religious elements in its postpartum sweatbath ritual, and aboriginal elements are primary in both the linguistic expressions and the behavioral patterns of the ritual, then it can be assumed that these patterns were not introduced, but are indigenous.

The purpose of this study is to describe the traditional Mixtec view of disease causation and curing to provide evidence of an indigenous remnant of the moisture dyad that persists today in an isolated community. The postpartum sweatbath ritual in Santa Cruz was compared with that reported in other more acculturated Mixtec communities, namely Santo Tomas (Mak 1959) and Santiago Juxtlahuaca (Romney and Romney 1966).

The significance of this investigation is that it offers both descriptive and problem oriented information on an aspect of humoral medicine largely ignored by other investigators. Little information can be found in the ethnographic literature explaining the significance of the sweatbath as a pre-Conquest culture trait that continues to hold considerable importance today. This study should add to current understanding of both the origin of humoral medicine in Mexico, and the temascal ritual.

CHAPTER II

RESEARCH SETTING AND METHODS

A. LOCATION AND HISTORY

The state of Oaxaca is located at the juncture of the eastern and western ranges of the Mexican plateau, and consists mainly of extremely broken, mountainous ridges. The Sierra Madre del Sur extends from the extreme western part of the State, and terminates at the Isthmus of Tehuantepec. This southern mountain range rises from the Pacific coastal plain to elevations of over 10,000 feet, and it forms a natural enclosure of rugged terrain (Romney and Romney 1966:2). The elevation of Santa Cruz Mixtepec is 6,000 feet.

Santa Cruz is located in the area known as the Mixteca Alta, deriving its name from the Spanish transliteration of the Aztec work mixtecapan, "place of the clouds." The Mixteca Alta denotes the high-land Mixtec speaking people, differentiating them from the lowland and coastal dialect areas (Spores 1967:4).

Pre-Conquest information concerning the Mixtecs is contained in eight pictorial documents or codices (Smith 1973:9). Although a majority of the codices contain some genealogical-historical data, the information is generally concerned with the property rights of the ruling class (Bernal 1963:53). Prior to Spanish colonialism the Mixtecs were a stratified society with a ruling nobility, an intermediate class, and a lower class of commoners (Spores 1967:9).

Uncertainty of Mixtec origins is borne out by the archaeological record. Before the Post-Classic Period (ca. 900 A.D. to Conquest, 1521), the archaeological record for the Mixteca is incomplete. As Spores (1967:30) states:

As yet it is not certain whether the Mixtec culture arose directly out of Classic Period (ca. 300 A.D. to 900 A.D.) configurations that are in evidence in the archaeological remains of the Mixteca Alta or owed the origins of some of its components to areas and traditions that lay outside the area. Probably it was a development out of the Monte Alban-like culture present in the area in the Classic Period with an increment of elements diffused into the Mixteca from the outside, but the evidence is yet inconclusive. Whatever its origins, it is clear that the Mixtec culture reached a climax around the fourteenth century, during the renaissance of Mesoamerica known as the Post-Classic Period. From this time forward there is continuity of tradition right into Colonial times.

During the Post-Classic Period, and as conditions exist today, the Mixtec culture centered in the Mixteca Alta (Weaver 1972:265). Although they did not construct the monumental architecture and sculpture like that so commonly seen in other Classic and Post-Classic Mesoamerican cultures, the Mixtec were considered to be excellent craftsmen and artisans in the production of miniature art, metal work, stone, bone and wood carving, and also pottery (Spores 1967:16; Weaver 1972:265). Weaver even suggests that they were the teachers of the Aztec in learning these skills. Apparently the aforementioned crafts were in great demand by the Aztec nobility (Weaver 1972:265).

Linguistically, the Mixtecan family of languages probably diverged from the earlier Oto-Zapotecana macro-linguistic stock at approximately 100 B.C. (Wolf 1959:41). Mixtec is a tonal language that emphasizes contrasting but relative pitch on each syllable

(Spores 1967:18). Mixtec is considered one of the major languages of native Mexico; and the proper alignment and origin of Mixtec and the Mixtecan family of languages in relation to their immediate and remote ancestors is still open to debate (Spores 1967:18-22).

Post-Conquest information concerning the Mixteca Alta is limited largely to de Burgoa's works Palestra Historial and Geografica Descripcion (Smith 1973:6). The replies to the questionnaire sent by Philip II in 1577, in an attempt to gain information about the towns and lands in the New World, are known as Relaciones Geograficas. These have become in Smith's (1973:6) words, ". . . an indispensable source of information on the Mixtec-speaking region in the early colonial period" Spores (1967:187) observes that:

The writers of sixteenth-century documents were not trained ethnologists Consequently there are limitations to the use of such records, particularly in the study of social and community organization Available documents often record hints and suggestions on many aspects of Mixtec life, but it is sometimes difficult to find sufficient material to complete the picture of a particular cultural element.

The Lienzo of Ocotopec, a map of the towns and lands that were subject to the rulers of Santo Tomas Ocotopec, was among the documents in the Relaciones Geograficas (Smith 1973:148). The importance of this map is the notation of the town of "San Juan," and the inclusion of San Juan Mixtepec as existing during colonial times. Although the name "San Juan" occurs in Spanish, the notation of the town was made with a pre-Conquest place-sign. Smith (1973:148-149) states:

This frieze is connected by a line with footprints to a pre-Conquest type of post-and-lintel building that is located between the church of Ocotopec and the place sign of Cuquila.

This building is identified by a gloss as "san juan," and it probably represents the town of San Juan Mixtepec, almost eight miles northwest of Cuquila.

San Juan Mixtepec figures prominently in Mixtec mythology as the birth-place of the Mixtec peoples. The Mixtec name for San Juan Mixtepec is xini nuu vico or "head-town of the clouds." Santa Cruz, though once a barrio of San Juan, split in 1970 and became a separate agencia municipal for the purpose of having limited self-government.

The 1980 census of Santa Cruz is 786 (Nicolas Gil, Town Agent, personal communication). The Mixtec highlands are second only to the Oaxaca Valley in population density within the state of Oaxaca; therefore the Mixteca Alta is the most populous region of the entire Mixtec area (Spores 1967:55). Out migration depletes a majority of the male work force of Santa Cruz, generally beginning during the post-planting season of early spring, and sometimes lasting past harvest in early fall. There also has been an increase in family migration, but these are generally migrations of shorter periods of time than the migration of men only.

B. PHYSICAL ENVIRONMENT OF SANTA CRUZ

The climate of Santa Cruz is characterized by a dry and a wet season. The dry season begins in November and continues until mid-May. During the dry season there may occur occasional thunderstorms produced by hurricanes from the Pacific or from nortes, storms which pass from the northern plateau down the mountain range. The amount of rainfall during the dry season is insignificant and undependable in so far as the agricultural round is concerned.

The wet season begins in mid-May and lasts until late October. At the beginning of the season, the rains come late in the afternoon, intermittently at first, but increasing in frequency and amount of rainfall as the months pass. The height of this season is late August or early September.

The mean temperature varies little between seasons, and although there is some variation from year to year, the months are somewhat constant as to the type of climate that can be expected. This coincides with what Romney and Romney (1966:6) describes:

The warmest months are May, June, July, and August with lows of 50°F and highs of 86°F; the mean temperature being 70°F. The coldest part of the year is during December, January, and February, with lows of 32°F and highs of 86°F and a mean temperature of 60°F.

Three small rivers converge to the south and east of the village center. The main river flows from a higher mountain valley to the west of Santa Cruz, and two smaller streams juncture each from a different direction with the main river. A small tributary flows into the main stream to the west of the village center, produced by a mountain spring. To the northeast of the village center another mountain spring forms the north tributary, and the south tributary is formed further up the south, southwest valley.

The village center is typical of that described by Wauchope and Vogt (1964:376), in that it is, "the politico-religious core." It contains the Catholic church and buildings for municipal affairs and religious observances. . . ."

C. SETTLEMENT PATTERN

Santa Cruz has a dispersed settlement pattern, each family and extended family living on their tillable land. The land is communal property, that is a family must reside and farm the land in order to maintain control of the land. For this reason, an extended family usually builds in close proximity to other family members. They often have more than one dwelling, as families have both temporal land (wet season planting) and irrigable land (dry season planting). The second homestead may also be needed for those tending flocks or herds.

The houses are either one-room log cabins or similar adobe structures. Usually there is an attached or adjoining cook house made of less sturdy materials (i.e., corn stalks) than the permanent dwelling. Multi-roomed dwellings have been built on the major trails in Santa Cruz, but these are used for commercial purposes and do not appear in other parts of the village.

Some of the younger married men of the village who have been doing migratory labor most of their adult lives have built homes of purchased materials, such as kiln-dried bricks, cement blocks, metal doors and window casings, and metal or asbestos roofing materials. This change in construction type is due to the scarcity of natural materials in close proximity to Santa Cruz. Also, purchased materials are more prestigious and readily available than traditional materials. However, many structures remain unfinished in the village due to the lack of funds and the increased labor needed to complete the newer homes.

The general rule of residence is patrilocality, and descent is reckoned bilaterally through both the father's and mother's families. In a patrilocal system of residence, the male offspring will reside in the vicinity of their father's land. Exceptions are when marriages have been arranged by parents to whom no male children have been born or survived. When a marriage has been so arranged, then the husband will take up residence with his father-in-law, thus becoming the primary heir to his father-in-law's lands.

Inheritance is normally based on primogeniture. That is, the oldest son receives the choicest farming land and the other sons are given plots according to their birth order. The youngest son usually resides in the family homestead with his parents or in closer proximity to the familial household than his siblings. The youngest son receives, after his father's death, the homestead and his father's livestock.

Marriages are typically exogamous, where one marries outside his paternal and maternal lines. Therefore, cross-cousin marriage is virtually non-existent. There is a bride-price system in which the groom's father is responsible for providing the food-stuffs requested by the bride's father during contractual arrangements. Generally this takes up to three months, but it has been known to take as long as two years during which the groom's father, along with the groom's ritual kin at times, make bi-monthly trips to talk over the marriage arrangements with the bride's family. Men usually marry between the ages of 16 to 19, while women usually marry between the ages of 14 and 15 years.

D. SUBSISTENCE PATTERN

The subsistence pattern of Santa Cruz is typical of other Mixtec peoples, and conforms to patterns defined as peasantry by Wolf (1959). Corn, beans, and squash are the staple crops. Yields have increased over the past few years because government programs have introduced commercial fertilizers.

