

**ALLEGORIES ABOUT HEALTH AND SACRIFICE
IN TRADITIONS OF THE ZOQUE-POPOLUCA**

by

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A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of

Master of Arts

Department of Sociology and Anthropology

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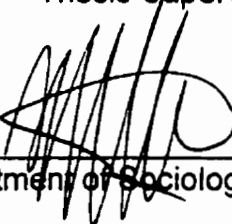
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**Allegories About Health and Sacrifice
in Traditions of the Zoque-Oppoluca**

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in partial fulfilment of the requirements for
the degree of Master of Arts


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ABSTRACT

This thesis examines the traditional health culture of the Zoque-Popoluca, dwellers of the Sierra Santa Marta in Veracruz, Mexico. The study is an exploration into native symbolism concerned with illness, healing, and preventive practices. It contributes to the scant health literature on the Zoque-Popoluca and an old debate on the relative influence of prehispanic and colonial medical knowledge in contemporary folk medicine of Mexico. The study contends that ancient Mesoamerican concepts continue to shape local beliefs and practices. Rather than an exception to the rule, this finding is presented as a challenge to the strongly held views of some researchers who see the humoral medicine of 16th Century Spain as the foundation of popular medicine in Latin America. Two diseases, Fright and Love Sickness, are used to illustrate how pre-Colonial concepts remain coherent and interconnected with present health beliefs and the native world view in this corner of Southern Mexico.

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Chapter 1: The Research Thesis

1.1 Evolution of Research Topic

I went to the Sierra Santa Marta in February of 1994 with the intention of studying beliefs and practices of the local people that affect the transmission of diarrhoeal and parasitic infections. I left Canada armed with a Western epidemiological model of disease transmission to guide me in the collection of field data, carrying along a set of interview and observation guides. My plan was to fine-tune these tools once settled in a Zoque-Popoluca community. Before the end of March had arrived, however, I was busy re-thinking my overall approach to data collection and the research itself.

Indigenous people in this corner of Southern Mexico spoke about diarrhoea being caused by envy, anger, or the smell of the earth as the sun dries the light rains of July and August. Mothers talked about the dangers of breast-feeding their babies when their bodies were hot. Elders described a cold debilitating condition suffered by those whose soul had been snatched by mischievous supernatural dwarfs, diarrhoea being one of the symptoms that typically accompanied the poor state of these soul-less individuals. In the minds of many, stomach worms came from eating green mangoes, or were the result of magic spells sent by angry neighbours. Many people also spoke of dirt, microbes and even viruses. But these were other causes of disease among many, no more important than the rest.

Around that time, I came across the influential work of George Foster on folk

medical systems of Mexico. His latest publication, "Hippocrates' Latin American Legacy" (1994), provides a detailed synthesis of his theories, in particular with respect to the origins of hot-cold beliefs in contemporary popular medicine. According to his theory, it was the humoral medicine of 16th Century Spain that gave rise to the hot-cold polarity so characteristic of popular medical beliefs in Latin America today. For him, the influence of this European medical system was profound. Existing prehispanic medical theories vanished during the Colony. Many beliefs and customs were absorbed one way or another into a medical humoral framework. Some were left behind, but isolated and marginalized. The legacy of an ancient Mesoamerican body of knowledge on health and medicine is reduced by Foster to "specific remedies, the names of a few culture-bound illnesses, and the like." (1994:186-7). In other words, indigenous health traditions were not able to withstand the onslaught of European medical science.

Foster goes as far as to suggest that current indigenous medical practices are largely deprived of spiritual grounding, and supports his position with selected studies noting that:

The many straight forward ethnographic accounts of humoral medicine in the New World (the basis for any comparative and historical analysis) deal with food and diet, maintenance of health, causes of illness and therapies. But we do not read about heavenly bodies, days of the week, months, supernatural beings, and the like in this context. The remarkable thing about contemporary humoral medicine, whatever the ethnic affiliation of its practitioners, is - as was true of classical humoral medicine - its naturalistic base and its focus on health and illness, to the near exclusion of other matters. Humoral medicine is as secular as contemporary biomedicine. (p.176)

Could Foster's assertions be valid in this corner of Southern Veracruz? My impression after

one month in the field was completely opposed to his. But, could I have been mistakenly interpreting people's explanations? Were their references to spiritual elements in our conversations about health a product of my imagination? After all, Foster himself carried out his doctoral research fifty years earlier in these same villages and towns of the Sierra Santa Marta. His work raised fundamental questions that I needed to answer before I could pretend to interpret and understand people's beliefs and practices associated with the transmission of diarrhoea. At issue was the relevance (or dominance, according to him) of humoral medicine in the interpretation of ethnographic data. My original focus on diarrhoeal diseases was therefore expanded, making the overall objective of my research the study of traditional health concepts of the Zoque-Popoluca.

1.2 Research Themes and Structure

Foster's humoral theories are based on the premise that popular medicine is the product of a historical process. This study is based on the same premise. However, Foster chooses to emphasize the influence of the Spanish Conquest to the near exclusion of the millenary legacy of ancient Mesoamerican cultures. A different approach is used in this research. The profound impact of the Conquest is not denied, but prominence is given to the exploration of prehispanic concepts and practices, tracing their influence and relevance today.

The thesis is divided into 6 chapters. This first introductory chapter presents theoretical and practical considerations that guided the research process. Chapter two

provides background historical information on the Zoque-Popoluca and the Sierra Santa Marta as the area of study. Three main research themes follow. The first one deals with the manifestation of prehispanic spiritual¹ elements in contemporary beliefs and practices surrounding health and healing. This theme is expounded in Chapter 3. Contemporary ideas about disease in the Sierra are shown to be associated with the transgression of Natural, social and religious laws. Contrary to Foster's assertion about the dominance of a "secular" humoral medicine, it was often impossible to see how several healing traditions could be denied a spiritual grounding. The influence of ancient native ethics is traced for a number of health related practices. Chapter 4 deals with two key elements of Foster's humoral theories: the origin and relevance of hot-cold beliefs in contemporary popular medical concepts. The prehispanic underpinnings of such beliefs are explored and the proposition of an European origin is challenged. Chapter 5 presents an investigation into how people think about health matters, how they make choices affecting their health and the meanings they attribute to illness in their explanations. Two particular diseases are used to illustrate important similarities between current indigenous health traditions with those of prehispanic times. One disease is *Espanto* (fright) which has been amply reported among several cultures of Mesoamerica; the other is *Mal Amor* (or "love sickness"), an illness very particular to the Zoque-Popoluca. The main findings of the research are then synthesised in the last Chapter.

¹ "Spirituality" is used in this thesis in its broadest sense. It refers to the inner dimension of the person (called in some traditions "the spirit"). It encompasses the precepts and subjective understandings of practitioners and believers regarding their world view, their cosmology, and their spiritual quest (what people believe they are achieving for themselves and their community through their faith) - See Gossen, 1993: xii & 17.

1.3 Theoretical Considerations and Research Methods

Health and Culture

People's ideas and practices related to health and disease in the Sierra reveal two distinct but co-existing health cultures. One can be called "indigenous" or "folk". It is based on old concepts and practices particular to the native view. The other is founded on Western biomedical sciences. By "health culture" is meant the interconnected set of cognitive and social-organization elements that are involved in achieving and maintaining health in the individual and the community. The cognitive dimension includes concepts, values, attitudes, and beliefs that guide health action. This can range from peoples' ideas of what is good food, to their explanations of causes of disease or the workings of healing practices. The social-organization dimension encompasses the different institutional and organizational aspects of treatment and health care delivery in the communities. Examples include the various community programs of local health clinics, but also the healing rituals of snake-bite healers, and the like.

Practices and beliefs that constitute the traditional health knowledge reflect people's interactions with their natural, social, economic and political environments that are centuries old. They are maintained and transmitted from elders to young, and through various traditional specialists, including spiritual healers, herbalists, traditional midwives and other health experts such as bonesetters and snake-bite healers. As for Western

medicine, its inroads into the Sierra began only in the mid 1940s². Today, its presence is mediated through the government health clinic, a private medical doctor, the sale of patent drugs in local stores, and the health education curriculum in government primary schools.

In a typical pluralistic health setting such as this, a given illness is considered the result of a variety of causal factors, often associated simultaneously with both indigenous and Western health concepts. Accordingly, people often follow parallel treatment methods. For example, It is not uncommon for a mother to take her child to the government health clinic to treat a bad cut or wound, and then complement the treatment with the services of a *salmera*, a traditional healer that will retrieve the "soul" of the child lost at the time of the accident. Both health cultures co-exist in a constant process of negotiation, rejection, synthesis and accommodation within and between individuals, health practitioners, political factions and religious groups.

One can suspect that similar interactions, now blurred by the passage of time, were very much at play during the Colonial and Post-Colonial periods. The major confronting influences then were prehispanic health traditions and the Hippocratic Humoral medicine brought in by the Spaniards. From these interactions, coupled with the more recent influence of Western medicine, derive what we can characterize today as the indigenous health culture

² Missionaries of the Linguistic Summer Institute began to work in Zoque-Popoluca communities in the mid 40s, introducing basic concepts of western medicine. Baéz-Jorge notes however that people in the Sierra remained very mistrustful of outsiders and that communications with surrounding urban centres remained very limited until the construction of the road to the town of Soteapan in the mid 60s. With this road came the school, the health clinic and an array of public services.

of the Zoque-Popoluca.

This thesis seeks to validate two hypotheses. The first concerns the relative influence of prehispanic and Colonial health beliefs. The following chapters will argue that European humoral medicine did not have an overriding influence in the traditional health culture of the Zoque-Popoluca. At least not to the extent that Foster claims did happen in most of Mexico and Latin America. This hypothesis in turn, supports a prehispanic origin of a hot-cold belief system and questions the "filtering down" of humoral medicine as purported by Foster (1994:153).

The second hypothesis concerns current health traditions of the Zoque-Popoluca. The thesis will contend that several ancient Mesoamerican concepts still survive today and continue to shape popular health beliefs and healing practices. This does not minimize the influence of Western biomedicine, nor that of 16th century Europe. Their impact in today's health beliefs and practices is unquestionable. The thesis simply draws attention to several manifestations of ancient cultural elements on current matters related to health and healing, and shows how these remain coherent and interconnected with the native world view.

A Mesoamerican Heritage

Reference has been made a number of times to the idea of a Mesoamerican culture. To be more precise, Mesoamerica is a large geographical area in which Peoples of diverse physical features and linguistic families were in active contact for many centuries, exerting

important mutual influences between each other. Numeral systems, calendric systems, religious ideas and agricultural practices travelled along commerce routes and battle fields. Some of the main groups the Spaniards encountered in the Americas of the XVI century included the Mayas, Nahuas, Mixtecos, Zapotecos, Huastecos, Totonacos, and Purépechas. At the time of the conquest, this region covered most of what is today Mexico (see figure 1.1). It was bounded on the North by the Sinaloa, Mayo and Yaqui rivers and in the East by the Pánuco river. On the South, the region included what is now Belize, Guatemala and El Slavador, as well as Western parts of Honduras, Nicaragua and Costa Rica (López Austin, 1975: 7-12).

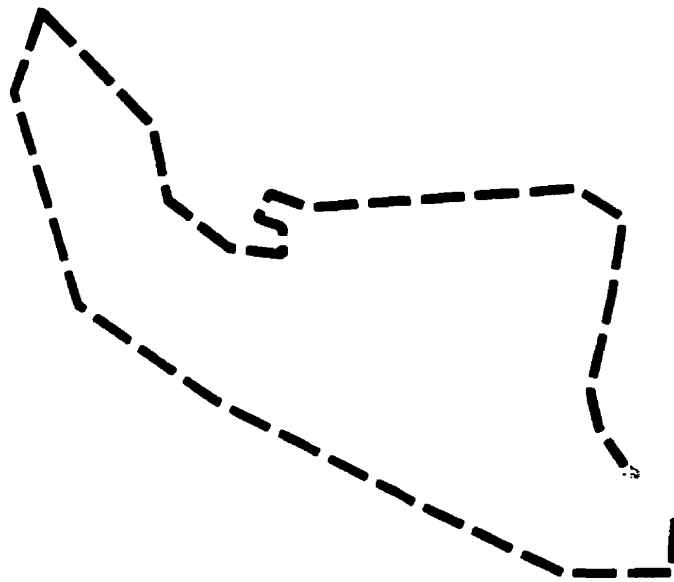


Figure 1.1: Map of Mesoamerica in the XVI Century (After Kirchoff, 1943).

Research Strategy

The approach used in this thesis can be broadly described as an interpretative exercise involving mapping and decoding of people's explanations about particular matters related to health. It borrows several elements from the field of applied semiotics (Chevalier, 1994, No.3), and from ethnomedical research on the cultural construction of illness, as discussed by Weiss (1988:5-16) and Kendall (1990:173-95).

To begin with, the research avoids using a priori universal frames of reference for the interpretation of ethnographic data collected in the Sierra de Santa Marta. For this reason, the dominance of humoral medicine is not treated as a given. Instead, careful attention is paid to the study of prehispanic hot-cold belief systems and their interrelationship with health matters. This is one of two parallel lines of inquiry that accompany the central theme of health. The aim here is to explore people's explanations and the relevance of a rather complex code reflecting the indigenous worldviews of Mesoamerican cultures, that of equilibrium and the cyclic movement between hot and cold (see Chevalier, 1994, No.2).

As noted earlier, health is a subsystem of culture, with expected connections to ethics and religion. This is to say that no arbitrary separation should be expected a priori between indigenous medicine, native morals, and spiritual traditions, as Foster suggests. Rather than neglecting possible interrelations between them, this study looks for their manifestation in contemporary beliefs and practices of the Zoque-Popoluca. This second line of research requires a brief exploration of native ethics based on the moral of self-sacrifice,

a logic of self-mastery and abnegation that applies to all forms of life and that differs from Christian ascetic values in ways that have yet to be better understood (Chevalier, 1994, No.1).

The preceding lines of inquiry provide a culturally-relevant grounding for the examination of ethnographic health data collected in the field. The data in question were gathered through a series of interviews that sought the following four types of information (see Weiss, 1998:5-16):

Patterns of distress: the ways people perceive or experience the symptoms resulting from an illness, an accident, the transgression of moral rules, or the violation of preventive measures that guard against disease or misfortune.

Explanatory models: the meanings people attribute to an illness or harm, including causes, mechanisms, and entities involved (ie., the who, how, why, where and when of a given illness or injury).

Patterns of help seeking: people's account of the choice of treatment(s) and the source(s) of help (eg., family members, specialized healers, medical doctors, and others).

Treatment practices: information was also collected on indigenous health treatments and preventive measures, paying attention to the materials used, the sequence of events, and people's explanations of how the various elements involved work together to achieve the desired outcomes.

The analysis of ethnographic data in this thesis is largely an exercise in interpretive anthropology. An exploration of native beliefs and symbols is followed, based on the premise that health beliefs, just as ethics and worldviews, are coded through sign systems

and practices. People's narratives about health are used in conjunction with myths, rituals, and other manifestations of culture, to decode native symbolism. Effort is made to give as much attention as possible to the particular language used in people's narrations and descriptions of healing rituals. The idioms used are viewed as key ingredients of health codes. Whenever possible, interviews were tape recorded and then transcribed word by word for analysis. In addition, possible meanings and connotations of key words (in Zoque-Popoluca or Spanish, as the case may be) were explored with informants, as well as with the help of Ben Elson's Popoluca Dictionary of the Sierra (1995). Finally, the thesis also draws on historical and ethnographic studies of different Mesoamerican cultures to highlight possible connections with other comparable symbolic systems.

Data Collection

The field work was carried out mainly in two Zoque-Popoluca communities of the Sierra Santa Marta over a one year period, spending about seven months in the Sierra, spread out over the dry and rainy seasons. The following sections discuss the techniques used for collecting field data and also some explanations about the process.

Participant Observation. The basic approach was to spend time living in the communities, talking to people, and making observations related to health matters. Talks ranged from informal conversations or keeping up on town gossip, to semi-structured taped interviews with selected key informants. Being there for extended periods of time, and throughout the length of the year, also allowed for serendipity to work. This included for example,

listening to old stories or anecdotes during informal chitchat which pointed to important elements of study, or witnessing particular occurrences of disease which allowed direct observation and conversations with people during or just after the episodes. The latter includes an instance where I became ill with haemorrhagic dengue fever and went through the process of diagnosis and cure by a traditional healer.

Quantitative data was also collected during the field work. This was done by visiting the health clinic to copy their records on disease incidence, as well as through collaboration in two surveys carried out by an NGO working in the Sierra: one on the socio-economic status of households; and a second on women's health. The first survey was conducted at the beginning of the field work. It allowed me to meet people and be seen in the communities, in addition to giving me experience in interviewing and becoming familiar with the ways people use the Spanish language in these parts of the Sierra.

The second survey was done towards the end of my stay in the field. This survey on women's health was carried out by a woman anthropologist and a woman biologist. They took special care to avoid interviewing women in the presence of men, because the men tend to respond for the women, even when discussing experiences about pregnancies and childbirth. Even though I was now familiar with the area and knew many people, I did not attempt to do any interviewing for this survey. Instead, I negotiated with the NGO and helped them translate a report into English. In return, I got access to the data of this survey. My reluctance to participate in the interviewing was due to recent experiences in the field.

I had tried months earlier to pretest a questionnaire by randomly selecting households and got very poor results when women were alone in their house. They became very uncomfortable being questioned by a male outsider in the absence of their husbands or a male relative, even though I was being accompanied by a woman translator that was well respected in the communities. Fortunately, I had better luck interviewing elder midwives, women community workers and healers for my own research. Their status in the communities and the nature of their work probably made them less reluctant to speak with me.

During my stay in the field, I also helped organize a couple of nutrition workshops, one in each of the study communities. This came at the request of a local community worker. She was my translator and facilitator in interviews with women. She was also responsible for promoting a community project on vegetable gardens, and wanted my help in preparing two workshops on nutrition and health care of children. Not being an expert on either subject, I enlisted in turn the help of a friend, Juana Sandoval. Juana is a nutritionist with many years of experience working with women's groups in rural Mexico. She assisted us both in organizing the workshops and acted as the facilitator. I did use the occasion to obtain some data for my research. Things went very well. Each workshop lasted three half days. Both turned out to be the largest women's meetings in the communities that people could recall. Anthropometric measurements were taken on about 200 children. Juana took the time to give each mother the results for her children and talked with each and everyone, on an individual basis, about the meaning of the measurements.

Each workshop had also two group sessions where a number of topics were discussed, including: infant feeding practices, child nutrition practices, prevalence of diarrhoeal and parasitic diseases, and traditional herbal remedies of the region. I did not tape the workshops but took notes whenever possible. Women in these two communities are not used to attending women's meetings. I did not think it would be very useful as a man to be there with a tape recorder. Being the only man in these meetings, I attempted to fade into the background except for assisting with the anthropometric measurements of children.

Interviews. A three-level approach for collecting data on health belief systems was developed by trial and error. These three levels of data collection were carried out more or less sequentially. The process was repeated, however, for various diseases and concepts related to health, becoming an iterative tool, as elements encountered in the examination of a particular disease or preventive health measure became the focus of a subsequent investigation round. For example, in discussing one type of diarrhoea associated with *susto* (*fright*), the issue of *anemia* surfaced in the conversations. More in-depth information on *anemia* was then sought with the same and other informants. This in turn brought up people's associations between *work* and a *healthy body*, which lead to more specific research on both concepts. The approach can be described as one of mapping, as alluded earlier, where different elements brought up by the interviewees are first recorded and the interconnections to other elements are followed in the same or subsequent interviews.

In this process of data collection, the first level of information gathering consisted

of informal open-ended interviews (conversations) with various people on the topic of diarrhoea and parasites, as this had been the initial focus of my study. I began to develop an exhaustive list on "types of diarrhoea" and stomach worms, their names in Zoque-Popoluca, features and elements associated with them (how often they occur, when, why, who gets them, what do people do). Both, stomach worms and diarrhoea were often seen as symptoms of other ills, as the previous example on *susto* shows. This led to an increasing mapping of elements and relationships (eg., diarrhoea, anemia, work, healthy body, red blood, etc...) for which interview guides were developed and semi-structured interviews with key informants were carried out to obtain as much information as possible on as many aspects of the illnesses that were brought up (including explanatory models of causes, patterns of distress, treatment, and help seeking) and the relationships between codes involved in these. The intervals between field visits allowed the partial analysis of information which in turn, facilitated the development of more specific interview guides for a third round of interviews. These last ones tried to address some missing links or confirm the existence of others.

A total of forty taped semi-structured interviews, of 1 to 2 hours in duration, were carried out with twelve key informants (six from each of two communities). About half of the interviews were done with the help of a translator (between Zoque-Popoluca and Spanish). I later transcribed all tape recordings, word by word, for purposes of analysis. Over 400 pages of tape transcriptions were obtained. This time-consuming task had to be performed by me as I had become familiar with the spoken accent and many idioms used by

Zoque-Popoluca people. The accuracy of the transcription is considered essential for the interpretative analyses that were performed on this material. An attempt was also made during the interviews to write down the use of key words in Zoque-Popoluca and their translation and meaning given by the informants during our discussions.

Informants. The informants for the taped interviews were not selected at random, but were chosen according to the following criteria: acceptance to participate in the research; specialized knowledge on traditional health and/or knowledge of folk tales, myths and traditions; and willingness to talk (talk profusely and to a man). These criteria were very important due to the nature of the study. It was felt necessary to interview people that would be willing to talk about specific topics related to health and with little prompting (i.e., without putting words in their mouths). Within this biased sample, considerable variation occurred. Five informants were male: a "natural" community leader, an articulate *campesino* and storyteller, a respected elder health worker, a traditional healer (*yerbatero*), and a traditional snake-healer (*culebrero*). The remaining seven informants were women: three elderly and well respected midwives (one of them also a well respected traditional healer); one community worker and social activist; one *fright* healer (*salmera*); one elderly and respected ex-religious worker; and one articulate *campesina*. Of the twelve, four of them were professed Protestant and the other 8 professed to be Catholic. All attended their church regularly. Eleven of them were Zoque-Popoluca. The twelfth was an elderly woman who came from a neighbouring state as a young child over sixty years ago (she spoke perfect Popoluca). Two of the informants were of relatively high socio-economic status, owned

a television, a radio and their houses had concrete floors and tin roofs. Nine of them lived in traditional houses with dirt floors, wood walls and thatched roofs. Eight of them owned a radio. Although half of the informants were interviewed with the help of a translator (a woman herself), extensive translation of questions and answers was necessary with only three of the informants (the three midwives).

Issues of Validity. The focus on in-depth qualitative interviews, and the bias introduced with the conscious selection of key informants limits any claim that the information is representative of the overall population in the communities, or the Sierra. This bias was controlled somewhat by choosing as many different types of informants as possible within the selection criteria stipulated (ie., people from different communities, men and women; Catholic and Protestant; of higher and lower socio-economic status; and of varied expertise: a snake-bite healer, a medicinal-plant healer, a fright healer, midwives, a health worker, and non-health "experts").

Additional steps were also taken during field work to check the internal validity of the data collected. Visits were made to three surrounding villages that were within one to two hours of walking distance from the study communities. Pieces of information obtained during interviews in one village were checked by asking single questions in casual conversations with people in other villages, and agreement or disagreement noted. The correspondence of different pieces of information was also checked against past ethnographic studies of the region.

Also, within the interpretive strategy used in the analysis of native symbolic systems, a number of measures were taken to ensure a minimum of internal validity (i.e., the relevance of the data to the phenomena being analysed and the logic of the interpretations). For example, during the decoding process, the implications of each and every sign were explored by looking at similar relationships between signs made explicit in other themes or in other manifestations of the Zoque-popoluca culture, such as: rituals, folklore, popular beliefs, or myths. Congruencies were also sought with ethnographic observations from fieldwork or from the work of other anthropologists, concerning practices, perceptions, and knowledge associated with specific illnesses or healing rituals.

Bibliographic Sources of Information

References to ancient concepts of religion and medicine in Mexico were obtained mainly from the works of Klor de Alva (1993), León Portilla (1983, 1987a, 1987b), López Austin (1975, 1996) and Viesca Treviño (1986). These authors based their historical analyses largely on texts from the XVI and XVII Centuries; texts which included testimonies of elder indigenous informants still educated in the culture of their pre-conquest ancestors. Principal historical sources include: documents of fray Bernardino de Sahagún first written in Nahuatl in 1547 and known as the "Primeros Memoriales", and the later works known as "Códice Matritense" and "Códice Florentino"; an herbarium also in nahuatl written by Martín de la Cruz and later translated into latin by Juan Badiano, known as *Libellus de medicinalibus indorum herbis* (1552; which includes information on the

medicinal properties of plants, animals and minerals); the *Relaciones Geográficas*, a survey conducted in 1577, answered by priests, "principal indians" or "those who had an adequate knowledge of the region", and which contained 50 points covering issues related to the environment, economic resources, history, indigenous languages and culture (including also a request for information on diseases, types of treatment and medicinal plants); indigenous incantations, many related to health, collected by Hernando Ruiz de Alarcón in 1629; and the nahuatl language "Vocabulario" of fray Alonso de Molina (first published in 1555 and revised by Sahagún in 1571).

Contemporary ethnographic studies from the Sierra Santa Marta and los Tuxtlas include: Báez-Jorge (1973) on the Zoque-Popoluca; Chevalier and Buckles (1996) on the neighbouring Gulf Nahuas; Foster (1941) on the Zoque-Popoluca; and, Olavarrieta (1977) and Guido Münch (1983), both on the encompassing Tuxtlas region. A number of contemporary ethnographic studies from different Mesoamerican cultures are also used through out the thesis and are duly acknowledged.

Ethical Considerations

The research did not involve any human experimentation. In terms of informed consent, I always explained to people, during our first meetings and again before each interview, that I was a student doing field work towards a Master's degree. I explained the type of information I was trying to collect and its use for my thesis. I always tried to meet potential informants one or two days beforehand to give these explanations and asked

permission for an eventual interview session. Six or seven people turned down my request and were not asked again. Two of them (both *curanderos*) wanted to be interviewed only if they were paid. I politely replied that I had no budget for that type of expense. Before each interview, I asked for people's permission to use a tape recorder and offered to give them back a copy of the tape-recordings of the sessions. I also explained to them that they did not need to answer any questions they did not like. Some of the informants had a radio-tape recorder. All knew of someone that owned one and that they could use. Four of the informants did request and got copies of their own interview sessions.

The thesis does not identify at any time specific individuals or households in the study communities, with the exception of two people. One of them is Juana Sandoval, the nutritionist who assisted us in planning and implementing the nutrition workshops. She is not only a professional, but also received per diem and travel expenses from my research grant to help cover her participation in the workshops. Both workshops were organized with the permission of the municipality, and as mentioned earlier, all mothers who took their children for anthropometric measurements, received individually a written summary of their children's results and were explained their significance. In some cases, the mothers were advised to take their children to the local government health clinic for a more thorough assessment. The children's information was kept confidential. Information of these two workshops has been used in some reports but only in aggregated form. The other person who is identified in the thesis is Pedro Gonzalez Santiago, a Zoque-Popoluca *campesino* with extensive knowledge of local folk stories and myths. He is acknowledged as the

narrator of several passages transcribed for this thesis. I obtained his permission to reproduce them here and to identify him as the narrator. I also decided not to identify either of the two study communities where I conducted most of my research. This is due to existing rivalries between and within them along religious lines and political parties. Some people professing conversion to Protestantism are not supposed to believe nor take part in rituals associated with those "*cosas viejas ... de los abuelos*" (old things ... from our grandparents), at least not in the presence of outsiders. Relatives and neighbours can become upset with them. In other instances, some of the informants were very candid about personal matters during our discussions. My promise not to reveal their identity is best safeguarded by keeping the names of the communities anonymous. Finally, informed consent was sought from the heads of households interviewed in the two surveys in which I collaborated. The data was also kept confidential and has been published only in aggregated form. All sources of secondary data used in the thesis have been also clearly identified.

Chapter 2: The Zoque-Popoluca of the Sierra Santa Marta

The following sections give a sketch in space and time of the area of study and its people. The presentation is not exhaustive. Highlighted are key ecological, social, political and cultural influences that shape the complex reality of this corner of Southern Veracruz. More detailed analyses on these topics can be found in the studies by Foster (1941), Báez-Jorge (1973), Guido Münch (1983), Chevalier and Buckles (1996) and PSSM *et al.* (1996).

2.1 Geographic and Ecological Context

The Disappearing Forests of Mexico

Mexico's remaining forests amount today to about 50 million hectares, covering 25% of the national territory. These ecosystems have suffered relentless degradation over the last five decades. The government's own estimates put the level of deforestation at 17 million hectares between 1970 & 1990, or 30% of the forest cover that existed in 1970. Present deforestation rates are not any better. Current estimates found in the literature range from 700,000 to 1 million hectares per year (or 1.4 to 2% per year). The forests that are left share two important and unique features: first, they are inhabited forests, with an estimated population of 18 million mostly indigenous people; and second, most are *ejido*³ lands (70

³ The *ejido* (or "agrarian reform community") is a form of land tenure that was granted by the nation to groups of peasants that solicited land through the agrarian reform laws. The *ejido* could be either parcelled into individual plots to be worked individually by a family or household (this is the most common case) or it could remain undivided and worked collectively by a group commonly belonging to a same community.

to 80%) owned by approximately 8,000 communities. These local populations are considered to be among the poorest in the country for reasons that will be explored later. They typically depend on agriculture and the forests for their subsistence and income generating activities. In addition to commercial logging, non-timber products have always helped support local economies. Commercial products include: palms, pine resins, honey, wild animals. Subsistence products include medicinal plants, edible plants, animal meat, fuel wood, and various construction materials for houses.⁴

Los Tuxtlas and Santa Marta

The area of study is a mountain forest that shares many of the characteristics just described. Foster called it "the *Sierra Popoluca*" during his visit in 1941. It forms part of the *Sierra de Santa Marta*, which in turn belongs to a cluster of volcanos known as *Los Tuxtlas* (see figure 2.1). These old mountains border the coast of the Gulf of Mexico in the South of Veracruz. Three volcanos dominate the landscape: San Martín Tuxtla to the North, followed by Santa Marta and San Martín Pajapan heading South along the coast. The Sierra's forests have undergone very similar degradation processes to those in the rest of the country, albeit the rate of deforestation has exceeded the national average. Between 1967 and 1991, a total of 59,000 ha of tree cover disappeared, representing a loss of 61% of forest cover in just 24 years (PSSM *et al.*, 1996:2-5). Today, only some 30,000 ha of forest and *selvas* remain in los Tuxtlas, counting various treed areas that have been

⁴ The statistical information presented was obtained from: L.K Snook (1997); D.B. Bray (1997); and, L. Merino Pérez (1997)

fragmented into discontinuous forest islands. Most of the standing forest (about 27,000 ha) is located in the Sierra Santa Marta.

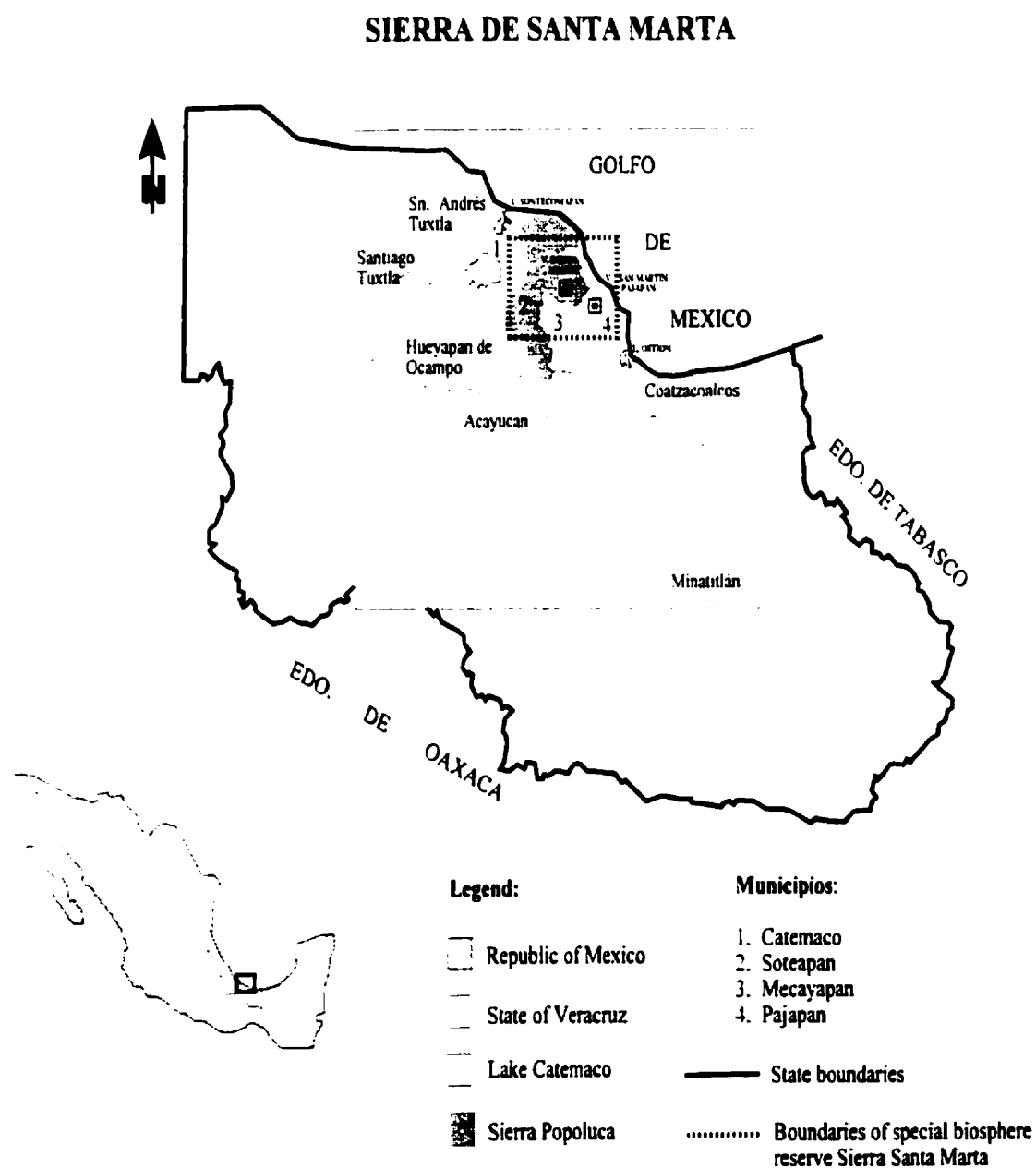


Figure 2.1: Location of Study Area (after PSSM, 1996).

The Sierras are of great ecological and hydrological importance. They form the only high mountain range rising directly from the East shore of the Atlantic in North America. This topography creates very unique conditions. A continuous rainforest existed until not too long ago connecting the mountain peaks all the way down to the ocean. The altitudinal profile, ranging from sea level to 1,750 meters above, produces a wide variety of climates and ecosystems which sustain an impressive diversity of life forms. Over 1,300 plant species have been registered in the region, out of an estimated total of 2,000 species. More than 400 bird species inhabit the area (about 40% of the total species of the country), along with an estimated 1,015 animal species, 157 of which are currently endangered (PSSM *et al.*: 2-3 to 2-6).

In addition to its important biodiversity, the area is also critical to the water resources of the region. The volcano forests feed lake Catemaco and the *lagunas* de Sontecomapan and Ostión. They also supply about 80% of the water to the urban and petrochemical corridor of Coatzacoalcos, Minatitlán, Jáltipan and Acayucan, making the protection of this water supply a key element for regional development⁵. The Sierra is also home to about 60,000 dwellers who depend on these mountains for their livelihood.

⁵ Source: Gobierno del estado de Veracruz (1992), "Los Tuxtla: plan para su conservación y desarrollo integral". Programa de Desarrollo Integral de los Tuxtla. Universidad Veracruzana, Jalapa, México; cited in J.L. Blanco Rosas (1997), "El Proyecto Santa Marta - Experimentación participativa para el uso adecuado de recursos genéticos maiceros", Red de Gestión de Recursos Naturales, Fundación Rockefeller, México.

A Special Biosphere Reserve

The Mexican government declared in the early 1980's the Sierra de Santa Marta as a *Zona de Protección Forestal y Refugio de la Fauna Silvestre* (Forest and Wildlife Protected Zone). In 1988 it was reclassified as a *Reserva Especial de la Biosfera* (Special Biosphere Reserve) by the Ministry of the Environment. Neither decrees, however, were accompanied by a management plan to guide productive activities in the protected zones, nor even by the provision of basic information to explain the significance of the pronouncements to local communities. People in 1980 believed the government was about to expropriate all remaining standing forests of the Sierra. Many *campesinos* reacted initially by clearing more forest in an effort to protect their access to future agricultural land. The more organized *ejidos* also sought to block the decree in the courts (PSSM *et al.*, 1996: 3-2). In the end, the conservation proclamations have done little to safeguard the environment over the last two decades. Deforestation rates have decreased lately, but this is due mainly to the steeper slopes and harder access that limits the use of land in the remaining forests, as opposed to the implementation of any conservation measures. There is perhaps one exception: a fire prevention campaign carried out by the PSSM, a Mexican NGO that has been working in the Sierra since the early 1990s.