Irrigation ditches have been constructed by the villagers utilizing the rivers to irrigate a major portion of the valley-floor. This makes possible dry-season planting, and two harvests are realized from these fields during the agricultural round. The irrigation system is normally put into function during the month of January, so that the preplanting soaking of the fields can be achieved. The soaking of the fields is done to allow the ground to be more easily broken up by wooden plows. Draft animals, usually oxen, are used to plow the ground and prepare it for planting. The work of maintaining the irrigation system is done by cooperative town work; and it is usually done on Sundays, being organized by the town officials.

The economy of Santa Cruz is not sufficiently productive to sustain all in the community; and for this reason many villagers are forced to work as migrants outside the community. There is no local food market in Santa Cruz; but there is a government supported store where a few staples and food items can be purchased. The weekly food market is held in San Juan Mixtepec on Fridays. Market day is as much a social event as it is an economic one, generally the school is closed and virtually everyone in Santa Cruz makes the three-mile trip to San Juan.

On market day, the mestizo merchants from Tlaxiaco truck in food and wares to be sold to the Mixtecs. The merchants in turn generally buy livestock, fruits, and animal skins that the Mixtecs bring to sell. Barter between mestizo merchants and the villagers does not occur, but it does when both partners are Mixtec. Bartering, though, is very limited, taking place only on certain transactions, for example, the exchange of a house cat for a laying hen.

Mixtecs from other satellite towns of San Juan bring their handicrafts to sell on market day. Woven mats and carrying baskets made from sisal come from villages north of San Juan, while pottery comes from villages east and south. Wood products, such as hand-cut roofing shingles and wooden planks, and fruits, such as avocados, peaches, and wild cherries (and more recently tomatoes) come from villages to the west and north of San Juan. Bread is baked in adobe, or "mud-brick" ovens in several villages, and in Santa Cruz as well. Bread baked by mestizo bakers in Tlaxiaco and Juxtlahuaca is brought to market on Fridays. Each community sells a distinct type of bread, for example, the bread from Tlaxiaco is made without eggs, and is normally baked from unrefined wheat flour; whereas, the bread baked in Juxtlahuaca is made with eggs and has a larger shape to it than the other breads.

The supply of fresh meat for market day comes from most every village, but in very small quantities. Each village seems to have several families that butcher for resale on market day. However, there is generally more of a demand for fresh meat than the weekly supply. Also, it is not uncommon to see cooked meat being sold at market,

principally pork, lamb, or goat meat. Chickens, turkeys, goats, sheep, and pigs are considered by the Mixtecs as having great value, particularly for providing economic stability. These domestic animals can be sold easily at market. This provides a family with needed cash during an emergency, as in the case of an illness, death, or crop failure.

Due to the sacred nature attributed to certain meats and the use of these items at religious festivals, the cash value of one's flocks or herds is governed by immediate supply and demand. Costs may rise sharply, for example, when a family is in immediate need for certain foods, as in the use of chicken meat for baptismal feasts, or pork and beef for burial ceremonies.

In addition to poultry and livestock, fruit trees, particularly the avocado, play an important part in the economy of Santa Cruz. The variety of avocado cultivated by many families in Santa Cruz is unique to other varieties found elsewhere in Mexico. Consequently, it is in great demand in outside markets, such as the State Capital and Mexico City. For this reason, the mestizo merchants from Tlaxiaco make special trips to Santa Cruz during the avocado harvest, which begins in mid-June and ends in late August.

E. RITUAL KINSHIP

Ritual kinship relationships govern many aspects of daily social interaction in Santa Cruz. Romney and Romney (1966:53) describe the beginning of this kinship tie as:

When a child is born, the parents choose some couple they would like eventually to be the godparents of the new child.

If the couple chosen agrees to the invitation, they become related (to the child) by the term padrinos. Padrinos are future godparents of the child and future compadres to the parents of the child.

Although in many areas of Mexico there tends to be more elaborate compadre systems than that which is found in Santa Cruz, the ritual kinship is focused more upon the adult relationships that result from the sponsorship than the godparent-godchild relationship. This close-knit social relationship binds the members of the community together, as padrinos and compadres. The term used for the co-father is mbaa; and the term used for the co-mother is mari. The services rendered by the godparents to their godchild go beyond sponsoring the baptismal ceremonies. The godparents are also responsible for the health care of their godchild throughout his life. Health care is considered a part of the person's spiritual well-being, thereby making this the responsibility of the padrino and madrina. In this way the godparents function as an on-going channel of support.

The binding relationship between the biological parents and the ritual parents is distinguished from all other kinship ties by the use of distinctive greetings and a distinctive fraternal handclasp. The greeting used by ritual kin is tacuni mbaa luu, or "respectful greeting to you my cherished co-father," and addressing the woman tacuni mari luu, or "respectful greeting to you my most cherished co-mother." Also, while uttering the greeting in the manner of men to men first, and men to women in subsequent order, the right hand is extended towards the opposite kin and lightly touched while making a kissing sound and

bowing at the waist towards the opposite kin's hand. If both or either of the couples meet on the trail with one or both of their ritual kin, then they will all exchange greetings in this way, calling each other by their ritual kinship terms.

This form of greeting is also used by the godchild with his godparents; but it is only the godchild who will make the bowing and kissing movement toward his godparents. It has been observed that when godparents are approached by their godchildren, that the godparents will extend their right hand toward their godchildren in anticipation for the kissing and bowing to be done. Men also will tip their hats to their co-fathers, and male godchildren will do likewise to both godparents.

This fictive-kin pattern binds families together that otherwise would remain distant to one another. The compadre relationship is demanding on the individual as he becomes responsible to others outside his extended family. Romney and Romney (1966:57) state:

The compadre relationship is the one that is frequently called on when one needs more labor than can be supplied by one's true relatives. If a man needs help putting up a house, he may call his compadres to help him. . . .

The breakdown of this ritual kinship relationship by arguments or disagreements is considered a causal factor in illness onset, as illustrated in the following (Field Notes):

Q. If a man does not seek a godparent for his child, will he become sick?

A. Yes, he will become sick, he will get sick.

Q. What sickness, are there many types of sickness?

A. Yes, there are many types, like speaking evil against them, and praying for harm to come to them, like fighting words they speak against them. They ask themselves (when sickness comes), did I argue with my mbaa, or with my mari, and then I got sick?

Q. What sickness?

A. The "owner sickness," like when they faint or their head spins, they become like a man talking to himself. . . .

Q. If I say to my mbaa, I do not want to drink the drink he offers me, will I get sick?

A. Yes, you will get sick, for certainly you will get sick because you must obey (the customs), for example, if they do not want to drink or take the drinking glass of mutual thanks, they (the ritual kin) will be offended and become angry.

Enthographically, the peoples of Santa Cruz follow a traditional lifeway, one highly characteristic of Mesoamerican Indian peasants. They are subsistence level farmers who cultivate maize and beans, who participate in fictive-kin networks, and who adhere to theories of disease causation and curing largely different from what is seen in modern medicine.

The isolation of the community from Spanish acculturation can be demonstrated in that only ten percent of the adult population is bilingual (speaking both Mixtec and Spanish), the three-stone hearth is still used for cooking, and traditional land-ownership practices transcend those established by the Mexican government.

F. RESEARCH METHODS

Traditional anthropological field techniques of observation, participant observation, structured interviewing, open ended interviewing, and use of key informants were employed to generate the data in this thesis. Information pertaining to particular types of folk-healers, such as herbalists, midwives, and curanderos, those who blend herbs, modern medicine, and sorcery in their curing techniques, was collected during formal interview sessions that were recorded and

transcribed. Such information was later checked and verified with key informants.

The Mixtec language was used in all aspects of the interview process; and these sessions were mainly conducted in patient-practitioner type settings in the paramedic clinic established by the investigator. I have resided in Santa Cruz since October, 1968 until the present, spending as much as nine months a year in the community. I am fluent in the Mixtec language (Pike and Ibach, 1976) and have reduced the spoken language to writing and am conducting a translation program which includes health care information under the auspices of the Summer Institute of Linguistics (1968-1976), and the Institute of Anthropological Investigations, Universidad Nacional Autonoma de Mexico (1977-present).

CHAPTER III

CONCEPTS AND STRUCTURE OF ILLNESS IN SANTA CRUZ

A. CONCEPTS OF HUMORAL MEDICINE

Fundamental to understanding humoral medicine is the belief that

. . . health can be lost or restored as a result of the effects of "hot" and "cold" qualities on the human body. These qualities do not refer to actual temperature or taste, but rather they connote an intrinsic property thought to be found in or associated with most natural substances, particularly foods and medicinal agents, as well as with states of illness (Logan 1977:88).

Most members of a culture have been taught an overall form of categorization by which both natural substances and illnesses are classified by means of the "hot" and "cold" dichotomy. Since an equilibrium denotes optimum conditions for maintaining or regaining health, foods or medicinal agents are selectively ingested or avoided on the basis of their classification in reference to the person's condition. For example, if one is suspected of having a "hot" illness manifested by fever, the person should then avoid "hot" foods or medicinal agents. He should, however, ingest foods or medicinal agents that are classified as "cold" or "cool" in order to restore a harmonious balance between the opposing forces. When a "cold" illness is suspected, as in the case of chills or muscle pains, then "cold" foods and medicinal agents would be avoided, while "hot" items are ingested. The disruption of the body's balance between "hot" and "cold" can occur from an improper action in reference to either dietary or behavioral codes.

Generally, a person becomes aware of an improper balance after a symptom manifests itself, and in retrospective manner concludes that the imbalance is due to an over exposure to items either "hot" or "cold" in nature. Therapy is based on selectively consuming foods and medicinal agents of an opposite quality to that of the illness. For example, one informed replied,

We are about to begin the month of February, and we all know that there will be a lot of sickness, fever and head sickness, many will be sick. We will buy turkey eggs and mix the white from the egg with rose oil for the sick person to drink. They will begin to vomit because they are sick with "heat." We then make a drink from yavi tata or "maguey leaves" because it is cold and will make them well from the heat-sickness (Field Notes).

Health can only be regained when a harmonious balance is re-established.

Behavioral codes are very important to the people of Santa Cruz in that if an argument ensues between members of the community, and interpersonal relationships are disrupted and are not re-established, the people involved in the argument or even those who overheard the argument are susceptible to "hot" classified illnesses. Robbins (1974:5,6) states that

. . . a person's behavior is a function of his view of himself in relation to his environment . . . theories of disease causation are the assumption of breakdowns or changes in patterns of interpersonal relations

Generally, this type of illness condition brought about by a breakdown between individuals or families is associated with "soul loss," and normally requires seeking the aid of a traditional healer to restore the patient's imbalance by determining the location of the loss of the patient's soul. The following was described by a traditional healer,

When the sick person has said he argued with another person, as well he has lost his soul, the demon has taken his soul. When a person is sick from soul-loss, I must blow a mixture of garlic and tobacco and some chile-pepper mixed with aguardiente over their body. From their head to their feet, I blow the mixture over their body so that they will regain their soul from the demon. Then we go to the place of the argument and offer a chicken by burying it in the road to appease the demon (Field Notes).

Dietary practice also is important as a prevention of illness onset in that all foods have either a "hot" or "cold" quality that must be taken into consideration by the individual. For example, if a person does not adhere to the dietary rules necessary for harmonious balance, illness will generally be feared to beset him. Hence, selection of certain foods and avoidance of other foods becomes necessary for the proper maintenance of the harmonious balance. The individual is aware of his "condition" as it relates to his either being ihni ndoho ra, or "he suffers from 'heat'" or catsi ndoho ra, or "he suffers from 'cold.'" Moderation in diet is followed during "warmtime" months so as not to ingest an over abundance of foods classified as "hot," as this is suspected to cause the appearance of "hot" symptoms. Likewise, during the "cold" and "rainy" months, "cold" foods are taken in moderation lest an imbalance occur due to an improper dietary regimen. The "hot" and "cold" qualities of foods, herbal remedies, and medicinal agents are all taken into account by both the healer and the patient in making proper diagnosis of the "condition." Therapy would include foods, herbal remedies, and medicinal agents that are classified opposite to that of the patient's condition. For example, when someone complains of catsi ndoho ra, or "he suffers from a 'cold' condition," he will

select items that are classified as "hot" so that he will nduyoco inia, or "he will become warmed-up inside."

There are several methods used by traditional healers to determine the "condition" of a patient. The most widely used is pulsing, as illustrated in the following:

Q. First of all . . . what is the most frequent complaint that your patients have when they come to you to be cured?

A. They come, those that come because of the "word" (as the healer points to his wrist indicating taking the patient's pulse); this "word" gives you meaning. For example, if the "word" is beating strong, then there is a serious sickness inside the stomach, a serious "hot" sickness . . . And when there isn't a "word" they have a "cold" sickness, as that which is "cold." When they have a "hot" sickness there is a "cold" herb that they drink . . . (Field Notes).

The herbal brew (made from the young green leaves of the maguey plant) is given to the patient to drink because of its "cold" quality. The "cold" herbal brew will aid the patient's recovery in establishing a balance.

Medicinal agents, whether traditional or modern, are sometimes classified by their color (Lopez Austin 1974:219), and/or the sensation they cause in reference to taste or feeling. Medicinal agents that are red or pink in color, or that have a burning or stimulating feeling, are generally classified as "hot." Agents that are green, white, or yellow, and have a sweet, sour, or bitter taste or a heavy, bulky sensation, are classified as "cold." Items that are brown or purple are classified as "refreshing."

Since illness results from an imbalance of one or more of the body fluids within the body, or from an imbalance brought about by the outside environment, therapy should employ medicinal agents of combined

qualities to restore health. To restore the condition supposed to be evidenced by the various symptoms will depend upon the overall concept of that condition. For example, pregnancy is a "cold" and "moist" condition. The overall condition of being "cold" and "moist" necessitates certain avoidances and selections to be maintained throughout pregnancy. For example, a pregnant woman will avoid walking through cold water in the river, or from washing clothes in cold river water as this will create a dual imbalance brought on by both the coldness and wetness of the river water. She also will avoid sewing with a needle, or drinking certain beverages and eating foods that are classified as "cold." If she does not avoid the effect of the coldness or wetness attributed to natural elements, foods or medicinal agents, she will ndacuiso cua ñuhu, or increase the imbalance. Literally, this phrase means "to jump over the amount of respect," which when described by the villagers means that the person did not stay within the boundaries of respect for his "hot" or "cold" or "moist" or "dry" condition.

Illness is attributed to the patient not maintaining appropriate limits of respect in reference to binary forces. For example, a woman returned to the paramedic clinic saying that her cough had begun again after she pricked herself while sewing with a needle. She said ndacuiso cua ñuhu saha ñu, or "the needle caused an imbalance" (i.e., the "cold" metal needle accentuated the already "cold" condition of her body). Another example involved a young man who had a cough with phlegm (yellow) and a fever. His reason for the illness was that he foolishly drank two beers (yellow) and some pulque (white) while mixing adobe

bricks with his feet. The adobe mixture was "cold" and "wet" and this attributed to the onset of being "hit-by-the-cold." His actions of over-exposure to both the "cold" and "wet" items he drank, as well as the "cold" and "wet" circumstances of mixing the mud-bricks with his bare feet, were all given as etiological factors.

Reference to both natural elements and food or medicinal agents is made by Lopez Austin (1974) as being necessary components of pre-Conquest therapeutics which

. . . contains . . . conspicuous list of diets and prohibitions. The patient with a cough will have to eat turkey, rabbit, quail, pigeon, venison, and fried tortillas, and will drink a little wine and pulque, boiled chile water, and atole with honey or chile; he will not, however, be able to take cold water, cacao, fruit, or water pulque. He will be forbidden to face the cold and to drink much water, but it will be recommended that he take steam baths (1974: 221-222).

Binary opposition is used to denote the onset of an illness, which is used to confirm a specific therapy. For example, vomiting accompanied by cold-sweats is said to be caused by the "heat" that has left the body due to perspiring and the intrusion of "cold" air (tachi vitsi) into the stomach. This condition (vomiting and chills) requires "hot" herbs mixed with "hot" aguardiente for the patient to drink. Other times a second symptom will alter the humoral classification of one's "condition." For example, the following occurred when a young man came to the paramedic clinic complaining of diarrhea:

Q. What is your "condition"?

A. I have had for the past 15 days a "biting-heart" (colic), and I drank mineral water because my heart was stuck with the biting because the water was "cold" and this would help my "hot" heart.

Q. But when did you have the diarrhea, didn't you say you had diarrhea?

A. The diarrhea came from the "cold" mineral water, and my stomach is "cold" (Field Notes).

The problem for the patient is how does one treat a "hot" heart and a "cold" stomach at the same time? The young man wanted to try tata sahan, or "fine medicine" (modern medicine) to see if the diarrhea would stop, since the tata sahan was reported to be classified as sava ndaa, or "refreshing," literally "half and half."

Bloody diarrhea is said to be caused by the blood trying to rid the body of the "cold" effect of diarrhea; and if the "hot" herbal brews and foods do not counter this condition after a period of time, then the diagnosis is changed to the intervention of demons as being the cause, as they desire to cause death and "eat the blood." If the diagnosis is changed from an imbalanced condition to the intervention of demons, then a traditional healer would be consulted as to the prognosis of the illness and for an offering to be made to the demon.

B. CONCEPTS OF CALENDRIAL FACTORS

The calendrical factor in Mixtec world-view is subdivided into three time periods. The period from March to the beginning of the rains in May is called ta yoco, or "time of warmth and moisture." From the beginning of the rains to their ending in mid-October marks the period known as yoo savi, or "months of rain." And the period from the end of the rains until the end of January is called yoo catsi, or "months of cold." The month of February is in a category of its own; and due to the prevalence of sickness during February it is called

yoo cuehe, "month of sickness," and also yoo loco, or "crazy month." The former name "month of sickness," is more generally used than the latter, while the latter name "crazy month" has reference to the fact that most of the illnesses are said to involve the head and make one loco, or "crazy." The Spanish word loco, or "crazy" has been borrowed to describe this etiological factor.

Sicknesses that occur within each period are said to be related directly to etiological forces assigned to that period. Although symptoms may be identical from one period to the next, the classification and nomenclature of the illness is linked to the period in which the misfortune occurs. For example, if one complains of a fever and chills during the "months of cold," he will refer to his illness as being related to that time period as ndoho catsi yu, or "I am suffering from the cold" while these same symptoms would be referred to as a ta yoco sickness if they occurred in March to mid-May. Therapy is closely related to the time period, and not necessarily to the symptoms associated with the sickness. For each time period there is a specified therapy that follows the humoral pattern of binary opposition. The therapy for the "months of cold" would normally include elements classified as "hot." The therapy for "time of warmth and moisture" would conversely include elements classified as "cold" and "dry" or "refreshing."

The "fierce" or "evil" days of Thursdays and Fridays are important calendrical factors in illness causation. Traditional Mixtec healers are generally concerned as to the first day symptoms were

noticed by the patient. The term quii xeen, or "fierce day," denotes an illness causation factor that transcends the three time periods. If a fever was reported to have started on a Thursday or Friday, the traditional healer would suspect that tachucu, or "evil spirit of the mountain" had caused the illness, whereas if neither of the two days were involved in relationship to the onset of the symptom or symptoms, then the diagnosis as to the cause of the illness would be classified as dietary or behavioral.

C. CONCEPTS OF SUPERNATURAL FACTORS

Associated with the "fierce days," the traditional Mixtec lives with a generalized fear of bringing harm to himself, or his family by offending the supernatural forces around him. He lives in a world that:

. . . operates according to certain rules and laws ultimately controlled by that part of the universe which we would call supernatural (Romney and Romney 1966: 20).

The supernatural factors in Mixtec world-view are subdivided into two aspects. Both aspects are related to the "mystical world" (Mair 1969:7), and the active or passive relationship of the person to this mystical world. Mak (1959:127) states:

Illness of all types, including simple accidents, are attributed to evil spirits, the evil eye or other sorcery, the nagual concept, violation of food taboos, and the like.

Certain behavioral patterns are considered as factors in illness causation. These patterns are defined by a person's relationship with:

(1) his ritual kin, (2) his proper performance of the sweatbath ritual,

and (3) his reverence of special sites. Behavioral patterns falling largely beyond an individual's control are also important factors in illness causation, such as being the victim of sorcery, being attacked by demons, and illnesses that have come due to the providence of stoho nchuxi, or "owner god."