The Dwellers of the Sierra

Like most forests in the country, the Sierra de Santa Marta is a populated forest. In the period between 1980 to 1995, its population increased from 29,000 to 58,000 inhabitants. The average growth rate in the first half of the decade was estimated as 5.3%, more than twice the rate for the country. The population density also increased dramatically.

from an average of 21.5 persons/km² in 1980, to 42.5 persons/km² in 1995. The inhabitants are mainly indigenous (80%) of Nahuatl and Zoque-Popoluca origins. The rest are *mestizos* of different backgrounds. The indigenous communities are located primarily in the southern part of the Sierra: the Nahuatl in the South-East, in the municipalities of Pajapan, Mecayapan and Tatahuicapan; and the Popolucas in the South-West, mainly in the municipality of Soteapan (see map in fig. 2.1). Both arrived in the area over one thousand years ago. *Mestizo* populations settled initially around Catemaco (to the North and West of the Sierra) early in this century, and from there, they have expanded towards Soteapan and Mecayapan (PSSM *et al.*, 1996: 3-3). The relatively recent *mestizo* zone in the North is of cattle ranching tradition, and is characterized by private ownership of large land surfaces. The growth rate for this sector of the population is closer to the country's average. The indigenous population in the South, on the other hand, has a much higher annual growth rate (5 to 8%) and is of a strong agricultural tradition. People practice slash and burn cultivation of corn in small plots of land called *milpas* that are usually 1 to 3 ha in surface.

Forest and Agricultural Ecosystems in Crisis

The clearing of forests and *selvas* in Santa Marta was a direct result of an expansion in cattle ranching, as opposed to a high demand for forest products. A large part of the cut trees were burnt given the difficult access to the area. At the same time, logging bans favoured the illegal extraction of the more valuable species. As cattle ranching increased at the expense of the forest, it also began to compete with maize cultivation by reducing the areas of regrowth (agricultural resting lands called *acahuales*). *Mestizo* ranchers coming in

from surrounding regions took over these lands which had traditionally belonged to the indigenous peasants of the Sierra, forcing them higher into the mountains to open new cultivation plots. This expansion of cattle ranching was actively promoted by the government in two waves of colonization: in the 1950s by the Departamento de Asuntos Agrarios; and, in the 1970s by the Secretaría de Reforma Agraria (Chevalier and Buckles, 1996; and PSSM *et al.*, 1996: 3-38 to 3-42). From an ecological perspective, the destruction of forests and *selvas* for grazing purposes created particularly destructive problems. Ianto Evans explains:

The selva of Los Tuxtlas is disappearing very fast. Main problems are fire and grazing, which are both destroying primary forest and preventing recolonization. The process of forest clearing for maize is structurally quite different from grazing in that maize cultivation by slash and burn leaves holes in a fabric of still-continuous forest, while grazing leaves forest islands in a matrix of grassland. Grazing favours conditions which lead to catastrophic forest fires and prevents forest regeneration. Grazing also destroys continuity of forest cover in a way that centuries of slash and burn have never done (1992:1).

In addition to the relentless destruction of the wildlife's natural habitat, the fragmentation or loss of continuity of the forest cover has a more pronounced effect on the survival of many species since it prevents their seasonal migration from high to low altitudes, including the feeding movements of large mammals. Grazing also creates ideal incendiary conditions. Cattle tend to avoid the coarser perennial grasses, favouring the build-up of a mat of dead grass in the high pastures against the edge of the *selva* or forest. Fires can easily spread to these dry zones and onto the treed areas when ranchers deliberately burn the pasture fields to improve grazing. These mats of dry grass may also burn accidentally as *campesinos* burn their *milpa* or *acahuales* before the planting of maize. Most wildfires in the *selva* spread

uphill from these burns (Evans: 1992:4-12).

From a social and economic perspective, a number of factors combined to threaten the present and future livelihood of the indigenous communities. In addition to the destruction of forest ecosystems, other government policies also contributed to the degradation of agricultural soils. The *Green Revolution*, for example, extended its ravaging effects into the *milpas* of the Sierra. It did succeed in disseminating a technological package that consisted in the intensive use of chemical fertilizers, pesticides, herbicides, and "improved" corn varieties. But it also left peasants more marginalized, as it led to the loss of agricultural diversity, abuse of agrochemicals, increased deforestation, and a severe loss of soil fertility. Nigh and Salazar (1997:59) qualify the national application of this technological package as a resounding failure. The authors argue that this package (and policies for implementing it) failed to address the critical factors limiting production in most indigenous agricultural lands of the country. Traditional agricultural practices (burning, steep sloping furrows, exposed soil) favour erosion and compaction of the soil, reducing any benefits from the application of agrochemicals. In terms of costs, the authors summarize the situation as follows⁶:

Conventional technology, in particular chemical fertilizers, pesticides and irrigation works, have a tendency to gradually increase the costs of production. Fertilizers maintain production over a certain period of time without needing to worry about the organic matter content in the soil or protecting against erosion, but only for a limited time, and with greater doses required year by year. Pesticides cause resistance and destroy natural

⁶ Ibid, p.59 (my own translation).

enemies provoking the "necessity" to apply greater quantities of pesticides, that are more toxic and expensive. Because of deforestation, and also due to the neglect of erosion control ... [U]nder this conventional system, costs of production tend to increase year by year, while yields and the quality of products tend to decrease as a consequence of ecological deterioration.

Perhaps the most damaging effect of the Green Revolution and government policies was due to the neglect of soil conservation practices for the country in general, and the Sierra in particular. Estimates found in the literature on the extent and rate of soil degradation vary from alarming to catastrophic. Expert studies in the mid seventies indicated that up to 80% of national soils were experiencing severe erosion⁷. By the early eighties, the figure had risen to 98%⁸. Even official figures given by the Secretaría de Agricultura y Recursos Hidráulicos (SARH) in the early nineties, report 86% of the national territory as showing signs of soil erosion⁹. Yet this has been viewed mainly as a crop yield problem, and not as a problem of degradation of agricultural ecosystems with important long term implications. The response has been to promote the application of chemical fertilizers to maintain yields in the short term, while neglecting investments in soil conservation and restoration of soil fertility. Policies to boost maize crops in the immediate future have been sternly followed at the expense of (and with a total disregard for) the long term efficiency of sustainable agricultural production.

Other compounding factors have contributed to the degradation spiral of the Sierra's

⁷ Andrade (1975:63) cited in Nigh and Salazar (1997: 59).

⁸ Estrada and Ortiz (1982:23-7) cited in Nigh and Salazar (1997: 59).

⁹ Mass and García Oliva (1990:21-36) cited in Nigh and Salazar (1997: 59).

ecosystems. A case in point is the impoverishment of the soil exacerbated by the shortage of fallow lands (*acahuales*). The rapid growth of the indigenous population, the lack of productive alternatives, and limits on land available for *milpas* force *campesinos* to work their plots longer and reduce resting periods of *acahuales*. An immediate impact has been lower crop yields at higher costs of production. For instance, average maize yields of 3 tons/ha reported for the Sierra in the seventies had decreased to 1.4 tons/ha by the mid 80s in spite of the use of agrochemicals. Maize yields have continued to decline to below 1 ton/ha in many *milpas* of the Sierra (PSSM, 1996:3-18).

Less talked about is the loss of product diversity of the *milpa* and the impact on the nutritional status of peasant families. Yet, this is a problem facing many indigenous communities through out rural Mexico. Before the application of herbicides and the loss of soil fertility, the *milpa* was able to produce different fruits and vegetables that helped balance the diet of indigenous *campesinos*. Today this diversity has disappeared from both the *milpa* and the forest, and the impoverished diet is having its toll. The following example for Peña Hermosa, Municipio de Pajapan, illustrates how severe the collapse in diversity of food staples has been. While in 1976, 93% of *campesinos* cultivated beans for self consumption, ten years later only 8.4% were growing this plant. The same occurred for many other products of the *milpa*: for squash the decrease went from 68% to 3%; for yuca, 71% to 2%; for *chayote*, 46% to 1.4%; and for banana, 93% to 1.5% (PSSM *et al.*, 1996: 3-40).

With the disappearance of the forest also disappeared many edible forest plants and animals that complemented the diet and/or income of *campesinos*, compounding even more the loss in diversity and availability of food products. With respect to the nutritional status of the population, again other factors magnify the damaging effects. Poor sanitary conditions in the communities of the Sierra result in high incidence of parasitic infections. To this problem is added the young age of mothers who can become pregnant as early as 13 years old, and can have two or three children before the age of 17. It is not rare to find young mothers overworked, with poor diets, breastfeeding children, and with both mother and child having stomach worm infections. In the Popoluca community of Mamaloya for example, 60% of children under the age of five showed signs of malnutrition¹⁰. Our own research carried out in 1994 in two communities of Soteapan, corroborate the existence of a severe nutritional problem in the Sierra¹¹. Anthropometric measurements (weight and size for age) indicated that over 90% of children presented signs of malnutrition, with about 60% of them showing acute signs (below 70% in weight and below 85% in size of the respective averages for the State of Veracruz). The measurements were carried out on children brought in by the mothers on a voluntary basis (96 children in a community of 120 households and 125 children in the larger community of 670 households). No firm averages for the communities can be inferred from these numbers, since probably mothers that were concerned about the nutritional status of their children were those who brought them to be

¹⁰ Interview with community health worker, Soteapan (Nov. 9, 1997).

¹¹ Source: Juana Sandoval, "*El Estado Nutricional en dos comunidades de la Sierra de los Tuxtla, Proyecto Santa Marta*", unpublished report, april 1994.

weighed and measured. Nonetheless, the results obtained do indicate a nutritional status well below the average for the State of Veracruz.

2.2 The Sierra Popoluca

Population and Habitat

The Zoque-Popoluca are concentrated in the *Municipio* of Soteapan, bounded by the Gulf of Mexico's coast to the North, by the *Municipio* of Catemaco to the North-West, Hueyapan to the West, Acayucan and Chinameca to the South, and Mecayapan and Pajapan to the East. As Foster noted, "The area is in the form of an oval, extending from 18° to 18°20' N. Lat., and from 94°40' to 95°15'W Long." (1941:4). It covers 525 km². The population of the *municipio* has been steadily doubling every twenty years since the 1930s¹². It was estimated at 23,181 in 1990, of which 20,183 (87%) were indigenous inhabitants, mostly Popoluca (PSSM et al., 1996: 4-25).

Little change in the ethnic make up of the population appears to have occurred during this century. Báez-Jorge reports for 1960 that 35.4% were unilingual Spanish speakers, 15.5% unilingual Zoque-Popoluca speakers, and the majority (49%) were bilingual. Of the bilingual population, most spoke Zoque-Popoluca and Spanish, a minority spoke Nahua and Spanish, while only a handful of families spoke Zapoteco and Spanish. Women and

¹² Demographic figures reported from 1930 to 1990 are: 3,496 in 1930; 6,266 in 1950; 12,224 in 1970; and, 23,181 in 1990. Sources: Báez-Jorge (1973: 46) for 1930-70 values; and for 1990: *Indicadores socioeconómicos de los pueblos indígenas de México*, 1990, p. 198, INI.

children under school age were the unilingual Zoque-Popoluca speakers. Perales (1992: 29) reports that ten years later this percentage of unilingual speakers had decreased to 2% but that most people in the *municipio* spoke Spanish and Popoluca. In terms of literacy rates, data for 1990 indicated that 85% of men and women above 15 years of age never completed primary school. Over half of them (56%) considered themselves illiterate (PSSM *et al.*, 1996: 4-29). A survey done for the town of San Pedro Soteapan in 1993 reported an illiteracy rate of 18% for men and 24% for women (Jiménez López, 1993: 33). This is the *cabecera municipal* or head town of the *municipio* where the administrative offices reside. It is also the largest Popoluca town. In the surrounding smaller villages, the illiteracy rates for both sexes tend to be much higher.

The population is presently distributed over 25 communities that range from 10 to 700 households. The latter number corresponds to the town of Soteapan, the largest Popoluca community. There are four other large communities with 200 to 450 households. The rest are small villages having between 20 to 60 households. There is also a small number of *caserios* with less than 10 houses each.

When the ancient Popoluca arrived in the region, they found a lush vegetation and rich wildlife in the mountains and streams. Elders today still talk of not long ago when *caracoles* (shellfish) were plentiful in the pools of waterfalls. This image of natural abundance gave the region its name, Soteapan, the "motherland of the *caracol*". The word

derives from the Popoluca *Xoqui*¹³ (*caracol*) and *apa* (*madre* or mother). The oldest settlements in the Sierra Popoluca are *Atebet*¹⁴ (today San Pedro Soteapan), Cuilonia¹⁵ and Ocotál Grande¹⁶ (Báez-Jorge, 1973:47). People refer to *Atebet* as "the community, there [that place] where there is a municipal president", probably reflecting the presence of a governing body in this community for many centuries.

A paved road 43 km long connects this town with the main highway (Veracruz-Coatzacoalcos). The road was finished only in 1964 and allows rapid communication (1 to 2 hours, depending on its upkeep) with the city of Minatitlán. A regular bus service operates throughout the week. Internal communications within the villages of the *municipio* are in

¹³ In this thesis, terms in Spanish will be written in italics, those in Nahuatl will be in italics and underlined, and those in Zoque-Popoluca will be in bold and italics. For the latter, spelling conventions of the Sierra Popoluca developed by Ben Elson will be used according to the dictionary prepared by Elson and Gutiérrez (1995). From this dictionary: *Xoqui*=*caracol*, p.101, and *apa*=*madre* (mother), p.9. Several *campesinos* interviewed confirmed the origin of the word. Jiménez López also reports the same origin (1993:4).

¹⁴ Elson and Gutiérrez (1995) also translate *atebet* as "*pueblo*" (town), p. 34.

¹⁵ Perales (1992:25) gives an interesting reference for Cuilonia, attesting to the fighting spirit of the Popoluca and their independence from the Aztec empire. Here are some words from the Spanish Conquistador and chronicler, Bernal Díaz del Castillo, referring to an incident that took place in this community before the arrival of the Spaniards: "... that in Guazacualco, his reign did not reach [that of Moctezuma], and that they were very daring ... [the locals] ... and that they came from his garrison to lament to Montezuma, that it was not long ago that they had a battle with them and that close to a village with few houses those of that province killed many of the Mexican people, and that for that cause they call today where that war happened Cuylonemiquis, which in their tongue means where they killed the f ____ (*putos*) Mexicanos ..." (cited in Ramírez L., 1971:9) - my own translation.

¹⁶ Báez-Jorge gives the Popoluca name for Ocotál Grande as "Wichin Kan" (1973:47). Using B. Elson's spelling conventions, the name is: *Wáchijcom* = Ocotál Grande, p. 99; with, *chijcuy* = *ocote* (pine), p.21; *wí* = *bueno* (good), p.99; *cuy* = *palo, árbol* (tree), *madera* (wood), p.19 - Elson and Gutiérrez (1995).

contrast very poor. They consist of dirt roads impassable during the rainy season, and a web of small trails through ravines and mountain crests that link the various Popoluca villages.

The highest peaks in this part of the Sierra are the volcanos of Santa Marta (1550 m) and San Martin Pajapan (1270 m). Both peaks are considered sacred places where humans should not venture. They are believed to be inhabited by *chaneques*, supernatural beings also referred to as the "kings of the Earth" (Baez-Jorge, 1973: 50). Most of the popoluca villages are dispersed around the foothills of both volcanos at elevations ranging from 130 to 1,000 m above sea level. *Atebet* is located at an elevation of about 490 m, on the Southern side of Santa Marta.

The climate in the lower zone is hot and humid. *Atebet* is cooler due to its altitude. Its average temperature during the months of June to September is 26°C. The dry season [*pji* or *calor* (heat)] lasts between March and June. Temperatures during this time rise above 30°C. Foster in 1941 reported that the first rains came in late May or early June. Now they arrive later in the second month. The rest of the year is rainy, with its peak in September. Around *Atebet*, Perales (1992: 21) estimates an average precipitation between 2,000 to 2,500 mm per year. A climatic phenomenon known as the *canicula* occurs between July and August. The rains decrease and the temperature increases during this time. As one *campesino* Popoluca describes it: "It's cold and hot in the same day, *chipichipi* (drizzle) and sun." It is a time of fever and diarrhea¹⁷. The cold season [*sucsuc* = *frío* (cold)] begins in

¹⁷ Interview with Popoluca campesino: i1903an.94:l

November and ends in February. Temperatures in *Atebet* can go down to 10°C at night. In the higher villages temperatures will be somewhat lower. *Nortes*, heavy rainstorms accompanied by high winds, can occur between September and March, and are strongest in November and December.

The soils of the area are classified by the Popoluca as either *tierras negras* (black soils) and *tierras coloradas* (red soils). Black soils (vertisols) are good for agriculture. Red soils (luvisols rich in chromium and iron) have a poor fertility. Both types are found around *Atebet* (Perales, 1992: 21). The original vegetation in the flat lands of the area were *encinales* (grass and oak woodlands). Most have been replaced by agricultural land. Many *campesinos* still remember when they first cleared these lands to make *milpa*. The only *encinales* left these days are close to the Huazuntlan river on lands considered too poor for agricultural purposes (1992:21). Trees still found in the area include *palma real*, *palma coyol*, a variety of oaks (black, white, and yellow) and cedar, among others. Above 500 m are pine woods (*Pinus oocarpa*) associated in some areas with oak trees. There are also many varieties of fruit trees. Some are planted and tended, others are native to the region and grow wild. They include *naranja* (orange), mango, *limón dulce* (*Citrus limetta*), *limón ágrico* (*Citrus limonia*), *chicozapote* (*Achras zapota*), *tamarindo* (*Tamarindus indicus*), *guanábana* (*Annona*), and *aguacate* (*Persea americana*).

The fauna is also varied, although many species are in danger of extinction. Some of the more common species includes deer, rabbits, racoons, armadillos, squirrels, rats,

a large variety of snakes [*coralillo* (*Elaps caralinus*), *nauyaca* (*Butropus atrex*), *cascabel* (*Crotalos horridus*), to name a few], parrots, woodpeckers, toucans, quails, partridges, herons, doves and many other birds. Threatened species include (PSSM et al., 1996:2-26): *jaguar* (*Felis onca*), *puma* (*Felis concolor*), *jabalín* (*Tayasu tajacu*), *ocelote* (*Felis paradalis*), *mono araña* or spider monkey (*Ateles geoffroyi*), *tepesquintle* (*Agooiti paca*), *faisán real* (*Crax rubra*), *águila de cresta* (*Spizaetus ornatus*), and *águila arpia* (*Harpya harpija*). Water courses have *bobos*, *Xotes* (small shellfish), shrimps and other crustaceans, albeit also in decreasing numbers.

Cultural Characteristics

Popoluca and Nahuatl cultures have lived side by side in the Sierra Santa Marta for over one thousand years. Their histories are closely entwined. They also share many cultural elements notwithstanding their different languages. The commonalities between both groups are so striking that Münch considers they form a single cultural area in the Northern isthmus of Veracruz (1983:10). Important cultural aspects of ancient Mesoamerican tradition subsist in both, enmeshed with Spanish and more recent Western influences.

The main productive unit for the Popoluca is the household. Báez-Jorge (1973: 143-84) notes traces of an ancient patrilineal pattern of descent that was transformed into a bilateral type through Spanish evangelization. Postmarital residence tends to be initially patrilocal and neolocal in later years. When a son marries, he remains with his new wife in his father's home until the young couple is ready to build their own dwelling in a nearby

location. Houses of male relatives are close to each other. Sons work the land of their father with their spouses and children. Monogamy predominates but polygyny is still socially acceptable. The multiple wives of a man can be sisters. Voluntary co-operative work was quite common a few years back. The practice has been slowly dying with the introduction of individualistic forms of production and land tenure. *Mano vuelta* (*dar la mano* or "lending a hand") incurs a reciprocal obligation. During the clearing and burning of fields, or if extra help is required during the harvest, a group of people will come together to help the *campesino* in need. Helpers expect in return a similar amount of work at a later date, but not necessarily of the same type. Those who fail to repay the favour will find it difficult to get help in their own time of need. *Mano vuelta* remains commonplace in the building of houses. This is a social activity often filled with a festive atmosphere and accompanied by food and drink. The Popoluca word for *ayudar* (to help) is *cutígy*¹⁸. Its root *tígy* means "to have a house". A related word is *tígyúm* which means *asociarse* (to associate) as in "getting together for a common purpose", in this case (as the name implies), to help build a house.

Most dwellers of the Sierra are agricultural people that use slash-and-burn techniques for the cultivation of maize. As noted earlier, *milpa* agriculture was traditionally diversified. Early in this century, maize was cultivated along with beans, squash, *chayote*, pineapple, *camote*, mangoes, bananas, *jícama* and sweet manioc. People also complemented their

¹⁸ Also from Elson and Gutiérrez's dictionary (19995): *tíc* = *casa* (house); *tíc* + *gy* = *tígy* (*tener casa* or "to have a house", p.10 & 90; another word for the verb "help" is: *yoxpái* = *ayudar*, p.6; *yoxa* = *trabajar* (to work), p.102; and *yoxacuy* = *trabajo* (work), p.103.

diets with hunting, fishing, and gathering of various foodstuffs from the forest. Maize nonetheless remained the most important food in the Popoluca and Nahua diet. It is considered the only "real" food. A stomach will not be full unless maize is consumed in some form (*tortillas*, *totopos*, or *atoles*)¹⁹. The cultivation of maize was surrounded by elaborate rituals in both cultures. It involved fasting, sexual abstinence prior to sowing, prayers to the corn god, and the burning of *copal* (incense). Both groups also made offerings to the *chaneques*, the masters of all animals, prior to hunting or fishing. These and other cultural elements (including rituals related to childbirth, wakes, and healing) are discussed in some detail in coming chapters.

2.3 Early History

The old volcanoes of Los Tuxtlas stand abruptly against the coast of the Gulf of Mexico. They are surrounded inland by a large alluvial plain formed over thousands of years with the silt deposited by large rivers that descend from far away mountain ranges to the West and South. It is here, in these plains, where the Olmec culture flourished for more than one thousand years before the Christian era. The name *Olmeca* is actually a word in Nahuatl (a language not spoken at that early time) meaning "the dwellers in the land of rubber" (Villegas *et al.*, 1975: 13). It is believed that up to 350,000 Olmec people lived once in these vast plains. It was an enormous agricultural population for the time. The early

¹⁹ *Totopos* are dried and/or toasted *tortillas*, commonly eaten when stomach is upset; *atole* is a drink made of corn flour or corn dough.

Olmec developed slash-and-burn cultivation techniques, clearing new plots of forests as their agricultural fields became unproductive. With the passing of centuries, their culture and society grew in complexity. They resorted to trade to support their increasing needs, and in the process, spread their influence over a vast area that we call today Mesoamerica. Later cultures like those of the Mayas, Zapotecs, Mixtecs, Huastecs, Toltecs and the later Aztecs inherited many aspects of their culture and science. Olmec influence is seen most notably in stone relief carvings, the design of human settlements and pyramids, their numerical systems, and glyphic scripts. Part of their pantheon (including *Xipe Totec* and *Quetzalcoatl*) was also taken up by many of these cultures. Between 500 to 200 B.C. the Olmec civilization entered a long period of decline, gradually losing its preponderant position, and was never able to recover (*ibid.*, 1-19).

Seven hundred years later (around 500 A.D.) we find the Zoque-Popoluca living in one part of this ancient Olmec territory. This fact and some linguistic links are the only pieces of evidence of a possible ancestral relationship. The name "Popoluca" stems also from the Nahuatl and means "*extranjero* (foreigner), *bárbaro* (barbarian) or *ininteligible*, a termed applied to those Peoples that spoke a language other than Nahuatl (Perales, 1992: 23). All three connotations probably reflect the image that the ancient Mexica had of the Popoluca, given the fierce resistance the Aztec warriors encountered when attempts to conquer them failed in the years preceding the arrival of the Spaniards.

Foster noted in 1941 that the Popoluca spoke a language related to Mixe and Zoque²⁰. He identified four linguistic variants in the region, calling them the Sierra Popoluca, Texistepec Popoluca, Oluta Popoluca and Sayula Popoluca (see figure 2.2). The Sierra Popoluca was the most important and was found in the Sierra mountains described in the preceding sections. The last three variants were limited to the Southern towns of the same name, just outside of the volcano foothills (1941: 4). Münch concluded 42 years later that the Popoluca spoken in Texistepec and San Pedro Soteapan is very similar to the Zoque, while that spoken in Sayula and Oluta is very similar to Mixe (1983: 23). Dialect divergence patterns have been estimated as follows: between Zoque and Mixe beginning around 200 B.C.; and, between Zoque and Popoluca of Soteapan (or Sierra Popoluca) in 500 A.D.²¹. This last date corresponds well to the estimates by Báez-Jorge (1973: 59) of the time of arrival of the Zoque-Popoluca into their present territory. In sum, it appears that their presence in the Sierra dates back to at least 15 centuries ago.

Their Nahua neighbours arrived several centuries later. The first migrations into Veracruz began with the fall of Teotihuacan (around 650 A.D.) and later with the fall of Tula (around 1,200 A.D.), continuing up to the Spanish Conquest. Estimates of their first arrival in the Sierra Santa Marta range from 700 A.D. (Báez-Jorge, 1973: 62) to 900 A.D. (Chevalier and Buckles, 1992). In the years before the Conquest, Zoque-Popoluca and

²⁰ Both, Mixes and Zoques are believed to be descendants of the ancient Olmecs (Báez-Jorge, 1973:57-61).

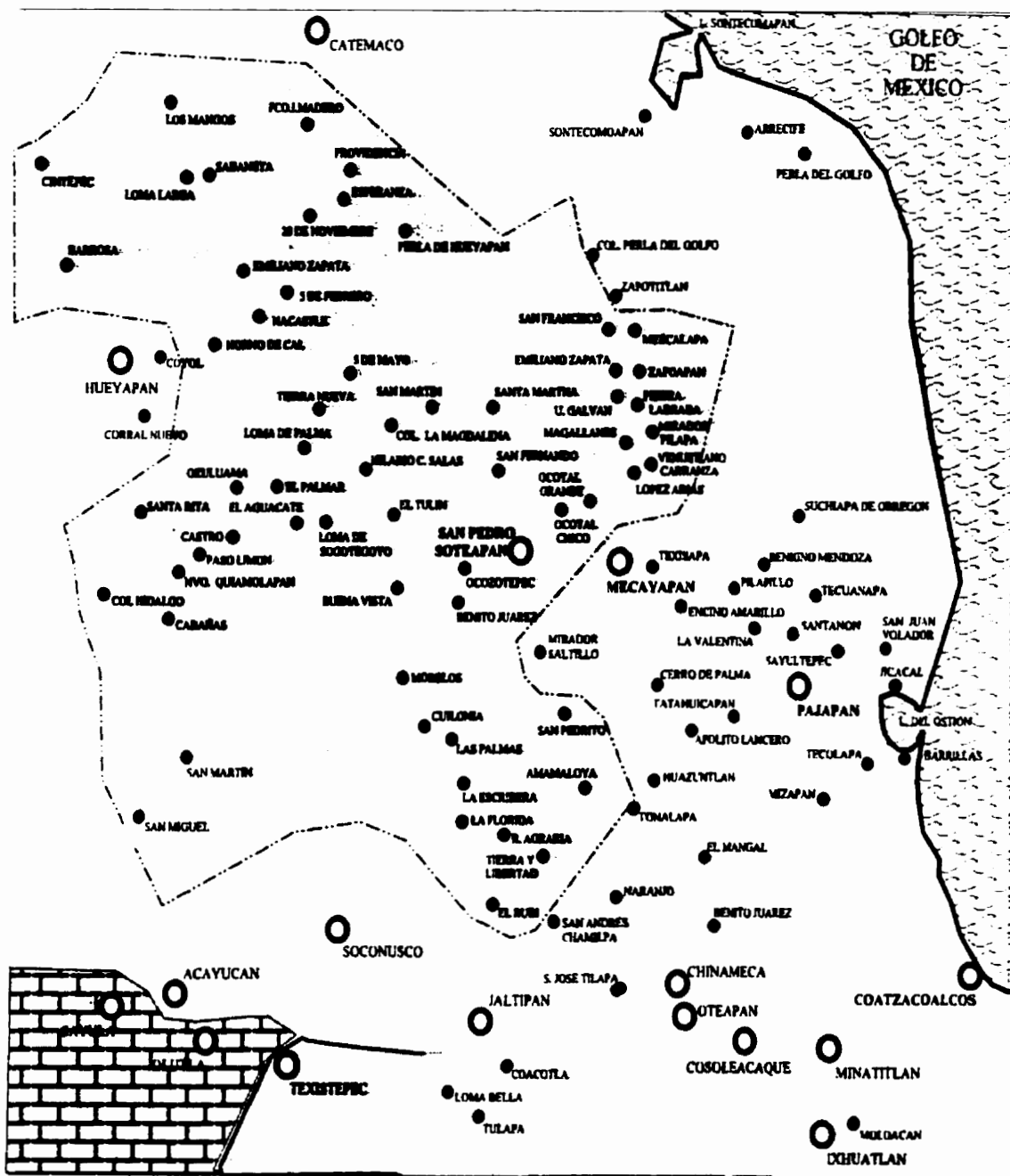
²¹ Jesús Morales Fernández, "El Popoluca de Veracruz", tesis para optar al título de maestro de la Universidad Veracruzana, Jalapa, 1971, p.18 - cited in Münch (1983:23).

Nahua settlements formed the *Señorios de Coatzacoalco and Tuxtla*. Villages in these *Señorios* paid tribute to their military rulers in the form of cacao, cotton cloth, maize, and an array of other products in exchange for protection against outside enemies. Both *Señorios* had managed to maintain their political independence from the expanding Aztec empire. But the Aztecs remained a constant threat.

This led Coatzacoalcos to make alliances with the Conquistadors soon after their arrival²². Hernán Cortés met the cacique *Tochel* of Coatzacoalcos in 1519. It was to be a very important meeting for Cortés. He learned much about the Aztecs and their enemies, and was given as a gesture of good will the services of doña Marina or *Malitzin* (better known in modern days as the Malinche). *Malitzin* knew the language of "Guatzacualco" (Nahuatl) and that of Tabasco (probably Zoque). She became the mistress of Cortés and acted as his interpreter, guide and counsel in his conquest of these foreign lands (Báez-Jorge, 1973: 64).

The years that followed brought misery and disease to the native populations. Garcia de León estimates that the *Señorio of Coatzacoalco* comprised 76 villages and about 50,000 inhabitants at the time of arrival of the Spaniards.

²² These types of alliances were strategically sought by the Spaniards in their plan to conquer the Mexica territory. They were successful. If we are to believe Cortés, the siege of *Tenochtitlan* (the capital of the Aztec Empire) a couple of years later was carried out by one thousand Spaniards supported by fifty thousand indigenous allies. When the Spaniards arrived in 1519, barely a generation separated many indigenous nations from their former condition of independence. Many regarded Moctezuma as a tyrant and saw in the Spaniards a possibility of freeing themselves from the Aztec yoke (Villegas et al., 1975: 49).



ETHNIC GROUPS:

-  MESTIZOS
-  ZOQUE
POPOLUCA
-  NAHUAS
-  MIXE
POPOLUCA
-  ZAPOTECAS

Figure 2.2: The Peoples of Southern Veracruz (after Münch, 1983: 17).

In a period of just twenty years, the population declined dramatically to about 3,000²³. It had not increased much forty years later (in 1580). Suero de Cangas y Quiñones wrote in his *Relación de la Villa del Espíritu Santo*²⁴ that the Province contained various villages, including among them Xoteapa (Soteapan), Olutla, Tezistepeque, Zayoltepeque and others. He noted that: "... in all of it there are about 3 thousand indians ... [many] have died from disease, for the most part smallpox and measles." (cited in Báez-Jorge, 19973: 70).

After taking control of the region, the conquistadors divided the wealth of the new land among them and subjugated its people, first through slavery and later through *encomiendas* (entrustments) that included the distribution of land among the Spanish by means of royal grants²⁵. Native populations were allowed to remain in their villages and work their plots of land, but they now had to pay tribute to the "legal" owners and the Crown. For example, Xoteapa (Soteapan) in 1554 paid the following tribute to its

²³ Garcia de León (1969: 11-12), cited in Báez-Jorge (1973: 64-5). One condition that characterize the entire colonial period was the significant decline in the native population due mostly to disease. Villegas *et al.* (1975: 58) notes that the total population of what was then the New Spain did not return to its pre-Hispanic levels until the second half of the eighteenth century.

²⁴ This was a report written by the author on a Spanish settlement founded in 1522 at the side of indigenous Coatzacoalcos.

²⁵ The Spanish Crown, short on financial resources, resorted to a system of private enterprise to conduct the discovery and conquest of the New World. It granted the conquistadors certain rights in the exploitation of the conquered territories in exchange for recognition of its sovereignty and a portion of the revenues generated. This reward included a certain number of "Indians" to serve them, tributes, *encomiendas* and grants of land. The conquistadors were anxious to recuperate their expenses and reward their efforts at the expense of the native populations. The proportions of their rewards were fixed by them since there was no one else to oversee them. This meant that during the initial years at least, they used and abused their rights without any control, paying no heed to orders issued by the Crown against the mistreatment of natives (Villegas *et al.*, 1975:45-7).

encomendadero Juan Martín de Valencia, every 60 days: 4 *tablas*²⁶ of cotton cloth, 4 thousand beans of cacao, five hens and one jug of honey. In addition, it had to pay on a yearly basis: 8 *fanegas*²⁷ of maize and 2 and a half *fanegas* of beans (Báez-Jorge, 1973: 69).

By the later part of the XVI Century, the Crown began to exert greater control on the conquistadors and their abuses. It centralized political decision and moved to displace the old conquerors from their privileged positions. These political events, however, benefited little the surviving native populations. Instead, another wave of land grabbings began, further eroding the communal properties still held by the indigenous communities. It was during these times that the *hacienda* established itself as the main unit of production in the colonial economy. Wealthy farmers zealously followed their quest to accumulate as much land as possible to make their enterprise economically viable. Moreno Toscano explains:

An *hacienda* could not operate economically unless it controlled large extensions of land that could be used for various crops in addition to stands of trees for firewood and charcoal and fields for grazing ... Some owners had sufficient land to grow crops of both temperate and tropical climates, so that the income of the *hacienda* did not depend on a single crop. These secondary crops ensured the *hacienda* a small but stable income throughout the year and a larger profit margin in good harvest years (Villegas et al., 1975: 57-8).

The accumulation of land by the *hacienda* served different purposes. As large extensions of land were appropriated by the Spanish, more and more indigenous peasants

²⁶ A *tabla* is a unit of measure which typically varied not only from place to place, but also in the same place according to the commodity in question. It is difficult for this reason to ascertain the quantity involved.

²⁷ A *fanega* is a Spanish grain measure equivalent to about 1.5 bushels or about 12 gallons.

lost any possibility of having land of their own. In this way, the *hacienda* not only monopolized production, but forced landless peasants into the same *haciendas* as agricultural workers, or into towns and cities as consumers of its products. A reliable supply of farm labour was essential to the *hacendados*. Yet, as was noted earlier, the native population had been decimated by disease, or had scattered and retreated into the forests away from the colonial rulers. Faced with this shortage of working hands, the *haciendas* began to use every possible means to secure the labour force needed. The most effective method was to pay peasant workers very low wages, forcing them to become indebted to the *hacienda* when faced with extra expenses, such as a family celebration (a wedding for example) or illness. *Hacienda* owners were quick to provide the necessary loans, knowing full well that they could not be repaid and that the debt would bind the workers to the *hacienda* forever. Later on, perpetual forms of indebtedness were institutionalized through the *tiendas de raya* or "*hacienda* stores" (ibid, 58-9). The *hacienda* also provided peasant families with some financial security that could not otherwise be assured on community land in years when the crops were poor. The option of abandoning community land to find work in the *hacienda* became all the more attractive to many peasants as the best agricultural fields were appropriated by the *terratenientes* (landholders).

In the region of Los Tuxtla the *hacendados* began to despoil indigenous communities of their communal lands along this same general pattern. Báez-Jorge gives an example of the process (1973: 72-30). In November of 1781, José Quintero, owner of Cuatotolapan (Corral Nuevo), was accused before the Viceroy of moving forward the limits of his

hacienda, encroaching on three *leguas* (leagues) of land that belonged to the village of Acayucan. Past governors, mayors and aldermen were summoned to testify in support of Quintero. The proceedings concluded that the three illiterate native plaintiffs had been "duped" by the person who wrote the complaint presented to the Viceroy. The *hacienda* boundaries were declared legal. One year later, Quintero would request and obtain from the government confirmation of all of the *hacienda's* limits. His claim encompassed much of what is now the *municipios* of Acayucan, Hueyapan de Ocampo, San Juan Evangelista and Soteapan - an enormous land estate comprising some 118,000 hectares.