These non-calendrical factors of illness causation are only suspected (with the exception of birth defects) after the traditional home remedies have been followed and no cure realized. In such a case, the person would suspect one or more elements from this non-calendrical domain to be the cause of his illness. For example, if a person becomes ill in a "warm month," and the traditional therapy was followed, without realizing a cure, then the person would suspect that an added factor or a non-calendrical element was involved in the occurrence of his illness. Generally, at this point, the person would seek another traditional healer so that a broader diagnosis could be made than his own; and hopefully a new therapeutic strategy would then be initiated to bring about a cure.

The social duty of each ritual kin with his counterpart in the compadre system necessitates a strict compliance to the formal greeting pattern that distinguishes this kinship bond from other relationships in the community. For example, there is a special greeting used to denote a co-parent relationship as well as the godchild and godparent relationship. Along with this special greeting is the copa, or "cup of respect." The sharing of aguardiente, or "cane whiskey," is done immediately after the greeting, and is an obligatory element of showing respect to one's ritual kin, as illustrated in the following dialogue:

Q. If my co-father says to me, "Hello, co-father, drink a little, drink a little," but I say, "I do not want to drink," will I get sick?

A. Yes, you will get sick, yes, because it is necessary that you obey. As an example, as when you do not want to drink or you do not want to take the ritualistic offering (the copa), this is an offense to them (the ritual kin), and they will become angry and you will become sick (Field Notes).

Refusal of the copa interrupts the normal pattern of social duty in the compadre system. Only those who are sick are excused from participating in drinking with their ritual kin. When someone has insulted his ritual kin in one way or another, he becomes susceptible to illnesses brought about by his disrespectful action against his ritual kin.

The ritualistic duty of the Mixtec requires their utmost care not to offend the "spirits" around them, particularly in reference to the performance of certain rituals. For instance, if the participants fail to perform the sweatbath ritual in the prescribed manner, then they become vulnerable to certain diseases that are attributed to the supernatural force associated with the sweatbath "spirit," Ndaca.

The "spirit" that dwells in the stream of the sweatbath will take vengeance upon those participants who do not adhere to the proper observance of the ritual by causing the offenders to become ill with sicknesses that are related to Ta Yoco. Ndaca is considered a malevolent "spirit" that must be appeased with a food offering during the ceremonial meal of the ritual. On the other hand, she is requested to keep Ta Yoco illnesses from coming upon the participants, especially the mother and child, for whom the sweatbath ritual is performed.

Spirits reside in springs, trees, rivers, and special revered sites and are thought to cause a variety of illnesses. When a given

symptom manifests itself, it is evident that an offense has been committed against the spirit associated with that symptom. For example, a baby born with a hare lip is punishment for the mother who carelessly slept outside during a full moon (offending the rabbit-spirit who resides in the moon). Likewise, pointing at the rainbow offends the spirit-of-the-rainbow. This may cause future infection of the finger, as the rainbow or xcoo nchahncha, will cut or nchahncha one's finger.

Eye disease among adults is said to be caused by offending the spirits of springs used for drinking. For example, when an adult develops a purulent discharge from the eyes, he suspects that he has offended the spirit of the spring because he did not dip out the water with a drinking gourd. When the eyes of a young child or infant become matted or encrusted, the child is suspected of being inflicted by a disease called ndoco yucu, or "evil eye of the mountain." This type of evil eye is contacted when the child inadvertantly looks into the "eyes" of the pine trees. It is said that the ncha uha or "bitter water" from inside the tree leaves the tree through the "eyes"--that is, the eye-like formations in the bark of the tree--and enters the child's eyes.

Similarly, when a nursing mother develops sore breasts she suspects that her infant has been cursed by the evil eye of the pine trees. Hot compresses are applied to her breasts and a traditional healer will be hired to perform a sacrifice to the tuyutsa savi, or "scrub pine of the rain." This worship site is a scrub pine located between the towns of Santa Cruz and San Lucas, although the offense can occur at any location, not necessarily near the pine tree. The mother and infant

accompany the healer, as forgiveness must be sought from the spirit of the tree so that the mother's milk will be restored. The healer sacrifices a chicken and pours a drink of cane whiskey at the tuyutsa savi to honor the spirit. He also burns a candle and utters prayers for the healing of the mother and forgiveness of the infant. The offense is said to be caused when the infant looked unknowingly into the eyes of a scrub pine.

Sorcery, or harmful magic directed against a person, is an important factor in illness causation. This condition is referred to as nicani tasi yu, or "I've been hit by a curse," and also ndasi na yu, or "They have shut me out." Sorcery is frequently suspected if the onset of the illness was on a "fierce" day, or if it began during February, the month of sickness. Also, if someone has suffered from a prolonged illness and all ritualistic therapies have failed, then sorcery is suspected.

In such cases, the healer will then gather any information concerning land quarrels or family disputes, or any other form of social disturbance involving the patient. If there has been an incident in which the patient has had a breakdown or major change in his social relationships with others, then it is likely that sorcery is the cause of his misfortune. An example of sorcery as the suspected cause for an illness is illustrated by the following account:

A young married woman was being treated in the paramedic clinic for pulmonary tuberculosis and malnutrition. She had been under treatment for three months, and although she was regaining her strength and her symptoms were not as severe as at first, she consulted the town healer for his evaluation of her disease. After "pulsing," and questioning her as to her

relationship with her family, he told her that she was being cursed by her husband. The fact that her husband had left her and their children and had tried to force her younger sister to go with him was referred to by the healer as reason to believe that the husband had paid to have sorcery worked against her. After the healer had made the proper offerings to counter the sorcery, he said that only time would tell whether his counter-magic would work, since there was no physical proof of the sorcery to be found in or near her dwelling (Field Notes).

The material evidence of sorcery, which is usually found near someone's dwelling, is called tasi, or "curse-bag." The curse-bag is a small cloth pouch about three to four inches long, and approximately two inches wide. The contents of the bag generally include pieces of bone, copal incense, small pebbles, sewing needles or maguey thorns, or pieces of burned candle. Concerning this, a local healer related the following:

A man was repairing the adobe wall of his house that had eroded, and stuffed between the adobes was a tasi. The man's wife had been suffering from abdominal pains that were unexplainable and that would not discontinue after herbal remedies were used. This illness had been attacking her for six months prior to his finding the tasi, so that immediately when finding the tasi they contacted the town healer. The proper ritual was completed by the healer to rid the house of the curse; and then the curse-bag could be destroyed. When this cleansing act was finished, relief came to the wife. It was told that without the proper cleansing act performed by the healer, the curse-bag, although it might be destroyed by the family, would continue causing illness until all members of the family were dead. The healer said that even if the family moved from the cursed dwelling, the curse would follow them until proper cleansing was performed by the healer (Field Notes).

An unexplained lump or tender spot found by a healer while examining a patient is also evidence of sorcery. These are usually said to be caused by the intrusion of objects, such as small smooth stones, or small pieces of bone, or live maggots. The healer "feels" the patient's body looking for signs of intrusion. After the location of the

intrusion is agreed upon, the healer will then suck out the object and show it to the patient. This differs from "cupping" which is the technique used by traditional healers to rid the patient of "spirits" that have entered vital organs. The use of the mendosa or "cup" is done to draw out the evil spirit from the body. A small glass, previously used as a candle-holder, is rinsed with aguardiente, or "cane whiskey." The aguardiente is ignited and allowed to burn out, after which the hot glass is placed over the suspected location of the spirit. The glass is then broken away from the patient's body which allows the spirit to return to its location prior to being sent to the patient through sorcery.

Illnesses can also be caused by an unsolicited attack from various supernatural forces, as in the case of soul loss. Soul loss is, "Separation of the soul from the body, through anger or fright Illness of any kind may follow immediately upon the separation, or it may be delayed months or even years" (Mak 1959:128). The body reacts to the loss of the soul by producing various symptoms, the most common being ndixi ixi, or "goose pimples."

Therapy includes consulting a traditional healer so that the proper "spirit" can be placated during the ceremony to regain the person's soul. Death will result if the person does not regain his soul, and is illustrated in the following case:

A man and his ten year old son came to the paramedic clinic with symptoms of chills and fever, and heavy congestion in their lungs. They began a series of antibiotic injections, one injection a day for ten days, and were given aspirin, cough syrup, and a soy bean based product to be mixed as a hot gruel for they had been fasting for several days. The son regained his strength

within a short period of time, but the father's condition worsened and resulted in his death. Later, the family related how that both the father and the son had been frightened as they passed a corpse of a donkey on the road and had lost their souls. Although they consulted a traditional healer, the man did not get better, and as a last resort they attended the paramedic clinic for treatment. The "spirit" of the dead donkey had captured the father's soul and the sickness that brought about the animal's death had entered the father (Field Notes).

Soul loss is also attributed to anger or fighting, such as that attending a fist fight. A traditional healer performs a ceremony at the site of the argument or fight to appease the "spirit" that captured the person's soul and return it. The township of San Juan Mixtepec has an ordinance which prohibits soul loss ceremonies from being performed near the town jail house because of the practice of burying chicken entrails as appeasement to the spirit.

The Mixtec "god-of-providence," or stoho nchuxi, causes several different illnesses. What stoho nchuxi has determined for one's life is generally unalterable. There is no image that represents the owner-god, or god-of-providence; and when he causes illness the reason given is mituhun xini caa stoho nchuxi, or "owner-god is the only one who knows."

He is said to cause adult tooth decay by sending a small animal to eat at the tooth. The reason given is that he wants the tooth and causes the animal to enter the mouth and eat away the "head of the tooth." No spiritual quality is given to the extracted portion of the tooth; and there is no fear of its being used for future acts of sorcery against the person.

Xiñu, or "thorn hairs," is also said to be caused by stoho nchuxi. In Santa Cruz, "thorn hairs" is believed to be a distinct illness that only attacks children, and is generally considered terminal. The people refer to it as coo gaa tata, or "there is no remedy." Although traditional healers are consulted for "thorn hairs," the consultation is usually to confirm the suspicion of the parents that their child has xiñu. The symptoms of xiñu are similar to malnutrition due to intestinal parasites.

All forms of birth defects, with the exception of hare lip, are said to be caused by stoho nchuxi. Infanticide is not practiced by the Mixtecs of Santa Cruz, regardless of the type of birth defect. Generally there is some concern on the part of the parents to nurse sick or defected children to good health; however, if babies will not nurse, they do so because they do not want to live as this is what stoho nchuxi desires. For example,

A newborn diagnosed in the clinic as having spina bifida was given no special care by his parents during the first months after birth, although the doctor in the government clinic in San Juan had recommended weekly injections of penicillium. When the infant died, at three months old, the parents said cue cuni tsi chacu tsi, or "he did not want to live," mituhun xini caa stoho nchuxi, or "only owner-god knows" (Field Notes).

In summary, susceptibility to illnesses depends largely on the person's maintenance of an inner harmonious balance through selection and avoidance of opposing forces. In reference to the dietary codes in Santa Cruz, one is consciously aware of the quality of a food item, and its potential effect upon his inner balance. Since their concept of illness onset is governed by the theory of "humors," and that each

person is thereby in control of his relationship to the natural environment (such as foods, medicinal agents, climatic conditions, and interpersonal relationships), then each person becomes actively responsible to maintain his harmonious balance. For instance, men working in the fields during the heat of the day will not immediately wash themselves in river water for fear of cooling too fast. They will generally sit in a shaded place until they have cooled down and stopped perspiring, only then they will wash in the cold river water. Similarly, the woman who washes our clothes stated that:

She no longer wanted to wash clothes in the river in the late morning hours since the Ta Yoco months were just beginning, and her baby had a fever. The mother had already begun treating the baby with yucu nduu, or "morning weed," since it is a "cold" remedy and would stop the fever. But since the sun's heat would cause steam to rise from the river during the late morning hours this Ta Yoco effect would cause the fever to rise in the baby's stomach. The baby was also given the home remedy for the evil eye, since this can also cause "hot" sicknesses, and could also explain why the baby cried so much (Field Notes).

It is evident that although there may be separate categories of etiological factors, such as the naturalistic and calendrical factors, there is an interrelationship between the categories when the remedy selected first did not bring about a cure which would necessitate a change to another etiological category. Hence, the logic behind switching from category to category, as far as etiological factors are concerned, is warranted by the failure of the remedy to bring about a cure when the illness was viewed as being caused by the factors associated with the first category.

D. STRUCTURE OF THERAPIES

Symptoms, such as diarrhea, vomiting, coughing, and fever are viewed in Santa Cruz as illnesses in and of themselves. The symptom is classified from the conceptual schemes of humoral qualities, calendrical effects, and/or supernatural forces. The therapy that will follow is determined by the classification of the symptom and employs the methods of selection and avoidance. For example, if a symptom is classified as "hot" and "calendrical," then the therapy would include the conscious selection of foods, and medicinal agents that are classified as "cold," and the patient would avoid an over-exposure to natural elements (such as weather conditions or physical conditions) that would be similar to the "hot" classified symptom.

Health care, based on dietary and behavioral codes, is an attempt to re-establish harmonious balance. A symptom denotes a change in this inner balance, and necessitates selections to be made opposite to that of the symptom. According to the humoral scheme, the selection of unlike foods and medicinal agents is the first step in therapy. As well, the patient would select an exposure to unlike conditions, for example if his symptom was classified as Ta Yoco, he would select a refreshing location as in the shade, or inside his house, and normally he would rest from work. He likewise will pray to his patron saint, and make a visit to his ritual kin asking that they pray with him for his improvement or he may request that his ritual kin visit him.

Similarly, he would avoid like foods and medicinal agents, generally fasting for the first day so that he might be sure of the

humoral classification of the symptom. He would avoid the heat from the cooking fire while inside his house. He would likewise avoid the direct sunlight and the mist from the river. He would not exert himself in any manner so that he would not perspire or become exhausted while walking. He also would avoid the locations of known "spirits," such as the cemetery, near caves, or where people have died violently. He would not step on animal or human feces for fear of contamination from a hidden demon. He would avoid arguments, generally by not going to the public drinking places; and he would not show disrespect to the revered sites of the community, and especially disrespect to his ritual kin.

Symptoms are also classified as being either a "thin illness" or a "strong illness." The classification of whether a symptom is thin or strong depends upon whether the prognosis is favorable or unfavorable (unknown). For example, thin illnesses are classified on the basis of their short duration, the availability of an herbal home remedy, and the absence of mortality due to the illness. The illness is classified as thin because it is usually not difficult to cure, and this is denoted by the phrase cue uhu, or "not difficult" signifying that the patient can normally effect the cure with a home remedy. There is, however, a thin sickness that requires a healer to attend the patient, and it is called the "thinking illness." No one has ever said to have died from this illness, therefore it is considered thin, that is, the outlook is good for recovery; but a traditional healer must be sought to bring about the cure as the classification of this illness is supernatural, brought about by one's preoccupation over a relative who is not in the village, or excessive worry over a lost animal.

That some illnesses can be readily cured by herbal home remedies removes them from the class of strong sicknesses. However, the herbal remedies used for adult patients differ in many instances from those used to treat infants and children. An example of this difference is notes in the following:

A man brought his young son to the paramedic clinic to be treated with cuehe nii, or "bloody diarrhea." The man told how he was able to treat himself with an herbal brew and proper fasting, however, the child's sickness was not thin like his but strong due to the fact that the child's stomach was yucha, or "tender," and the herbal brew was too strong for children (Field Notes).

Dysentery is by far the most feared symptom in childhood diseases, as it is the most prominent symptom associated with mortality. Similarly, all poisonous snake bites are classified as strong, because there are no herbal remedies used by the people. The only traditional cure for snake bite is a magico-religious curing technique known and administered by one man in the community. Strong illnesses have a high mortality rate, whereas thin illnesses do not generally prove lethal, and are usually treated by home remedies.

In summary, the therapeutic strategies followed in Santa Cruz are structured by the classification of the illness, in which both selection and avoidance of unlike and like categorizes of foods, medicinal agents, and behavioral patterns will follow respectively. The prognosis of an illness depends upon the assumed risk of death associated with that illness. Moreover, an illness is viewed as being curable if herbal remedies are available for the patient's use at home. An illness classified as "difficult" or "strong" means that a traditional

healer is required to administer the therapy, and generally denotes the intervention of supernatural forces involved in the onset of the illness. Therapy is governed by the patient's suspected cause of the symptoms or illness, and adherence to the therapeutic strategy will largely depend upon whether or not a cure has been effected. To a large degree, after a prolonged illness, supernatural forces are assumed to be the prime cause.

Change in therapy occurs when a curing technique does not reduce the symptoms, and when the patient does not recover. In this case, the patient will normally be taken to a traditional healer outside the community who is thought to have greater spiritual powers than the local healers. It is concluded that outside help must be sought, and generally people will seek a traditional healer from another town. The following account illustrates this (Field Notes):

A six year old boy was brought for treatment to the town clinic. His parents had already consulted the town healer, but the symptoms continued. When the symptoms continued after two days of administering the medications to the child, the father said, "Cuncuhin mancha Quiiya, ri cue cuni tachi," he is going to Coicoyan because the demon does not want to.

No negative opinions were said by the father either against the town clinic attendant or the town healer. It was a matter in which the right cause had not been detected, which indicated the need for outside help, by healers who are said to have great power.

CHAPTER IV

THE TEMASCAL IN SANTA CRUZ

A. HISTORY OF THE TEMASCAL IN MEXICO

Throughout Mesoamerica, and in many North American Indian populations, there persists a pre-Conquest trait of considerable importance (Lewis 1960:71; Lopez Austin 1971:182; Parsons 1936:78-79; Romney and Romney 1966:95; Von Hagen 1958:40, 65; Wauchope and Vogt 1964:415). This trait is commonly referred to by its Aztec term, temascal, or "sweatbath." Its use today is similar to what Vogel (1970: 254-255) describes for pre-Conquest and Colonial times:

It was in the New World . . . that the sweatbath reached its highest development Among the Aztecs, the favorite remedy for almost every ill of the flesh was the vapor-bath In the temazcalli, wrote Sahagun, the sick "restore their bodies, their nerves. Those who are as if faint with sickness are then calmed, strengthened

The sweatbath is an important element in health and curing among both aboriginal and contemporary peoples of Mexico, as Valliant (1944:66) states, "The Toltecs built their palaces and houses of stone and mortar, and used the temascal or steam bath, which persists among modern Indians."

Information from the Codices, as well as archaeological remains, points to the temascal as an important and permanent part of houses and temples (Weaver 1972:151, 176-177, 199, 221). Despite the concentrated effort of the Spanish colonialists to destroy this trait, the temescal ritual remains of considerable important, even though as Wolf (1959:200) notes, there was a systematic

". . . battle against the Indian sweatbath." The reason that this battle was waged against the sweatbath was that the friars were strongly opposed to its continuance, as Wolf (1959:200) states:

Indian use of the sweatbath was a religious rite of purification, carried out under the auspices of the earth goddess. The friars, however, associated bathing with the paganism of the ancient Mediterranean and with the Islamic enemy

However, the ritual continues today, and themes of both humoral medicine and aboriginal calendrics are in evidence. Dualism, as expressed by the notions of hot and moist, cold and dry, is a primary belief influencing both diet and behavior in reference to the sweatbath ritual of Santa Cruz. The calendrical attribute of the sweatbath is expressed in both the religious and cyclic elements of the ritual. For example, the aboriginal "goddess of the sweatbath" is worshipped by those that participate in the sweatbath ritual. The time element related to the beginning and ending of the sweatbath ritual is important to its proper observance, as well as the disposal of the elements used in the sweatbath.

Variations among Mixtec communities in sweatbath rituals can be attributed to the degree of Spanish acculturation in the respective communities. That is, the greater the degree of Spanish acculturation, the greater the degree of Spanish worship elements in the sweatbath ritual. Although Foster (1978:6) considers the direct opposite to be true in relation to acculturation and the degree of humoral medicine in Mexican communities, the temascal of Santa Cruz maintains a high degree of humoral theory as necessary to its function within traditional

therapy and the ritual is virtually free from Spanish religious elements.

Likewise, most authorities conclude that the moisture dyad of "wet" and "dry" has, as Currier (1966:251) states ". . . sloughed off in the course of time" Others feel that such a generalization is not warranted because remnants of the moisture dyad seem to exist in Mesoamerica (Clark 1959:167; W. Madsen 1955:125; Wisdom 1974:323-324). The moisture dyad is surely in evidence in the temascal ceremony among the Mixtec of Santa Cruz.