By 1831, the population in the Cantón of Acayucan had risen back to 20,400 inhabitants. Acayucan itself had 1,902; Sauyltepeque (Sayula), 1,206; Tejistepeque, 2,132; San Juan Aluta (Oluta), 639; San Pedro Joteapa (Soteapan), 1,665; Santiago Mecayapa, 736; and, Paso de San Juna, 264²⁸. In theory, the indigenous communities in the canton had 226,853 ha. The *subdelegación* of Soteapan "owned" the largest extension, totalling about 173,805 ha while the more mestizo Acayucan had only 1,115 ha. In reality, most of the land was in the hands of Spanish and mestizo *hacendados*. Their combined land holdings exceeded at the time 263,000 ha (Báez-Jorge, 1973: 76).

Andrés Iglesias visited Soteapan in 1850. He wrote an article for a newspaper of Veracruz describing the way of life of the native inhabitants in this part of the Sierra. In this

²⁸ *Relación* of José María Iglesias, *Acayucan en 1831*, "Suma Veracruzana", Serie *Historiográfica, México*, pp. 35-7 - cited in Báez-Jorge (1973: 75-6).

article he notes with dismay the resilience of the Popoluca to influences from the outside:

Of the sixteen [types of] indigenous Peoples in that department, only Soteapan differs from the rest in habits and customs, and rigorously speaking, even in language, conserving their natural ones, still without alterations, the grossest superstitions of their grandparents, superstitions that have not managed to be destroyed by neither the frequent contact that trade forces them to have with those that they call *people of reason*, nor the judicial and persuasive exhortations of the well intentioned sacerdotals who serve them (Iglesias, in Pasquel, 1973: 4 - my own translation).

We find another reference to the area a couple of years later which portrays the Popoluca in 1853 as being hungry and without land, now openly confronting the *hacendados* and political rulers, plundering and burning properties (Báez-Jorge, 1973: 77).

According to Foster, there were two "chance" events that impacted on the lives of the Popoluca at the turn of the century. Without them, the author believes, life might have continued "relatively unchanged since pre-Conquest days, for an indefinite period" (1941: 14). The first influence was the introduction of coffee plantations into the Sierra. Coffee had been cultivated in neighbouring Acayucan since the early 1800s but production never became important until Mexico's coffee boom of 1888. The boom brought the *Cia. de los Andes* into the Sierra Popoluca. The first *finca* (estate) in the area, with large plantations and expensive processing machinery, was established a mile above Buena Vista (just to the South West of Soteapan). The terrain there offered a suitable combination of sun, altitude, rain and shade for the crop. Foster writes:

Men who had never worked in other than their own milpas were forced or cajoled into planting and picking coffee, and as a result found themselves in possession of silver money with which to buy all manner of new and exciting things (1941: 14).

The second major influence was the Mexican revolution that would soon reach the Sierra. The seeds of this momentous event occurred during the Porfirian regime²⁹ in the last quarter of the XIX century. Mexico's overall economy developed at an unprecedented pace during this time. The country progressed from a single railway of 287 miles in 1877 to a complete railway grid of almost 12,000 miles. Postal, telegraph and even telephone communications expanded to cover a large portion of the national territory. The trade ports of Veracruz, Tampico, and Salina Cruz were improved. Banks were created to facilitate the expansion of agriculture, mining, commerce and industry. However, this economic boom was also accompanied by the steady increase in power of Díaz and his use of oppression and corruption to get his way (Villegas *et al.*, 1975: 125). Díaz never hesitated in feeding the insatiable appetite of the rich to become richer, a trait that was very characteristic of the ruling class at the time.

With a total lack of concern for the grievances of indigenous populations, he expropriated in 1886 almost all of the Popoluca land (encroached or not by the *haciendas*) and gave it to Manuel Romero Rubio, his father-in-law. Soon after, in May 1888, natives of Sotepan, some wearing masks made of animal furs, others with their faces blackened with soot, took over the municipal palace of the canton. They killed the governing officials who were of Spanish decent. The army was sent in a couple of days later. Twelve Popoluca rebels were killed and 31 were taken to prison (Münch, 1983: 38). Before the end of the

²⁹ This period takes its name after Porfirio Díaz who in 1876 overthrew president Lerdo de Tejada, taking the presidency himself the following year. Díaz held this post for all but four of the next 35 years.

century there were more violent altercations between the Popoluca and descendants of Romero Rubio and other large landholders of the area. The governor of the State at one point had to intervene. He imposed a settlement that saw the Popoluca land officially shrink to 19,476 ha (about 11% of the territory it once had claimed as ancestral land)³⁰.

2.4 The Last 100 Years in the Sierra

Early in the century, political events of a national scale began to impact the Sierra Popoluca with increasing intensity and frequency. In particular, government policies and programs related to land tenure and land use would bring about, in less than 100 years, the general erosion of the once rich Popoluca's habitat, leaving people at the close of the millennium with a degraded resource base and one of the poorest standards of living in the country.

We can divide the century into four main periods. Each is characterized by different types of influences on the health of the Sierra's ecosystems and its people. The first period can be called the "destructive" stage of the Mexican Revolution. It includes the fall of the old Porfirian regime and the protracted armed struggles between revolutionary factions, ending with the creation of the Mexican Constitution of 1917. The second, from 1921 to 1940 has been called by several historians the "reformist" period. It was marked by a general

³⁰ Source: Ramirez L., 1971 - cited in Perales (1992: 27).

return to peace in the country, the implementation of the agrarian reform, and the setting of foundations of the new political order. The third period, beginning in the early 1940s saw the "consolidation" of the post-revolutionary modern state (Villegas *et al.*, 1975: 151). A fourth and final period begins in the early 1980s with the incursion of the neoliberal model into the political and economic systems of the country.

The Mexican Revolution

The revolution arrived early to Soteapan. This is not surprising given the conflict over land tenure in the Sierra. It was 1906, four years ahead of the rest of the country. Hilario C. Salas, an opposition leader to the *porfiristas* in the South of Veracruz, mobilized the Popoluca into the rebellion of September 30. Landless and angered by the recurrent abuses of the *hacendados* and the government, many *campesinos* followed Salas into Acayucan. The insurrectionists were defeated. Salas was injured and retreated to Ocotol Grande in the interior of the Sierra. He left a group of loyal followers near the town of Soteapan. There, they faced the federal troops of the 25th battalion who came in pursuit. Many were killed. Surviving rebels and natives escaped into the mountains while a large part of the town burnt to the ground (Báez-Jorge, 1973: 81). For the next two decades the people of the Sierra would be caught up in the fighting. Soteapan was burnt twice, once around 1913 and once again after 1920. By 1925, no more than 20 families inhabited Atebet (Foster, 1941: 15). Salas died in 1914 and the general Miguel Alemán Gonzáles, a native of Sayula, took over the leadership of the revolutionary movement in this part of Veracruz. The new leader fought against the armies of Porfirio Díaz and called for the

restitution of indigenous lands. He later supported the revolutionary Venustiano Carranza and for a while Alvaro Obregón. He was betrayed and died in 1929 (Münch, 1983: 39). His son would later become president of the republic.

Foster assess the impact of the revolution in Popoluca life:

... A large percentage of the men learned to speak Spanish, and many served in various armed forces. When not robbed they had greater incentive to sell produce, especially beans, for which the soil is particularly adapted, and the use of money became general. Various tools became common, and knowledge of the outside world became more diffused. During this time the owners of the *Cia. de los Andes* gave up, and the expensive machines soon turned into rusted masses of scrap. Gradually peace again came to the country, but not before the old pattern of life had been irreparably altered (1941:15).

For centuries, the Zoque-Popoluca faced a relentless fight to keep control of their land and its products. They fought the *Mexicas* before the arrival of the Spaniards. They survived the Conquistadors and confronted the *encomendaderos*, the *hacendados* and the federal troops of Porfirio Díaz, never giving up their claim to their ancestral lands. But the Mexican revolution would profoundly change the character of their struggle in years to come.

Roots of Power and the Agrarian Reform

With the Constitution of 1917 and the agrarian reform that followed, indigenous villages were no longer able to reclaim land on the basis of customary rights. Article 27 of the new Constitution made land the property of the nation, to be regulated by the state in accordance with the public interest. *Campeosions* had now to petition the State for a piece of

land. The State used this control over access to the land to expand its own power and base of support in the country. The agrarian reform thus served as one of the foundations for consolidating the post-revolutionary state (Paré, 1990: 80). Political power became firmly centralized in the presidency. Its authority over the land and its resources gave it the flexibility to develop a system of political rule that would ensure the hegemony of the governing party for over six decades.

Control over rural Mexico was articulated through a network of regional "bosses" or *caciques* - political intermediaries who monopolized the distribution of public resources in the countryside³¹. These individuals can be characterized as mediators between the community and the national power structure. *Caciques* are able to manipulate political processes in accordance with their own interests. They have been able on occasion to rely even on the support of military (and para-military) forces in order to impose their dominance against any form of opposition. They often control agricultural inputs (including the distribution of credits), as well as the transport and commercialization of agricultural products³².

This system also included a number of confederations that organized and controlled

³¹ As Paré (1990: 82) explains, the distribution of public goods and services is conditioned upon the relationships of personal and political loyalty to the *cacique*. It is a system of interpersonal and patronage relationships. Rural *caciques* come from many places: some have been local leaders in the agrarian reform process, others were members of the old pre-revolutionary rural bourgeoisie, revolutionary military leaders and their descendants, or members of the new commercial bourgeoisie.

³² See Nigh and Ozuna Salazar (1997: 62-63)

civil society. In rural México, the Confederación Nacional de Campesinos (CNC or National Peasant Confederation) served this purpose. It was established in 1938 as a sector of the new Party of the Mexican Revolution (PRM) which later reconstituted as the PRI (Institutional Revolutionary Party). The CNC successfully limited social conflict in the countryside until the 1970s. Access to credit, for example, was conditioned to the affiliation with either the CNC or with another corporate group affiliated to the PRI. By using the allocation of land, credit and social services as a mechanism to maintain clientelist³³ and paternalistic relations with rural communities, the peasant movement was largely demobilized and depoliticized. For many decades, the official peasant organizations never opposed the state's overall policies in the countryside, nor did they articulate any alternative political or economic strategies (ibid, p.81) .

The resulting power structure allowed a strong central authority to extend its political and economic control through this network of patronage relationships down to the municipal and local governments. It was a way of dealing with the country's dispersed and culturally diverse rural population, and the difficult access and communications between the tens of

³³ By "clientelist relations" I refer to the structuring of political power through networks of informal relations that link individuals of unequal power in relationships of exchange. In clientelist structures, power and authority are vested in the top individual (president, *cacique* or head of a community) who personally decides how to distribute resources and subordinate political authority according to personal preferences. See Brachet-Márquez, Viviane (1992) "Explaining Sociopolitical Change in Latin America: The Case of Mexico". *Latin American Research Review*. Vol.27, No 3. University of New Mexico. (pp. 91-122).

thousands of rural communities³⁴. It also bred inefficiency and corruption into an important portion of the bureaucracy and private sector. Priority was always given to ensuring the continuity of power through any means necessary, even if it meant compromising the well-being of large sections of the population for generations to come.

It was against this background that the Popoluca renewed their efforts to regain possession of their ancestral territory. Now they had to petition the State for plots of land through the agrarian reform; which they did, trying to form *ejidos* over ancient communal lands³⁵. In 1931, Ocoxotepec, Cuilonia, San Fernando, San Pedro Soteapan and Ocotál Grande solicited 11,926 hectares (Báez-Jorge, 1973: 84). Other Popoluca communities followed in later years, including : Ocotál Chico (1937); Piedra Labrada, Mirador Pilapa and Morelos (1944); Benito Juárez (1946); Vigía, Magallanes and Zapoapan (1960).

But the new rules on land tenure would bring in years to follow new types of

³⁴ Human settlements in Mexico are divided in two extremes: a highly concentrated urban sector and a widely dispersed rural population. While 20 to 25 percent of the country's inhabitants are concentrated in Mexico City, the rural population is dispersed literally into tens of thousands of small rural villages and towns. In 1978, a rural population of 23 million lived in 95,356 different settlements (SAHOP, 1978).

³⁵ After the agrarian reform of 1917, two forms of land tenure existed in Mexico: private land and *propiedad social* ("social property"). The latter is what we defined earlier as an *ejido*. *Ejidos* could be either parcelled into individual plots (*parcela ejidal*) or could remain undivided as communal land (*comunidad agraria*). In either case, communities also retained collective use of water sources and "*monte*" (treed areas) if available. Communal access to land meant that any person born or living (*avecindada*) in the community could occupy a plot of land for agricultural purposes. Its use could be individual, but access to land was communal in the sense that any *campesino* residing in the community could request to work a piece of land within the boundaries of the *ejido*. In the early nineties, the so called *propiedad social* in the country amounted to 106,520,833 ha. This represented 54.1% of the national land, where some 30 million people lived (Concheiro and Baltasar, 1995: 6 - cited in PSSM *et al.*, 1996: 3-16.)

relationships with the government and with private interests from outside the Sierra. Government programs linked to the *ejido* began to erode traditional community institutions during the second half of the century and caused havoc in the Sierra's ecosystems.

The Consolidation of the Modern State

The 1940s brought with them political stability and economic growth to the country but at the expense of social justice. Once again, the development of the nation would widen the gap between rich and poor. The agrarian reform that had flourished in the previous decade was slowed down during the presidencies of Avila Camacho (1940-6) and Miguel Alemán³⁶ (1946-52). Worker movements were brutally suppressed, and many leaders of both rural and urban organizations were bought off in a systematic policy of coercion and corruption (Villegas et al., 1975: 148). Political stability was secured through the consolidation of the PRI and its network of *caciques*. For the next four decades federal and state governments would increase their political control of the *municipios* through the manipulation of economic development programs and the political electoral process.

By the late 40s, the last vestiges of traditional forms of local government in the Sierra Popoluca had disappeared. Municipal authorities in earlier years were elected by a general assembly with the endorsement of a council of elders. Political and religious spheres were closely intertwined (Münch, 1983: 110). Every year, for example, all municipal

³⁶ President Alemán was the son of the old revolutionary from Sayula of the same name. Under his administration this region of Veracruz did receive some economic benefits but little trickled down to the Popoluca of the Sierra.

authorities [including the municipal president, the secretary, the judge, *regidor* (alderman), and *síndicos* (trustees)] were expected to participate in the *Carnaval* and its preparatory rites. The latter included extended periods of sexual abstinence, fasting and vigil which became more demanding with increasing levels of authority. The purpose of the celebrations was to bring a good harvest of maize and good health for the Popoluca communities during the year (Báez-Jorge, 1973: 205-7).

These traditional forms of governance were replaced through new federal and state electoral mechanisms that selected and imposed municipal authorities on the indigenous communities. Norms of reciprocity between leaders and their people, once rooted in the local culture, gave way to clientelist relationships between local and regional cliques subordinated to the PRI. Opposition to the rule of the party was counteracted by means of electoral fraud and the use of assistance programs to minimize dissent and convince people of the benefits to acquiesce. An array of methods were used, including among others: stuffing illegal ballots during elections or stealing ballot boxes altogether; veiled threats of being denied access to credit programs; improving services (eg. road, water) or roads in communities backing the ruling party ahead of elections; or distributing government *dispensas* (food hampers) on behalf of the party.

The degradation in the Sierra's ecosystems during the last half of the century can be traced to the weakening of traditional forms of indigenous governance. Their disappearance from the neighbouring Nahua *municipios* of Mecayapan and Pajapan allowed outside cattle

ranchers to strengthen their economic clout and political control in the region. It was in the early 1950s when mestizo ranchers from Coatzacoalcos began to rent the natural savannas surrounding the Laguna del Ostión. As their need for land increased, they convinced Nahua *campesinos* from the agrarian community of Pajapan to become *medieros*. Under this arrangement, the local *campesinos* provided land for pasturing in exchange for half of the cattle offspring. Some saw a good opportunity for income generation, and since nobody in the community had exclusive rights to the communal land, the new group of indigenous ranchers began to clear and fence as much land as possible for grazing purposes. The cultivation of corn was first displaced to the higher forests of the *municipio* and then out of it altogether. In less than a decade almost all the agricultural land in Pajapan and San Juan Volador had been converted into pastures³⁷. A glimpse of the process is provided in the following synthesis of conversations with *campesinos* from Pajapan:

... the *campesinos* now turned cattle ranchers bribed municipal authorities into establishing a tax of five pesos per year for each hectare of land used. In this way the ranchers secured the use of a good share of the land since almost no one but them were able to pay this amount. Those *campesinos* that were able to get money to cover the tax only had enough to pay for the plots that they were cultivating at the time but not for the resting lands to which they traditionally had rights to use as they formed part of their slash-and-burn cultivation system. In this way, the [indigenous] cattle ranchers took over the *acahuales*, that is, those fallow lands also destined to the cultivation of maize (PSSM *et al.*, 1996:3-6 - my own translation).

Many families, unable or unwilling to participate in this new productive activity lost their access to *milpa* land. Some eventually became wage labourers of the ranchers. Others migrated to the cities of Coatzacoalcos or Minatitlan as unskilled labour. Yet others

³⁷ Buckles (1989), cited in PSSM *et al.*, 1996: 3-5 to 3-7.

petitioned the government for new *ejido* lands deeper into the Sierra's remaining forests. The expansion of cattle ranching into neighbouring Tatahuicapan followed a very similar process during the 1960s. Communal *ejido* lands were again hoarded and parcelled by a new breed of indigenous ranchers pushing traditional maize growers out. A first wave of colonization into the higher forests of the Sierra occurred as a result. Landless families from Pajapan founded the new *ejido* of Santanón Rodríguez. Many from Tatahuicapan helped establish La Valentina, Peña Hermosa and Pilapillo. As they moved North, they took with them their traditional slash-and-burn agriculture techniques into the higher and steeper slopes of the mountain forests (ibid, pp. 3-5 to 3-8).

Cattle ranching made only limited incursions into Popoluca *ejidos*. A combination of factors probably contributed to limit its advance, including the existence of coffee growing as a means of income generation, and a higher resistance from individual Popoluca families to the hording of lands by any one group in their communities. But what happened in the neighbouring Nahua lands did impact the Popoluca in a number of ways. First, the resulting deforestation of the area affected the migration patterns of the Sierra's fauna, contributing to its general decline. During this same period, traditional Popoluca territory in the North of the Sierra was encroached by mestizo ranchers and peasants attracted by this agricultural model based on income generation. The newcomers founded the community of La Perla del Golfo, and the *ejidos* of Venustiano Carranza, Ursulo Galván, Benigno Mendoza, El Vigía, San Fransisco Agua Fria and Francisco López Arias. Most of the new settlements are located in the Northern part of the *municipio* of Soteapan, and a couple in

neighbouring Mecayapan (ibid, 3-8). The third major impact came from the easier articulation of power by outside interests that accompanied the introduction of cattle in the Sierra. The new breed of small indigenous cattle ranchers remained closely associated to their mestizo counterparts since it was the latter who controlled the regional market. Indigenous ranchers formed the *Asociaciones Ganaderas* (cattle ranching associations) of Soteapan, Pajapan and Mecayapan, all linked to the *Unión Ganadera Regional del Sur de Veracruz* (Regional Cattle Ranching Union of the South of Veracruz). These were important groups with close ties to the ruling party and with considerable economic clout in the region. They did not have much difficulty during the 60s and 70s in subordinating and controlling the municipal governments of the area³⁸.

The Agrarian Reform also affected the Sierra Popoluca in different ways. Even though it was intended to redress some of the abuses of the old *haciendas*, it took away from indigenous communities any possibility of control over their ancestral territory. A slow and complex bureaucratic apparatus took over the redistribution of land and its pace of implementation. The granting of even provisional titles to *campesinos* took on average more than 18 years to process. Some took more than thirty. The *municipio* of Soteapan was able to receive 25,563 ha over a period lasting 39 years (1931-1970), benefiting some 1.021 heads of households with an average allocation of 20 ha each (Báez-Jorge, 1973: 84-6).

Land distribution under the agrarian reform was not only complex and slow, but also

³⁸ Chevalier & Buckles (1994) and Velásquez (1992), cited in PSSM *et al.*, 1996: 4-15.

non-transparent and riddled with irregularities. Many land petitions were subject to abuse. In Soteapan, for example, people complained that the *censo ejidal* (claimants registration) allowed mestizo merchants to be included in the allocation of *parcelas*. Scarce land was taken away from indigenous Popoluca claimants and was then rented back to them by the same merchants (Báez-Jorge, 1975: 87). This slow and cumbersome reform also gave the State the ability to legally grant plots of land to others, on what once had been traditional Popoluca territory. It did this, for example, with mestizo ranchers on the Northern part of the Sierra. Another ill consequence of the reform was to make it impossible for local communities to cope with population growth and the increasing shortage of land along traditional norms or with any sort of coherence. Báez-Jorge explains the problem:

When after 18 years and 6 months (as an average, we repeat) land is granted to the petitioning group, the children of these (who were still young children or not yet borne at the time of the request) are now grown-up, generally married and possess agrarian rights. Once the land is granted, they become marginalized from its distribution and ready to promote a new request that will be delayed, denied, or in the best of cases accepted; but with limitations in extension or agricultural quality. This situation is a direct cause of migrations away from Soteapan and Ocotal Grande, among other settlements (1973: 86-7, my own translation).

In sum, the redistribution of land was typically done with little foresight, little logic and no planning. The quality of the granted land varied considerably. Some was excellent for agriculture; some had already been exhausted from years of work with little or no rest; some was very poor, with thin soils and/or very steep slopes.

This situation led in the 1960s to a migration of Zoque-Popoluca into the interior of the Sierra, in parallel with the migrations of landless Nahua *campesinos* driven away by

cattle ranchers. Groups of young families from Soteapan, Ocotal Grande and Ocotal Chico moved into the Northern forests to establish the villages of Magallanes, Pilapillo, Zapoapan, Plan Agrario, Mazumiapan Chico, and Santa Marta (PSSM *et al.*, 1996: 3-7 to 3-8). And just as their Nahuatl counterparts, these traditional maize growers took with them their slash-and-burn agricultural techniques into the steeper slopes of the Sierra. A dramatic increase in deforestation and soil erosion would soon follow. Based on aerial photographs from 1967 and 1976, Ramirez (1993) estimates a decrease in forest cover from 96,640 ha to 60,857 ha for the Sierra Santa Marta as a whole. This represents a loss of 35,783 ha of forest (37%) over that ten-year period³⁹.

Within the next two decades another 30,000 ha of forest would disappear, but this time caused in part by a second expansion wave of cattle ranching that began in the mid seventies, again in the neighbouring Nahuatl *municipios* of Pajapan and Mecayapan. Government agencies responsible for rural development were very active during that time in pushing an agricultural model based on extensive cattle ranching in the region, facilitating the availability of credit to *campesinos*. This second wave differed in many aspects from the first. The earlier accumulation of communal land by a small group of indigenous *campesinos* had created strong tensions within the communities of Pajapan and Mecayapan. These tensions eventually lead to the *parcelamiento* (division and distribution) of land into individual plots for each *ejidatario*. The measure ended the hoarding of land by a handful of *ejidatarios* and led to the emergence of a new and more numerous group of small

³⁹ cited in PSSM *et al.*, 1996:3-11.

indigenous cattle ranchers that were now able to get credit from the government. However, *campesinos* with no agrarian rights lost all possibilities of access to agricultural land - access which they traditionally had before the *parcelamiento*. Another consequence was the distribution of all the land in the *ejido*, including many communal plots with standing forests that would soon be turned into pasture. Even though more *ejidatarios* benefited from these events, the end result was a further increase in deforestation, further decrease in fauna, less *milpa* land, less resting land (*acahual*), more migrations of *campesinos* into the forest, and a new class of small indigenous cattle ranchers with individual land holdings and now dependent on government credits for their livelihood.

The Sierra Popoluca was again less affected than the neighbouring Nahua communities by this second expansion of cattle ranching. The main reason can be traced to a competing government program that prevented the advance of ranching activities into the Popoluca's forests. During the seventies and most of the eighties, the government provided credit, technical advice, and support in the commercialization of coffee. It promoted new high-yield varieties of plants, introduced the use of agrochemicals, and helped break a regional monopoly on commercialization. High prices for coffee beans in the international market during these years produced a boom in many Popoluca communities (*ibid*, 3-12). With the success of this income generating alternative, cattle ranching never had the same appeal amongst the Popoluca as it did with their Nahua neighbours. In a way, coffee growing protected the deforestation of the Popoluca forests by minimizing the clearing of land for pasturing purposes. But it also had some negative influences. It accustomed

campesinos to the use of agrochemicals, which they then began to apply in their *milpas* with little or no concern for soil conservation. It also made them dependent of the boom and bust cycles of international markets.

In summary, from the Agrarian Reform up to the end of the 1980s, a millenary form of subsistence based on the *milpa* and forest resources was gradually replaced by cattle ranching and coffee growing. During this same period, most of the forest and its fauna disappeared from the Sierra Santa Marta. The *milpa* was pushed to less fertile lands more prone to erosion, and resting (fallow) lands became scarce. With their subsistence base eroded and their populations increasing in number, the people of the Sierra were ill prepared for the drying up of rural credits and the fall of international market prices of coffee and cattle that would accompany the dawn of neoliberalism in the country.

The Neoliberal Era

Mexico began a structural reform of its economy in the early 1980s under president Miguel de la Madrid. A development model based on import-substitution and strong State intervention in the economy and social welfare was replaced with a neoliberal model bent on privatization, open economic borders, and less government. The impact of the structural changes were soon felt in the Sierra Santa Marta. They resulted in less subsidies, less credit, higher interest rates, and less technical support to *campesinos* at a time when they had become more dependent than ever on all of these.

Small indigenous ranchers, once specifically targeted by subsidized credit programs, were now abandoned to their own fate. Many find themselves today heavily indebted or bankrupt. At least for the time being, this productive activity has ceased its advance on the Sierra. The coffee growers of Soteapan did not fair much better. The State's divestment of support programs for coffee producers coincided with a worldwide overproduction of beans and with the fall of international and national prices. In the Sierra Popoluca, cash advances on future crops came to an end; so did government programs to improve yields and control pests. The price of coffee plummeted to such a low level that at one point a kilogram of maize fetched a higher price when only a couple of years earlier coffee beans were worth ten times more than maize. Many growers did not bother to harvest the beans. Others abandoned their plants altogether for a number of seasons. It is only with the increase in international prices in recent years that coffee production began to pick up once again. Some *campesinos*, now a bit wiser, are looking at ways to diversify their productive activities and are beginning to re-assess their neglect of subsistence agriculture.

Numerous references have been made in the chapter to the detrimental consequences of government programs on *milpa* agriculture. It is not surprising then to find that by the early 1980s the region was no longer self-sufficient in maize production and consumption. In the Sierra Popoluca, 25 out of the 39 communities experienced a deficit. Maize or corn flour, an essential ingredient of *campesino* subsistence, had to be brought in from the outside to meet the local demand (PSSM et al., 1996: 3-19). The government reacted by providing fresh cash incentives and credit programs for corn production in spite of general cuts in

spending. This was unfortunate in many ways. Poor planning, execution and supervision of poorly budgeted programs led once more to increased deforestation and further loss of diversity in the *milpa*. One program, for example, tied the level of assistance to the number of hectares being cultivated with maize, penalizing *campesinos* for portions of *milpas* with other crops such as fruit trees. Another program pushed the use of agrochemicals, still with little concern for erosion control or soil re-building. An increase in maize production was achieved, but only through larger amounts of land cultivation, a higher workload for *campesino* families and less returns for their efforts, as opposed to better yields. This type of government incentive programs also made the work of non-governmental organizations like the PSSM much harder. Their efforts to promote sustainable agroforestry and agricultural alternatives in the Sierra are constantly being challenged by deficient government programs that offer quick access to money or credit but that leave *campesinos* in the end with a more degraded resource base.

But perhaps the most important government reforms of the period were the changes to Article 27 of the Mexican Constitution⁴⁰. The new legislation brought to an end the Agrarian Reform of the Revolution. It capitalized *ejido* lands, making them alienable. At the request of the majority of its members, an *ejido* can now be divided and individual property titles granted to each *ejidatario* for both agricultural plots and urban plots (house and yard in the community). Individual certificates are also granted for the right to use

⁴⁰ The following discussion is largely based on the work by Paré (1996) and PSSM et al. (1996: 3-16, 3-17, 4-87 to 4-89).

communal lands. Land can now be sold or used as collateral for credit. It can also be seized on default of payment. A new government institution, the *Procuraduría Agraria* (Agrarian Commission) was created to implement the new legislation through the program PROCEDE (program for the certification of *ejido* rights and provision of titles for urban plots or *solares*).

The recent reforms bring back the possibility for rich landholders to despoil indigenous *campesinos* of their newly acquired properties, but this time within a legal framework. Already during the first year of PROCEDE, a cattle rancher from Coatzacoalcos had bought five parcels of 20 ha each in neighbouring Tatahuicapan. This happened at a time when less than one percent of the land had been processed by the new agrarian authorities. The seeds have been sown for the emergence of a new wave of landless *campesinos* that will put more pressure on the remaining forests.

Other dangers also loom ahead. Reminiscent of the old agrarian reform, the process so far has proved prone to abuse. Areas with standing trees have been parcelled out even within the boundaries of the Biosphere Reserve, in total contravention of the new agrarian laws that prohibit the granting of land titles in forests or tropical *selvas*. In some instances, the illegal parcelling was first carried out under the old agrarian regime and is now being recognized and certified as legal. In spite of these irregularities, some *ejidos* are showing so far some common sense by conserving many treed areas as communal lands when they involve the top of mountains, very steep slopes, or surround water sources - places that are

believed by tradition to be inhabited and protected by the *chaneques*. However these remaining patches of forest (critical to the survival of the remaining fauna) have now become alienable, subject to be cleared or sold to meet the pressing needs of individuals living through an economic crisis of unprecedented scope and depth. The forests and biodiversity that sustained the dwellers of the Sierra for thousands of years may in the end continue their rapid decay.

Problems don't stop here. The division of land into individual properties is further eroding the social fabric of Popoluca and Nahua communities, pitting neighbour against neighbour, and sibling against sibling. Under the previous agrarian regime, not every child of an *ejidatario* nor every person residing in the community had a right to *ejido* land. Nonetheless, most were able to work a plot of land through a flexible system of reciprocity between *ejidatarios*, *derechosos* and *avecindados*⁴¹. This often involved some sort of payment in kind (in labour or produce). Within the family, siblings are now forced to compete and even fight for the rights to the best plots of land. During my field work, I witnessed a violent machete confrontation between two brothers that resulted in severe wounds and the loss of several fingers of the hand. Conflicts between *ejidatarios* and *avecindados* are also on the rise. The latter have lost their traditional access to the land. Some have been warned by the new owners that they will have to leave their *milpa* at the end of the harvest. Others have been asked to pay rent. The extent of the problem is not small.

⁴¹ *Derechosos* are the children of *ejidatarios* that will inherit the right to the *parcela* (land plot) then becoming *ejidatarios* themselves. *Avecindados* are those persons that have no possibility of becoming *ejidatarios* and that do not own any land. Some rent plots of land, others work together with some relative that has *ejido* rights and share part of the harvest.

In Sotepan for example, there are only 120 *ejidatarios* but over 700 *avecindados*. In Ocozotepec, 58% are *avecindados*, 67% in Buena Vista, 66% in Tatahuicapan, 35% in La Valentina, and 32 % in Pilapillo, to name a few.

The new form of land tenure interferes with traditional systems of distribution and exchange at other levels as well. The individualistic character of the legislation compels *ejidatarios* to divide and control the whole land in the *ejido*. Access to common resources (firewood, medicinal plants, fodder for animals, or different construction materials for houses) is now restricted since these resources have become the exclusive property of the individual parcel owners.

2.5 A Last Word

The beginning of the chapter described the current crises of the Sierra's forest and agricultural ecosystems, and their consequences on the nutritional status of the people. These last sections gave a more detailed account of the processes responsible for these crises. The last 100 years in particular brought radical changes into the *campesinos'* way of life and transformed the Sierra for ever. For the first time in the history of the Popoluca, outside economic interests and the State became actively involved in shaping people's modes of production. *Campesino* practices shifted from the communal use of land and resources to individualistic ownership; from a diversified subsistence based on the forest and agriculture to single cash crops and cattle ranching; from diversified *milpas* to monocultures

of maize. Better yields, higher productivity, better income, and better standards of living never materialized. Instead, the rich biodiversity of the old mountains dwindled, most of the forests disappeared and people's agricultural lands became tired and eroded. The essential character of their fight for land and survival was also profoundly altered. Five hundred years of struggle as a People came to an end with the coming and going of the Agrarian Reform. If communities before fought together against the encroachment of their traditional territory, now they stand divided, as individuals before the State and creditors, each *campesino/a* battling alone to maintain possession of an alienable piece of land.

The challenges ahead are great. Today the people of the Sierra find themselves vulnerable, misguided by a litany of failed and failing government programs, with high population growth and high illiteracy rates, a degraded resource base for subsistence, and a protracted economic crisis in the country. Many, however, remain proud of their ancestral heritage and are not ready to give up. When the agricultural sector stagnated in the mid 1970s, the clientelist system of political control began to erode. A number of more independent peasant organizations began to multiply and coordinate their activities at the national level, slowly breaking the monopoly of the official rural organizations as the only legitimate vehicles for the representation of *campesino* interests. These organizations have been evolving over the last two decades in their knowledge, thinking, and approaches. They emphasize more and more the absolute necessity to address the lack of accountability of present governments and programs, and the reconstruction of the natural resource base in

order to stop and redress rural poverty⁴².

Today two democratization projects are in competition in rural México: a grass-roots movement from below and the state's project from above. The state's project is primarily concerned with recovering lost legitimacy and buffering the militancy of the opposition. This official project is riddled with contradictions, as the ruling party is very much dependent on the entrenched, anti-democratic faction (*caciques*) that delivers the vote and organizes the electoral fraud in the countryside. Yet, the neoliberal policies of the present administration subordinate the Mexican economy to multinational firms, making the state feel compelled to challenge the *caciques* in its drive to improve "efficiency" in production (Paré, 1990:92). In doing so, it opens more spaces for the civil society to organize and demand better governance. A key demand of more and more *campesinos*, one which is seen as a necessary condition for development, is the establishment of truly democratic and accountable governments, from the federal down to the municipal level.

⁴² For a more detailed discussion on independent rural organizations see Bray (1997).

Chapter 3: Mythical Elements in Health Beliefs

The Spaniards encountered in the XVI century a Mesoamerican culture formed over many centuries and containing concepts inherited from many indigenous societies. Then, just as today, beliefs and practices, old and new, some widely dispersed, others particular to local environments, co-existed in variegated processes of accommodation and redefinition. The Conquistadors and missionaries undoubtedly exerted a profound influence in all cultural domains of the peoples they conquered, health included. But just as with religion, it is not unreasonable to assume that many old beliefs and practices were re-integrated in some form or another into people's new realities, rather than being simply abandoned. This must have been particularly true during the early years of colonization, a period in which missionaries and scholars of the Spanish Crown endeavoured to record many indigenous ideas about spiritual beliefs, health, disease and medical practices. Many other existing concepts probably passed unperceived or unrecorded due to disapproval by the Spaniards, or simply due to a lack of interest or understanding of their significance. There are nonetheless sufficient historical records to be able to discern basic elements of pre-Hispanic Mesoamerican thought concerning religion and health. Our understanding of these elements has also been enriched through numerous ethnographic investigations carried out during this century which have recaptured many ancient beliefs passed on from generation to generation by word of mouth¹.

¹ A brief review of bibliographic sources is presented in Chapter 1.

The following chapter draws extensively from studies of prehispanic medicine and spiritual beliefs in Mexico. This information is used to provide a historical grounding, a culturally relevant reference of past beliefs and practices for the analysis of field data. The chapter examines fundamental relationships of exchange between human beings and the spiritual world that underlie autochthonous concepts of health and disease in the Sierra today. It begins with a brief look at two ancient myths: the Nahuatl "Legend of the Suns" concerning the creation of human beings; and the Popoluca story of "Homshuk", the Corn-God-Child. Both myths reflect on the mutual dependencies and power struggles that permeate relations between humans and gods. They bring to the fore a central element of Mesoamerican pre-Hispanic culture, the moral of self-sacrifice, which delineates obligations of reciprocity that must be shared by humans and gods alike². A review then follows on contemporary beliefs among the Zoque-Popoluca concerning the powers vested in the *chaneques*. These are spirits that live in Nature and which have become the agents mediating reciprocal exchanges between humans and gods. The chapter ends with the analysis of my own field data to illustrate how ancient notions of self-sacrifice, exchange and reciprocity remain present today, becoming explicit in particular beliefs and practices related to health and the cure of disease.