There are two distinct forms of the temascal. Both are referred to by the same name, ihin, and although the outward appearance of the structures and the materials used is similar, the distinction between the two forms is associated with their respective uses.

One ihin is used for a non-ritualistic therapy for tachi vitsi, or "cold wind" related illness; and the other ihin is a ritualistic postpartum ceremony used to prevent Ta Yoco, or "warmtime and moisture" related illnesses. Generally, the ihin is used only for adults or older children, with the exception of newborns that are, on limited occasions, taken into the postpartum sweatbath, but this is extremely uncommon.

B. THE NON-RITUALISTIC SWEATBATH

This sweatbath is used in traditional therapy for treating "cold wind" related illnesses. For example, "cold wind" illnesses are recognized when one feels a sudden change in body temperature. This condition is called ninchico iin na, or "they have become imbalanced."

Symptoms generally include fever, chills, muscular pains, and sometimes a purulent sore or a productive cough, as illustrated in the following:

A 13 year old girl was brought to the paramedic clinic by her mother who gave the reason for her "imbalance" as starting when the girl with sweaty feet stepped into the cold river. The girl had pains in her feet and an infectious sore on her instep. The home remedy used to compensate for the "imbalance" was pouring a concoction of "cane whiskey" and herbs on the sore on her foot while sitting in the "hot" sunshine to produce a "hot" condition. When this did not produce a cure, she entered the ihin (Field Notes).

When the sweatbath is used in treating "cold wind" illnesses, the structure can face whatever direction is convenient for the person constructing it, as illustrated in the following interview:

Q. Na Sabel told me that you used the sweatbath for your cough. Wasn't the modern medicine making you better?

A. I thought that the sweatbath would help me get well faster.

Q. Do you always use the sweatbath when you have the cough with phlegm?

A. Sometimes, that is if I have time to make the sweatbath.

Q. Does it matter in which direction your sweatbath structure is facing, like does it have to face towards this direction? (Interviewer points to the north, the direction that her structure is facing.)

A. No, not with this structure, not it doesn't matter with this one.

Q. When does it matter, which sweatbath makes it matter?

A. After giving birth, when I enter the sweatbath with the midwife, then it matters, it must face the rising of the sun. (The woman points to the east.)

Q. You do not sacrifice to Elderly Woman Ndaca, with this sweatbath, this one you made for your sickness?

A. No, don't make a joke! This is only a simple one that I made for my "cough" sickness. My husband has to make the sweatbath when I have delivered, but I can make this one if I have time (Field Notes).

The patient went on to explain that a sweatbath would be good for her and would help her in her recovery from tachi vitsi because the injections of antibiotics she received at the paramedic clinic were "cold"

in nature (from the metal "cold" needle and the white "cold" medicine). The ihin would warm her body, and help stop the "cold wind" illness, thereby negating the "cold" properties of the modern medicine. The imbalance brought about by the tachi vitsi can be reversed by using the ihin. The "hot" steam causes the "cold" illness to be displaced. The "wet" condition of the cough is evidenced by the presence of phlegm, and the "heat" from the ihin steam will "dry" the phlegm.

Purulent discharge and severe pain are the primary symptoms that seem to indicate whether the sweatbath will be used or not. When a patient is suffering from a severe headache, and watery eyes (or encrusted eyelids), the cause of the illness is identified as tachi vitsi, which has entered the temples and caused the pain and discharge. Pine sap is first placed on the temples, then pieces of paper the size of a half-dollar are adhered to the sap. The patient then enters the sweatbath so that the tachi vitsi can exit the head via the pine sap and paper.

The sweatbath is commonly used to treat ndasi soho, or "closed ears." The traditional healer squeezes the patient's head with his hands (this is referred to as catahvi ndaha na, or "placing their hands on the head"). The patient then enters the bath where the ears open, thus allowing drainage and an easing of pain.

Although the ihin can be used in treating these illnesses, it is fairly uncommon to see it done because the construction of the sweatbath structure is very time consuming, and requires special materials. It is generally used only when all other home remedies have

proven fruitless. However, on some occasions it is used in conjunction with modern medicine.

C. THE RITUALISTIC SWEATBATH

The second type of ihin used in Santa Cruz is a ritualistic cleansing rite performed by the mother, who has recently given birth, and her attendant. The female attendant who accompanies the mother in the sweatbath and assists her during the cleansing rite is generally the midwife who assisted the mother during birth. The mother should not enter without an attendant, for this is considered an offense against Ndaca.

The length of the ceremony varies, depending upon the physical condition of the parturient mother, and on the weather conditions during the ceremony. For example, if the mother is severely weakened, due to an abnormal postpartum hemorrhage, then the rite will not be carried out the full three to four days. Rather, it will be terminated after one or two days. Also, if the birth occurs during the rainy season, and inclement weather sets in, the ceremony may be postponed until better weather conditions exist. The reason for this is that rain must never come in contact with the fire pit. The normal time period from birth to the beginning of the sweatbath ceremony is three days, and the number of days during which baths are taken is also three days. The closing or offering ceremony typically occurs on the third day. Although variation exists among villagers, there seems to be a general rule that the number of days after birth until the beginning of the

ceremony is usually the same as the number of days that the bathing is done until the final closing day. For example, if a mother waits two days before she begins the sweatbath ceremony, then the number of days she bathes will be two, the second day being the closing day. But if a mother waits five days until she begins the sweatbath ceremony, she will bath five days, the fifth day being the closing day. Whatever the day she chooses to begin, and generally that depends upon how "strong" she feels after birth, she must ideally begin and end the sweatbath ceremony before fifteen days have elapsed since giving birth. For example:

Q. My most respected aunt, tell me what you know about the sweatbath, what do they do with the sweatbath?

A. For fifteen days they are able to enter the sweatbath after birth; they cannot enter after fifteen days.

Q. Even at the hour of birth, can they enter?

A. No, after two or three days, when they have regained their strength, having become balanced a little, and then they can enter (Field Notes).

The sweatbath is used as a cleansing rite that is performed to re-establish the mother's inner balance brought about by pregnancy and to make an offering as a request to the spirit of the sweatbath on behalf of the mother and the baby. The number of baths in any given day depends upon the attendant's desire to accompany the mother.

Pregnancy is believed to be a "cold" and "moist" condition; and only after birth can the mother's imbalance be restored, this being achieved due to the "hot" and "dry" character of the sweatbath. Postpartum hemorrhaging is thought to be due to the blood ridding the body of the "cold" condition of the pregnancy; and the mother generally waits to begin the sweatbath ceremony until her flow has stopped or

slowed, but it has been reported that some mothers use the sweatbath as a means of stopping their hemorrhaging.

The ritualistic element of the sweatbath is the thanksgiving offering that is made to Na Ntsahnu Ndaca, or "Elderly Woman of Requests." Since Ndaca is also referred to as the "goddess of the sweatbath," the offering is made to her as she is directly responsible for all Ta Yoco related illnesses. The sweatbath ritual is performed as a rite which symbolizes that the postpartum hemorrhage has stopped, for which thanksgiving in the form of a food-offering is made to Ndaca. It is also a rite in which prayers are made to Ndaca to keep both the mother and child from becoming ill with Ta Yoco sickness.

Associated with the ritualism of the sweatbath is the trait of wearing a sash called the tani, which must be kept wrapped around the mother's waist throughout the ceremony, that is, from birth until after the closing day of the sweatbath ritual. The belt is approximately six feet long, and three inches wide. It is made of cloth and woven sisal, the sisal part being about two-thirds the length of the belt. The cloth part is embroidered, usually with red or orange threaded designs, and is used by the mother to tighten the belt around her waist by a pulling motion. The loose end of the belt is tucked under the sisal part. The tani must be worn during the entire sweatbath rite so as to protect the mother from hemorrhaging, as illustrated by the following:

Q. Tell me why do pregnant women not want to remove the tani?

A. They say that a pregnant woman needs the tani on so that she will have strength, so that her stomach artery will not swell and become filled with blood.

Q. What will happen if she removes the tani, how long does she need to wear the tani?

A. She must wear the tani for one month, that is one month until her baby is born, then all during the ihin. If she removes the tani, as you (paramedics) say she must for delivery, then she will bleed to death; also if she takes off the tani and goes in the ihin, she will also die (Field Notes).

Perhaps the wearing of the tani inhibits fetal movement prior to labor, and thus may lead to complications, the most common being transverse lies, where the fetus is lying in a transverse position with an arm through the birth canal. However, wearing the tani during the ihin ritual may be desirable as it aids in maintaining pressure on the contracted uterus and it may prevent further hemorrhaging.

D. THE CONSTRUCTION OF THE IHIN

The father selects a different location for constructing the ihin with each successive child in close proximity to his house. This is the case even if children were lost as a result of natural abortion or still birth. The mother's condition (of being "cold" and "moist") can only be compensated for by the sweatbath ceremony thereby necessitating a new ihin site for her use.

The reason for this is that the new site of the sweatbath becomes the offering site for that particular child in case a Ta Yoco illness besets the child. An offering to Ndaca is made in the fire pit on behalf of the child. The father's responsibility is to construct and remove the sweatbath structure, as well as to act as mediator for both the mother and child or children, so that Ndaca can be appeased if a Ta Yoco illness were to affect either his wife or his children. The following interview illustrates the role of the father:

Q. Ta Bino, how many children to you have?

A. I have seven children now, but Francisco is not home, he is working in the United States.

Q. When you construct the ihin, do you always use this place on the hillside?

A. No, I make a new structure on a new site; one for each child.

Q. What is the reason for your making so many different sites?

A. If the child gets Ta Yoco, then I must make an offering to the spirit of Ndaca that remains in his ihin.

Q. Do you remember where Francisco's ihin and Pedro's ihin were made? Truly?

A. Yes, yes, let me show you all seven sites, all seven are away from the house, but near so that we can all do honor to Ndaca.

Q. Up to what age of your children will you offer for them?

A. Until they make their own ihin, until they make them for their children (Field Notes).

Both the ritualistic and non-ritualistic sweatbaths are similar in structural design, the materials used, and the procedures followed in producing steam. The primary difference, however, is that the non-ritualistic bath has only a therapeutic value in reference to calendrical factors of illness causation, whereas the ritualistic bath has a therapeutic value that includes both calendrical and non-calendrical factors in illness causation. For example, the non-ritualistic ihin is used only for illnesses classified by the calendrical schemes of tachi vitsi, or "cold wind" illness; and cuehe tuchi, or "muscle sickness" both of which are contacted primarily during the rainy months.