² See Chevalier and Buckles (1996: 261)

3.1 A Morality of Sacrifice

León-Portilla describes the Nahuatl concept of *tlamacehua*³ as a divine-human covenant that forms the nucleus of prehispanic thought. Human beings were named and granted existence in terms of this bond. *Tlamacehua* embodies two distinct and interrelated meanings: to do penance; and to be deserving or worthy of something. Both elements denote the primeval relationship between human beings and their gods: the gods, through their own penance and sacrifice “came to deserve”, thus bringing human beings into existence (1993:42).

According to the ancient Nahua Legend of the Suns (*Leyenda de los Soles*⁴), the gods got together and asked *Quetzalcoatl*, the Feathered Serpent god, symbol of divine wisdom, to go to *Mictlan*, the Place of the Dead, to recover the bones of human beings that had existed in the four earlier ages (or Suns). With these bones, the Gods would restore humanity in the new age of the Fifth Sun (*Quinto Sol*). In his journey to retrieve the precious bones, *Quetzalcoatl* had to overcome many obstacles, including death in a trap set by the Lord of *Mictlan*. After resurrection, he is able to retrieve the bones and take them to *Tamonchan*, the Place of Origin where the most ancient and supreme Dual God, "Lord and Lady of Duality" resides. There, *Quilaztli*, the goddess of fecundity and maternity took the

³ The spelling conventions for nahuatl words will be those used by the authors from which the material is being referenced (ie., mostly by León-Portilla and López Austin).

⁴ The *Leyenda de los Soles* forms part of the *Códice Chimalpopoca*. It is an anonymous manuscript written in nahuatl, dated as 1558. It was first translated into Spanish by Francisco del Paso y Troncoso and published in Florence in 1903 (León-Portilla 1987:167).

bones to grind and placed them in a precious vessel in which *Quetzalcoatl* bled his penis⁵. He and the other gods at once did penance, and sought to be worthy of (*tlamacehuayah*) what they desired. (Acosta Julián, 1979:18-21; León Portilla, 1993:43).

From that dough, made of blood and ground bones, were borne the new human beings, through the sacrifice and penance of the gods. There were now new human beings on earth, but there was still darkness. The sun had not risen. There was not yet dawn. Further sacrifice was needed. The gods agreed then to reestablish the sun and the moon by offering themselves.

In order to achieve this they "did penance" and "sought to deserve [their goal]" (*tlamacehuayah*) for four days. At the end of this period, they cast themselves into an enormous fire, the *teotexcalli*, or "divine hearth." Their bodies crackled noisily, but with their sacrifice they deserved or became worthy of what they wanted to achieve: the sun and the moon were restored. Nevertheless, it happened that neither the sun nor the moon could move. Once more all the other gods "did penance" and "sought to deserve" (*tlamacehuayah*) the desired goal. And thus it happened: the two celestial bodies began to move. (León Portilla, 1993:43).

This legend tells how a new age, the age of the Fifth Sun, was reestablished, and with it, the earth, the celestial bodies and human beings were brought back to life. According to León Portilla, the word *macehualtin* ("that which is deserved by the gods' penance") became synonymous with "human being", not only in Nahuatl but even in other Mesoamerican languages (1993: 43). The sacrificial actions of the gods were necessary because they needed people to worship them and provide for their needs. A reciprocal

⁵ León Portilla refers to this vessel as a "*barreño precioso*" or a "precious earthen pan" (1987: 21).

obligation between gods and humanity was needed. Human beings had to perform *tlamacehualiztli*, the penitential act of deserving through sacrifice, to provide the gods with sustenance, so they could, in turn, continue to foster life on earth. This penitential act included the sacrificial offering of human beings.

Gods and humans were thus envisioned as two parties in a process of exchange, a relationship of reciprocity between unequals which was nonetheless necessary to both. Humans feared and envied their gods, yet these gods were also conceived as entities that lacked and desired things that humans possessed. The relationship remained vertical. Human beings could not escape the covenant. People were destined to deserve and be worthy of their own being by worshipping and satisfying the gods. Everything in life had to be deserved through penance and sacrifice: life itself, marriage and children, gaining possession of land, the fruits of labour, a victory in war, to be ruled by worthy leaders (León Portilla, 1993: 44-48). Individually, people had to perform sacrifices, giving offerings to the gods. Numerous references exist about the frequent, often painful and varied forms of mortification practised by the ancient Nahuas. The most common forms included: the piercing of different parts of the body to produce bleeding; fasting; sexual abstinence; prolonged periods of vigil; cold baths; and abstinence from *pulque*⁶. Adults, for example, pierced their tongues to produce blood as an offering. The offering sought a specific benefit, such as the prevention of disease in the home, the purification of

⁶ *Pulque* is a traditional fermented drink made from the sap of the maguey (an American agave plant).

individual sins, or improving particular abilities related to people's own role in society (artistic skills, warrior skills, etc.). Fasting and abstinence from sex or *pulque* were forms of participation in various types of rituals. Failure to follow them provoked the anger and punishment of the gods (Lopez Austin, 1996: 438-9). Other offerings included an assortment of foods, burning of incense, or the killing of small animals such as quails.

The offering of human beings in sacrifice was the exclusive privilege of the ruling class. According to González Torres, no other culture in the world performed so many human sacrifices and with such frequency as the *Mexicas*⁷ (1992: 301). Estimates range from an average of 15,000 human sacrifices per year to over ten times this amount (1992: 79, 82). In spite of the large discrepancy between estimates, it is generally accepted that thousands of people were sacrificed in any one year during the century preceding the arrival of the Spaniards. González Torres describes how the evolution of this practice paralleled the transformation of the *Mexica* State. He distinguishes between two main traditions of human sacrifice which co-existed in Mesoamerica since very ancient times. Each took different levels of complexity and importance as the State became more despotic and expansionist⁸.

⁷ The *Mexicas* are the Nahuatl speaking people generally known as the Aztecs, the dominant civilization that was in power in the Mexican central plateau at the time of the conquest. Their forebears included the renowned Toltecs, followers of *Quetzalcoatl*, the Feathered Serpent, the religious leader who lived in *Tula* in the ninth century and who took himself the name of the Mesoamerican deity *Quetzalcoatl*, symbol of wisdom of ancient Mexico. As described earlier, this god was the one who accepted the task of restoring humanity in the age of the Fifth Sun (León Portilla, 1993: 41-42).

⁸ *Tlacaelel* around the year 1427 began his quest to transform the Aztecs into a warrior People. He was then a young advisor to king *Itzcoatl*. He initiated and supervised the burning of manuscripts in existence at the time, and ordered the recording of a new history of his People and the *Mexica* Gods. A new vision was implanted which portrayed the age of the Fifth Sun as being

He refers to them as "sacrifices for the community" and "sacrifices for individuals".

The first ones were offered by the community as a whole. Their purpose was to seek the well-being of the entire community, to maintain harmony with the gods and the universe. These human sacrifices had a prophylactic character and were associated to the agricultural cycle, fertility rites, the changing of seasons, the stars, or particular moments of crisis. Examples include the annual sacrifice of women offered by healers to *Toci*⁹ in the month of *ochpaniztli*¹⁰; or the offering of children to the gods associated with corn (*Cinteotl*, *Xilonen*)¹¹. Many children were sacrificed for the latter at different times of year. The age

threatened by the possibility of cataclysm. The *Mexicas* were to become the chosen people, and their mission: to help the sun-god *Huitzilopochtli* survive with the offering of human sacrifices. It was this new vision, immersed in mysticism and war that propelled the *Mexicas* into their conquests from sea to sea, and as far South as Chiapas and Guatemala. *Tlacauelel* never wanted to be king (he was offered twice this position) but preferred to act as the power behind the throne. He remained as an adviser, first to king *Itzcoatl*, and then to his two successors, *Motecuhzoma Ilhuicamina* and *Axayacatl*. His orders were always diligently followed during these three reigns. He died around 1480 (León Portilla, 1987: 92-105).

⁹ *Toci* was also known as *Teteoinnan Tonantzin*, "mother of all gods and heart of the earth, our divine grandmother". She was the goddess of midwives and healers. She was also probably the goddess of the cultivators of flowers and medicinal plants. The trade of *yerbero* (medicinal plant healer) was inherited from the Toltecs, which were regarded by the *Mexicas* as the inventors of medicine (González Torres, 1992: 145; Fernández, 1992:159).

¹⁰ *Ochpaniztli* meaning "barrimiento de caminos" (the sweeping of roads or paths), was the eleventh month of the Aztec year in which the celebration to *Toci* took place. A month preceding this celebration, a woman was selected to represent the goddess. During the ceremony this "figure of the goddess" was dressed as *Toci*, with a headdress consisting of long locks made of cotton and ears of corn decorated with cotton yarn. In one hand she carried a broom. Her destiny was to be sacrificed the day of the celebration. After this sacrifice, a war simulation was performed in which the warriors in the end put aside their weapons, exchanging them for brooms. Before dawn, all the main streets and temples of the city were swept. The *macehualli* (common folk) also swept their houses. This ritual was linked to the concept of purification. It concluded with baths or washing of people (Fernández, 1992: 84 & 159).

¹¹ *Cinteotl* (god of corn), *Xilonen* "espiga, mazorca tierna" (young ear of corn), these deities belong to a group of gods associated with maize. Sacrificial offerings to *Xilonen* marked the

of the children sacrificed increased in accordance with the development of the corn plant during the growing season (1992: 194-95).

Human sacrifices on behalf of individuals, on the other hand, sought personal benefits such as higher prestige, status and power. These sacrifices were also closely regulated and managed by the State. In *Mexica* society, the offering of human beings by individuals was restricted to two privileged groups: warriors and merchants (1992: 211). The ruling ideology exalted prowess in war. Such prowess became equated with the capturing of enemies for the purpose of offering them to the gods in sacrifice.

The importance of this practice reached its peak in Mesoamerica during the century preceding the Conquest. It was justified as the fulfilment of a divine-human covenant, the sacrifice of human beings for the sustenance of life on earth. People had the example of the god *Quetzalcoatl* who died in his quest to restore humanity, and that of *Nanahuatzin* and *Teccistecatl*, the deities who cast themselves into the fire to restore the sun and the moon (González Torres, 1992: 191; Fernández, 1992: 77). Gods gave their lives in order to restore humanity. In so doing, they regenerated and remained gods in the age of the Fifth Sun. Human beings needed to offer human lives in return. Prisoners of war thus became a divine tribute for the sustenance of the gods and humanity. The act of capturing and offering them became a proof of loyalty and submission to the State. In exchange, warriors acquired prestige, wealth and power (González Torres, 1992: 306).

end of prohibition to eat young ears of corn (González Torres, 1992: 148; Fernández, 1992: 37 & 170).

Merchants, the second privileged group in *Mexica* society, made both community and individual offerings. Human sacrifices on behalf of the community were offered to their god *Yacatecuhli* in the month of *xocotl huetzy*. Individual offerings of human lives were made in the temple of *Huitzilopochtli* in the month of *panquetzaliztli*¹² (González Torres, 1992: 228). Slaves were bought specifically for both types of offerings. They were sold by merchants specialized in the trade of sacrificial slaves. But the act of sacrificing was restricted to priests and kings, for they were the only ones that could withstand the energy emanations generated during the killing of the human offerings. Priests enjoyed several privileges. They were paid in tribute the fruits of the land belonging to the temple in which they served. They had the right to eat specific body parts of the sacrificed victims, and also received different forms of remuneration from merchants and warriors as payment for the sacrificial services rendered on their behalf (González Torres, 1992: 181).

In spite of its religious essence, sacrifice in pre-colonial times can be compared to an economic transaction: an exchange that involved the transfer of ownership of something valued (a person, a prisoner, a slave, an animal, self-comfort or pleasure) - from the

¹² *Panquetzaliztli* was the fifteenth month of the Aztec year. During the first days of this month the celebration marking the divine birth of *Huitzilopochtli* took place. This was also the occasion when the greatest number of human sacrifices offered by warriors and merchants took place. Figures (idols) were made of dough from *tzoalli* or wild amaranth (*Amaranthus hybridus*) and blood from sacrificed children, with branches from *acacia* simulating the bones. These figures were then worshipped, and after the sacrifice of numerous slaves, the king and priests sacrificed the god figures, using a dart to break them, extracting the heart to feed the god, and distributing the remains to the priest class. This is when *Huitzilopochtli* is given the name of *Teocualo* or "dios comido" (eaten god), (González Torres, 1992: 134, 200-02; Fernández, 1992: 96-7).

community or individual offering the sacrifice - to the benefit of the divine. Benefits to humans were expected in return. These could be benefits for the community as a whole or for the individuals making the offerings. López Austin remarks how sacrifice in Mesoamerica took on this trade characteristic (1996:82-83). Human beings received water, crops, prestige or the ridding of pests and illness in exchange for human blood, hearts, fire, and different products such as incense or quails. The author notes how this notion of trade was explicit in the language itself. For example, a sacrifice to the gods was called *nextlahualiztli*, meaning literally "the act of payment", and the offering of fire was named *tlenamaca*, meaning "to sell the fire"¹³. He compares the earth to "the marketplace of the greater and lesser gods", the place where converged "all the types of [cosmic] energy in the body of human beings" (1996: 83).

The notion of sacrifice as an economic transaction between humans and gods seems to have survived over the centuries and will be encountered in later parts of our study. It is a notion that is markedly different from the catholic teachings brought in by the Spaniards. The ultimate end of Christian asceticism was and remains today eternal salvation. Missionaries conceived the self as an autonomous entity capable of mapping its own path. For them, the self was composed of two antagonistic parts, the body and the soul. The soul, through ascetic practices, had to eradicate the sinful desires of the body in order to reach salvation in the afterlife. An individual was therefore able to accept the Christian ways or

¹³ Similarly, the individual offering of blood by the common folk received the name of *nextlahualli* or "payment", just as the people sacrificed for the purpose of obtaining rain, security or health were called *nextlahualtin* or "the payments" (Lopez Austin (1996: 434 & 438).

reject them, albeit the latter meant certain damnation of the soul. The choice was nonetheless that of the individual. Sharply at odds were pre-Hispanic conceptions. For the Nahuas, their multidimensional self¹⁴ was considered an integral part of their body and the spiritual and physical world around them. This self was susceptible to influences and forces over which it had little control, but with which it had to engage in relationships of exchange. Rather than eternal salvation, the end of pre-Hispanic asceticism was to equilibrate worldly desires in the immediate present and promote harmony between opposing influences of

¹⁴ The pre-Hispanic self was conceived as consisting of three main animistic forces: the *tonalli*, the *teyolia*, and the *ihiyotl*. The *tonalli* was considered the key link between the individual and the gods. It was sent from the most sacred of places, the *Omeyocan*, "Place of Duality", and imbued into the child at birth during a name-giving ceremony (Klor de Alva, 1993: 184). Being of divine solar origin, it was considered hot (Viezca Treviño, 1986: 65). The *tonalli* was situated in the head, probably in the brain, and was responsible for each person's vital power and the energy transmitted through peoples' sight ("*la mirada*"). From the head, the *tonalli* irradiated its energy to the rest of the body, and was regulated by the other two animistic forces. The *tonalli* could leave the body for short periods of time, such as during coitus or periods of unconsciousness due to drunkenness or sleep (Viezca Treviño, 1986: 65). It was also subject to being scared off, by a sudden fright or a disturbing experience (Klor de Alva, 1993: 185).

The second animistic force, or *teyolia*, was located in the heart. Its first characteristic was its vivifying force. Life was not possible without it. Viezca Treviño suggests this to be the reason why the Aztecs considered the heart and the blood contained within it to be the indispensable nourishment needed to keep the gods alive (1986: 66). The *teyolia* was of celestial origin and therefore also hot in nature. This animistic entity would turn cold after the death of its possessor, beginning thereafter its peregrination to the place of the death. According to Klor de Alva, this animistic force was commonly identified with the "soul" by the Conquistadors in the sixteenth century (1993: 185).

The *ihiyotl* was centred in the liver, where passion, sentiment and vigour reside. If the liver was not able to control and guide it, it could escape the body and cause harm to people that came in contact with it (Viezca Treviño, 1986: 66). Klor de Alva states that during the colonial period, the *ihiyotl* was thought of as a luminous gas that could emanate from living and dead bodies. It was considered dangerous because it could overstimulate through its power of attraction. The author cites Fray Alonso de Molina (1571) as defining *nitlahioana* as "to attract something toward itself with the breath, respiration". Indeed, the *ihiyotl* had the capacity to draw to the individual, independent of one's will, strong desires such as jealousy, anger, and hatred, all strong emotions which caused illness (1993: 186).

external and internal forces. Self-control and discipline were seen as prerequisites needed to manipulate such influences. People sought to make themselves worthy through the performance of public and private acts of penitence and sacrifice. The ultimate goal was not salvation of the soul in a distant future, but rather to have as good and healthy life as possible in this world as the gods permitted (Klor de Alva, 1993: 173-197).

The following excerpt, recorded in 1564 by Sahagún and his Nahuatl assistants, captures the essence of these indigenous thoughts. It is a response to Franciscan missionaries from Nahuatl elders that are being challenged on the religious beliefs of their ancestors¹⁵:

You tell [us] that our gods are not real gods. It is a new word, this one you tell [us], and because of it we are bewildered, we are extremely frightened. Our makers [ancestors], those who came to live on the earth, did not speak this way. They gave us their law. They believed, served, honored the gods. They taught us all the [ways] of serving them, of honoring them. Thus, before them we eat earth¹⁶ [humble ourselves], we bleed ourselves, we discharge the debt ourselves, we burn copal [incense], and, thus, we make sacrifices ["cause something to be killed"].

They used to say that, truly, they, the gods, through whom living goes on, they merited us. When? Where? While it was still night [in the mythical past]. And they used to say they give us our supper, our breakfast [our sustenance], and all that is drinkable, edible, our meat, the corn, the bean, the wild amaranth, the lime-leaved sage. They are those from whom we request the water, the rain, by which things are made on the earth.

Furthermore, they themselves are rich, happy, possessors of goods, owners of goods, by which always, forever, it germinates, it grows green, there in their house. Where? What kind of place is the place of Tlaloc [the heaven of the god of rain]? Hunger never occurs there, no disease, no poverty. And

¹⁵ Cited in Klor de Alva, 1993: 181 (author's translation).

¹⁶ Leon Portilla associates this reference to the rituals accompanying the taking of oaths which Sahagún described: "and then [he] would touch the earth with the fingers taking them to the mouth and licking them in this way eating the soil [while] making an oath" (1983: 130).

also they give to the people manly prowess, courage, the chase, the lip plug, the ornament by which [the hair] is bound, the loincloth, the mantle, the flowers, the tobacco, the precious green stones, the fine plumes, the gold....

Everywhere in the world, in various places they spread out their mat, their seat [their dominion]. They gave to the people lordship, dominion, fame, glory. And now, perhaps, are we the ones who will destroy the ancient law?... Already our heart is this way: in [the law] people live, one is given birth, one is made to grow, one is made to mature, by calling to them, by praying to them.

The passage confirms, now in the words of ancient Nahua elders, the mythical teachings of their ancestors and their notion of exchange between humans and gods. The gods had "merited" human beings through their own sacrifice at the beginning of this new age. Now, people had to "discharge the debt" to them through their own sacrifices, in return for food, health, power, wealth and all that was coveted. Sacrifice involved a more materialistic basis of exchange, but one that was not deprived any less of spiritual value. It was simply different, grounded in a very explicit relationship of reciprocity between people and their gods, a reciprocity that was rooted in the need to survive in the present, as opposed to the distant Catholic notion of an eternal afterlife. The next section will explore the same notions of sacrifice and exchange, but now through mythical passages and testimonies that belong to the geographical area and culture of study.

3.2 Homshuk: the Corn-God-Child

The following myth originated in the Sierra and has been recorded in several

contemporary ethnographic investigations¹⁷. It is the story of the corn-god child known to the Zoque-Popolucas as *Homshuk* or *jomxuc*¹⁸ and to the Nahuas as *Sintiopiltsin*. Maize was to both Peoples the great benefactor of humanity. It symbolized strength, vitality and the power of resurrection. Guido Münch summarizes how this deity was conceived in this corner of Southern Veracruz:

Maize is linked to the sun, he is the symbol of the resurrection and immortality. He is the food of man and some animals. He is considered to be the flesh, the blood, and the vital impulse of human beings. He is also the creator of man, the myth states that he rescued the bones of his father from the underworld so that men would become immortal, but he did not succeed. Maize is the defeater of the Old Lightning from the South whom he converted into an ally in order to kill the serpent of seven heads from the underworld. His noble mission is to be devoured by man in order for humanity to subsist till the end of time (1983:189, my own translation).

According to Ben Elson, the story of *Homshuk* forms the core of Popoluca mythology and is a key to religious beliefs of earlier times. Elson reported in 1947 that older people in the Sierra still retained knowledge of specific prayers to this corn god, some firmly believing that it existed as a spiritual entity at the time. *Homshuk* was described as:

... a dwarf or child probably less than three feet high. His hair is of corn silk. When corn is first planted the *Homshuk* is young and childlike; as the corn grows he also grows older until when the corn is dry and the stalk is dead, the *Homshuk* appears aged, withered and parched (1947:193).

Over 400 years separate the first written transcriptions of the Legend of the Suns and

¹⁷ See for example, Elson (1947: 193-214); Foster (1945: 177-250); López Arias (1983:6-23); Münch (1983: 163-169); Chevalier and Buckles (1996: 255-316).

¹⁸ The spelling "Homshuk" was the first form used by Ben Elson in 1947, many years before developing his orthographic conventions and Dictionary of "Popoluca from the Sierra" of Veracruz. "*Jomxuc*" is the current spelling according to his current conventions in Elson and Gutiérrez, 1995.

contemporary Popoluca narrations of the corn-god myth. In spite of the passage of time and its oral transmission from generation to generation, this myth retains many basic elements found in Mesoamerican mythical thought. The story of *Homshuk* illustrates traditional moral teachings of self-sacrifice and obligations of reciprocity that applied to all relations between people, Nature and their gods in the Sierra Santa Marta.

Many variants of this myth have been collected in Popoluca and Nahuatl communities of Southern Veracruz. The actual origin of the myth is uncertain, although Chevalier and Buckles suggest that it is of Zoque-Popoluca origin, being borrowed by the Gulf Nahuas following their migration from the Central Plateau in the 9th century (1996:258). The reader is referred to Foster (1945) and Elson (1947) for two detailed transcriptions of the Zoque-Popoluca variants. Chevalier and Buckles present an in-depth analysis of a Nahuatl version transcribed by García de León (1995). Even though the many existing renditions share the same theme and many common elements, the difference in detail from version to version can be significant. Different transcriptions contain different incidents and even different treatments of the same incidents. The discussion below centers mainly on Zoque-Popoluca transcriptions. The myth as recorded by Elson (1947) is summarized in the following sections.

The story of *Homshuk* deals with the origin of corn and other things in Nature, including: how all bad animals and insects came into being, where the deer got its horns and the rabbit its long ears, where the toad got his bumpy skin, the lizard its split tongue, and

how the lightning became the announcer of rain. A brief summary follows:

The story revolves around the corn-child's journey to the burial ground of his father and his quest for immortality. It begins with an old woman and her husband discovering an egg hanging from a tree above a watering place. The couple decides not to eat the egg but to keep it. A young boy is born from the egg and grows up to become the corn-god master.

One day, the child goes to fetch water and meets several lizards and minnows who mock him and hurt him causing a sore in his foot. The boy eventually catches both lizards and fish and takes them to the old woman for her to cook. She tells him to set them free. The young boy obeys her. As the child grows, the old man ("a fat snake") and old woman decide it is time to eat the boy. They prepare a trap to kill him. Our hero becomes aware of the plot and readies himself. The old man is killed during the child's escape and the old woman is later burned in a trap set by the child.

Homshuk gathers the ashes of the old woman into a sack and asks a toad to go and throw them into the ocean. He warns the toad not to open the sack but the toad will disobey him. Before reaching the ocean, the toad opens the sack. Many harmful animals jump out of it. There were snakes, wasps, scorpions, mosquitos, black-ants and many others.

The child decides to go and find his real mother. When he finds her, she confuses him at first with her husband. She then tells the boy that his father is dead. He left many years ago to get corn from the land "where the lightning lives". He never came back. The boy decides to go and look for his

father¹⁹. In his journey, he crosses the ocean on the back of a turtle and arrives to the land of lightning. There he is forced to conquer snakes, tigers and arrows sent by the great lightning to kill him. He eventually confronts the lightning himself and after defeating him spares his life, on condition that he resurrects the boy's father. The lightning agrees. He revives our hero's father and promises Homshuk that he will come from this day forward to wet the corn's head when the sun's heat is high.

The old father returns home. Homshuk sends ahead of him a lizard to warn his mother not to cry, but to be happy and laugh when she first sees her returning husband. The lizard passes on the message to a second lizard, but this one delivers the opposite instructions to Homshuk's mother. When she first sees her husband, she begins to cry. The old husband is instantly destroyed. Only his bones remain behind.

The story ends with Homshuk splitting the lizard's tongue in two, in punishment for delivering the wrong message.

Just as in the Nahua versions analysed by Chevalier (1994), the story depicts a boy growing up, asserting himself, and becoming his own master. Homshuk conquers his enemies and achieves autonomy and even superiority over his adoptive parents. He ends up reviving his real father, inverting the relationship to the man who gave him life. In the end, however, human beings will not succeed in becoming immortal.

The vertical relationship of exchange and reciprocity between the corn-god and nature

¹⁹ In the Gulf Nahua version of this myth, described by Chevalier and Buckles (1996: 255-318), the mocking iguanas at the watering place are the ones that tell the boy where his real father is: "the place where men are dry".

(human beings included) is a theme that recurs throughout the myth. *Homshuk* rewards those who help him. He punishes and even kills those who disobey or threaten him. Yet, he is dependent on different characters he encounters during his journey in order to fulfill his destiny in life. He kills the old man and old women when they decide it is time to eat the young corn-boy. Our hero then punishes the toad when he disobeys his orders not to open the sack with the ashes of the old woman. The toad is stung by the animals coming out of the sack. Its skin will remain bumpy forever. Later in his journey, *Homshuk* requests the help of a turtle to help him cross the ocean. The turtle breaks its chest in the process. The corn god scolds the turtle for offering to do a task that it could not fulfill. Yet he does not punish it in this case. Because of its obedience, they both come back to shore and *Homshuk* asks the rabbit to heal the broken turtle. He then rewards the rabbit for his deed. He gives him a pair of horns as "payment" for the "healing" and the "medicinal plants" used by the rabbit. *Homshuk* then succeeds in crossing the ocean on the back of a second turtle. In return, he decorates the turtle's shell.

Many other encounters occur in the myth involving such exchanges. One of them is his encounter with the old lightning. The corn god spares his life in exchange for the life of his own father. The lightning submissively resurrects the father by jumping seven times across the ocean. As part of this transaction to secure his own life and powers, the lightning agrees to return and wet the head of our corn hero when the sun is hot.

A traditional healer from Soteapan comments on this last scene and the mutual

dependency between both characters²⁰:

Homshuk told the thunderbolt [*rayo*] that he is going to take away his powers. The thunderbolt replies: "Don't take them away because I also have powers that you need." The thunderbolt has as powers the cloud, the wind and the thunder [*tronido*]. Homshuk agrees not to take away his powers if he promises to help him. And he tests him. When he is small, standing in the milpa he calls the thunder: "Thunder come, let me see if it's true that you are going to help me." The thunder comes and with the cloud gives rain to Homshuk. Homshuk says: "Now I do believe you, I shall never take away your powers." [my own translation]

There are two important scenes missing from Ben Elson's account that were collected during my own field work in the Sierra Popoluca²¹ and which bring to the fore a key element in the teachings from *Homshuk's* life: Our corn Master will live as a god for ever, as long as he dies to reproduce his seed and serve as food for human beings. The first scene is actually the beginning of the myth and depicts *Homshuk* as a crying baby in his parents house before he was transformed into an egg. Elson only refers to this passage indirectly in a footnote (1947: 204). The second missing scene describes *Homshuk's* gift of corn to human beings, a gift produced when he was bathed by his mother. Both scenes are presented below. They were narrated by Pedro Gonzalez Santiago (P).

²⁰ Anonymous healer, interview: i0304je.94, p. 1

²¹ A third missing scene, also collected during my field work, describes the discovery of maize stored inside a hill (*monte* or *cerro*). This scene is remarkable in that it shares many striking parallels with the Nahuatl myth on the discovery of maize by *Quetzalcoatl* in the "Legend of the Suns" which was transcribed into Spanish in 1558. The excerpt is not presented here as it would detract from our central themes of the chapter (the inheritance of a Mesoamerican morality of sacrifice, and the characteristics of reciprocity relationships between humans and spirits). This scene gives nevertheless a vivid example of the robustness of oral tradition among the Popoluca, and reinforces our premiss of a common cultural Mesoamerican heritage between the Nahuas and Popolucas of the Sierra. For these reasons, this third scene and the ancient Nahuatl myth are presented in the Appendix.

Excerpts from filed notes: 08-06-94

[File: i0806pe.94, taped interview, my own translation]

P: ... It [the story] says that Homshuk was a child that cried a lot. He cried a lot that child! His mother became angry. She became angry. She put him on top of the *metate*²² to grind him! He was ground in the metate because she was angry that he cried a lot. There! She turned him into dough. She then cleaned the *metate*, and [the story] says that she looked for a *chical* [a container made from a gourd]. There she put everything, everything, the flesh, the blood, everything there. And then, there was an *arriero*²³ ant hill near there. Do you know the *arrieros*?

A: Yes.

P: They raise the soil, raise the soil [into a mound]. The *arriero* had worked there for some time now. It had a house there.

A: Yes, the ant?

P: Yes, the hole. She went to throw it there. He was inside, then he spoke. [The story] says that he said: "Hi, what are you all doing? My mother came to throw me in here, but I must get out". The ants answered: "How will you do that?" He replied: "You will take me out." Because it [the story] says that Homshuk was senior to all. So the ants replied: "Yes uncle, what ever you order we have to do." So they took him up. They took the egg up. He was already an egg. So then, first he was crushed, then he was thrown into the ant's hole, of the *arriera* ant. So he was inside, and when he turned into an egg, he left from there. He said: "Now, take me out of here". So they took him out. "Now what do we do?" the ants said. "Now, you take me there, to the well." There were some rocks there, so they put him on top of them. There he was, but as ordered by him. And there it was where the *chichimistes* came to fetch water.

A: What is a *chichimiste*?

P: A *chichimiste* is an old woman

This first scene describes a crying child ground on the stone by his mother into a

²² The *metate* is a grinding stone used to grind corn by hand when preparing the dough to make tortillas.

²³ An *arriera* ant is a large red harvester ant. These ants can attack maize plants from the moment of sprouting to the appearance of ears, two months after planting. It is from these creatures that *Quetzalcoatl* obtained the gift of maize (Chevalier and Buckles, 1996: 299; Leon Portilla, 1987: 167-171).

dough of flesh, bones and blood. The mother then puts the dough into a gourd from which the corn god will emerge²⁴. Our narrator is very explicit about the meaning of this image. He will later reveal *Homshuk*'s own explanation to his mother:

"This means that corn must be ground! And you crushed me in the grinding stone. This means that I am your god, I am corn! Mother I am your god."

The images are reminiscent of those in ancient Nahua passages describing the restoration of humanity in the Legend of the Suns. There, *Quetzalcoatl* dies and comes back to life again while in his quest to retrieve the bones of earlier human beings in his journey to *Mictlan*, the place of death. He then gives the bones to *Quilaztli*, goddess of fecundity and maternity. The maternal goddess grinds them and makes them into a dough with blood from *Quetzalcoatl*'s penis inside a precious earthen vessel. From this earthen vessel will emerge the new human beings. The sexual reproduction imagery is clear. In the corn myth, the imagery is more subtle. The dough is placed by *Homshuk*'s mother in a gourd, a womb like vessel. This dough comes from the blood, flesh and bones of the child, the fruit of sexual intercourse between the husband and wife. The association of the gourd with female reproductive organs is explicit in the corn myth variants described by Münch (1983: 166) and López Arias (in *Culturas Populares*: 1983: 6). In these variants, the ashes from the genitals of the old women *chichiman* are sown by the corn master to produce calabash and *chayote*. The dough in the gourd is also the fruit of the mother's labour (the grinding in the stone) and the father's labour (he died when he went to get corn, the food of life, to the land of thunder).

²⁴ López Arias does begin with a similar passage but in his version, the mother puts the ground remains of the child inside a cloth ("*rebozo*" shawl or head covering) and throws it into the river. God then transforms the child's remains into an egg and puts it on a liana above a watering place (in López Arias, 1983: 6).

The dough and gourd are placed inside the ant hole, an earth mound where the corn-god-child will gestate to eventually emerge, carried out by the *arriera* ants in the form of a fertilized egg.

The scene also announces the destiny assigned to our hero in the myth. In his journey through life, the corn-child will have to confront and conquer temptations of the good life through self-mastery. In the end, he will grow and achieve the power to regenerate his seed only by accepting the ultimate sacrifice of reproduction: to die, offering himself as food for people (Chevalier, 1994: 7-8). Just as with the Aztec myth of "The Legend of the Suns", the regeneration of life was conceived to be intrinsically linked to sacrifice and death²⁵.

Our narrator continues his story with scenes similar to those described by Elson (1947), until the following moment where *Homshuk's* gift to humanity is disclosed.

Excerpts from filed notes: 08-06-94

[File: i0806pe.94, taped interview, my own translation]

P: In order for corn to be, the one we have now, that's why the bath took place. He bathed.

A: How?

P: He took a bath. [The story says] that when he was now a man, he returned to his mother's home. He arrived into his mother's house and covered her eyes with his hand. He asked his mother: "Tell me who am I?" And the mother replied: "My husband!" "No, I am not your husband." "Then, who are you?" He answered: "Don't you remember that you crushed me in the *metate* [grinding stone]? Do you remember?" "Ah!" She exclaimed. "My son! But you have grown up!

²⁵ Dough made of ground seeds and blood from children is an element that was encountered earlier and which is also associated with sacrifice, death and the regeneration of life. These were the images of gods that were sacrificed and eaten during *panquetzaliztli* to celebrate the birth of the sun god *Huitzilopochtli*.

Where did you grow up?" "Ah! I was raised in the hand of an old woman and an old man." "But how? How? If you ... if you died!" He replied: "No, I was not dead, rather it was you, you who crushed me in the grinding stone. This means that I will become the corn god. This means that corn must be ground! And you crushed me in the grinding stone. This means that I am your god, I am corn! Corn must be crushed in the stone. Mother I am your god." "Well, and now what do you want?" "I want you to give me a bath." She answers: "That's fine". He asks: "And my father?" "It's been sometime since your father died. Your father was the lightning, He was the thunder." The story tells that he [Homshuk] replied: "Well, I have the power to bring back my father." "But how?" her mother asked ... He said: "I want you to give me a bath." The mother agreed: "If you ask me, I shall bath you." "Bath me now because I need to go." "I shall bath you then." He said: "Under me put a washbowl, because this water we are not going to throw away." He was there, standing. She poured water over his head and it dripped down. He spoke: "Keep this [water], because black maize is going to come from it. From the first bath that you give me, black maize will come out." ... "The second bath [water] you should also keep. This one will come out yellow. Now in the third bath, it will come out the reddish one, red maize." He then said: "In the fourth bath, there it must come out white, pure white. This means that all the dirt has come off me, now I am white...."

A: The water turned into corn?

P: Yes, it turned into corn, through his power. She kept the water, and it turned into corn. The next day when she went to see, it already had grains. Yes, already grains!

The scene elucidates the offering of the Corn-God to humans in a relationship of reciprocal exchange. It depicts a more mature corn master being cleansed by his obedient mother with water poured on his head. From this bath water will be produced the sacred nourishment for the sustenance of life. This is the contribution of the Corn god. Human beings in return must deserve this divine offering through abnegation and self-sacrifice. They must toil the land under the sun and follow the rituals that will ensure the regeneration of the corn-god-child from cultivation cycle to cultivation cycle. Chevalier and Buckles

summarize this sacrificial logic (1994: 261):

Humans depend on the cyclical sacrifice of earth and maize for their own livelihood. While the earth must be reduced to ashes so as to produce food ... the corn god must dry and die so as to feed peasants and the children who look after them in their old age. But god's sacrifice is also self-serving. If Sintiopiltzin [*Homshuk* for the Popoluca] were to refuse to give himself to humans, presuming that it were in his power to do so, then there would be no one to attend to the needs of children of the corn god, sowing and cultivating the seed of the father plant.

Corn plant and human beings are bound together in a cycle that brings both into renewed existence. But new life can only come from death. In both cases, the survival of the species requires the sacrifice of the individual. This relationship is illustrated in Figure 3.1.