The ihin for ritualistic use must face in an easterly direction where the rays of the sun at daybreak greet Ndaca who resides in the fire pit. The construction of the site begins with clearing the ground, making a level place for the structure, and then providing proper drainage so that surface water during the rainy season cannot enter the

pit or the inside portion of the structure. After the ground has been cleared and leveled, the fire pit is dug at the westerly end of the cleared area. The hole is approximately three feet deep and one foot to eighteen inches wide. Then the fire wood is placed in the hole and lit so that while it burns to make the hot coals the husband can construct the frame, as explained in the following interview:

Q. What did you do when you made the ihin, what trees, what materials did you get, where did you get them, please tell me your story?

A. I went and got chamiso branches, and anonal branches to make the structure; and I dug the hole, the fire pit hole, and then I got the blue rocks, the blue rocks that are strong and will not break when they are hot. Then I cut the firewood, oak wood, because it is hard and makes good ashes to burn. I place the wood in the hole and make a fire to make charcoal ashes; then I cover the structure. The chamiso must be young so that it will bend, and I stick the ends here by the hole first, these long poles to measure how large I will make the structure. Then I make loops of shorter poles to tie down the long poles as the top. Then I cover the top with branches and blankets and woven mats and sometimes plastic if the mats have holes. Then, near the fire pit I make a hole to place the earthen pot of water and the dipping gourd goes near the pot. Then we place the mats inside for the floor, and then the blankets to put over them, and then we heat the blue stones in the ashes. When the stones are hot, then they enter and inside the structure they take their clothes off, both my wife and the attendant and make steam by placing water on the stones.

Q. Do they rub water on the back of the sick person?

A. They strike the back of the one who delivered with oak leaves soaked in water (Field Notes).

E. THE BATHING RITUAL

After the ihin has been constructed and the stones well heated, the female attendant (hired by the husband) and the woman who recently delivered enter the sweatbath and close the entrance way. Next they disrobe, with the exception of the mother's tani, and the attendant

begins dousing the hot stones with water drawn from a bowl placed near the fire pit. The attendant uses a bundle of leaves formed in the shape of a fan to douse the stones; and as the steam fills the ihin the attendant massages the woman's back and legs. At intervals during the bath, the attendant will also strike the woman's back with the oak leaf fan which has been allowed to absorb considerable moisture. Another practice used inside the ihin by the attendant is to rub the woman's body with a leaf of the maguey plant (century plant) so as to make "prick marks" on her body. This is done to keep the uterus contracted by allowing the "cold" to escape through the "marks" rather than by more hemorrhaging when the uterus relaxes.

The amount of time that the attendant and the mother remain in the sweatbath generally depends upon the physical condition of both women, and how well the stones are heated. It has been reported that some mothers only enter the ihin four times in any given day during the entire ceremony, while others enter as many as eight times daily. This is highly variable and when attendants are younger and both the structure and fire are considered well-made, then it is possible for a large number of bathings to take place during a given day throughout the ceremony. Attendants are paid a fee that varies between twelve to twenty pesos daily (\$0.50 - \$1.00 U.S.), as illustrated in the following:

Q. And for instance, if you go in the ihin with the mother . . . do they pay you for entering?

A. Yes, I get paid, it is very strenuous, it is very, very warm, and it is near the steam. I get ten pesos, or twelve pesos today (Field Notes).

The steam connotes the spiritual presence of Ndaca. Since the midwife acts as the intermediary between the mother and Ndaca, she likewise becomes susceptible to Ta Yoco illness if she fails to perform the rite properly, that is without offending Ndaca.

The day of "closing" is normally done on the final day of bathing which is determined on the basis of the number of days between birth and the beginning of the sweatbath ritual. This day is called a vico, or "religious feast," in which all the family members, including ritual kin, are invited to attend. The vico also includes a ritual bathing in the nearby river and a communion meal. The husband, his wife, as well as the attendant take this ritual bath. Ever since the beginning of her pregnancy, the mother has not bathed in the river because bathing, itself a "cold" condition, would have added excessive "cold" to the pregnancy. At the river's edge, the husband will sprinkle aguardiente and pulque on the ground as an offering to San Cristobal, the spirit of the ground, so that the participants will not be attacked by tachi yucha, or "demon of the river," while bathing. This is done early in the morning after the husband has prepared the fire in the fire pit and the wife has prepared her portion of the food for the sacrificial communion meal. The husband, wife, and attendant bath in separate locations, making sure that there is total solemnness during the ritual bath so as not to offend Ndaca.

While the bathing is being done in the river, the wife's female relatives, as well as her ritual kin, bring the portions of the meal that they have been asked to prepare. The food is brought to the cook

house, where it is placed around the fire. Here the participants will wait until the arrival of the husband and wife, and the attendant. When all are gathered in the cook house, the meal begins. Each female who has prepared a food item will pour some from her large cook pot into a smaller cook pot which will be taken to the sweatbath after the meal is finished. The meal includes beans with broth, pork meat with broth and herbs, tortillas, and pulque. A small ball of tortilla dough and five or six tortillas that will be used in the ihin ceremony are wrapped in a cloth. The attendant brings the copal incense that will be placed on the heated stones in the ihin which signifies the prayers of all the participants to Ndaca.

On the arrival of the attendant to the cook house, the female participants who have prepared food will carry the small cook pots to the opening of the sweatbath structure. The attendant enters the sweatbath alone to make her offering to Ndaca. The first item offered is the pulque which she sprinkles on the heated stones, during which she says, "We ask your favor honored Ndaca, drink this for your thirst, and hear our request for this woman, and for this child." She then places incense on the stones, following with the prepared foods. As she places each food on the stones, she repeats, "Eat, endeared One, drink, endeared One, eat this respected One, drink this respected One Elderly Woman Ndaca!" Thankfulness and request are both integral parts of the offering to Ndaca. Thankfulness, here denoted by the sprinkling of the pulque, is expressed for the warming affect of the ihin bathing. Request symbolized by burning incense and giving prayers to Ndaca,

asking that she will be appeased by both the meal and the ritualistic bathing, is hereby completed.

After the offering has taken place, the attendant will close the ihin entrance and all the participants will return to the cook house to eat the communion meal, as illustrated in the following:

Q. What do they (attendants) do in the sweatbath, my most respected aunt?

A. I know very well what they do! They mix some beans, the meal of the poor people is tortilla dough and beans, and also you put in a little pulque and a little broth. With this they cast into the steam and then they close the sweatbath opening and go home to eat their breakfast.

Q. What if they let the sweatbath fire burn, and do not close the entrance or remove the articles when they are finished, is this bad?

A. Ta Yoco will curse me, it will curse us all! It will curse the baby, and all of us; this is what we do, we don't have any other remedy, this is what we do (Field Notes).

Offenses against Ndaca range from improper performance of the ritual sweatbath by the participants, such as joking or making sexual gestures during the time period of the rite and improper disposal of the materials of the sweatbath to the improper preparation of the foods for the offering meal. The offering meal must be prepared without salt, as salt has the quality of "heat" and must not be offered to Ndaca, as illustrated in the following:

The meal will have pork meat, the meal will be poor people's meal, if the food is this way then Ta Yoco will not enter her or her child. It will not be salty, unsalted it must be, and then Ndaca will eat it, (for) they are not able to salt the food that Ndaca eats. If they salt the food, then immediately Ta Yoco will enter either the woman or her child (Field Notes).

Evidence that an offense has been made against Ndaca is the onset of certain symptoms, such as fever, swelling of extremities, vaginal discharge, productive cough or purulent body sores. One common

postpartum illness that has been attributed to Ta Yoco is quiti cuaha, or "red animal infection." This disorder is perhaps milk-leg, which is a postpartum thrombosis involving the legs due to bacterial infection introduced during parturition. Childhood tooth decay is also associated with the mother's improper actions during the ceremony. It has been reported that children suspected of having Ta Yoco illnesses in their teenage years are ill due to behavioral offences committed against Ndaca by their mothers during the sweatbath ceremony.

The remedy for such illnesses is for the father to make an offering of "poor people's food" at the site of the fire pit for that child's ihin. Here the father acts as intermediary for his child whose sickness has been caused by Ndaca who was offended either by the child's parents or the attendant during the ceremonial sweatbath.

The disposal of the ihin structure must be done with caution so that neither direct sunshine nor rain can come into contact with the fire pit, the residence of Ndaca. This preventive measure is illustrated in the following:

After they finish the sweatbath, on the next morning, I (the father) remove the stones, and all the charcoal, and all the burned dirt from inside the hole. I take these to the river and under a shady spot where the sun never hits I place the stones and charcoal and dirt so that no water or sunshine can strike the items. I do this so that no Ta Yoco (sicknesses) will strike my family (Field Notes).

The dirt that was removed during the construction of the ihin is returned to the fire hearth. It is believed that Ndaca continues to reside in the ihin fire pit for all children whose birth was observed by this ceremony. The mother's offering site is always the fire pit for her

latest delivered child. However, when a woman no longer menstrates, she says, "Tsa ndasi yoo," or "my moon is closed," which refers to the association of the "moon" and the menstrual cycle. They also say, "Coo gaa yoo, nihichia," or "I no longer have a moon, it dried up." The words "moon" and "month" are synonomous, and it seems that to Mixtec women the cycle of the moon's phases has a regulatory affect upon the woman's menstrual flow, rather than the number of calendar days. After menopause, Ndaca can no longer curse a woman unless she is one "who knows how" (that is, a midwife) and becomes an attendant for other child-bearing mothers.

F. VARIATIONS OF TEMASCAL PRACTICES

Some variability has been observed and reported in the use of certain food items in the ceremonial meal. Also, some women prefer a longer period of time for observing the rite than others. Food variations generally depend upon the availability of the items during the time when the ceremony must be observed as there tends to be an overall consensus that the rite must be completed within fifteen days from birth. During certain times of the year pulque is not available. If so, it may be substituted with bottled mineral water. Also, turkey or canned meat may be substituted for pork. The canned fish, however, cannot contain tomato sauce for this is considered "cold" and therefore harmful to the ritual itself. Copal incense, tortillas, and beans are essential for the ceremony and cannot be substituted or omitted. This is not true for aguardiente, or "cane whiskey," which is prohibited

during the construction or disposal of the structure and during the performance of the rite.