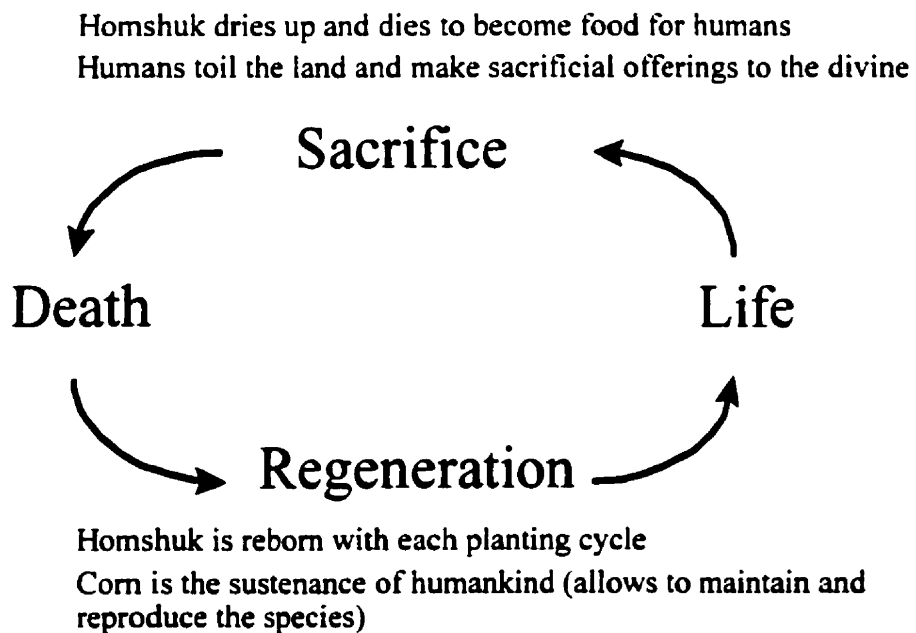


Figure 3.1 The regeneration of life

3.3 Lords of the Earth

The ancient Nahua believed the earth was inhabited by entities other than people, plants and animals. These other beings were capable of providing assistance to humans or of causing them harm. Among them were the *ohuican chaneque*, jealous owners of water sources and forests (López Austin, 1996: 64 & 271-275). Today, the great gods of ancient times have faded away, diffusing into the Christian Trinity and Saints of the Conquistadors. Yet, the *chaneques* have endured the centuries unconcealed. Contemporary people of the Sierra continue to be fearful of these spiritual entities, attributing to them many misfortunes of everyday life. Some elders still make offerings to them and the divine in order to deserve good health and sustenance in this world.

Chaneques (also called *chanecos* or *chane*²⁶) are seen by *campesinos* and *campesinas* of Santa Marta as spirits that live in Nature. They are associated with freshness and water. *Chaneques* dwell in the top of mountains, underneath *amate* trees located near springs, or in caves, water caverns and waterfalls. All these places are sacred to the people of the Sierra²⁷ (Ramírez in Culturas Populares, 1981: 38; Münch, 1983:173). The *chaneques*

²⁶ Münch describes the *Chane* or *El chaneco* as the "King of the Earth", god of water, of plants and animals. He resides in the "*talogan*", the underworld or paradise where Nature is lavish. He is also the king of junior *chaneques* who take care of all that exists on earth, including human society. All the animals are at their service (1983:173-79).

²⁷ These were also sacred places to the ancient Nahuas, points of communication between the world of humans and the underworld known as the *Tlalocan*, an edenic paradise inhabited by the ancient Nahua god of rain *Tlaloc*. Spring was eternal in this place and the fruits of the earth were always plentiful. Spirits who inhabited it lived in a permanent state of bliss (López Austin, 1996: 64 & 383). Among them were subordinate gods or spirits of the winds and of waters, the *ehecame*

embody the good life. They are the owners and guardians of animals. They can assist human beings in satisfying their sustenance. They also castigate the greedy who kill more than what they need, or those who fail to take good care of their *milpas*. The actions of the guardian *chaneques* go beyond what could be termed "indigenous environmental wisdom". They are grounded in ancient precepts concerning the reciprocal relationship between nature and culture, between the divine and people. José, a Popoluca healer, explains²⁸:

The *Chaneco* is the owner of fish, of shrimp, of the animals, of the mountain ...for example, of deer, for example the *tepesquite*, for example, the armadillo. They are the owners. So they manage all the animals, and this is why when hunters go from here, they take with them *copal* [to offer], they begin to *sahumar*²⁹[perfume with incense], they begin to talk [in prayer]: "Lord *Chaneco* I would like you to give me one thing which I came to look for, I am paying you for it in this manner." And then, one begins to walk, and you need not walk too far, and what you went there for ... there is the animal! [my own translation].

and *tlaloque*, respectively. These spirits dwelled in mountains, caves or water sources. The close association between the *Chane* king and the ancient god *Tlaloc* is evidenced in this and the previous footnote.

²⁸ Anonymous healer (pseudonym used). interview: JSP:15-06-94, p. 9. Present in this healer's statements are previous elements that we encountered in our review of pre-colonial sacrificial offerings concerning relationships of exchange between humans and the spiritual world. This relationship parallels that of an economic transaction. José very explicitly uses the word "payment" to characterize the offering of incense in return for the life of the hunter's prey. Báez-Jorge recorded the following hunting prayer to the *chaneque* which also uses the notion of "payment" to refer to the offering of *copal*: "Lets burn *copal* with the wick of seven masses. Grandfather *chane*, give me a wild boar that you have there. Here I give you a present. I will pay for your animals. When I come back I will bring you more *copal* as a present." (1973: 104 - my own translation).

²⁹ *Sahumar* with *copal* (to perfume by burning *copalli* - a pine resin used as incense) was a common offering to the divine in pre-Hispanic Mesoamerica. González Torres characterizes *copaltemaliztli* as one of the most common forms of ritual expression among the Mexicas (1985: 102). See also López Austin 1975: 145-146. In Popoluca of the Sierra, *sahumar* with *copal* is *cuómáy* - B. Elson, 1996: *omi* = dueño (owner); prefix and suffix pair: *cu...áy* = todo (everything) [the components of the word suggest the idea of an offering to the owner of everything].

But these offerings to *chaneques* are carried out less and less by hunters these days, except perhaps by the older people. The practice remains in the minds of most since it was very common one or two generations ago. The same can be said of offerings related to the cultivation of corn. Foster reported the observance of planting and hunting rituals to be widespread in 1941 (1942: 42-43)³⁰. By 1983, Münch (1983: 152-3) noted a rapid process of cultural change and abandonment of many traditional practices, fuelled among other things by the arrival of the road to Soteapan in the 1960s, the intervention of the State, and credit programs in agriculture which promote market forms of production. These processes were discussed in some detail in the preceding chapter.

Also gone is the *Carnaval* of San Pedro Soteapan. This was the most important celebration of the Zoque-Popoluca. As we noted before, its purpose was to secure a good harvest of maize and the prevention of disease in the community. The celebration exemplified the intimate relationship that existed in earlier times between religious and

³⁰ Foster describes elaborate rituals performed by the Popolucas surrounding the cultivation of corn. He writes: "Continnence and smoking with burning copal are the main ritual forms. For seven nights before planting a man must not sleep with his wife. Rats and racoons are believed to eat the seeds if the taboo is violated. Before breakfast the day of sowing, all seed is smoked with copal and a prayer made to the Virgen Carmen of Catemaco, or to *mok santu* (maize saint), the maize god. The sown field is then smoked by walking through it with a small clay pot containing burning copal. Smoking is again done when the corn is knee high, and when the tassel and tiny ears appear. When roasting ears are ready a man and his wife go to the field before sunrise, smoke copal, cut seven ears, return home and make tamales, and eat them about midnight. From then on ears can be cut as needed. When the grains are hard, seven ears are brought home, smoked with copal and placed beside burning candles. This is believed to prevent attacks by insect pests and mould. A final smoking occurs in the spring when all the harvest is in." (1942 : 42).

In terms of offerings by hunters, the author writes: "Before hunting deer a man invariably burns copal and makes a prayer to the *chanekos* - mountain dwarfs believed to be masters of all game. Fish nets are similarly smoked before being used." (1942: 43).

political spheres. Municipal authorities, healers, wizards, local religious authorities and dancers, all had to endure long periods of sexual abstinence, and acts of vigil and fasting in preparation for the festivities. The municipal president, for example, had to follow "*la dieta*" (sexual abstinence) for 157 days prior to the *Carnaval*. Lower ranking officials followed shorter periods (53 or 28 days) and the rest of community participants only seven days. Celebration rituals included the offering of *copal* to the *chaneques* by community authorities and also individually by people in their homes. In the words of a Popoluca healer, offerings were done to these spirits because "it is them that give protection against diseases"³¹. The *Carnaval* was last held in 1951 (Perales, 1992: 57). Municipal authorities banned it because of the "severe duties" demanded of them, and the belief by many that not following them properly could bring harm to the community (Báez-George, 1973: 206-7).

The acculturation process that Münch cites is still on-going in the Sierra 15 years later. In spite of this, numerous cultural elements of prehispanic origin have proved very resilient and continue to influence beliefs and practices today even though some of the rituals or parts of them have disappeared. Perales noted in 1991, during his field work in the Sierra Popoluca, that many informants did not perform traditional rituals because some were thought to be too harsh and others had been forgotten, as opposed to dismissing them as ineffective. People continued to observe certain ritual elements in maize cultivation. For example, they avoided specific foods or did not use soap in baths for seven days prior to the sowing. But sexual abstinence, prayers to *Homshuk* or the burning of *copal* were now things

³¹ Interview with anonymous *curandero* (healer), JSP:15-06-94, p.6-8.

of the past. Many argued that it is better not to do them at all rather than not doing them right. The latter could bring poor crops for many years to come. Similarly, failing to follow all the requisites of the *Carnaval* could result in death. All informants with whom he spoke about it knew of someone that had met with some type of bad fate³² (Perales, 1992: 58-60).

My own field work gave me the impression that the elderly have strong feelings about the consequences of abandoning the old ways. A typical reaction is captured in the following words of an old man that I met during one of my walks about the Sierra. We were standing at the top of a hill overlooking the town of Soteapan. I commented how beautiful the town looked from the distance. The old man replied that many people from the outside were coming to the region trying to stay and find a plot of land. He complained about the politicians of today: "The only thing they want is money. Before it was not like that." I asked him: "When? During the times of the *Carnaval*?" His answer to me was: "Yes, indeed! Then they were good! How beautiful the *Carnaval*! Then you did have fruit, without worms, people did not get ill, the harvest was good. Not any more!" He added: "My *milpa* doesn't produce like before."³³

Old rituals may be waning but *chaneques* refuse to disappear, involving themselves through different means into the lives of younger generations. They continue to reinforce

³² Báez-George also reports similar beliefs by contemporary Popolucas. He cites Juan Cruz, recalling that in 1938, "two authorities did not follow the *dolencia* [sexual abstinence] and as the *Carnaval* came to an end, dysentery was let loose killing 180 people" (1973: 206-7, my own translation).

³³ Field notes: 10-01-95, p.1 (my own translation).

moral conduct with their persistence in stories and traditional observances that subsist. Tales and anecdotes about them still illustrate the same ascetic teachings of ancient times: the good life will be granted to those who renounce it, while it will evade those who attempt to indulge in it (Chevalier, 1994: 8). An example is found in stories about sexual morality. It is said that men and women who share the fruit of their labour with their adulterous lovers will provoke the anger of the spirits³⁴. This is the case of women who share their *tortillas* with their lovers. Stories warn of the danger they could face at the hand of flesh-eating beasts sent by the *chaneques*. Pedro Gonzalez Santiago from Ocotal Chico narrates:

Field notes: 30-03-94

[My own translation, story summarized from taped interview]

This is a story told by my grandmother. She told me there was a man who married a young maiden. She had a sister. This man made her his mistress. One day they decided to go to the river to collect molluscs. My mother told me that there was this cat of spells (*gato del encanto*), *Xuno'ti*, which did not permit to take the *tortilla* of the mistress [to the river]. The man could take his own *tortilla*, the one made by his wife, but not that of her mistress, otherwise the cat of spells would appear and eat them. This is the cat that comes out --, it comes out and eats us. You know how he eats us? It has a virtue. If one wants to run away, all your flesh will fall from your body and only your skeleton will remain. Your flesh falls off and he comes and grabs it and eats it. So that's what the man planned. He took the *tortilla* from his mistress and went with her to the river. When they arrived there, they saw an old man. The man was prepared. He was carrying a trap for shrimp made of palm, some thread and a needle. When noon arrived the couple began to eat the *tortilla*, the *tortilla* of the mistress! The old man asked them: "What are you eating? Isn't that bad? Aren't you not doing something bad?" The couple answered: "No, how can we be bad?" They continued eating, and when they got ready to leave, the cat appeared. It was crying "miau, miau". The old man exclaimed: "Look you say that you are not doing wrong. Then why has this cat come out? you will not be able to go back, the cat is going

³⁴ See also the stories of *chaneques* presented by Münch (1983: 279-293) and in *Culturas Populares* (1983, Acayucan, No. 25).

to eat you". The cat was following them, it was crying and they could not go back, they could not move [they were paralysed]. The old man said: "You should not have brought the *tortillas* of your mistress. That's why the cat came out. This one will follow you, when you are bad. Now go, you go ahead." [knowing that they had learned their lesson]. Then the old man staid there. He got the cat and put him inside the shrimp trap and sewed it with the thread and needle. This is how the man and woman were able to return home. [File: i3003pe.94: 4-5]

Münch describes a different version of the story involving a creature called "*Shúnu'ti*". It is a small cat that appears to women in their house when they have lovers. The cat is beautiful, makes a lot of caresses, then suddenly begins to grow, and becomes a tiger who attacks and eats the adulterous woman. Just as in Pedro's story, the *chaneco* can appear at the moment the fierce creature is about to devour its victims, granting forgiveness to transgressors in exchange for a promise to behave properly in the future (1983: 178)³⁵. Similarly, hunters and fishermen who give part of their catch to their mistresses, or who buy the services of prostitutes with money from the sell of their produce, are warned of the dangers ahead. They will suffer personal accidents at the hands of the *chaneques* and face the possibility of never being able to catch food again (Culturas Populares, 1981: 45, 55).

Despite forsaking many ancient rituals and customs, people have not so readily abandoned others. This is particularly true of matters related to human suffering and death, conditions of heightened human vulnerability that give healers and the ill less leeway to risk

³⁵ Münch also recorded beliefs on the *Lúpu'ti*, a black and white spotted donkey which appears in the path of men that have a mistress. It has the power of blowing a frigid wind on men to benum them and immobilize them. Then, it takes their pants, underwear and shirt off through magic. Once naked, it begins to lick them, tearing off their flesh and devouring them in the end (1983: 178). B.Elson translates the word *lupuji* as *lobo* (wolf), including the comment that this word is of ancient use (1995: 68).

(or become indifferent to) the anger of the *chaneques*. This may explain in part the resilience of ancient traditions associated with health and illness. Their relevance in the Sierra Popoluca is examined in the following section.

3.4 Sacrifice and Exchange in Health

The rigorous demands for self-mastery and the profound devotion and fear of the gods behind the offering of human hearts have disappeared, but the essence of that divine-human covenant of prehispanic times embodied in the *tlamacehua* seems to survive. The *chaneques* have brought together and preserved many of the attributes of ancient gods. They are now the recipients of human offerings, the divine counterpart in relationships of exchange between human beings and the spiritual world. *Chaneques* can spare humans from disease and even death, or grant healers special powers provided that two essential requirements are followed: people must become deserving of what they wish to achieve through acts of mortification³⁶; and, they must make offerings to the spirits in exchange for that which is desired.

Both elements characterized the relationship of exchange between humans and gods in ancient Mesoamerica, as we saw earlier in the chapter. Similar acts of mortification are

³⁶ "Acts of mortification" refer in this document to acts of self-denial or discipline prescribed by custom to prepare the body and inner self to enter in a relationship of exchange with the spiritual world.

also followed today by healers and their patients, among them sexual abstinence, vigil, and fasting. Offerings to the spirits continue to include *copal*, and the surrendering of animal and human souls. In return, people of the Sierra continue to seek a better life in this world through the riddance of illness. Records that are centuries old provide us only with hints as to the purpose and logic of many ritual practices. In the remainder of this study, an attempt is made to explore them further as they reveal themselves in the actions and beliefs of contemporary Zoque-Popoluca. We begin by looking at acts of mortification.

Sexual Abstinence, Vigil, and Fasting

These acts of self-denial and discipline were commonly practised not too long ago by every *campesino* of the Sierra for seven days prior to the sowing of corn³⁷. They were also required of Zoque-Popoluca political and religious leaders in preparation for the *Carnaval* as was described earlier. There are some clues in contemporary ethnographic studies and historical records that help us understand why these ritual acts were considered necessary. Münch reports, for example, that sexual abstinence, vigil and fasting gave municipal authorities, wizards and dancers preparing for the *Carnaval* a strong supernatural force required of them during the celebration. The author remarks of political leaders: "They could not touch others because they would die from heat, a simple greeting was enough to become contaminated and die" (1983: 247)³⁸. López Austin describes similar ritual demands

³⁷ See earlier description by Foster, and also "*la siembra de siete días*" (the sowing of seven days) in Báez-George (1971: 98) and Perales (1992: 58-59).

³⁸ The next chapter will explore another layer of complexity in the web of associations between the human body, actions and things that are considered hot or cold. For now, relationships

on ancient political Nahuatl leaders, and similar consequences of higher inner levels of energy reached by them. For example, the *tecuhli*, rulers of a given territory, had to endure specific rites that would transform them into higher beings, charged with a powerful inner force harmful to the common folk³⁹. These rites included four days and four nights of fasting, vigil and sexual abstinence (1996: 457).

Coitus, for the ancient Nahuatl, involved the liberation of inner forces and therefore was considered a debilitating state. More specifically, the *tonalli*, that inner animistic force that irradiated energy to the rest of the body, was thought to leave the body temporarily during sexual intercourse (López Austin, 1996: 333; Viesca Treviño, 1986: 65). Today in the Sierra, sexual intercourse is believed to refresh the body while not having sex for long periods of time can make a person ill as heat builds up inside, causing headaches and pain in the eyes⁴⁰. One possible inference from these pieces of information is that sexual abstinence fulfills two things: first, it conserves energy in preparation for a ritual exercise, or at least ensures that the body is not in a debilitated or fragile state for the occasion; and secondly, it builds up this inner energy (or heat) inside the body, a state that is closer to the

are only broadly described to delineate basic links between contemporary and pre-Hispanic ideas.

³⁹ López Austin notes that the word *tleyotia*, meaning to ennoble someone, can be translated literally as "to fill someone with fire"; and to become renowned, *tleyohua*, translates to "fill oneself with fire". The author also cites the contemporary belief by the *tzotziles* affirming that a person destined to fulfill a public position will have a greater amount of heat in his body (1996:460).

⁴⁰ Interviews with AGS & PGS (11-06-94: 3 & 27-11-94: 3). In a similar way, Olavarrieta reports that in los Tuxtlas women will suffer similar symptoms as a result of an "accumulated sexual energy" produced by prolonged sexual abstinence (1989: 66).

divine.

There is, however, another element implicit in this act of self-sacrifice. Deprived of its religious significance, the build up of heat through sexual abstinence will result in illness. But carried out within the context of a ritual exercise, it will make the person worthy of what he or she wishes to accomplish. The idea of becoming worthy through acts of self-denial is succinctly captured in the following words of a Popoluca *campesino*. He is referring to the sexual abstinence (also called *dieta*) of political leaders preparing for the *Carnaval*⁴¹:

Yes, [sexual abstinence] was carried out so people would respect them, because if one goes to see those who are going to take charge [of public positions of leadership] and they do not *diet*, people will not give them respect. They are like youths! You can hit them! You can kill them! Yes, but if one carries out the *dieta*, they say that one will have a lot of power, a lot of maturity, yes, the spirit to face people [my own translation].

Vigil seems to follow similar principles. To both, ancient Nahuas and contemporary Zoque-Popoluca, work produces heat in the body, and rest (sleep included) refreshes it, returning it to a healthy state of equilibrium⁴². As an act of self-denial in preparation for a religious ceremony, vigil produces an increase of inner energy, and therefore an inner state closer to the divine. Outside of this spiritual context, too much work with no rest produces disease⁴³.

⁴¹ Pedro in Interview with AGS & PGS (27-11-94: 5).

⁴² See López Austin (1996: 291-2). Also interview with anonymous healer, JSP:03-04-94: 2. The work-rest relationship is analysed in greater detail in the next chapter.

⁴³ Anonymous healer, interview: i1006je.94, p.9-10

Two elements are at play in both instances: a physical inner change explained, in ancient times as well as today, in terms of an accumulation of energy in the body; and a higher spiritual state, making the person to be deserving or worthy of what is sought. In the case of governance, the acts of self-denial will produce the authority to lead, provided that suitable offerings to the spirits are also made. Together they will give leaders the elements they need to govern, expressed by our narrator as: respect, power, maturity, and the inner strength of spirit to face others. Only through self-sacrifice can leaders reach the same attributes *Homshuk* conquered in his journey through life.

Self-denial of sex and sleep are framed within a vertical relationship of exchange between humans and the *chaneques*, the grantors of health. The contemporary relevance of this human-divine covenant and its rules becomes explicit in the terms of exchange that concern healers and patients. Just as with the cultivation of corn or the governing of people, healers and patients must become worthy of what they seek (the riddance of illness) and make the necessary offerings to the *chaneques* to secure their goal. Here again, vigil and sexual abstinence are common practice among autochthonous healers. The following excerpt illustrates the link between them and that what is wished to be accomplished. The excerpt is from an interview with Don Mauricio⁴⁴, a snakebite healer or *culebrero*, in which he talks about the collection of medicinal plants for treating bites from snakes and other

⁴⁴ Anonymous healer (pseudonym used), interview: i0212ma.94: 9. Münch reports similar obligations of fasting and sexual abstinence before the collection of medicinal plants in order for the plants to have "curative virtues" (1983: 206).

poisonous animals.

Field Note: (Interview 02-12-94)

[Taped interview, my own translation]

M: To go and get them [the medicinal plants] one has to be prepared ... then you will have them ready and [they will] be effective. As I was telling you a little while ago, that night a women came to see me. A scorpion bit her. So I had to remain without sleep all that night. That is to have a good "posture" (*postura*) [refers to a proper mental and spiritual condition]. So I am without sleep, in good time this got me to go and collect [medicinal plants].

A: Do you have to go without sleep?

M: Yes, that's why ... you begin collecting from the 31 [of December] at night, once the new year has come in, and from then on, from the new year to the first of March.

... You use them depending on how things come, as the animals bite and healings are made ... [the plants keep their strength] because that medicine was collected having lost sleep, and one is also in *dieta* [state of sexual abstinence].

A: For seven days?

M: No, for 21 ... which could be increased to 37, and even to 57, but that is too ... it is already too strong.

A: Could it harm you so much, 51?

M: Fifty seven? Well, yes it is harmful because one ... also within the family, one must keep a posture, if you don't keep a posture also, the woman can fall ill⁴⁵.

In this passage we learn that vigil and sexual abstinence are necessary to give strength to the medicinal plants the healer utilizes. A spiritual element is introduced into the healing process even before a relationship between the healer and the patient is established. Once again, the acts of self-denial not only affect the inner energy state of the person performing them, but are also required to achieve what is desired: medicine with the power to heal.

⁴⁵ M is referring to the need for maintaining sexual relations with his wife. This statement also corroborates earlier references to the belief in the Sierra that women who go for extended periods of time without sexual relations are thought to get ill.

If don Mauricio had not been in this state of sacrificial readiness (which he describes as "good posture"), he would not have been fit to go and collect medicinal plants. Or if he had gone without preparing himself, the plants collected would have no curative power.

Patients are required to follow similar acts of self-denial. At one level, these requirements can be deemed necessary given the weakened state of the ill person. Sexual intercourse, for example, can be thought to debilitate further the patient since his/her inner energy leaves the body temporarily, allowing other ills to assail the convalescent during that time. But, as the following story will show, the act of abstinence goes beyond this safeguarding of internal energy. Pedro Gonzalez Santiago narrates:

Filed notes: 27-11-94

[My own translation, story summarized from taped interview]

This man wanted to get married, but since he had no money, he couldn't. "Listen, I want to get married now!" The women answered: "But we have no means to do it! .. we need to wait." So he went on thinking and thinking [worrying] and one day they went to cut wood to build their house when a *rabo hueso* bit him! [Pedro explains that a *rabo hueso* is a small snake, about 10 cm long, but whose bite can be fatal]. So he was asked "How did that happen to you?" The man answered: "I was thinking about getting married but I cannot, so the animal stung me." They cured him with an ampoule [anti-venom serum]. He told me that about five days later he found a woman, and then he was delighted with the woman and they went out all night partying. So, shortly after, I think two or three months later, again the snake bit him! I said to him: "Well, well, how did this happen to you?" And he answered: "It's because I did not *dieted*!" He said, "A woman came and I was half drunk, in a little while I felt no pain in my leg, and went out partying, and the snake managed to bite me again!". Yes, he said again: "He who does not diet, it will be duplicated [repeated] again!" Yes, this happens to many. Also, many say that if once you are bitten by a snake and you do the *dieta*, it will not bite you again, never!

[File: i2711pe.94: 5]

The convalescent broke the rules. He succumbed to the pleasures of the flesh and in spite

of his early recuperation from the life-threatening ordeal, failing to fulfill *la dieta* made him unworthy of a healthy state. Angry spirits were to punished the violation by sending the snake to castigate the transgressor with a second bite⁴⁶. Whether modern medicine or traditional medicinal plants are used, people in convalescence cannot disregard the rules of the covenant with the spiritual world that surrounds them.

Little has been said so far about fasting. There is some evidence that periods of total abstinence from food were also endured by the Popoluca in preparation for specific religious events. Báez-George reports that the *campesino's* diet was very restricted for seven days prior to the first offering of *copal* that preceded the sowing of corn. This first offering was done at midnight in the middle of the *milpa*. And from that time till the next day, again at midnight, no ingestion of food was possible until the *campesino* sowed seven "ears of corn" (in reality seven seeds), in seven different holes in the middle of the *milpa* (1973: 98). Another example of complete fasting is found in the preparatory observances of Popoluca healers. Apprentices must abstain from all foods for an entire day before going to the *chaneque* to request the power to heal⁴⁷. Since eating is considered among the Popoluca as an act that refreshes the body⁴⁸, total fasting may be interpreted as an act of self-sacrifice that

⁴⁶ Snakes in traditional beliefs of the Sierra are considered the "dogs that guard the interests of the *chaneque*" (Münch 1983: 179), not unlike the *ahuitzotl*, a mythical aquatic animal at the service of *Tlaloc*. This creature resembled a dog, but possessed a hand at the end of its tail with which it could drown people bathing in a lake or river (Fernández, 1992: 18). Münch also notes that snake bites for the people of the Sierra are seen as a punishment sent by the *chaneques* prompted by the transgression of cultural norms (1983: 204).

⁴⁷ Anonymous healer, interview: i0212js.94, p.9

⁴⁸ Anonymous healer, interview: i0304js.94, p.1

prevents this cooling off process, building up an excess of internal energy in the body, similar to vigil and sexual abstinence.

Contemporary fasting rules, however, appear to be concerned mainly with avoiding specific foods in order to prevent possible ill effects in the body. Again, the following chapters will explore in more detail the reasons and mechanics for avoiding specific foods at particular times. We shall see that foods are considered to have either "hot" or "cold" qualities. Depending on the illness or state of the body, different foods can disrupt the inner energy balance in both directions (hot or cold challenges) causing harm to the person. Naturalistic (as opposed to spiritual) principles appear at first glance to govern these eating precepts. Yet, there are indications that the spirits are not totally dissociated from the consequences of breaking dietary rules. Certain foods must be avoided because they can also affect "what one is wishing to achieve". An example is found in traditional agricultural rites related to the cultivation of corn. These included abstinence from particular foods prior to sowing. Most people remember them well as they saw their parents abide by them.

Don José is a traditional healer and a peasant⁴⁹. The following excerpt is from an interview in which he talks about the teachings of *Homshuk*, the Corn Master, on the sowing of corn.

Field Note: (Interview 03-04-94)
[Taped interview, my own translation]

A: People have told me that you should not eat *mamey* during seven days

⁴⁹ Anonymous healer (pseudonym used), interview: i0304je.94, p. 1

before the sowing.

J: Yes, this is true.

A: Why?

J: Because *mamey* is hot.

A: And what happens to the corn?

J: If you eat some, the corn will rot.

A: Are rotten things hot?

J: Yes, rotten things are hot.

Don José explains that many things are hot and that these cannot be eaten during those seven days prior to the sowing. Things that are hot include: pineapple, egg (when eaten it provokes *chahuistle* in the corn), hot peppers, avocado, honey, etc.

Breaking the dietary rules in this case will bring harm to the maize crop and not to the *campesino's* body. Eating hot foods will make the corn rot in the field. *Chahuistle* or *chawis*, according to Popoluca *campesinos*, is a disease that can affect corn and other plants (coffee and fruit trees included). It is produced by an excess of humidity associated with the "burning" of the plant, causing it to dry up and die. The "cold" affecting the plant is considered so extreme that the end result is a burning phenomenon described as "hot".

There are two types of *chawis* that affect corn. The yellow one attacks corn when it is small. The plant turns yellow from top to bottom and does not produce any ears. With the other affliction, a reddish or pinkish (*pinitito*) colour invades the leaves and rots the ears of corn when they are young. *Chawis* can be brought on by different forces, including: strong variations between hot days and cold humid nights; the occurrence of hail; or, a dense dark fog⁵⁰. All of these are climatic events well within the influence of the *chaneques*, the servants of the *Chane* king (the "*Tlaloc*" of the Zoque-Popoluca). Breaking dietary rules can

⁵⁰ Interviews with: JSP, i1710je94: 1-3; ML, i 2911ml.94: 1-3; and PGS, i2011pe.94: 4-5.

elicit their punishment through any of these natural phenomena.

Offerings to the Spirits

Besides acts of mortification, humans are required to make offerings in exchange for that which is desired. This is the other obligation in their covenant with the divine. A number of references were made in earlier sections to offerings of *copal*. It was used as "payment" to the *chaneques* for the animals that were hunted or for the fish that were caught. We encountered it also during *Carnaval* celebrations as an offering to these same spirits in exchange for protection against disease. Another use of *copal* that remains widespread in the Sierra is in exchange for the souls of people that have been snatched by these spirits⁵¹. *Copal* continues to be used to this day in other rituals related to health. It represents a form of payment to the spirits for protection against disease and the return to a healthy state.

The souls of animals and human beings constitute a second type of offering. The following stories and anecdotes collected during field work illustrate how the exchange of souls forms part of sacrificial transactions related to health between humans and spirits.

The Sacrificial Chicken (*Pollo del Reemplazo*)

[Conversation 15-06-94, reproduced from field notes]

Doña Estela began to talk about the birth of her last son (Juan). An elder midwife was taking care of her during her pregnancy. The midwife had then over forty years of experience. She arrived that evening. Estela was having strong contractions. The midwife began to give Estela a massage in order

⁵¹ This phenomenon of soul snatching will be analysed in detail in the last chapter when specific illnesses are examined.

to put the baby into a good position for the delivery. Doña Estela remembers this was very painful. Once done, the midwife turned to her and said: "Now my little mother, he is well placed, now make an effort, don't you go and kill this little boy!".

Estela was kneeling on the ground, her husband bent over behind her, holding her and massaging her stomach. When the baby was born, he was all black and was not breathing. The midwife quickly ran to call her *comadre* who lived next door, telling Estela as she left: "Don't worry my little mother, we are going to revive your child in a moment". The midwife came back, took the baby and sucked out what he had inside the nose. "She would suck it out and spit it on the ground" Estela said. The *comadre* from next door quickly brought a little chick. The midwife put the baby upside down and slapped his back and bum. She then took the chick and placed the beak in the bum (near the anus) of the baby. Estela said the chick died at that moment and the baby, now alive, began to cry.

I remember doctor Alicia (the doctor of the local clinic) telling me about an incident that happened to her last March. She was called to a village at the top of the mountain to assist in the delivery of a baby. The mother was ill and the delivery was not going well. When the baby came out, the traditional midwife tried to put the beak of a baby duckling in the anus of the newborn. Doctor Alicia would have none of that. She removed the duckling and scolded the midwife, much to the consternation of the family present in the room at the time⁵². [File: c1506me.94]

⁵² The sacrifice of animals was reported earlier as common practice in Mesoamerica during prehispanic times, even though there is little information regarding the meanings behind such ritual offerings. In these contemporary anecdotes, a chick is sacrificed in exchange for the soul of the child. The reference in both instances to the anus of the baby suggests an earlier association (or influence) with ancient Nahua concepts of the multidimensional self, and in particular with the *ihiyotl*. This essential animistic force was the "breath of life" granted by the divine duality *Citlalicue* and *Citlallatónac* and communicated by the *ilhuicac* (celestial) *chaneque* during the ritual bath of the new born at the moment in which the child was offered to the deities of water. It represented a second birth, now in a purified state that would allow the child to awake and to grow (López Austin, 1996: 258-259). As we saw earlier, the *ihiyotl* was conceived as a luminous gas that gave energy to the body through respiration. López Austin translates it as "spirit or breath (*soplo*)". It was also associated with the anus and in particular with the fart (*ihiyotl* was one of the names given to a fart), as well as with the exhalation or vapour that came out of the mouth (the same name was used for breath). The author also notes that the tojolabales consider this luminous gaseous form of the spirit to have a bad smell [1996, Vol. I: 184, 186, 212, 253, 258-60; Vol. II: 162]. Ancient Nahua referred to body orifices (included the nasal cavities, pharynx, larynx and anus) as *humeros* (*tlecállotl*) or "cavities for the escape of warm gases" in metaphoric comparison to a hole in the roof of houses that allows smoke to escape (López Austin, 1996: 186). We see in these references

The chick died suffocating at the hands of the midwife. Its sacrifice was necessary for the baby to live. When I recounted the second story of the duckling to a traditional snake healer (*culebrero*) and his wife, they both laughed and wondered if it could work. Their scepticism and amusement resided in that a duckling was used and not a chick. Don Mauricio explained that for a newborn, a baby chick had to be used. He agreed with his wife that the family probably did not have a chick at the time, prompting the midwife to use the duckling. When Don Mauricio heals snake bites of mature men and women, he uses a hen or a rooster, depending of the sex of the person bitten. The chicken is killed, cooked and eaten by the *culebrero* and the family. All remains (including feathers and bones) are thrown during a midnight ceremony into a river⁵³. The chicken is used as an offering to the *chaneque* in exchange for the soul of the injured (Field notes, interview 02-12-94, i0212ma.94:9-11).

Both Estela and Don Mauricio referred to the chick as the *pollo del reemplazo*, which can be translated literally from Spanish as the "replacement chicken". A well

then, associations between newborns, a second birth, the *chaneque*, water, the granting of an animistic force (spirit) that produces the breath of respiration, the awakening of the child, and the anus. Given the close contact between Nahuas and Zoque Popolucas over many centuries, it is possible that midwives of the Sierra were aware of these associations since long ago. Their reaction in the face of the birth complications was to seek the exchange of souls to bring the breath of life into the still newborns, to awake the children by directing the vivifying forces of respiration that were traded with the *chaneque* through their anal cavities.

⁵³ The throwing of ritual remains into the river is a common practice among the Popolucas of the Sierra. It is done by the *culebrero* during his healing ritual as described here, and as we shall see shortly, it will be done also by the family of the dying *curandero* as relatives bade farewell to his soul. Hunters and fishermen also throw the remains of their catch to the river. In the words of a *campesino* from Ocotlal Chico: "They don't give them to their dogs to eat because they would never be able to catch anything again, because the *chaneque* does not want the dogs to eat [the remains], they want them thrown back into the water" [FGS, 1106fr.94: 6].

respected *salmera* (fright healer) from Soteapan used the Popoluca word *tancomica* to refer to *reemplazo*. This can be translated in English as "our owner (or owning) of death"⁵⁴. The *pollo del reemplazo* represents a sacrificial offering to the beyond, to "our owner of death". It is a human-divine exchange of souls that maintains a reciprocal relationship involving worship and the granting of life. The concept is familiar to traditional midwives, snake healers and fright healers alike, from different villages of the Sierra. It is also compatible with the mythical associations between sacrifice, death and the regeneration of life that have been discussed earlier.

The next anecdote illustrates further the nature of the reciprocal exchange between healers and spirits. It describes the death of Don Ingracio, a traditional healer (*curandero*) of renown in the region. He died nine years ago, at the age of 91. The story is told by Amparo, the daughter of Don Ingracio. She is a *salmera* who learned to cure *susto* (fright) from her father.

The Death of Don Ingracio

[Field Note: Interview 11-01-95, taped interview]

I learned [to cure *susto*] because my father left behind ... I wonder where they left that paper ... where they wrote on about it. My father was agonizing, he was ready to die, and he [the *chaneque*] did not let him ... he did not let him. Then they began to ask my father why he could not die and finally he replied that because many had not paid him back, many were left owning him. "Now", he said, "I want them to pay me, and they will allow

⁵⁴ Field notes, interview 11-01-95, i1101ap.95: 3. Also, from B.Elson's dictionary, 1996: *tan* - *referente pronominal dual de la persona (tú y yo)* [meaning you and I - or "our"] gram. p.3; *gmi* = *dueño*(owner), *patrón* (patron, boss) p.79; *ca* = *morir* (to die) p.10.

me to be on my way". So my sister said then: "We have a chicken, let's kill it". They killed that chicken, then we smoked my father (*sahumar*) with *copal* (incense). Then we took the chicken and we ate it just like that, bits of meat, and then we went to throw it to the water [river], there it went with its *copal*, with its *aguardiente* [liquor], it went. Moments later my father died. He died and left the written paper.
[My own translation; i1101ap.94: 5-6]

The written paper contained a prayer that is recited during the *ensalmo*⁵⁵ and which Doña Amparo uses to this date during her healing rituals. In the story she describes, the old *curandero* is in his death bed but unable to die. The *chaneques* are not allowing him to leave this world because the old healer was not properly paid by many people he cured during his lifetime. The family decides then to make an offering to the *chaneques* so they will allow him to depart to the afterlife. We see in the description many elements encountered earlier, including the offering of *copal* and the chicken, as well as the throwing of all sacrificial remains into the river. This time, however, the offerings are not to secure the life of the dying person, but to settle old debts between the *curandero* and the *chaneques*. These offerings are to "pay" the *chaneques* back, in exchange for allowing the old man to die in peace.

Traditional healers of the Sierra consider payment for their services of paramount importance in the relationship between the healer and the person being healed. The amount or type of payment is not as important as the act itself and what it means to the convalescent.

⁵⁵ The word *ensalmo* is used here by the healer to refer to the prayers and *tallada* (hand massage of the patient's arm) performed as part of the healing ritual to retrieve the soul of the patient that was snatched by the *chaneque*. The process will be described in more detail in a later chapter where the ill of *susto* (fright) is examined.

In one of my conversations with Don Mauricio, the *culebrero*, he mentioned that if he does not get paid he does not fulfill his *dieta* (21 days of sexual abstinence) which means that the injured is destined to be bitten again by a snake. He did not mind how much he got paid as long as it meant an effort to the person paying. If a chicken is all that the family has, then it is sufficient and he shares it with them. If the family is wealthy and a chicken would represent a pittance then it is unacceptable⁵⁶.

Payment is a matter that involves more than an economic transaction between the *curandero* and his or her client. It goes beyond the simple remuneration for services rendered, forming part and parcel of the reciprocal relationships between humans and spirits in the healing process. The all-powerful presence of the divine is very explicit in the dying words of the old healer. It becomes also manifest in the threats of the *culebrero* and the consequences that will ensue if he feels he was not properly remunerated and decides to break his *dieta*. The *chaneques* have the power to prevent a peaceful death or order the snake to strike again if the terms of exchange between healers and patients are not properly fulfilled.

No one can escape the basic covenant between humans and the divine. Healers too must submit to all its terms. Their power to heal is a gift from the spirits, a gift that must be deserved not only with acts of penance, but also with sacrifice. The following passages

⁵⁶ Field notes, file: i1101.94: 6. Münch also reports similar reactions of *curanderos* of the Sierra: patients who do not pay "can be threaten by the *curandero* that they will be bitten again by snakes" (1983: 205).

disclose the nature of the sacrificial offerings that are demanded of them.

The *tsabats nas* (red earth)

Field Note: (01-12-94)

In chatting with David I learned that Doña Amparo's father had been a very respected *curandero* of the region. People from villages around the Sierra would come to see him. It is said that he had gone to the *monte de tierra roja* (the mountain of "red earth"), or *tsabats nas* in Popoluca, and had entered the sacred cave. The place is a good 40 min. walk away from here and can be seen from most of the town. It is a mount bare from vegetation, with a red native soil exposed. It is striking to see because of its large surface area with no vegetation. As the story goes, every June 24 a cave opens somewhere in that hill and only the "real" *curanderos* can go in. Doña Estela had told me earlier during one of our breakfast chats, that as long as she can remember (and she has lived in town for more than 50 years) people have told her stories about a large cave with a city inside of it. I asked her if this could be the city of *chaneques* that people talk about. She answered "Yes, that's what people say". I made a note to talk to José the *curandero* about it next time I visited him.

Before meeting José, I asked several people about the *tsabats nas*. I had first come to the Sierra over a year ago and was only learning now the secret of this site: it is the place where *curanderos* go and make a pact with the *chaneques* in exchange for their healing powers. José would now reveal to me the terms of the exchange.

In Exchange for a Soul

Interview: 02-12-94 [Taped interview, my own translation]

J: One has to go there [to the *tsabats nas*] well prepared, having lost sleep [in vigil], very complete. There, one must go with no food for a day, in fast ... you go there. You leave your house knowing what you are going there for, to contract yourself out, but then they ask for *reemplazo*!

A: What are *reemplazos*?

J: *Reemplazo* means that you are going to propose whom you are going to surrender so you can remain a long time in that job.

A: You have to surrender a ...

J: A soul ... yes, a person. The thing there is that if you are going to surrender first your father, if you do not have compassion for him, you are then going to surrender your father. They will tell you "Lets see! Whom do you wish to give up? The big finger or the little finger?" There it begins for you, and then you make a choice in your mind about whom you are going to send, either your father, either your mother or either your son .. the oldest! He takes away your oldest son for you to become a healer. In truth, that is why some are scared to get into theses matters of being a healer because ... only because you are going to enter into ... it is not just because you know, but you must now surrender something so that the *chaneque* can improve you, so you can work better....

So you must go and speak with the real boss, to discuss what you want, what is needed, how do you want to work. For example, I am going there to contract myself out. I am going to ask how much time I am going to work [as a healer], 10 years.. 15 years.. 20 years. But who am I going to surrender? As I explain to you again, for example, if I have the will to work, of having the interest ... well, if I do not like my father or my mother, I'll say that I will give you my mother or I'll give you my father, one of the two. Because there are some people here, where the mother does not like the son, or the father does not like the son, or the son does not like the mother. Those are the ones that say then "I'll give you my mother, take her now". Soon after, the mother will fall ill, or the father, or the one they surrender, they fall ill and.. pramm! They die! That was the pact! It was then a *reemplazo*....

Now then, that's why many ... are not complete healers because they do not want to surrender anybody. You must give someone up in order that you be a better healer. And if for a long time, you are working and working and do not surrender any *reemplazo*, the only thing you are doing is surrendering yourself! Pau! And until there you reached! All of a sudden you have an attack or a dizzy spell and ... pau! You surrender yourself and you are dead. [i0212je.94: 8-10]

We find in this narration familiar elements of the human-divine covenant: fasting and vigil as acts of self-denial; and the notion of *reemplazo (tancomica)*, the exchange of souls. But this time it is a human soul that the *chaneques* demand in return for the knowledge and gift to heal. José refers to this exchange as a "contract", not unlike the trade

characteristic that López Austin associates with human sacrifice in ancient Mesoamerica. The fundamental importance of payment is also present. We learn that healers who do not surrender a soul as part of the contract will end up losing their own.

These same terms of exchange are found in a Zoque-Popoluca tale called *La muerte de Juan el brujo* (The death of John the Wizard). Having finished his training in wizardry, John is asked by his mentor to surrender the spirit [soul] of a "christian" that same night. His teacher warns him: "if you cannot deliver it to me, I will keep your spirit". John does not succeed. The man he was after dupes him and escapes. John's spirit was devoured that same night near the river by his mentor and fellow wizards, while his body died back in his own house (López Arias, in *Culturas Populares* #25, 1983: 30-1).

That same day I spoke to José, I went to see don Mauricio, the *culebrero*, to quiz him about the *tsabats nas* and the "contract" with the spirits. His story corroborated José's account but from a different perspective, that of a scared child coming face to face with the power of the *chaneques*. Part of the conversation with him and his wife Adela follows:

Field Note: (Interview 02-12-94)

[Taped interview, my own translation]

M: Yes, [one must go to the *tsabats nas*] prepared, otherwise we cannot go ... because first .. they say that if you are studying [to become a *curandero*] you have to surrender something, might be your brother, your mother, your grandfather, your father .. you have to ... even your own son, your wife you must surrender.

Ad: [you must] wait for them to ask you because you don't know.

M: Yes, yes, because you have to arrive ... I'm telling you this because some time back when I was alone [not married], I was about 12 years

old then and was studying that, that is white magic and red magic, it is very delicate ...

Me: The pact? [Me. was a friend of the couple and was present also during this conversation]

M: Mhm ...a *curandera* had told me then ... because I had gone [to see her] to heal myself because I was feeling that they [the *chaneques*] were asking me [to give someone] from my family, and I was having dreams about a huge dog, one of those big ones, black!

A: A black dog?

M: I was riding on it ... it meant that if I did not surrender someone from my family they were going to take me away, so I stopped ... I took that book and gave it away [he refers to a book of cures], and so it was. I was just a kid. I was taking it as a game.

Me: And in that door one can go in [Me refers to a door that opens every June 24 at the *tsabats nas* that allows you to enter inside the mountain].

M: Yes, yes, there is a big house inside.

A: Are there *chaneques* inside?

M: Yes, *chaneques*, many beautiful women, there is money in that hill...

A: But to go in, do you need to give a *reemplazo* [exchange a soul]?

M: Yes, you have to be well studied .. that's what my uncle used to tell me, about my father ... he died about 15 years ago ... so the red earth felt very cold ... he was taking me there that time. That time there was a trench ... all of that was very ugly.

[M was being taught at the time to be a healer by his uncle. After his frightful experience he stopped the apprenticeship until his grandmother began to teach him again several years later]. [i0212ma.94: 16-18]

José and Mauricio do not speak much to each other, perhaps because of jealousy, perhaps because they associate themselves with opposing political parties. They are both traditional healers, but each has a different specialization. José is a *yerbatero* (medicinal plant healer), Mauricio is a *culebrero* (snakebite healer). Yet, their descriptions of the terms of exchange with the spirits are strikingly similar. They both refer to the seriousness of the occasion, the need to be ready and determined to trade the soul of a close relative. They both also mention that the *chaneques* will take the healer's life if a soul is not surrendered.

In this last passage narrated by Mauricio we also find another element of ancient tradition. The 12 year-old boy is not ready to trade away the life of any member of his family so a warning is sent by the spirits. He dreams of a huge black dog and sees himself riding on its back. This is a warning that his own life will be taken away if he does not fulfill the covenant. Frightened, he abandons the apprenticeship for several years. The images in his dreams suggest an old belief in the Sierra about the dead. Black dogs are highly valued among the Popoluca because their souls will help their masters cross the river of blood in their journey to the other world⁵⁷. The ancient Nahua believed in like manner, that the dead descended through a series of sacred places or levels of the underworld in their travel to the eternal resting place. Their journey was filled with perils and obstacles. The first level they reached was known as *Itzcuintlan* or "place of dogs" where the only way to get across a swift-moving river was on the back of a dog (Fernández, 1992:64, 70).

In my conversations with people about the *tsabats nas*, the date of June 24 came up many times. This date marks the official religious celebration of San Juan Bautista, considered by the Popoluca and Nahua as the great master of medicinal plants. Its association with traditional healers and exchanges with the divine is also reported by Münch. He noted fifteen years ago that *curanderos* go that night into sacred mountains to ask San Juan Bautista for the knowledge of medicinal plants and the gift to heal (1983: 207). June 24 at midnight is also when "the snake comes dancing out of the ant hole, transforming itself

⁵⁷ Several authors report similar beliefs about black dogs helping the souls of the dead cross a river of blood: Báez-Jorge, 1973: 103 & 114-5; Münch, 1983: 136, and also interview with PGS, 20-11-94:3. Báez-Jorge traces these beliefs to an influence from the *Mexicas* and their earlier Toltec ancestors (1973: 115).

into a beautiful woman that delights snakebite healers and instructs them, granting the wisdom to cure" [1983: 190; my own translation]. Many aspects of the narratives thus seem to conform to recorded beliefs and practices. Sacred mountains and caves, the colour red, the ant hole, the snake, the *chaneques*, acts of penance and sacrifice - all of these are also powerful elements in Popoluca traditions that we have encountered before and we shall encounter them again in our exploration of native symbolism.

A last point merits discussion before concluding this chapter. People in the Sierra talked about the trading of souls (animal or human) as a phenomenon common to traditional healing, not particularly linked to any one type of healer. These contractual exchanges with the *chaneques* were also described in simple terms, with no biases nor connotations induced by Christian teachings. Yet, other researchers report transactions involving human souls only within the realm of sorcery and Catholic notions of evil, Münch included. He writes for example:

In popular tradition [of the Sierra], it is taken for certain that wizards make a pact with the devil. To sign the pact, wizards draw blood from the tip of the right finger. In addition to giving away their soul when the wizards die, they must surrender the lives of seven people, among whom can be found loved family members. When someone dies suddenly, it is believed that some wizard of the family surrendered the soul of the diseased to the devil. The people offered to the devil in the pact die a sudden death sometime after" [1983: 210; my own translation].

Münch notes in his writings, however, an ambivalence in indigenous thought with its appropriation of Christian concepts of god and the devil. For him, people in the Sierra

see them as brothers, not unlike the Aztec *Quetzalcoatl* and *Tezcatlipoca*⁵⁸. In a similar vein, the *Chane* king and its servant *chaneques* seem to take on a dual association with good and evil, subverting the impositions of Christianity while at the same time subsuming their trading of souls with humans into accepted (or at least tolerated) practices. For example, in the preceding quote by the author, this ancient *Chane*, god of the earth and water, owner of the underworld and animals, loses its characteristic qualities and becomes "satanized by Christianity", reduced to the demon of the Occident. In a similar way, Klor de Alva argues that the *chaneques* have taken over the symbols of destruction and all that is evil in indigenous Nahua communities (1993: 194). Yet, at the same time San Juan Bautista appears in the Sierra Popoluca as the patron saint of the *yerbateros* (medicinal plant healers). Like the *chaneques*, this saint became the great master and owner of medicinal plants, having also the power to grant humans the knowledge and ability to heal (1983: 189). As in ancient times, sexual abstinence must be observed by his Catholic parochial guardians and followers in preparation for the festivities of the patron Saint (Münch, 1983: 189 and 207). But just like the devil, San Juan is also known to grant the gift of foretelling, as well as luck in gambling and in love⁵⁹. The ambivalence between ancient and Christian traditions is also found at other levels. It became obvious to me when Amparo, the *salmera*,

⁵⁸ *Quetzalcoatl* is the great benefactor of humankind, symbol of wisdom and self-sacrifice while *Tezcatlipoca* is the black *Yayauhqui* god, instigator of wars and hostility among people (Fernández, 1992: 137-8)

⁵⁹ Münch reports for example that for the people of the Sierra, the devil is willing to take the souls of humans in exchange for granting them the following four gifts while they are alive: to be a good wizard, a good horseman, accumulate wealth through gambling, and success in love conquests (1983: 181). He also notes in subsequent pages that in addition to granting *curanderos* the knowledge to heal, San Juan Bautista can also bestow the gift of divination, and luck in gambling and in love (ibid, p.207).

announced she had just healed from *susto* the brother of a local Catholic nun. Sister Teresa profited from her brother's visit to the Sierra to take him to Amparo. She asked for her help in retrieving his soul from the *chaneques*. He had lost a lot of weight over the last year, ever since a car accident. He had no appetite, felt constantly weak and had insomnia. Amparo, a devoted church-goer and friend of the nun, was very happy to help. She performed the respectful prayers and ritual offerings to the *chaneques* and in return secured the release of the soul from Sister Teresa's brother.

Many examples given in the chapter illustrate several forms of exchange and reciprocity between humans and spirits that are fundamentally at odds with Christian teachings or health concepts brought in by the Spaniards. They vividly depict a covenant that more closely resembles the ancient *tlamacehua* of prehispanic Nahua civilizations: making oneself worthy of what is desired through acts of self-denial and sacrificial offerings. This human-divine covenant includes the trade of animal and human souls in people's quest for health. The chapter shows how ancient Mesoamerican concepts of sacrifice and reciprocity have retained their significance and form an integral part of the traditional health culture of the Sierra. The main elements involved in healing traditions of the Popoluca are summarized in figure 3.2. The next chapter will explore another aspect of traditional healing. It will look at local notions of "hot" and "cold", as well as concepts of equilibrium in the body and its implications on the causation and prevention of disease.

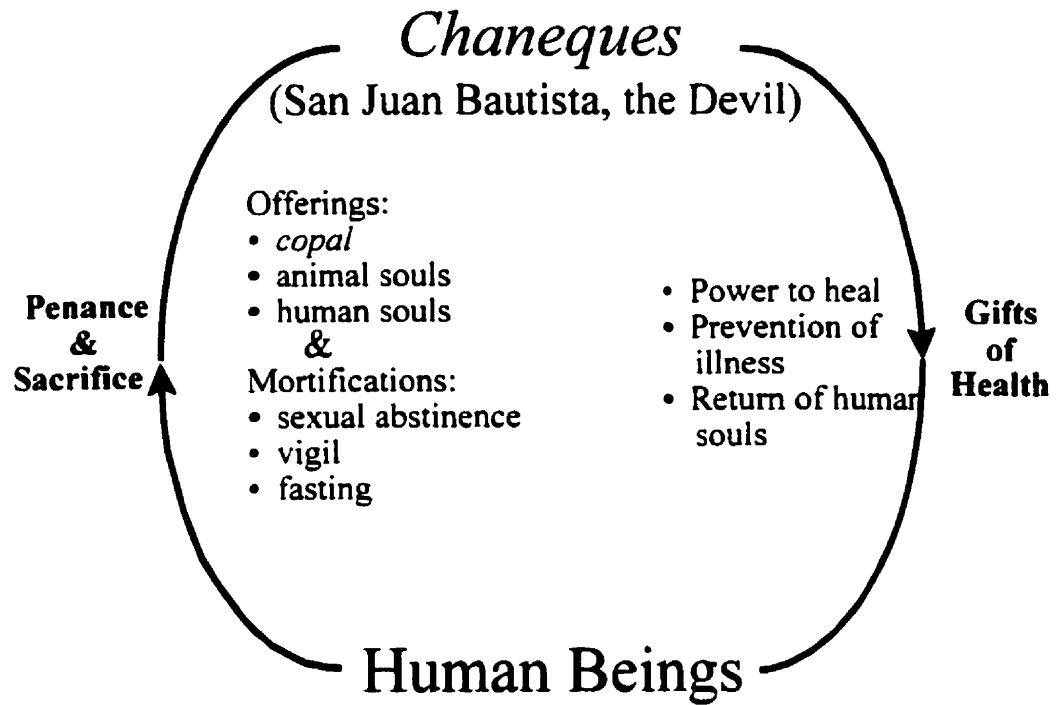


Figure 3.2 Health Covenant between People and Spirits.

Chapter 4: The Hot-Cold Polarity of the Sierra

Notions of Hot and Cold in prehispanic Mesoamerica pervaded the ways in which people thought about their relationship with the land and all entities that surrounded them, including fellow human beings, plants, animals, and spirits. Used as the two poles of a continuum, the Hot-Cold pair gave priests, healers and the common folk a tool to make sense of what occurred in their world, even when it was the work of a god, a spirit or a celestial body. The Hot-Cold dichotomy was particularly important in health beliefs and practices. Foods, plants and objects were classified according to their Hot or Cold nature; so were different organs of the body. Illness was generally interpreted and explained in terms of Hot or Cold disruptions to the body's normal condition. These disruptions could affect a particular limb or organ, or the whole body when the affliction was more severe and of greater consequence (Viesca Treviño, 1986:103- 104; López Austin, 1975:15-22).

Today in the Sierra Santa Marta, ancient Mesoamerican notions of Hot and Cold continue to shape people's ideas about health and illness. This is the central hypothesis of the chapter and will be illustrated through the presentation of historical, mythical and ethnographic field data. The chapter first examines the efforts of different researchers in trying to uncover guiding principles people use in ascribing Hot and Cold values to things. Then follows a critical review of the on-going controversy that surrounds the origins of the Hot-Cold dichotomy in Mesoamerica. The end of the chapter focuses on Zoque-Popoluca beliefs and practices. Local ideas that involve cyclic phenomena in Nature and the human body are explored to reveal the links between notions of organic equilibrium and health.

4.1 Hot and Cold Categories

The terms Hot (*caliente*) and Cold (*frio*) are complex. Among indigenous populations they can denote abstract "qualities" of things in addition to physical thermal quantities. The coming sections will show how these terms have no strict relationship with temperature changes, at least not the same type of relationship that we know and associate with contemporary temperature scales (ie., thermometers). In the previous chapter we introduced a widely held belief in Mesoamerica about foods having inherent Hot or Cold values. We also noted how a particular Hot or Cold food can clash with the Hot or Cold state of the person that is eating it. The end result of this clash ranges from a failed crop in the *milpa* to poor health in the individual. The conflict goes beyond incompatible caloric contents of food and body. It is a confrontation between abstract values of Hot and Cold that determine what is accepted as appropriate behaviour under given circumstances. This can be illustrated by the firm belief among the Zoque-Popoluca that women must not eat fish after giving birth. An elder midwife explains:

"Fish in earlier times, and also for us, fish ... since it is in the water, it is cold. So women can become swollen ..."¹

¹ Interview: i0906dj.94: 3. The midwife further explained that to reduce the inflammation in the mother's uterus after childbirth, she gives her to drink a medicinal potion that contains *manzanilla* (camomile). *Manzanilla* is a Hot plant and will clash with the Cold fish if eaten by the mother. This clash will produce the swelling of her body. The same holds true with pork meat or with anything cooked with lard, as both pork meat and lard are considered Cold. Another Popoluca midwife noted that the mother must not take any food or drink that is cold for a whole month after the delivery, not even water. Water must be drunk lukewarm, if not the woman will get diarrhoea [interview: i1506fe.94:3].

These words depict an explicit link between fish, water and the Cold² quality of fish as food. The associations have little to do with the actual temperatures of the water or the cooked fish that is eaten. In like manner, women are thought to be in a Cold state following childbirth³, irrespective of body temperature readings with a thermometer. The notions of Hot and Cold serve here to explain and guide the diet of the new mother. Women are warned that if they violate the rule and eat fish or other Cold foods after giving birth, they will bring harm to their bodies.

Researchers have dealt in many different ways with this complex interaction between normative ideas and physical states enclosed by the terms Hot and Cold. Approaches range from developing simple listings of Hot and Cold categories of foods and medicinal plants (Mak, 1959) to exploring the basis of ascription of Hot and Cold values to things (Madsen, 1955; López Austin, 1975; Foster, 1994). López Austin and Foster, in particular, have carried out extensive reviews and analyses on the topic and developed radically different theories not only about the origins of the Hot-Cold pair but also about the scope and even meaning of the terms. We leave the debate on the origin of the Hot-Cold dichotomy for the moment, and begin with the question of meaning.

² The terms Hot and Cold will be capitalized throughout the document to highlight the complex cultural meanings of the words.

³ William Madsen reports for a Nahuatl community of central Mexico that people consider the child in the womb to be Hot and to withdraw heat from the mother during delivery, producing a Cold state in her body just after childbirth (1960: 166-67). Foster also refers to the wide spread belief in Mexico about the Cold post-parturient state of a woman's body following the loss of blood and the hot foetus (1994: 105).

Foster creates two analytical constructs to distinguish between abstract qualities and physical heat quantities (1994: 22-30). He divides people's references to hot and cold into "thermal" and "metaphoric" domains of temperature. For the author, thermal temperatures "can be sensed and measured"; their distinguishing characteristic is their continuous fluctuation. Metaphoric temperatures, on the other hand, are based on intrinsic characteristics of things and remain in general fixed and unchanging. Based on these principles, he ascribes the temperature of the human body to be thermal and restricts metaphoric temperatures (Hot and Cold values) to material items only, such as foods, herbs and remedies (1994:23-30).

The manipulation of historical and ethnographic data in this fashion is risky. The author is correct in recognizing that Hot and Cold values are more than simple expressions of empirical reality. Metaphoric temperatures, as the name implies, denote for him a distinctive cultural tradition. However, he is less clear about the possible cultural meanings concealed within his "thermal" category. He associates thermal temperatures primarily with the caloric content of things as perceived by our senses (like physical heat that we can feel). Yet, he leaves an opening for thermal temperatures to acquire also cultural (abstract) connotations. We read for example that a healthy body is characterized by an evenly distributed warmth. When this state of equilibrium is disrupted, a person becomes more susceptible to illness. This condition of fragility can occur when for instance:

A modest degree of physical exercise or exposure to the sun, or consumption of metaphorically Hot food or drink ... may have raised the temperature of all or part of his body to an above-normal level (1994:33).

In other words, the temperature of the human body can also be affected by ingesting a metaphoric Hot or Cold food or drink. But, is this resulting body temperature an actual change that could be measured with a thermometer? Or, is the change dictated by cultural principles, and actual temperature readings of the body are irrelevant? The issue is never addressed directly. The reader is left to wonder why the two categories (thermal and metaphoric) are necessary if indeed thermal temperatures can acquire abstract cultural meanings. The approach presents other problems. One is Foster's presumption that a researcher can dissect people's ideas about Hot and Cold and assign them to a metaphoric or thermal category during analysis; another is the implicit assumption that people do make clear and neat distinctions between "thermal" and "metaphoric" values. Both are far from obvious.

Take our earlier example of childbirth. Is the Cold state of the new mother a thermal or metaphoric reference to temperature? According to Foster's definitions, any reference to body temperature is "thermal". However, according to several investigations (including his), all new mothers are considered to be in a Cold state following childbirth. In this respect one could argue that people are making a "metaphoric" statement given the characteristically Cold condition of the body for all new mothers. The problem recurs in many different ways, as in the case of a body that becomes swollen from eating Cold fish. We will discover in the next chapter that swelling is thought to develop from the internal accumulation of water, and is a characteristic of a Cold pathological condition. Here again we are at a loss trying to discern between "metaphoric" and "thermal" meanings. Can this Cold condition of the

body be called a thermal state when it is also common to most cases of swelling (and therefore a metaphoric value)? These examples highlight the limitations of Foster's analytical model.

By trying to differentiate between physical and cultural meanings along his own constructs, the author is attempting to find a universal frame of reference from which to analyse local beliefs surrounding the Hot-Cold pair. He equates at several points in his work: "thermal temperature" to "real heat" or "actual physical" heat; and "metaphoric temperature" to "humoral" qualities (eg. 1994: 3, 36&43). These associations reflect his central thesis that the Hot-Cold dichotomy is derived from the Humoral medical system of the ancient Greek, brought into the Americas by the Spaniards during colonization. Here lies the most problematic aspect of Foster's propositions. According to him, peoples' use of the terms hot or cold must be humoral in nature unless they refer to caloric contents. There is little room, if any, for Hot or Cold designations inherited from prehispanic times. The approach risks imposing arbitrary relationships between the elements of study as it decrees, from the onset, the dominance of the European culture on local health beliefs and practices. A more cautious approach is followed in this thesis. We look instead for a frame of reference grounded in the exploration of local cultures and resort again to the analysis of mythical elements with reference to historical and ethnographic studies on ancient and contemporary Mesoamerican Peoples. The approach is more compatible with the work of López Austin. It will be validated in the following sections by examining first the criteria people use in assigning Hot and Cold values to things.

Ascription Criteria

Several researchers, including Foster and López Austin, note a large variability in Hot or Cold values given to foods and remedies. The variability can be very significant between and within communities. Foster reports that even at the level of the individual, people sometimes give different answers for the same item on different occasions (1994:100). The magnitude of inter and intra community variation is what prompted both authors to examine the different ways in which people ascribe these values. Not surprisingly, despite several common observations, both researchers draw very different conclusions. We highlight first the findings from Foster. Based on his own field work and a review of the literature, he identified four main categories of ascription criteria (1994: 101-06):

Sensory effects. These refer to Hot or Cold feelings a person believes to experience. According to Foster, this is the most commonly cited explanation for assigning Hot or Cold values. Body sensations can be direct feelings of Hot or Cold, but may also include other sensory perceptions such as odour and taste, or even reactions felt in the stomach from foods. He quotes a number of researchers who reached similar conclusions from their own field studies:

Messer in Mitla, Oaxaca⁴: "Certain items are perceived to 'warm' the body and therefore are classified as 'hot', e.g., mescal and spearmint tea. Beer and soft drinks are 'cool' or 'cold' because they are felt to refresh the body".

⁴ Messer (1981:136), cited in Foster (1994:101)

McCullough in Yucatan⁵: "Reasons for a particular categorization rest upon individual perception ... of how a particular food 'feels' in the body. Tubors are 'cold' foods because they feel 'cold'..."

Neunswander and Souder, for the Quichés of Joyabaj in Guatemala⁶: "Spices and drinks that have a penetrating odour or that produce a piquant sensation - such as garlic, coffee, liquor, honey, cacao, dried chile and other condiments are classified as hot; the onion and green chile are exceptions. Things that are bland like rice and pasta are "cold"..."

Foster, for the town of Tzintzuntzan in Michoacán: ...foods that produce belching and eructations usually are classified as Hot, while those that produce a sensation of surfeit or pressure in the stomach usually are classified as Cold (1994:102).

Tedlock, for the Quiché Maya of Momostenango in Guatemala: Generally speaking, plants that give off a strong pungent odour or have a bitter or astringent taste are classified as warm. Thus, peppermint (*Mentha piperita* L., *yerba buena* S., *k'ebun* Q.) is warm because of its biting aroma and bitter taste. Vervain (*Verbena officinalis* L., *verbena* S., *chalchalbe* Q.) is also 'warm' although it is odourless, because of its bitter astringent taste (1987:1075).

In Foster's eyes, these associations are naturally humoral. He notes (1994:101):

In emphasizing sensory effect on the human body, anthropologists and their informants are simply following the logic of the ancients, the basis of classical humoral medicine, from the time of Galen⁷ onward.

This comment is puzzling in two ways. First, there is no reason to imagine why the importance of "sensory" feelings to a Nahua or Mixe *campesino/a* would be an inheritance

⁵ McCullough (1973:33), cited in Foster (1994:101)

⁶ Neuenswander and Souder (1977:105), cited in Foster (1994:101)

⁷ Galen (AD 129-199) was a Greek physician from Asia Minor who became court-physician in Rome. He was a skilled writer who authored numerous influential works that attempted to systematize the whole of medicine. His theories were founded on Hippocrates' doctrine of the four humours (Hawkins and Allen, 1991: 575).

coming more likely from the Greek than from any of his/her Mesoamerican ancestors. Secondly, Foster himself is forced to acknowledge a couple of paragraphs later the influence of autochthonous cultures in shaping Hot and Cold "feelings". He recognizes that sometimes what is accepted as a straightforward physiological sensory experience can represent in fact "the sensation people have learned to expect." He came to this conclusion after comparing his data from Tzintzuntzan with that of Holly Mathews from Oaxaca⁸. The author refers specifically to Hot and Cold values assigned by people to salt, broad beans, tomatoes and mangoes. Given that these items have a pronounced and distinctive taste, it is reasonable to expect that they elicit similar sensory responses. In fact, both authors report that it is so. In each community, all four items gave near unanimous Hot or Cold designations. But to Foster's surprise, people in Oaxaca consider salt, broad beans and tomatoes to be Hot while in Tzintzuntzan they are Cold. Similarly, mangoes are Cold in Oaxaca and Hot in Tzintzuntzan. The author can only surmise that:

Culture serves as a filter: as a part of inherited knowledge Oaxaqueños have learned that the sensory experience imparted by salt, broad beans and tomatoes is Hot, while Tzintzuntzeños have learned [sic] it is Cold. And Oaxaqueños have learned that the mango taste has a Cooling effect, while Tzintzuntzeños have learned to expect a Heating sensation.

While the argument seems logical in principle, perhaps there are other reasons equally related to culture that could account for these differences. We examine this possibility later in the chapter.

⁸ Mathews H. (1983:830), cited in Foster (1994:102)

Environmental exposure. This is Foster's second main category. It refers to the rationale people give researchers when it includes environmental factors to which the item in question has been exposed. Association with water is frequently cited as the explanation for a Cold value, while things that are exposed to the sun tend to be associated with Hot values. Basic climatic factors for a region are also reported as criteria, as well as the cooking and processing of foods, since they involve in most instances exposure to heat. Foster presents the following examples from the literature:

Redfield, for the Mayas in Yucatan⁹: "The plants that are 'cold' are, in some cases, the plants that grow near the cenote [natural well] and that are used in the rain ceremony".

Madsen in San Francisco Tecospa, Valley of Mexico¹⁰: "Animals which spend all or most of their time in water are cold. Such animals are fish, axolotl [salamanders], frogs, turtles, ducks, and geese. ...Plants which grown [sic] in very wet ground derive coldness from the water. ... Cooking usually changes the extreme ratings of very cold, very fresh, and very hot to cold, fresh and hot. Raw garlic is very hot, but cooked garlic is hot. Chilacayote changes from very fresh to fresh when cooked ... Young squash changes from very fresh to temperate when cooked."

Cosminsky, for a Quiché community in Guatemala¹¹: "The sun is hot; therefore things exposed to the sun become hot or less cold. Water is cold; fish are cold as they live in water. Green or fresh corn is cold since it contains the rain water (as contrasted to dried corn). The ground is cold; potatoes are cold because they grow underground."

Foster, for the town of Tzintzuntzan in Michoacán: ... in Tzintzuntzan, 2,000 meters high, in one of the few generalizations people make, a majority of the herbs from the *tierra caliente* [the low lands, or "hot lands"] are said

⁹ Redfield (1941:129), cited in Foster (1994:102)

¹⁰ Madsen (1955:125-27), cited in Foster (1994:102-3)

¹¹ Cosminsky (1975:184), cited in Foster (1994:103)

to be Hot (1994:103).

Currier, in comparing Mexican and Spanish American beliefs¹²: "A given foodstuff is often both hot and cold, depending upon whether and how it is cooked. Examples of foods that can be either hot or cold are beans, rice, wheat, pork, and peaches".

Interestingly, Foster makes no specific reference to the freshness of the earth in this section (we only read in Cosminsky's quote that "the ground is cold"). Yet, this association is one of the stronger and most significant criteria advanced by López Austin, and one that has been noted by other authors¹³. The omission is significant since Foster refers to the work of Redfield and Villa Rojas with the Mayas of Chan Kom¹⁴. They report that all foods cooked in an earth oven, whatever their initial value, become Cold - an observation that Foster only relates to cooking as the criteria being used, and qualifies it as "odd". López Austin sees nothing odd about it, for in the same study, Redfield and Villa Rojas also note that foods cooked in pots or over a brazier (*comal*) are believed to become Hot. Contrary to Foster, López Austin interprets cooking results as a difference in environmental exposure. The pot and the brazier cook foods in the open and are thus linked to the sky; while foods cooked in an earth oven are being cooked underground and are therefore associated to the "cold and humid world of the earth" (1975:30). We see in this example how the

¹² Currier (1966:256), cited in Foster (1994:103)

¹³ We expand on this association later on in the chapter, oddly enough, based on an observation made by Foster while doing his Doctoral research among the Zoque-Popoluca. He recorded then the local custom of burying the placenta of the newborn to avoid excessive sweating of the child in later years (1942:43).

¹⁴ Redfield and Villa Rojas (1934:130), cited in Foster (1994:103) and in López Austin (1975:30)

interpretation of ascription criteria may also depend on the biases of researchers.

Therapeutic use. Foster's third category deals with the use of herbs and other plants in traditional healing practices when explaining why certain things have a Hot or Cold value.

Foster, for the town of Tzintzuntzan in Michoacán: ... If the informant remembers that a particular herb is used to treat an illness that comes from cold, she reasons that it must be Hot; if to treat an illness that comes from heat, it must be Cold (1994:104).

Orso, for the Island of Chira, Costa Rica¹⁵: "A person decides the classification of an herb on the basis of what sickness it is supposed to cure".

Logan for Guatemala¹⁶: "Dietary items traditionally consumed to treat a cold ailment are typically hot; and those used to treat a hot ailment are typically cold".

This form of ascription often gives conflicting answers simply because a number of illnesses are considered to have multiple casualty. Foster writes:

If the anthropologist asks about the humoral quality of leaves of the castor bean plant (*higuerilla*), as a poultice - a common stomach ache remedy - the answer may be "Hot" if the informant is thinking of cold as a cause, or "Cold" if she is thinking of heat as the cause (1994:104).