When birth occurs in Santa Cruz, whether at home attended by a midwife or in the clinic attended by a paramedic, all medications (traditional or modern) are ascribed qualities of "hot" and "dry" or "cold" and "wet." For example, the use of injectable vitamins, especially vitamin K, and also injectable drugs to contract the uterus are viewed as being "hot." The reason is that most injectable vitamins provide a stinging sensation, and normally give a warming affect. Some women prefer to receive the modern "hot" medicine prior to performing the sweatbath rite. Others, however, come to the clinic only after they have performed the sweatbath ritual.

CHAPTER V

HISPANIC ACCULTURATION IN MIXTEC TEMASCALS

The temascal is a pre-Conquest trait that has survived even though the Spanish tried to destroy it. The purpose of comparing the temascal rite of Santa Cruz with similar rites in two other Mixtec communities is to support the argument that aboriginal Mixtec views were based on binary opposition. A comparison of the temascal in Santa Cruz with its analog in Santo Tomas Ocotopec (Mak 1959), and Santiago Juxtlahuaca (Romney and Romney 1966) suggests that this indigenous trait has been influenced more by Hispanic acculturation in these two communities than in Santa Cruz. Yet, the rite in Santa Cruz exhibits a strong presence of humoral theory. Therefore, the existence of humoral concepts most likely comes from an aboriginal indigenous framework and not from syncretism with Hispanic culture.

A. THE TEMASCAL IN SANTO TOMAS

The temascal rite in Santo Tomas exhibits Roman Catholic influences that do not exist in the ihin of Santa Cruz. Mak (1959:129) writes that:

Sweatbath spirits, the chief of whom is Santa Magdalena, are dangerous and easily offended . . . particularly while bathing, failing to perform the sweatbath child-birth ceremony

The indigenous nature of the rite in Santo Tomas has syncretized with Roman Catholic elements, namely Santa Magdalena. This is due, in part,

to the fact that Santo Tomas was established as a Roman Catholic parish around 1700, while San Juan Mixtepec (which includes Santa Cruz) was still reported (Smith 1973:149) as purely a Mixtec settlement. Mak (1959:127) concludes that for Santo Tomas:

In common with many other Latin American indigenous cultures, the superposition of Catholic beliefs upon earlier views has produced syncretism such as identification of church or household images with good and evil spirits which cure as well as cause illness.

The continued reference to Ndaca in the rite observed in Santa Cruz shows little evidence of Hispanic acculturation, whereas, the contrary is true of the rite in Santo Tomas.

B. THE TEMASCAL IN SANTIAGO JUXTLAHUACA

Romney and Romney (1966:2) comment on the degree of acculturation in Juxtlahuaca when they stated that, ". . . priests penetrated the area early in introducing religious changes" It is evident from their description of the postpartum sweatbath in Juxtlahuaca that most all Mixtec religious beliefs are missing in the rite. It is used, however, more as a rest period after delivery, and also for the assumed medicinal affect it has upon the woman's body than any re-establishment of an imbalance in her body due to her pregnancy as is supposed in Santa Cruz. Romney and Romney (1966:95) state:

Six days after birth, the mother is given her first sweatbath. Before entering the bath she loosens her hair and rubs her head with "a good piece of Juxtlahuacan leather". . . . She must take between 12 and 15 of these sweatbaths before she is considered recovered.

The indigenous "spiritual" nature or even the ritualistic ceremonial nature of the sweatbath in Juxtlahuaca is absent, but in both Santo Tomas and Santa Cruz these elements are retained. The reason for these marked differences in the different communities is the degree of acculturation of each community.

Juxtlahuaca, although closer in distance and dialect intelligibility with Santa Cruz than the town of Santo Tomas, evidences a greater extent of Spanish influences in the postpartum sweatbath. As reported by Romney and Romney (1966), Roman Catholicism was established at least one hundred years earlier in Juxtlahuaca (i.e., 1600's) than in either Santa Cruz or Santo Tomas. The evidence from the Lienzo of Ocotopac, as reported by Smith (1973), indicates that the Roman Catholic church in Santo Tomas dates back to at least 1700, while at the same period San Juan Mixtepec retained a Mixtec place-sign for its location.

The relative absence of Spanish influences in the postpartum sweatbath in Santa Cruz is understandable in that the penetration of Roman Catholic patterns into the indigenous worship system was much slower than in either Santo Tomas or Juxtlahuaca. Yet, if Foster's conclusion is true, then the findings of this investigation would be the reverse. For example, Santa Cruz, being less acculturated than either Santo Tomas or Juxtlahuaca, should exhibit less of a reliance on the humoral qualities of "hot" and "cold" and "wet" and "dry" in its temascal rite than that seen in the more acculturated communities of Santo Tomas and Juxtlahuaca. However, this is not the case, for the temascal of Santa Cruz is observed as a religious rite wholly dependent

upon the concept of humoral qualities; and this dependence is expressed in the behavioral patterns of the people both in their speech and their behavioral actions regarding the ihin.

Since isolation from Spanish religious acculturation has enabled the ihin rite in Santa Cruz to continue in its pre-Conquest form, humoral medicine was present in aboriginal America, as argued by Lopez Austin (1974:214). Moreover, it is suggested that future studies of humoral medicine should consider the temascal as a possible source of aboriginal belief, particularly as it relates to the binary concepts of "hot" and "cold," "wet" and "dry."

The postpartum sweatbath observed in Juxtlahuaca shows very little aboriginal religious beliefs, and also few references to humoral qualities, yet Juxtlahuaca is more acculturated to mestizo-like styles than either Santo Tomas or Santa Cruz. Juxtlahuaca is a district town, similar in nature to a county seat; and there are well over 3600 people residing within its limits (Romney and Romney 1966:4). There is an all-weather road connecting Juxtlahuaca with the Pan American Highway to the north, and to a major highway giving access to the State Capital to the south. Many residents of Juxtlahuaca own automobiles, and there is regular public transportation with daily trips to Juajuapan de Leon and Oaxaca City. Linguistically, the language of Juxtlahuaca is Spanish, although many people do speak Mixtec. Romney and Romney note that the barrio they reported on is composed entirely of Indians, although ". . . most also speak Spanish" (1966:7). The ability to converse bilingually is a definite mark of acculturation, as opposed

to a people only being able to use the national language for buying and selling as is the case in both Santo Tomas and Santa Cruz.

Santo Tomas, on the other hand, is more like Santa Cruz in terms of settlement and economic patterns. Most people in Santo Tomas and Santa Cruz are monolingual, that is, speaking only the Mixtec language. Both are geographically isolated. One must walk from these villages to get to vehicular transportation. The roads to Santo Tomas are mostly paved with the exception of the final two to three miles from the major highway from Tlaxiaco or Putla. I have only visited Santo Tomas on one occasion (1973) and at that time there were no privately owned vehicles in the community. The location of Santo Tomas and its suitability for locating a Spanish settlement during colonial times was probably due to its prominent location in the natural walking trails from the coastal area to Tlaxiaco. The most striking distinction between the temascal of Santo Tomas and Santa Cruz is the absence of any reference to the calendrical scheme in Santo Tomas, but it is so prevalent in the ihin of Santa Cruz. The focus of the temascal in Santo Tomas, however, seems to be based upon the concept of soul loss, as described by Mak (1959:130,143):

. . . soul loss must be diagnosed only by a medicine man He performs the soil ritual at the spring, and then brings the mud to the sweatbath At each site . . . the mother says, "Give back the spirit of my child."

Since Santa Magdalena is the "chief spirit" of the sweatbath in Santo Tomas, it can be concluded that Hispanic influences have become syncretized with the aboriginal views associated with the sweatbath in Santo Tomas.

Santa Cruz is less accessible by vehicle than either Santo Tomas or Juxtlahuaca. There are no privately owned vehicles in Santa Cruz; and to walk to either Juxtlahuaca or Tlaxiaco generally takes from four to six hours. Santa Cruz has had electric power since 1972, and only 25 percent of the population is served. There is no potable water system; drinking water is taken from springs and streams. All town functions are carried out in the Mixtec language, and when the school teachers have programs in which Spanish is used, the town authorities translate the information into Mixtec for all gathered. There is little doubt that Santa Cruz has remained more isolated from Hispanic acculturation than either Santo Tomas or Juxtlahuaca.

CHAPTER VI

CONCLUSIONS

The purpose of this investigation was to offer evidence of an aboriginal form of humoral medicine that exists today in the context of the sweatbath ritual. From this study, it can be concluded that:

1. The pre-Conquest temascal continues today in various forms in Mexican communities and still holds considerable importance in traditional therapies.

2. Humoral patterns in isolated communities tend to reflect aboriginal views. Therefore, Foster's conclusion that states otherwise can be questioned on the basis of this study.

3. The moisture dyad (i.e., "wet" and "dry") exists in the ihin used in the postpartum sweatbath rite in Santa Cruz.

4. Future investigations of humoral medicine in Mexico should include a study of the temascal as a possible remnant of pre-Conquest humoral medicine.

In summary, the temascal significantly continues from pre-Conquest times and provides an example of the importance of binary opposition in aboriginal medicine. Although early colonists attempted to erradicate this trait because of its assumed pagan nature, communities that are truly isolated, such as Santa Cruz, experienced little Hispanic acculturation. It is concluded that the temascal, although existing in various forms today, offers evidence that highly

unacculturated peoples in Mesoamerica exhibit, and rely upon, humoral medicine which in all probability developed independently in the New World.

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VITA

Thomas J. Ibach was born in Union City, New Jersey, on April 26, 1933. He attended elementary school in Bogota, New Jersey and was graduated from Bogota High School in 1951. After his discharge from the United States Army in November of 1958, he began his training for missionary service at Northeastern Bible College, Essex Fells, New Jersey. He completed his training for missionary service at The Theological Seminary of The Reformed Episcopal Church, Philadelphia, Pennsylvania in May 1966. During the summer months of 1964 and 1966, he completed his linguistic training at the Summer Institute of Linguistics, at The University of North Dakota, Grand Forks, North Dakota. He began his missionary service with the Summer Institute of Linguistics-Wycliffe Bible Translators, Inc. in October 1966 under the Mexican Branch. He began his village program in October 1968, taking up residence with his wife and four children in the community of Santa Cruz Mixtepec, Juxtlahuaca, Oaxaca, Mexico.

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