Similarly, he cites the work of Mathews in Oaxaca¹⁷ to note that same remedies are often used to treat more than one set of symptoms, so the attribution of Hot or Cold to these symptoms can produce contrasting answers for the same remedy. Mint, for example can be classified as Hot when used for a cold condition such as coughs, and as Cold when used to

¹⁵ Orso (1970:50), cited in Foster (1994:104)

¹⁶ Logan (1973:390), cited in Foster (1994:104)

¹⁷ Mathews H. (1983:835), cited in Foster (1994:104)

treat Hot *bilis*. This is an important admission that circumstances surrounding the classification do have importance. Up to now, Hot or Cold values have been largely presented as fixed or static properties of things, with the exception of values derived from cooking criteria. We learn here that the same item can take different values, depending on its use, the illness in question and its causes.

Rote learning. This is the last of the four main categories identified by Foster, and the most important to him. People assign Hot or Cold values to specific items through their basic enculturation. In other words, they learn these values from parents, relatives, or friends. Foster explains:

When in Tzintzuntzan I find more than 50 foods, spices and medicinal herbs classified as Hot by 90% to 100% of a sample of from a dozen to 30 informants, and more than 40 items classified as Cold in the same proportion by the same sample, it is difficult to avoid the conclusion that they have been exposed to a common learning process ... Other explanations - perceived effect on the body, place of growth, use in curing - could not produce such unanimity (1994: 106).

Even though enculturation is certainly involved, his last statement is groundless, for all criteria (including "rote learning") would be part of this common learning process. In other words, unanimity is not less likely if people learn that "a fish is Cold because it lives in water" as opposed to just learning the simpler statement "a fish is Cold". What Foster is trying to argue is that the most important process for ascribing "humoral" values to things is "rote learning", since according to him, things were assigned their Hot or Cold values in another culture (Spain) and with theoretical principles that were also foreign to Mesoamerican people. The author is adamant about this, to the point of stating:

Further, insofar as [Hot or Cold] qualities of New World products are concerned, many of them certainly represent, not local ascriptions based on sensory effect, environmental factors and the like, but rather learned values assigned by early Spanish classifiers, also become [sic] popular knowledge (p.106).

According to his theory, already-made humoral ascriptions were brought to the Americas by specialists (botanists, medical doctors, members of religious orders) and were ultimately transmitted "from an elite-scientific to a popular level" (p.153). Even items that were new to the Conquistadors were assigned their Hot or Cold value on-site by these outsiders. With this insistence in denying an autochthonous cultural grounding, the only means of classification that one is left with is "rote learning". But even if this is accepted, it cannot of itself explain unanimity within the same community. His earlier example about salt, broad beans, tomatoes and mangoes proves the point. Both have high unanimity in each community, but values in Oaxaca are the opposite to those in Tzintzuntzan. Of course, it could be argued that this discrepancy may be due to some Spaniards teaching the local natives the wrong values for some common items while nobody else paid any attention or bothered to set them straight for centuries. But this would be a rather weak argument. Be it of Humoral or prehispanic inclination, the unanimity in each community is likely to reside in the common learning processes of its members; processes particular to each community that also involve "local ascriptions based on sensory effect, environmental factors and the like", in addition to the new ideas brought in by outsiders.

There are three other types of ascription criteria reported by Foster which he qualifies as "minor" and groups together as "loose ends". These include colour, sex of a food animal,

and domestication of the food animal¹⁸. None were significant in his area of study (Tzintzuntzan). Of the three, however, colour stands out as an important criterion reported in other studies. For example, in Maya communities of Guatemala, dark foods are considered Hot while light-coloured foods are Cold¹⁹. In Nahua communities of Mexico, the colour red is Hot and white is Cool²⁰. And, among the Quichés in the highlands of Guatemala, green vegetables tend to be Cold and yellow foods Hot²¹.

López Austin used many of the same studies cited already and came up with many of the same criteria that have been presented, albeit giving them different levels of relevance and different meanings. The coming sections will expand on this, but for the sake of completeness, other elements identified by López Austin that have not been mentioned yet are summarized below.

Fire. Things associated with fire are considered Hot. For example, in a Nahua community of the Ajusco, thunderbolts are Hot because they are made of fire, so are comets, stars and the sun itself.²²

¹⁸ Foster writes that the sex of an animal is described in some studies as an occasional aid in determining the Hot or Cold value of the animal as food. He finds little consistency with this type of ascription. The exception is hen's meat which is classified as more Hot than rooster meat because it is female. Also, Neuenswander and Souder report for the Quichés of Joyabaj that meat from domesticated animals is considered Hot while that of wild game is Cold (1994:105).

¹⁹ see Tedlock (1987:1057) and Logan(1973:390).

²⁰ Madsen (1955:126) and Messer (1978:142), cited in Foster (1994:105).

²¹ Neuenswander and Souder (1977:104), cited in Foster (1994:105).

²² Madsen (1960:167-71), cited in López Austin (1975: 19)

Day and Night. Days are Hot and nights are Cold. The moon is Cold because it comes out at night. Witches and *naguales* (people with the power to transform themselves into animals) are also very Cold because of their nocturnal powers.²³

The Supernatural World. Activities associated with supernatural powers tend to be Hot, while mythical beings such as the dwarfs of the rain are Cold due to their association with the aquatic world.²⁴

Manifestations of Illness. The form in which an illness expresses itself in the body is also used to determine its Hot or Cold value. For example, Currier notes that in Mexican folk medicine, Cold diseases are characterized by forms of incapacity (weakness, tiredness, lack of appetite), with little or no external symptoms, and become manifest mainly through pain or immobility (paralysis). Hot diseases manifest themselves by the surfacing of internal heat in the form of skin eruptions or irritations²⁵.

Mood. A person's mood can also be another reason people give to explain why a body can become Hot. Ire or annoyance also externalizes the heat from the body to the skin surface, leaving the inside Cold²⁶. This heat can in turn, affect the health of other people. For

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ Currier (1966: 254-55), cited in López Austin (1975:18).

²⁶ See Madsen (1960:166-67), cited in López Austin (1975:21).

example, it can make the milk of the breastfeeding mother Hot and cause diarrhoea in the child²⁷.

Validating Variation

In advancing his humoral theory for the Americas, Foster feels a need to justify the variation of Hot and Cold values assigned to the same items. He does this by arguing that humoral theory validates rather than prescribes empirical therapeutic practices. He notes that people's use of traditional remedies stem from habit and custom rather than adherence to dictates of a particular theory based on Hot and Cold categories. As the argument goes, a certain degree of flexibility is therefore needed to allow people to assign Hot or Cold values according to the peculiarities of the illness and its treatment (1994:129-47). In other words, variability in ascribing Hot and Cold values is not only to be expected, but is required. People assign one value over another as needed when rationalizing about treatment practices that were followed, as opposed to using established Hot and Cold precepts to determine the practices that must be followed. This is an important argument Foster uses to defend his humoral theory, as it allows him to claim that people continued to use many of the same traditional healing practices after the arrival of the Spaniards while adopting at the same time humoral principles in their explanations. In this way, Hot and Cold values that are associated with healing practices of prehispanic origin can still be claimed to be humoral in nature.

²⁷ This belief, common among the Zoque-Popoluca will be examined in more detail in the next chapter.

The argument may have some merit, but of itself, it is not a sufficient condition to accept the preeminence of humoral medicine in our area of study to the point of dismissing traditional indigenous beliefs. This validating role cannot explain or account for the magnitude of variation in Hot and Cold attributions within and between communities recorded by so many researchers. One thing is to have a flexible system, another is to try to justify all variation on the "flexibility" of the system. Foster's own examination of ascription criteria revealed other factors that are just as important. The most salient one is the commanding importance of culture. Another source of variation can be attributed to differences in circumstances that guide people's selection of one value over the other. The multi-causality of certain illnesses or the multiple use of same remedies in treating different Hot or Cold symptoms are two examples. Cultural elements that mediate the attribution of Hot and Cold values will be explored in more detail in later sections. We conclude first the critique of Foster's humoral theory by examining the debate surrounding the origin of the Hot-Cold pair.

Filtering Down Problems

Almost half a century ago, Foster postulated that the Hot-Cold dichotomy had an European rather than Native American origin²⁸. López Austin began to challenge Foster on this point a couple of decades later, arguing for a prehispanic origin. The debate has lingered on for thirty years, with both researchers attempting to synthesize each other's

²⁸ See Foster and Rowe (1951), cited in Foster (1994:147).

critiques and presenting arguments and counter-arguments in a series of publications; the last one offered by Foster in 1994²⁹. These two contradictory positions raise a fundamental problem in trying to understand past and present health beliefs associated with the Hot-Cold pair. In question is whether these beliefs come from the degeneration of the Hippocratic Humoral medicine brought by the Spaniards in the sixteenth century, or indicate the persistence of fundamental elements in ancient Mesoamerican thought. The debate is not trivial. It goes beyond an academic interest of understanding peoples' thoughts and behaviour. At stake is the recognition - or denial - of an indigenous cultural legacy which continues to guide many beliefs and practices associated with the prevention and treatment of disease.

According to Foster, humoral medical theory was brought to the New World by the Spanish elite and was taught in medical schools until the early 19th century. It reached the Americas only at this sophisticated and intellectual level. The four qualities (Hot, Cold, Wet and Dry) that characterized body fluids (or humors) appear never to have been significant elements of popular medical beliefs and practices in Spain. So diffusion was not to happen from the lower ranks of the Conquistadors. Instead, humoral theory remained confined to the educated classes in the New World, above all the clergy and physicians (1994:151). As the arguments go, it was the interaction between the New World elite and the common folk which allowed humoral principles to filter down via missionary activities, hospitals, home remedy books and pharmacies. In the process, humoral principles became simplified at the

²⁹ See Foster (1978, 1986, 1994) and López Austin (1969, 1975, 1980, 1986).

popular level, losing the Wet-Dry dimension of classical theory (1994:153-8). This simplification is thought to have come about given the high complexity that a system with four qualities presented to illiterate indigenous populations. Rather than disappearing, the Wet-Dry dimension was "collapsed" into the Hot-Cold pair. This was possible given that Wet items tended to be Cold while Dry items tended to be Hot in Latin America (pp.181-4).

Many reservations about Foster's premises have been presented in previous sections. His "filtering down" model raises other problems. These stem principally from his insistence in disavowing any relevance of prehispanic Hot and Cold concepts in popular medical practices of today. The rigidity of his position is remarkable. For him, it was humoral medicine in Mexico which "incorporated into its conceptual system, many pre-Hispanic beliefs and customs" (1994:186) and not the other way around - or even something in between. As will be shown, no evidence was found in the Sierra Popoluca to suggest an overwhelming influence of classic humoral theory that would have made irrelevant prehispanic notions of health and disease. On the contrary, the analysis of field data suggests a process in which new medical principles and practices brought in by the Spanish became incorporated into a Hot-Cold binary world view in existence at the time.

Incorporating the new into the old is not only more logical but also a widespread phenomenon. A case in point is the following conception of anaemia recorded in the Sierra Popoluca during field work.

Juan was the son of the village health worker, a knowledgeable and respected man in the community. Through his father's teachings, he had been exposed

for three decades to the germ theory of disease transmission. We talked one day about stomach worms and their effect on people. In his view, the cause of anaemia was indeed related to stomach worms and diet. He believed that people got worms because they followed poor hygiene practices. But, the role of the worms was to elicit a craving on women for eating soil. This in turn, affected the diet of women by suppressing their desire to eat *tortilla*. Without this essential food, women were bound to become lethargic and pale (conditions considered Cold). If they did not begin to eat maize again, their blood would eventually turn into water (another Cold symbol) and by then it would be too late to save them.

The links to the Hot-Cold pair and belief systems of long ago will be established in a later analysis of this example. The important thing to note for the moment is the interaction between new and old concepts. The *campesino* is fully bilingual (Spanish and Popoluca). He knows how to read and write, having completed primary school. The level of exposure to "modern" health principles and the quality and means of health communications are probably much better, more intense, and more accessible than they were for most non-Spanish indigenous populations many hundred years ago. In spite of all this, Juan does not abandon his old beliefs but combines the new ideas on germs and transmission of diseases into an old logic that he stills holds to be valid. This is a good illustration of how the integration of new health concepts into old ones can happen. There is no reason to assume or expect that it did not happen in past centuries. Yet, this is precisely what Foster is proposing.

One of the strongest critiques by López Austin deals with Foster's simplification processes of humoral medicine in the New World. López Austin finds impossible to conceive that the loss of a Wet-Dry dichotomy could be so perfect and homogeneous in passing from Europe to America under the terms proposed (1980:309-10). Foster's latest

explanations remain very unconvincing. It is well recognized that the four humours did not survive as distinct and fundamental elements in traditional medical beliefs of today. There are only scant references to the importance of the Wet-Dry pair anywhere in Latin America. It is also likely that this pair was "collapsed" into a Hot [Sun]-Cold [Water] association that was common at the time, as suggested by many researchers. Foster included. The problem lies in his presumption that existing Hot-Cold associations did not have any relevance in popular medical thought until the arrival of humoral theory, and yet they guided the simplification of the theory and disappearance of the Wet-Dry dimension. Again, a more rational proposition would be to assume an existing bipolar world view in prehispanic times that included the Hot-Cold dichotomy in health beliefs and which facilitated the acceptance and simplification of humoral principles by indigenous Peoples. Rather than the inability of "illiterate" populations to handle four distinct and fundamental elements, people did not adopt the Wet-Dry pair as presented in classic humoral theory because they did not need the added complexity to explain something they already understood. This is a point that Foster never addresses and is very relevant to the discussion.

Then there are the contradictions. Foster's suggestions about the collapsing of the Dry quality with the Hot-Sun pair, and Wet with the Cold-Water pair, ran against basic principles of classic humoral medicine. According to the same author, the gate keepers of humoral medicine during the colony remained the educated elite (universities, priests, doctors, pharmacists). This elite, and the popular medical guides available during the three centuries that followed, not only preserved the Wet-Dry dimensions (1994:157), but

considered the four qualities Hot, Cold, Wet, and Dry as independent elements that could combine with each other to characterize a particular state or component of the body. For instance, blood was purported to be Hot and Humid, and the bile Cold and Dry. Similarly, the three most important organs of the human body - the heart, the brain and the liver - were considered to be respectively: Dry and Hot, Humid and Cold and Humid and Hot. A healthy human body had a complexion described as "mostly Hot and Humid" (Foster, 1986:63). These classic humoral relationships are incompatible with the purported "collapsed" Hot-Dry and Cold-Wet categories of the common folk. It is very difficult therefore to envision a process in which the gate keepers and disseminators of classic humoral medicine would accept simplifications that contradict basic tenets of the theories they are trying to communicate, or that the common folk carried out such contradicting simplifications on a knowledge vacuum, without a strong health theory of their own in which the Hot [Sun]-Cold [Water] pair played a fundamental role.

Finally, no matter how strong the influence of Hippocratic humoral medicine in the Americas might have been, it cannot of itself be a reason for claiming that a prehispanic Hot-Cold polarity did not exist and/or did not guide health and medical thought before the arrival of the Spanish. The bulk of Foster's ethnographic data on this issue comes from Tzintzuntzan, the capital of the Tarascans, the most powerful political and cultural polity in west central Mexico at the time of the Conquest. This capital was occupied by the Spaniards in 1522, and in the words of Foster, since then "the community has been subject to substantial and continuing Hispanic influence" (1994:17). It is not surprising then to find

in Tzintzuntzan strong remains of classical humoral theory. But it is very unlikely that this eclipsing influence could happen so homogeneously throughout Mesoamerica. A case in point is the Sierra Santa Marta where Foster himself carried out field research for his Doctoral thesis in 1940. He made the following remarks 54 years later in the introduction to his last publication:

While doing doctoral research among the Popoluca Indians of Southern Veracruz State in 1940 and 1941, I noted that some foods were considered to be, metaphorically speaking, "hot" or "cold," but I gave no thought to the matter. Had I remembered the appropriate pages from Redfield and Villa Rojas I would have known to enquire further (1994:xiii-xiv).

It is unfortunate that he did not explore the matter further at that time. He would have found very different concepts of health and disease than in Tzintzuntzan. In a way, he is right in stating that surviving prehispanic theories are not humoral. We find among the Popoluca of the Sierra a strong spiritual essence in health beliefs and complex preventive and therapeutic practices that do not follow the ancient European "principle of opposites". We also find strong evidence of a binary world view based on the Hot-Cold pair which has little to do with the classical humoral medicine described by Foster. We now turn our attention to the analysis of these indigenous elements.

4.2 Autochthonous Underpinnings

Olavarrieta makes an insightful observation about the ascription of Hot and Cold values in her own search for guiding principles. She writes:

...[People] classify using different criteria each time, depending on the context, through diverse selections of the mentioned traits. This causes a situation where the same plant can be classified at the same time as Hot and Cold, depending on one or another of its traits (1977: 70, my own translation).

The statement reminds us not to lose sight of the forest when looking at trees. It tells us that sources of variation may lie outside the needed flexibility of explanatory systems, beyond the multiple causes of illness or the multiple uses of an item in healing practices. People in general have an array of physical traits and environmental characteristics to choose from when ascribing either a Hot or Cold value to any one food, herb or thing. And indeed, the choices available are further expanded when ascription criteria related to therapeutic use are considered. Given this array of possibilities, what are the principles that guide the selection of one value over another? Obviously a random process is not involved as it would obviate any usefulness of the concepts. Olavarrietta provides us with an important clue: people use different criteria depending on the context.

This fundamental importance given to the context of an occurrence or phenomenon is a cultural characteristic that we encounter among many Mesoamerican civilizations. We find it, for example, in the way the ancient Nahua referred to their prehispanic gods and goddesses. Different names and images were used depending on the particular actions that the deities were performing, or in order to emphasize a particular divine characteristic which became relevant at a particular point in time and space. It is not surprising then to find that things, just as gods, can acquire their dominant traits depending on the particular circumstances surrounding an act or event.

Soustelle makes the following statement about two contextual elements, time and space, that are fundamental in ancient Mesoamerican thought:

Natural phenomena and human acts submerge themselves and become impregnated with qualities peculiar to each place and each instant. Each 'place-instant', a complex of location and time, determines in an irresistible and foreseeable way (through the *Tonalámatl*), everything that happens to exist within it³⁰.

In other words, the conjugation of space and time is what gave meaning to an occurrence. A disease, an accident, a failed crop could not be understood outside the spatial and temporal interactions in which they occurred. It was through this "place-instant" complex where the divine expressed itself in the lives of people, through the book of destiny or *Tonalámatl*³¹. It is not unreasonable to expect or find that these two elements (space and time) became also very important to the Zoque-Popoluca in providing meaning to a human act or event, whether in myth or tradition.

A number of conclusions can be drawn from these many observations. First, simple listings of items classified into Hot and Cold categories are of limited usefulness. These lists not only isolate the items from the contextual elements that determined the category in

³⁰ Soustelle, Jacques, "La Pensée Cosmologique des Anciens Mexicains" Hermann et Cie. Ed., Paris 1940: 85. Cited in León-Portilla (1983: 122) - my own translation.

³¹ The *Tonalámatl* was the book of destiny, strips of *amate* paper (*ficus petiolaris*), in which were drawn diverse signs of the divination calendar of 260 days. The calendar was divided into 20 signs of 13 numerals (days) each. In it were registered the celebration dates for the different gods, experts also consulted it to determine the destiny that awaited every newborn child. According to mythology, this calendar was invented by *Oxomoco* and *Cipactonal*, the first human couple created by the gods (Fernández, 1992:161). López Austin also notes that this divine calendar determined the arrival of illnesses and their cures, in a succession of favourable and unfavourable periods dominated by different divine influences (1975: 32).

which they were assigned, they also give the erroneous impression that a Hot or Cold value is a static, objective property of the item itself. Listings of attribution criteria provide more useful information only if presented along with examples of Hot and Cold assignments to common items in the culture of study. Even then, it must be remembered that a value can lose its validity outside the circumstances in which it was defined.

For example, if we take colour as an attribution, we can report that the contemporary Zoque-Popoluca associate red with Hot³². Yet, red streaked corn is not considered Hot. As a food, corn is considered neutral ("*ni frio, ni caliente*" - neither Hot, nor Cold); while red potions made from grains and hairs of red or black corn are used to replenish lost blood (Hot) or treat Hot ailments when combined with Cold ingredients³³. We are back to the

³² For example, the following quote is from a Popoluca *culebrero* (snakebite healer). He is talking about the diet that should be followed by a person under his care when bitten by a poisonous animal: "... He cannot eat *chile* because of the burning (*ardor*). He can't eat tomatoes either, because of the red, he would become hotter (*se caliente más*). With that one he can get *disipela* [erysipelas]." [my own translation, interview: i1306ma.94: 4]. A *campesina* from the same town on the colour red: "... people say that the red is very strong, the colour, and repels all those things, the Hot (*lo caliente*)." [i1910me.94 : 3-4]. She made this comment to explain why people put red pieces of cloth in their *milpa* or fruit trees to protect them from the heat of pregnant women, or why pregnant women put a piece of red cloth in their garments to protect their child in the womb from an eclipse. The Zoque-Popoluca also consider blood to be Hot, this is examined later in the section, when discussing the heat of the dead.

³³ A Zoque-Popoluca *campesino* on *milpa* foods: what is sown in the *milpa*, maize or beans, is nourishment and is neither Cold nor Hot "... because those are harvested" [i1106an.94: 3]. According to a *campesina* from a neighbouring village, the *tsabats mok* (red corn) or *nucñípiñmoc* ("blood" or red streaked corn) is used to treat people "... that bleeds a lot from the nose ... you make like a coffee with that grain and a dark colour turns out ... that one is good to replenish the blood that the ill has lost." [i1910me.94: 14]. Also, one of the causes of *mal de orin* (an urinary infection) is eating pineapple in the *milpa* after work (Hot state) and under the sun. To treat it, an infusion is made with either leaves and hairs from red or black corn, or with *caña morada* (purple cane) which was left outside overnight to be refreshed by the morning dew. *Mal de orin* is considered a Hot ailment while the red potions refresh the body [Interviews: i1006je.94 : 4; and i2711pe.94 : 15-6].

commanding role played by the context and the idea that people's choice of what is relevant derives from it ³⁴.

Based on this last point, we take our analysis on the Hot-Cold pair into the realms of space and time. The analysis will remain circumscribed to health and illness. Spatial elements (eg., the heavens, the Earth, the human body, the home, the river or waterfall) and temporal elements (the movement of the moon, the sun, and the stars; as well as the cycles in the lives of plants and humans) will be shown to guide common associations of Hot and Cold values to things. Interactions between Hot and Cold influences and their impact on living things (the body, a plant, an animal) are also examined in terms of these temporal and spatial elements.

4.3 Heaven and Earth

Contradicting Foster's humoral theories, the historical analyses of López Austin and Viesca Treviño indicate that particular entities and things in ancient Mesoamerica were inherently associated with either a Hot or Cold nature; while others, along with most objects, acquired their Hot or Cold value depending on their relationship and interaction with different parts of the world, the body, or spiritual and divine beings. López Austin (1975:

³⁴ In a similar way, we noted earlier that Cosminsky, for a Quiché community in Guatemala reported green or fresh corn to be Cold "since it contains the rain water" while dried corn is not [(1975:184), cited in Foster (1994:103)]; or Mathews who reported that in Oaxaca, mint can be classified as Hot when used for a cold condition such as coughs, and as Cold when used to treat Hot *bilis* [cited in Foster, 1994:104].

16-31; 1996:58-61) traces the basis of classification to an ancient division of the universe into pairs of opposites (or poles) to explain its diversity, order and movement. He attributes this bipolar vision to the *Chichimecas* who worshipped the heavens and the earth, conceiving them as the Great Father and Great Mother, respectively³⁵. The Heavens or "sky of the blue fire" were ruled by the Great Father and were considered inherently Hot. In opposition to it was the Earth, "our Great Mother", who gave origin in mountains and caves to rivers, streams, winds and clouds. The author suggests that this Male-Heaven-Hot and Female-Earth-Cold binary set may in fact be of a very remote origin, possibly found among the early ancestors that preceded the great agricultural societies of Mesoamerica in the Classic Period (200 B.C.-800 A.C.). Based on this ancient division of the universe, the author identifies a cross-cutting means of classification: the amount of solar heat (or humidity) each thing acquires by exposure³⁶.

The prime example linking solar heat and "Hot" as a cultural category is found in the *tonalli*. This life-giving energy was granted by the supreme dual god *Ometeótl* and was

³⁵ The term *Chichimeca* refers to nomadic and semi-nomadic Peoples of different linguistic affiliations that began to arrive from the North into the Mesoamerican region as early as the VI Century. Between 700 and 900 A.D. they made significant intrusions into the South as the great political and cultural centres of *Theotihuacan*, *Cholula*, *Monte Alban*, *el Tajin*, and *Bonampak* declined. During this period, the newcomers from the North occupied vast zones of Mesoamerica, making their own many of the beliefs and practices of the existing agricultural societies. Among the *Chichimecas* were the Nahua ancestors of the Toltecs and the later Aztecs (Leon Portilla, 1987:32-4; López Austin, 1975:7-12).

³⁶ As noted earlier, Foster recognizes this type of ascription criteria but considers it to be just one among others, and circumscribed, as the rest, to medical practices. For López Austin, it is a fundamental element in ancient thought, an expression of the cultures and worldviews of prehispanic Peoples, and one which transcends the realm of healing.

considered by the ancient Nahua to be of a Hot nature, irradiating its warmth from the head of the person to the rest of the body. Linguistically, the word *tonalli* is derived from the verb *tong* ("to be warm, for the sun to shine"). Metaphorically, it took many meanings, including: to radiate, irradiate, solar heat, day, soul or spirit, or personal destiny determined by the day of birth (Klor de Alva, 1993: 184). This solar heat can accumulate in the body during ritual observances to the point of becoming potentially harmful to others³⁷. López Austin also reports two basic iconographic representations for the ancient Nahua. Hot was represented as a gush of blood, while Cold as a gush of water, shells or water drops (1996: 67). The associations between Hot, blood and the colour red are common among many Mesoamerican cultures. We encountered it before and will encounter it again in sections to follow.

In terms of the Cold category, its association with humidity (water) is evident in the various iconographic representations just outlined. Another example among ancient Nahua is found in diseases caused by the god of rain, *Tlaloc*, and his subordinate gods, the

³⁷ In the previous chapter reference was made to the strong internal energy acquired by Zoque-Popoluca leaders that followed the ritual preparations for the *Carnaval*. This inner energy could become so great at a given point during the preparatory rituals as to be able to contaminate unprepared common folk, killing them from "heat". We encounter a similar idea among the ancient Nahua. The Conquistadors recorded with admiration the great respect subjects showed toward Moctezuma, always bowing in his presence, never daring to raise their sight. But what the Spaniards interpreted as respect went much further. A divine force (Hot in nature) was believed to emanate from the *tlatoani's* eyes, a force so powerful that could kill those common subjects that dared look him in the eyes (Viesca Treviño, 1986: 89). Gutierrez-Holmes also remarks how the Tzotziles of Chiapas associate heat with physical strength, age, masculinity and socio-religious positions (1961, 4: 306). For the region of los Tuxtla, Münch writes: "The spirit of man has a direct relationship with the sun, the moon, maize and the thunderbolt, which are hot and give him life" (own translation, 1983: 193).

tlaloques. These deities were responsible for producing contagious diseases involving the accumulation of bodily fluids; diseases which Viesca Treviño characterizes as Cold (1986:80, 104)³⁸. There is also the rain, the sacred liquid that impregnates the soil and allows the corn god to grow. As the Zoque-Popoluca myth relates, the thunderbolt itself pleaded with Homshuk in defeat: "Do not kill me and when the sun is hot, I will wet your head"³⁹.

The pair of associations, [Hot-Heaven-Solar Heat (blood)] and [Cold-Earth-Humidity (water)], are unquestionably present in many beliefs of the Zoque-Popoluca recorded during field work. Their relevance today is captured in the following two examples at each end of the life cycle; one concerns death and the other birth.

Calor de Muerto (the Heat of the Dead)

The passage below is part of a discussion with a middle-aged Popoluca *campesino*, son of the village health worker. He was trying to explain the use of *aguardiente* (raw rum) during the healing of snake bites. He used the analogy below to illustrate the concept of "heat" (*caliente*) in human blood and the body as a whole.

Excerpts from field notes: 08-06-94, p.9

[File: i0806pe.94, taped interview; my own translation]

³⁸ In the example given at the beginning of the chapter, similar links (water-Cold-swollen body) were explicitly made by the elder Zoque-Popoluca midwife in her reference to the consequences of eating fish after childbirth. Münch also reports for our area of study: "... it is clear that cold elements like the earth, water, and the wind are the cause of illnesses of the spirit of man given that it is considered hot" (my own translation, 1983: 191).

³⁹ "The Homshuk: A sierra Popoluca Text", B. Elson (1947:212).

- P: Many here, up to recently, but also previously, if a woman becomes a widow, everybody is afraid of marrying her [or having sexual relations with her] ... because they say that you can die if you marry her. Also the woman doesn't allow herself to marry, until seven years have passed.
- A: Why are people afraid before then?
- P: Because it is said that you die. Yes you can die from the heat [*el calor*].
- A: The heat of the husband?
- P: Yes, from the heat of the husband that died. The woman kept the heat then [*quedó encalorada*]. She will cool down [*se enfria*] after seven years.

This was our second discussion about the use of *aguardiente*⁴⁰ and also the second time that he had broached the topic of heat emanations from dead bodies. Two months earlier the following discussion took place:

Excerpts from field notes: 30-03-94, pp.2-3

[File: i3003pe.94, taped interview; my own translation]

- P: People believe that if you have a child in the house, let's say ... if I have my grandson or grand daughter and if I go to bury a cadaver, then ancient people would pour on them [children] a lot of *aguardiente*. You bathe them with *aguardiente* so they don't fall [ill] because they say that the corpse has heat, there is heat [*calor*].
- A: Could this [heat] be the spirit?
- P: No, it is not the spirit, it is only heat ... people believe that when one dies and you go to the burial, if someone in your house is ill, then the sick person will worsen because they were burying the dead so illness strikes. ...
Yes, they think that when they go to bury the dead, when they return home, they bring back with them the heat from the dead.

I had come across these beliefs a week earlier in a different village. People had spoke to me then about diseases caused by the dead. I asked a *campesina* in her late thirties to

⁴⁰ *Agua ardiente* is used in many healing rituals in the Sierra. It is often considered *fresco* ("fresh" or Cold). It can be applied to various parts of the body to protect against the heat of the dead as described by the *campesino* (also in i0806pe.94:2) or to limbs swollen from a poisonous bite (i1306ma.94).

explain the dangers posed by corpses.

Excerpts from field notes: 25-03-94, p.1

[File: i2503me.94, my own translation]

M: Yes, one can become ill with fright, of being scared. Also the heat of the dead will grab you. You get a fever or if you have a cut in your foot, it will become red.

Q: And, how do you catch the heat?

M: Heat will pass on [to you] just by coming close to the corpse. Your wound will worsen. A healer will sweep it [away] with some herbs that will take away the heat of the dead, he/she will sweep it [away]⁴¹.

These three passages contain many elements that we have encountered previously.

All three speak of heat emanations from the body which can be transmitted onto others causing them harm. We saw the possibility of similar emanations from ancient Nahua and contemporary Zoque-Popoluca leaders. Their higher spiritual state was characterized by a higher level of energy endowed by the heavens. This energy could escape their bodies and

⁴¹ The idea of sweeping away the heat of the dead appears also in house rituals followed after the death of a member of the household. The *velorio* or wake for the defunct is not carried out until 21 days after his or her death. During this time, a number of observances are followed. The house is not swept because "the spirit of the dead is believed to be in the surroundings" and sweeping would scare it away. The widower cannot have a bath during this time because of the heat left behind. "The celebration is made at 21 days to remove the heat of the dead and not get ill" (i2810es.94:1). Münch describes very similar older traditions for the Zoque-Popolouca. He reports that a celebration was performed 40 days after the death of a person so that the "soul would not come back to scare the relatives". During this celebration, the dance of the *Malinche* was carried out to remove the spirit of the dead away from the house. Two old people, a man and a woman, swept the house with a broom and collected the sweepings in a basket while dancers acted out some of the practices of the person when he or she was alive (eg. hunting, sewing, etc.). The sweepings and some of the personal belongings of the dead were then thrown in the river or waterfall (1983:137). Báez-Jorge reports that the *velorio* is carried out 21 days after the death, noting that this marks the time where the dead begins his/her journey to the final resting place (1973: 135-6). Finally, we also encountered earlier among the ancient Nahua, a similar concept of sweeping to protect the health of people. This was *Ochpaniztli* or "the sweeping of roads and paths". It was a celebration to *Toci*, the goddess of midwives and healers, in which streets, temples and houses were swept at the end of elaborate sacrificial rituals and dances.

harm weaker individuals in their vicinity. In the case of the dead, it is the residual heat from a corpse which can be transmitted onto the living. Based on colonial records, both Klor de Alva (1993: 186) and Viesca Treviño (1986:98) identify similar beliefs among Nahua populations and associate the harmful emanations from dead bodies to the *ihiyotl*, one of the three animistic forces essential to life, which was considered also of celestial origin.

Another congruency between past and present beliefs is depicted in the first passage. The heat from the dead, now residing in the body of the widow, threatens those who engage in sexual relations with her. In our discussion of sexual abstinence, we referred to the possible debilitating state that occurred during coitus as the *tonalli* temporarily leaves the body. The proposition was then made that sexual abstinence was required of ancient Nahuas and Zoque-Popolucas in situations where their bodies were in a higher-than-normal Hot state or during a weakened condition. A similar reasoning seems to apply in the present example. The widow's "cooling off" period of seven years prevents potential sexual partners from becoming exposed to the harmful heat residual she carries during the fragile moments of sexual intercourse. Likewise, the other two passages confirm that humans in fragile conditions will be harmed by the heat of the dead. Children and people with wounds are particularly at risk.

These conversations also dealt with the direct association between heat emanations and the colour red. The association was very explicit in the ancient Nahua iconographic representation of a gush of blood to describe that which is Hot. In our particular case, the

campesino quoted in the first two passages talked during a subsequent visit about erysipelas⁴², referring to this red infection of the skin as *tsuts tsabats masan*. The name translates literally as "dead red yolk". He explained that *masan* (the yolk of an egg) was a reference to "blond foreigners from Spain"⁴³. *Tsabats* (red) referred to the colour of the rash or infected wound, and the word *tsuts* (dead) to the heat from the dead which causes the wound to worsen. All translations and associations are in agreement with the entries of the Zoque-Popoluca dictionary prepared by Elson and Gutiérrez (1997)⁴⁴.

The passages presented above also illustrate how elements of space and time frame people's reasoning regarding heat emanations from corpses. First, the heat of the dead is said to reside inside the human body. As the person dies, it can become detached from the corpse and endanger other bodies. This solar heat endowed by the heavens will eventually leave the earth again as the spirit of the dead embarks on its journey to the underworld. But while here, the heat will be transmitted onto the body of the widow/er and onto any other person that comes into close contact with him/her or the corpse. Seven years must pass before the widow/er can have another sexual partner. People also speak of the home where

⁴² Erysipelas is a streptococcal infection producing inflammation and a deep red colour on the skin.

⁴³ The *campesino* cited as an example the name of a hill around the town of Soteapan known as *Masanpopsti* [*popo=blanco* (white), Elson and Gutiérrez (1997: 7 - part 2)]. This hill is known in Spanish as "*El Español*" ("The Spaniard"). He was not sure if the association between Spaniards (or foreigners) and the disease was due to the particular vulnerability of outsiders to this type of red inflammation.

⁴⁴ From Elson and Gutiérrez (1997): *tsúts=muerto, difunto, cadaver* (dead, corpse), p.96 *tsabats=rojo* (red), p.93; *masan=* 1. *disipela, erisipela* (erysipelas); 2. *gente güero* (blond or "fair skin" people); 3. *yema de huevo* (egg yolk), p.69.

children or the injured can be put at risk by parents returning from a burial; or the cut in the foot that will worsen if the person comes close to a corpse. The corpse and its immediate surroundings, the body of the spouse, the wound in the limb, the home of the children, these are the spaces or locations in which the heat of the dead takes on its significance and meaning in people's explanations. In terms of time, we are told about the seven year cooling period, the return from the burial, the moment of encounter with the corpse, and the wake celebrations after 21 (or 40) days to remove the heat from the house.

To sum up, stories of emanations from dead bodies illustrate cultural notions of heat and associations to health which can be traced to ancient beliefs of pre-Hispanic origin. Peoples' explanations were always enveloped in contextual elements where space and time are prominent. They did not assign a Hot or Cold value to the corpse. What seemed to be more relevant was that heat could emanate from the corpse to harm particular persons (a lover, children, the wounded) in particular circumstances. We now turn to another example at the other side of the spectrum; this one dealing with the beginning of life and the freshness of the Earth.

Burying the Placenta

Foster recorded in 1941 the following custom among the Zoque-Popoluca:

The placenta of a new born child is buried. If this is not done it is thought he will perspire unduly while working in the milpa, thus making more unpleasant his work (1942: 43).

The author presented this note as part of a quick enumeration of "magical and religious rites"

found in the communities he was studying. He provides no further information on the topic. During my own field work five decades later, I made a point of pursuing his lead and asked several midwives and autochthonous healers about it. Several of the replies received are presented below. Each piece of conversation contributes particular elements that build in the end a more complete image of this old custom and its relevance to people's health.

Field Note 1: Elder midwife, 09-06-94

[File: i0906dj.94: 7- Taped interview, my own translation.]

- A: And what do you do with the placenta?
 J: It is buried.
 A: In the house or the milpa?
 J: Yes! In the house ... In the house is also buried the [umbilical] cord also.
 A: And does it have to be in the house?
 [DJ (midwife) and M (women translator) talk in Popoluca]
 M: She says, there are some people that have another custom, for example she was telling me that there are women that have another custom, they ... put fire [*ponen lumbre*] to the placenta and when they are now dry they keep it and take it to the river [the ashes are taken to the river]. Also the navel [the cord] when it falls, they keep it. After 15 days, she goes and sweeps where the women is, and that [the sweepings] and the placenta and the navel, she puts it inside a hole in a rock, or under somewhere, but in the river.
 A: I had been told that, for example, that if one did not bury the placenta of a man, he would sweat a lot in the *milpa*. Did the old people think like that?
 [H, the midwife's husband replies]
 H: This is true. Yes you sweat a lot in the *milpa* when the placenta is burnt, the burning. One will sweat like in these days, will sweat. Although this doesn't happen before [even in cooler weather], he will be sweaty. Now if that thing is buried, one will not sweat, because of the freshness of the earth [*por el fresco de la tierra*].

Both, midwife and husband confirmed Foster's report made over half a century ago.

However, the couple explicitly linked the idea of burying the placenta to the freshness of the

Earth. Another alternative was also offered: burning it and putting the ashes in the river. We noted earlier that for both ancient Nahuas and Zoque-Popolucas, water was believed to come from inside the earth's mountains and caves. A hole in a rock of the river provides the placenta's ashes with a place of confinement that is at the same time fresh (Cold) and within the earth. But in spite of these associations, burning is not the preferred option because of the sweat it will produce as the child grows older.

Before turning our attention to this issue, we note a couple of elements that the midwife brings up in her answers and which we have encountered earlier. She talks about the sweeping of the house; a ritual activity that we saw is related to the purification of the household and prevention of illness. She also throws the sweepings (and sometimes the ashes from the remains of childbirth) into the river. We also found this practice among hunters, healers, and in wakes. Münch (1983:179-80) comments that "water" for the people of the Sierra is the symbol of renovation, the force of creation. Springs, rivers and waterfalls are therefore places of worship. Into them are thrown sweepings, remains from the hunt or from healing rituals, and belongings of the dead. All are acts that share a common idea of regeneration of life, being that of the species or of a renewed healthy body.

The next passage sheds more light on the problems associated with burning.

Field Note 2: *Hierbatero* (medicinal plant healer) in his mid forties
[File: i1006je.94: 20 - Taped interview, my own translation]

A: Another thing that [older people] did at birth, ... before I forget, the

- placenta what do they do with it?
- J: Well, the placenta here everybody have the custom that when they cut it [comes out], they bury it. They bury it. Many burn it, but it is bad to burn it. That is why the person, sometimes for example, talking like we are now talking, you see the man, he sweats what enormity!
- A: That is when they burn it ...
- J: That is when they burn it. He sweats a lot the man, or he is very hot [*caliente*]. For a little thing he is ... he becomes irritated [*se altera*], he becomes angry [*se encoraja*]. Why? Because he is hot in the brain [*está caliente del cerebro*] because of burning it. Then that [should] not [be]. That [the placenta] should be taken and be buried, because the earth is fresh [*la tierra es fresca*].
- A: Where? In the *milpa* or ..
- J: Here in the house, in the house. And this is when the man will never get ill, because he is all the time fresh, he is good, he is healthy. Of course, many of them don't take care of it. They take it and throw it there.
- A: Yes, what happens when they throw it?
- J: If they throw it, well that is the child that can never be well, that is always getting sick, because the placenta is blown onto by the wind ["*lo sopla el aire*"]. You know that sometimes the wind is very contaminated, and some times the wind is well, it's normal.

As in the previous conversation, the traditional healer makes a direct link between the burying of the placenta, the earth and its freshness. Moreover, this passage makes clear that it is the burning of the placenta in the fire that produces profuse sweating later in the person's life, and not the fact that it is not buried (as Foster's record might suggest). Not only the person will sweat, but he or she will be hot⁴⁵. The brain will also become hot and the person will be prone to irritation and anger⁴⁶. We also learn that not burying the placenta

⁴⁵ The link between fire and solar heat is very direct in the ancient Nahuatl legend of the Suns. As we saw in the previous chapter, the sun was created with the sacrifice of the gods who threw themselves into the *teotexcalli*, the great divine fire.

⁴⁶ Elson (1960: 80) translates *icobacpijpa* as "*le fastidia*" (to become upset or irritated) which literally means "the head becomes heated". Similarly, Elson and Gutiérrez (1997: 12) translate *cobacpiji* as "*molestia*" (bother, as in annoyance) or "head with heat" [*cobac=cabeza*

results in more than just discomfort, for the child will be condemned to a life of sickness. The healer evokes the poor health that awaits those whose placenta is not handled properly. The link to illness was implicit before in the sweating of the person⁴⁷. Now we also discover that if not burnt nor buried, but thrown unprotected on the ground, the placenta will become pray to the ill effects of the wind. Other dangers are described in the two following passages.

Field Note 3: Elder midwife, 11-06-94
[File: il106ge.94:3 - my own translation⁴⁸]

- A: And what do you do with the placenta?
G: The placenta is picked up and is buried, and the navel [umbilical cord] also, inside the house.
A: What do you think will happen if it is thrown in the garbage?
G: If it is thrown ... [the person] would be ill with "*ahogo*" [suffocation or drowning], would become very ill. [He/She] would get many illnesses like fever, diarrheas, headaches, many things all the time.
A: And if they burn it?
G: If it is burnt, [he/she] would sweat plenty, "*pijpa*", in the night and in the day once old.
A: Why is the placenta buried?
G: Because the earth is fresh [*es fresca*] and it [the placenta] is put there in the fresh [*el fresco*].

This passage corroborates many elements encountered in previous conversations. It reveals that many afflictions are possible if the placenta is simply thrown away. Unprotected

(head), p. 12 ; *pij*=*calentar* (to heat something), p. 8; *piji*=*calor* (heat), p.81].

⁴⁷ To sweat (*sudar*) is translated in Zoque-Popoluca as *cupij* and sweat (*sudor*) as *cupiji* (Elson and Gutiérrez (1977: 6). Both words contain the root *pij* (*calentar* or to heat). When the placenta is burnt, the person will sweat, becoming prone to illness from the heat and the loss of water [*cuca*= to dry up (*secarse*) as in a plant or bush, p. 38; *ca*=*morir* (to die),p. 10; *caacuy*=*enfermedad* (illness) p. 10; "-*cuy*" suffix transforming the verb *ca* (*morir*) into a substantive, p. 9 of gramm. notes].

⁴⁸ All questions and answers were translated by M to and from Popoluca during our conversation; notes taken during interview (not taped).

outside an earth cavity, it will become exposed to a multitude of dangers and precipitate a variety of ills on the child. The alternative of burning is again associated with profuse sweating which the midwife directly links with *pijpa* (*estar calentando*), the act of heating; in this case "being heated" day and night. The most sensible practice is to put the placenta inside the freshness of the earth, an act that brings to mind the throwing of hunting remains into the river. We noted earlier that the *chaneque*, master of all animals, requires hunters and fishermen to return to the river all the leftovers from their catch. This will allow the species to reproduce and be plentiful. The demand from the *chaneque* is associated to water, the symbol of freshness, fertility and the regeneration of life. All three elements are also present in the burial of the placenta. The latter element (regeneration of life), in particular, was vividly expressed in the mythical gestation of the corn child whose crushed flesh and blood placed in a gourd was put by his mother inside an ant hole from where he eventually emerged as the corn-god. But if a fertile freshness is what is sought, why not simply throw the placenta into the river? A snakebite healer gives us the answer.

Field Note 4: *Culebrero* (snakebite healer) in his mid forties, 13-06-94⁴⁹.

A: And what is done with the remains of the black chicken?

M: "Well, not only the feathers of the chicken, but all that is used during the healing, the little leaves for the vapours and bathing of the wound, what remains of the bark [of the *palo amargo*], everything is kept in a *bote* [container], and then with the feathers and remains of the black chicken, all that is thrown into the river after the bath [of the convalescent] on the seventh day".

A: Why is it thrown in the river? to purify ..?

M: "No", they are thrown into the river because it is "fresh" [*fresco*].

⁴⁹ File: i1306ma.94: 3 - Notes taken during interview and summary made right after (not taped); my own translation. In this conversation we are talking about the *pollo del reemplazo*, the sacrificial chicken offered to the spirits in return for the health of the injured.

- A: A midwife told me that she throws the ashes of the placenta in the river. Would it be the same, that of putting the remains in the fresh [*lo fresco*]?
- M: "No! The placenta must be buried in the corner of the house". He has seen that some just throw it [the placenta and umbilical cord - without burning] into the river but that is bad.
- A: "Why?"
- M: "Because the navel will become rotten [*se pudre*], the child will not heal properly".

An interesting point is made by the snakebite healer. Even though the remains of healing materials are thrown into the river because of its freshness, the same cannot be done with the placenta or the umbilical cord. The freshness (Cold nature) of the river water is not the same as that of the earth. Here, an unburnt placenta or cord thrown into the river will result in the rotting of the child's navel. We encountered the concept of "rotting" when discussing crop damage if specific foods are not avoided prior to the sowing of corn. As we saw then, two forms of *chahuistle* can affect either the young plant or the young ears of corn. Both are associated with an excess of humidity and result in "burning" (*se quema!*) - a phenomenon that people refer to as a rotting process⁵⁰. Similar elements seem to be present in the reaction of the healer: the young age of the child, a high exposure to humidity (Cold river water), and the rotting of the child's navel that will ensue. The earth is considered "fresh" (*fresca*), yet the passage implies that there are degrees of Cold, with water from the

⁵⁰ From Elson and Gutiérrez (1995): *púc*= *podrir* (to rot), *púcne*=*se pudrió* (became rotten), p.84; *infectar* (become infected)=*púc*, p.23; *cupúc*= 1. *fermentar*, *hacer pus* (to ferment, make pus); 2. *curtir* (tan hides), p.17. A traditional healer directly links things that are rotting with Hot (interview: i0304je.94: 1) and with the heat of the sun: "... *pus* comes from the heat of the sun. From the hot of the sun! Because sometimes one works too much" (interview: i1006je.94: 15; my own translation) - meaning a cut or a wound will become infected with pus if the person works too long (Hot state) under the sun (Hot) in the *milpa*. Rotting is therefore a Hot phenomenon produced by either Cold-Cold or Hot-Hot excesses.

river being Colder than that of the earth inside the child's house. The placenta or umbilical cord in contact with the river water will cause an excessive exposure to humidity (Cold) in the child, resulting in the rotting of his/her navel and possible death⁵¹.

There is another element that appears in all conversations but which we have left so far unattended: the place of burial of the placenta.

Field Note 5: Elder midwife, 15-06-94

[File: i1506fe.94:5- Taped interview, my own translation; F speaks a very broken Spanish.]

- A: And what do you do with the placenta and the navel [cord]?
- F: That one when then ... once we cut it, then we look for the placenta and you throw it there in a hole, yes we bury it, yes.
- A: In the house.
- F: In the house, in the house, yes.
- A: I was told that it was in a corner [*rincón*].
- F: No, there [pointing to the corner], like there ... they do it [the hole] and take it to bury [the placenta].
- A: In the corner [*esquina*]?
- F: Yes, and when the navel [cord] that remained [with the child] falls out, now dry, they go and throw it right there [it is buried in the same hole]. That's the way yes.
- A: And why in a corner? Why not in the middle?
- F: No, where the sun comes [rises]. From this side, there [points to the East].

[.. M and F speak in Popoluca, M translates:]

- M: She means that where the sun comes [out] is ... so that the baby does not die. So then they bury it like that, you know that always the

⁵¹ Chevalier, in his analysis of the Homshuk myth remarks how water in excess can destroy the life of plants in the same way as heat and fire do. Similarly, excess water in children can cause death. Plants and humans alike, must move away from the birth waters as they grow, and into "the earth where men go dry" if they want their seed to reproduce (1994, 2: 5-6). Life and regeneration is therefore only assured by a movement away from water. In our particular example, throwing the placenta or umbilical cord directly into the river contravenes this natural principle and endangers the life of the child.

- dead. I don't know what is your custom, they put the head of the dead when he dies, they put it ...
- F: where the sun goes [down]
- A: Yes, so that means that [he/she] is now dead. Because us, even to sleep ...
- F: It cannot go that way [sleep with the head pointing to the West]
- M: For example, if I put my bed here, and I put my head like this [to the West] then it is bad.
- A: Towards where the sun goes down?
- F: Yes, yes.
- A: So then you have to put your head towards where the sun comes out?
- M: Or put your head this way [North], or this way [South], except where the sun leaves.

Not only the placenta must be buried inside the house, but this must be done on the corner facing East, the direction of the rising sun - the beginning of life⁵². All previous conversations are in agreement with the fact that it must be buried inside the house. But the agreement is not as unanimous if we look at other contemporary ethnographic records. Báez-Jorge reports that the placenta and umbilical cord "are buried, preferably, in the centre of the house or in any other place of the yard..." (1973: 115 - my own translation). Münch, on the other hand, explains that in some villages of the Sierra, the cord is buried beside the *lumbre* (house fire) if the child is a girl, and if a boy, it is hung from a tree until it rots. He writes: "This is done to symbolize that the man must go out to work and the woman will stay working in the house". He does note that in Tatahuicapan (a neighbouring Nahuatl village) the umbilical cord is cut after childbirth with a knife over an ear of corn and is then buried in a corner of the house. The ear of corn is also buried after 21 days inside the house (1983: 125). The author does not mention the placenta. Olavarrieta reports that in the towns

⁵² León-Portilla similarly notes that the ancient Nahuatl divided the universe into four directions or segments (with the world occupying the centre). The East was considered the direction of light, of fertility and life (1983: 124).

surrounding the Sierra. the placenta and cord are buried in the corner of the house "where no one will step on them". or in the yard of houses. She refers to a very well respected and elder midwife of San Andrés Tuxtla who warns that people will become increasingly weaker since nowadays in hospitals the placenta and cord are thrown to the garbage. Children are being condemned to have a "weak spirit" and become prone to illness (1977: 107)⁵³. All sources of information concur that the handling of the placenta will have a direct impact on the child's future health. And, despite some differences in opinion, the preferred custom is to bury it inside the house.

The next passage puts forth the possibility that this practice is also the oldest one. The conversation took place in the most isolated Zoque-Popoluca village of the Sierra.

Field Note 6: Elder midwife, 26-11-94⁵⁴.

I asked DI what people did with the placenta of the child. Her son replied on her behalf. Both spoke very broken Spanish. The more ancient custom is to bury the placenta in fresh earth [*tierra fresca*]. We asked what happens if the house has a cement floor. "Then in the kitchen, there you bury it". The son told us that there are some midwives that are used to burn the placenta and the "navel". These must be burnt in a fire that is kept going for 13 days. If the fire is put out before this time it may be dangerous for the child. The ashes of the fire are then thrown into the river after the 13 days. I asked DI again which of the two customs is older. She answered that of burying the placenta. This is what she does herself. "Burning it, that is not right". She explained that people will sweat a lot if their placenta is burnt, "with a bit of

⁵³ One midwife interviewed related an experience where a woman under her care was taken to the hospital because of complications with the delivery. The midwife felt it was her responsibility to go to the hospital to retrieve the placenta and take it back to the woman's home for burial [i0906dj.94: 7-8].

⁵⁴ File: n2611.94:3; Conversation was not taped, summary below is from field notes made just after the conversation.

walking, you will sweat a lot".

In addition to the firm belief that burying the placenta is the older tradition⁵⁵, we uncover in this passage a likely cause of variability in the place of burial. The traditional Zoque-Popoluca house has a dirt floor. Over the last few decades and as a "symbol of progress", the more affluent families have covered their house floors with cement. But even when this is done, the house is often divided into two separate buildings, the sleeping quarters and the kitchen. The kitchen is then kept with a dirt floor. Thus the reply from the midwife: even if your house has a cement floor, the placenta is buried in the dirt floor of the kitchen⁵⁶. In larger villages or towns where land is scarce and house properties are smaller, it is not always possible to have two separate buildings. The kitchen and living area then share the same cement floor. It is probably under these circumstances where some families began to bury the placenta in the yard⁵⁷.

Burying the placenta inside the house is indeed an old custom of profound

⁵⁵ All the midwives interviewed recommended the burial of the placenta. None of them burn it. They all said it was "others" that did this. I never found out who these "others" were. It may be that the burning option was introduced by the Spanish, or mestizo priests or even health workers, dwellers or visitors from neighbouring villages, to the dismay of the Popoluca.

⁵⁶ In the village where this conversation took place, only the school building and the *casa ejidal* (*ejido* house) have a cement floor. People's homes have earthen floors. However, on the way to this village that sits at the top of the Sierra, one passes through another settlement where coffee growers made good money during the boom years for this crop and introduced cement floors and tin roofs in their houses.

⁵⁷ Báez-Jorge succinctly remarks that dwellings among the Zoque-Popoluca are not a type of property that is sold or traded precisely because of the spiritual links that the family establishes with the land's dwelling through the burial of the umbilical cords and placentas of its members. Even when empty, houses are seldom rented and only for short periods of time, until the newcomers build their own house (1973: 115).

significance, for the practice was also found among the ancient Nahua. Fernández writes about *Xantico* or *Chantico*, the goddess of the house fire or hearth, and notes that it was beneath this fire where the placenta in ancient times was buried along with some objects that designated the activities children were destined to follow later in life (1992: 47)⁵⁸.

Perhaps not unrelated was the final resting place beneath the earth of skins from sacrificed women. Wearing the skins of sacrificed corpses was a rite particular to Mesoamerican Peoples. Their use varied according to the origin of the skin itself (men or women, type of prisoner), the people who wore them (leaders, priests, beggars, owners of sacrificed slaves) and the final destination of the skin. González Torres distinguished between three main variants of their use (1992:276):

- (1) Skins that could only be worn by priests - these skins converted the priests

⁵⁸ Fernández's note about the burial of objects along with the placenta brings back again the importance of the burying ritual in the child's future. These objects designated activities children were destined to follow in their adult life. Only one reference was found of a similar practice in the region: the burial of an ear of corn over which the umbilical cord was cut (Münch 1983: 125). However, there are parallel rituals among the Zoque-Popoluca which envelop a similar purpose. The midwives interviewed reported the following practices: cutting the cord over an ear of corn so the child will not lack this food later in life; having newborn boys touch a *machete* so they will work in the *milpa*, while giving newborn girls a *metate* (grinding stone) and a needle to touch so they will work in the house (i0906dj.94: 6; i1506fe.94: 4-5); cutting the umbilical cord in boys at about *un cuarto de largo* ("one quarter of length" equal to about one hand), and in girls at about *dos cuartos* (two quarters) so the girls will "not suffer later in life" (i0906dj.94: 6). On this last point, a community worker later explained to me that the size of the umbilical cord for the boy (*un cuarto*) is related to the size of his penis as an adult. If the umbilical cord is cut longer than this, the penis will be too big and will cause pain to the women during intercourse, especially since girls can get married at 13 years of age or less. The woman noted that hospitals cut the cord too short and that this is also bad because the boy will suffer later in life [will have trouble engaging in sexual relations]. Similarly, the larger size of cord in the girl is for her reproductive cavities to become larger as she grows older so that child delivery becomes easier [i1306me.94: 1]. We can see from these examples the important cultural significance of the burial of objects and cord cutting rituals. Just as with the placenta, both will have a life-long effect on the health and well-being of the child.

into deities for the purpose of a particular ritual: the skins were handled with great care and respect; all skins from sacrificed women belong to this group.

- (2) Skins of distinguished prisoners which could only be worn by their captors or owners (people of the ruling or warrior classes); often these skins were filled with straw and were conserved as trophies.
- (3) Skins of common sacrificed people - they were worn by people seeking a cure from certain diseases (typically diseases with skin pocks); or by beggars as the use of the skins prompted people to be generous to them.

The first group is of particular interest to the discussion at hand. The skins of women corpses were worn by priest in rituals associated with different goddesses, and included: *Toci*, mother of all gods and "heart of the earth", our divine grandmother⁵⁹; *Xochiquetzal*, goddess of the flowers and of love, the one that performed the first sexual act and first birth⁶⁰; *Chicomecoatl*, goddess of abundance and joy, linked to the growth of plants and flowers in spring⁶¹; or *Atlantonan*, "our mother, the one that shines in the water"⁶². Skins of sacrificed men belonging to this group were used in ceremonies related to the gods

⁵⁹ See Fernández (1992:159) and González Torres (1992:145-6 & 272).

⁶⁰ See Fernández (1992:173) and González Torres (1992:272).

⁶¹ See Fernández (1992:47) and González Torres (1992:269-70 & 272).

⁶² *Atlantonan* was also a representation of *Chalchiuhtlicue*, the goddess of terrestrial waters and spouse of *Tlaloc*; and of *Coatlícue*, the goddess of the earth, "the great birth giver, mother of all gods, of creation and destruction, synthesis of life and death", she was the mother of *Huitzilopochtli*, the sun god of the Aztecs. The association of *Atlantonan* with these goddesses appears when referring to the relationship between *Tlaloc*, the god of rain and the Earth during the germination of plants. See Fernández (1992:27 & 42) and González Torres (1992:271).

Xipe, "our skinned lord", the god of fertility, of spring and the re-birth of vegetation, the one that gave origin to war⁶³; and Xochipilli, spouse of Xochiquetzal, god of love and spring⁶⁴. All these deities are associated with fertility and birth. The skins covered the priests elevating them to a divine status during ceremonies. All of them were eventually disposed with great care inside a special cave to prevent their "contamination" (González Torres, 1992:74). Just as the placenta of a newborn⁶⁵, these skins of fertility and birth were destined to reside inside the protective freshness of the earth.

To summarize this section, we note that all conversations presented reaffirm what appears to be a fundamental association between Cold, Earth and Humidity; an association grounded on cultural concepts of space (location) that go beyond the scope of an European humoral theory. The Earth with its mountains and caves that give origin to water, the earthen floor of the house, the corner facing East, the cement floor, the river, the ground beneath the home fire, the outdoors or garbage dump, all are places that qualify what practices should and should not be followed in handling the placenta of a newborn child. People were not asked if the placenta was Hot or Cold. Nobody volunteered an attribution either. As with the previous example on the Heat of the dead, what appeared to be most

⁶³ See Fernández (1992:170-1) and González Torres (1992:138-9 & 272).

⁶⁴ See Fernández (1992:172-3) and González Torres (1992:272).

⁶⁵ Placenta in Zoque Popoluca is translated to *man'igapa*. People explained the meaning of the word as: "there where the child resides" [i271 | pe.94:28]; "there were the child is born ... *iapa* because it was born there ... there in the stomach of the mother, it remains there, that flesh that was formed there... like the head... *iapa*, like a budding bush, where it began, it grows there..." [i2010an.94:11]; From Elson and Gutiérrez dictionary (1995): *man'ic* = *hijo* (son) p.22; *apa* = *madre* (mother), p.9; *iman'igap* = *tener como hijo* (have as a child), p.44.

relevant in people's minds was not the Hot or Cold value of the item (corpse or placenta) but rather how the item interacted with its surroundings in a particular time and place. There are differences however. People did not speak of energy emanations from the placenta. It is as if these skins that once housed the child in the womb of the mother retain a connection to the child for life. The proper resting place for the placenta is in a corner of the house, enclosed and protected within the freshness of the earth. If consumed by the fire it will heat the child, day and night, producing a profuse sweating for the rest of his/her life; if exposed to river water, it will make the child's navel rot and never heal; if exposed to the outdoors, the winds will inflict an assortment of illnesses throughout the child's life. In conclusion, we see how a bit of folklore reported by Foster half a century ago conceals multiple relationships between beliefs and practices that span across the realms of health, well-being, agriculture, and even notions of property - relationships that revolve around the Hot-Cold pair and whose existence can be traced back for many centuries.

4.4 Life and Movement

We are now in the Age of the Fifth Sun. The ancient Nahua called it *Ollintonatiuh*, the sun of movement⁶⁶. The legend tells us that in this mythical age, the sun and moon were

⁶⁶ *Tonatiuh* is translated by León Portilla as "the one that produces the heat and light". The sun was the supreme divinity for the Aztecs, the centre of religious life. Their mission as a People was to feed it with the blood of human sacrifices (1983:394). *Ollin* is movement. From it are derived the words: *yóllotl*, the human heart, literally meaning "su movilidad" (its moving ability or essence) or "that which gives life and movement to someone"; and *yoliliztli* or life, "the result of the inside movement" (1983:386). *Ollintonatiuh* is then the Sun of Movement.

created and began to move, marking the beginning of time: the time of human beings. The movement of celestial bodies also initiated the beginning of a new cycle of life and procreation, where maize would become the sustenance of the human species⁶⁷. This new beginning, this point of renewal and re-creation, happened because of the penance and sacrifice of the gods (see fig. 4.1).

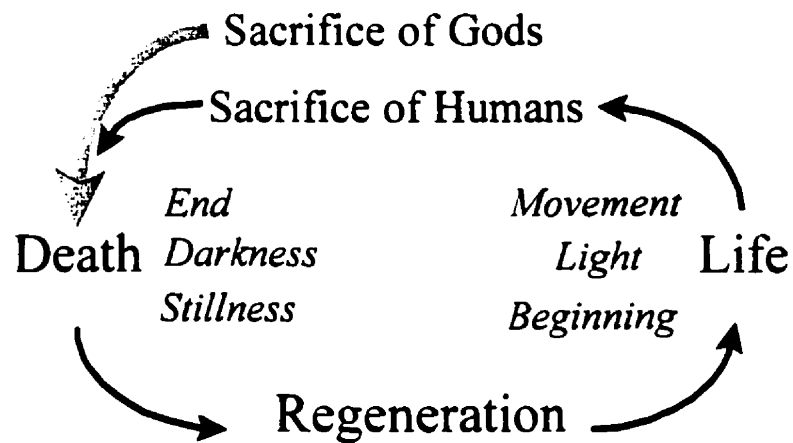


Figure 4.1 Beginning of a new cycle: the Sun of Movement

⁶⁷ The ancient Nahua believed the world had existed for four previous and consecutive ages or cycles that were called "Soles" (suns). Each of these ages had been dominated by one of the four primeval forces - water, earth, fire and wind; and each ended with a cataclysm. The present was the fifth age, an age of equilibrium between these forces. A process of evolution had occurred from age to age, with better forms of human beings, plants and foods appearing each time, culminating in this fifth age with the re-creation of humans as we know them and the discovery of maize as the staple food (León Portilla 1987:15-22; 1984:98-112).

For it was *Nanauatzin* and *Tecuciztécatl* who jumped into the *teotexcalli*, the divine fire or hearth, and with their death, the sun and moon appeared. The other Gods gathered in the sacred city of *Teotihuacán* and then gave their blood and life in sacrifice so the two celestial bodies could begin to move. From this point forward, the blood and hearts of human beings were needed to maintain the divine movement of the sun and moon across the sky.

Not surprisingly, times associated with renewal retained through the centuries a profound ritual importance. They remained occasions consecrated with offerings and sacrifices that made people worthy of the new beginnings. Many of these ritual events were mentioned earlier. Among the ancient Nahua were included: the celebration of the New Fire that marked the beginning of a new 52-year cycle⁶⁸: *panquetzaliztli*, the main celebration commemorating the birth of the sun-god *Huitzilopochtli*, the national god of the Aztecs; or *ochpaniztli* the celebration to *Toci*, the goddess of midwives and healers, a time of purification and renewal in health. We also referred to the initiation rites of rulers or *tecuhtli*. For the Zoque-Popoluca, we examined the *carnaval* and its role in reaffirming the authority of community leaders and protecting the new harvest and health of people. We discussed the agricultural rituals for the sowing of corn, the beginning of the new agricultural cycle.

⁶⁸ González Torres calls this celebration the *toxiuhmolpilli* (1992: 123). It was a fragile time that required special ceremonies to prevent the end of the Fifth age. All the fires of the Aztec kingdom were extinguished the last night of a 52-year cycle, and people looked at the sky for the *tianquiztli* or Pleiades (the "Seven Sisters" in the constellation of Taurus). The movement of this cluster of stars at midnight brought the divine message, promising 52 more years of life. At this moment, the new fire was kindled on the chest of the most valiant prisoner. He was then sacrificed. His heart was removed and thrown into the fire, followed by his entire body. This new fire was used to kindle all fires in all temples and households of the kingdom (León Portilla, 1984:115; González Torres, 1992:123).

We also referred to healing rituals that mark the end of disease and beginning of renewed health; as well as the initiation of healers and their dealings with *chaneque* spirits; and, the vigils that sent the spirit of the dead into their final journey, freeing households from the residual Heat they left behind. Ancient Nahua rituals shared a number of common elements with those of the Zoque Popoluca. The following tables illustrate similarities between them. The sections that follow draw on these similarities to examine Hot and Cold associations involved at times of renewal.

Table 4.1 Rituals of renewal: Ancient Nahua

Event	Time	Acts of Moritfication	Offerings	Hot-Cold Elements
<i>taxiuhmolpilli</i> ⁶⁹	End/ beginning of 52-year cycle, at midnight	Fasting Sexual abstinence Mortifications of the flesh	<i>Codornices</i> (quails) Copal Human hearts	To renew the Age of the Fifth Sun, all fires were extinguished with water the last night of the cycle and a New Fire was kindled at midnight, bringing a new beginning to the Sun, its movement, and life on Earth with human sacrifices.
<i>panquetzaliztli</i> ⁷⁰	Fifteenth month of Aztec year; end of harvest and beginning of warring season	Fasting Sexual abstinence Mortifications of the flesh	Copal Human hearts Idols made of dough from amaranth and blood of children	Yearly celebration marked the birth of the Sun god, the god of war, <i>Huitzilopochtli</i> . He was the god of that which is Hot, dry, hard, of light and of the governing class.

⁶⁹ See González Torres (1992: 182 & 192). The author associates renewal and sacrifice to the ancient Mesoamerican belief of the need to die for renovation to be possible. Fires in temples had to die every 52 years, extinguished by water, in order to be born again.

⁷⁰ See González Torres (1992: 122 & 132).

Table 4.1 Rituals of renewal: Ancient Nahua (continuation)

Event	Time	Acts of Mortification	Offerings	Hot-Cold Elements
<i>ochpaniztli</i> ⁷¹ (Yearly celebration to <i>Toci</i> , mother of all gods and goddess of midwives and healers)	Eleventh month of Aztec year	Fasting Sexual abstinence Mortifications of the flesh	Copal Human hearts of women (beheaded & skinned) Dances	Mature women were sacrificed at dusk. Their skins were worn by priests who had to purify themselves beforehand to withstand the energy concentrated in them. After their use, they were deposited in a special cave. As part of the celebration, all the main streets, temples and houses were swept and people had ritual baths.
Initiation of <i>tecuhli</i> (territorial rulers) ⁷²	Defined by the <i>tonalpohualli</i>	Fasting Sexual abstinence Vigil Mortifications of the flesh	Copal	The elected candidate remained naked for two days in front of a fire dedicated to the god of fire and giver of life, <i>Xiuhtecuhtli</i> . His nasal septum was perforated with awls made from eagle claws (sky) and tiger bones (earth) to carry a jewel corresponding to his title. He was then painted in black and endured four days of penance and mortifications. He later received a ritual bath in front <i>Chalchiuhtlicue</i> , goddess of terrestrial waters, marking his rebirth as a ruler, and filled with a higher inner energy of fire.

⁷¹ See González Torres (1992: 267-76) and Fernández, 1992: 84 & 159)

⁷² See López Austin (1996:456-9)

Table 4.2 Rituals of renewal: Contemporary Zoque Popoluca

Event	Time	Acts of Mortification	Offerings	Hot-Cold Elements
<i>Carnaval</i> (Zoque Popoluca) ⁷³	End of February	Sexual abstinence Fasting Vigil	Copal Dances Animals that eat maize crops	New fire lit January first in the house of a leader. Authorities and dancers kept vigil in front of it for a whole night. The fire could not be put out until the <i>Tuesday of carnival</i> celebrations. Acts of mortification gave leaders a high inner energy that could kill unprepared common folk "from Heat". The event ended with a feast and a ritual bath by the river or waterfall.
Sowing of 7 Days (Zoque Popoluca)	New maize planting cycle	Sexual abstinence Fasting Vigil	Copal	Hot foods must be avoided during mortifications lest the young maize crop will burn from excess Cold. See also cultivation cycle after table.
Healing poisonous bites (Zoque Popoluca)	End of treatment marking new health	Sexual abstinence Vigil	Copal Soul of a chicken in exchange for soul of convalescent	Hot foods were avoided while in treatment; ritual bath by river marks new health; remains of chicken and healing items are thrown into the freshness of the river water.
Collection of medicinal plants by snakebite healer ⁷⁴ (Zoque Popoluca)	31st of December to 1st of March	Sexual abstinence Vigil	Copal Celebration with food & drink on June 23	Acts of mortification give healer a "good posture" (excess Heat in body) to collect the plants and put them to dry under the sun or by the fire.

⁷³ See Münch (1983:247-8) and Báez-Jorge (1973:205-7)

⁷⁴ See Münch (1983:206-7)

Table 4.2 Rituals of renewal: Contemporary Zoque Popoluca (Continuation)

Event	Time	Acts of Moritfication	Offerings	Hot-Cold Elements
Wake (<i>velorio</i>) (Zoque Popoluca)	20 days after burial, marking departure of spirit into its final journey	Sexual abstinence (widow/er) Vigil	Copal	Celebration removes Heat of dead from the house; old couple (Hot state) sweep household; personal belongings of dead, food remains from celebration and house sweepings are thrown into the river; widow/er has bath, yet he/she will only cool off after 7 years; children are bathed with <i>aguardiente</i> to protect them against heat of the death.
Initiation rites of snakebite healers ⁷⁵ (Zoque Popoluca)	24 of June at midnight	Sexual abstinence Fasting Vigil	Copal Human souls Animal souls	Acts of mortification give healers in training the required inner energy for the initiation. Retreats for learning and praying are done by the river and waterfalls. On the day of the initiation at midnight, the snake comes out of an ant hole to instruct those who are prepared on the art of healing. The snake represents water, the symbol of annual renovation and fertility, of death and resurrection.

Traditions associated with the cultivation of corn are rich in ritual observances and moral teachings. They also offer a good example of how people's perceptions of temperature

⁷⁵ See Münch (1983:189-90 & 205-9)

acquire particular cultural meanings. Slash-and-burn *milpa* agriculture has been practised by the Zoque-Popoluca and their Nahua neighbours for hundreds of years. For the *campesinos/as* of the Sierra, the fertility of the *milpa* and the health of the crop depend on a balanced application of Heat and Cold at appropriate times. The main maize crop in the Sierra Santa Marta is planted in June, at the beginning of the wet *temporal* season, and is harvested between November and January. The land itself must be prepared before planting through a process that involves drying and burning, just prior to the rainy season. This happens during the dry months of April or May. The secondary vegetation growing in the resting *milpa* is cut down and left to dry under the sun. This tinder is then set on fire during the burn off (*la quema*). Not long after, the thunderbolt will announce the first rains, and with them the *campesino/a* will prepare for the sowing. This cycle of Heating and Cooling makes the land fertile. The ashes obtained from the drying forces of the sun and the fire (*la quema*) combine with the rainwater to bring life into the corn seed. From these wet beginnings, the corn plant will endure a progressive hardening and drying as it grows and matures. Its death, bent over in the *milpa*, produces new seeds needed to begin a new agricultural cycle⁷⁶. In close agreement with this evolution of the corn plant, Homshuk, the corn-god is portrayed by elders as a young, childlike dwarf when maize is first planted, ageing in parallel with the corn plants in the *milpa*, and becoming withered and parched when the corn stands bent and dry in the field⁷⁷.

⁷⁶ See Chevalier (1994, #2) for a detailed analysis of maize cultivation and the Hot-Cold cycle.

⁷⁷ See quote in previous chapter from B. Elson (1947:193).

Figure 4.2 summarizes the main Hot and Cold elements involved in maize cultivation. The cultivation cycle is portrayed here using the same basic structure of preceding figures to emphasise the logic of sacrifice inherited from early agricultural societies of Mesoamerica. The need to balance Hot and Cold influences is also extended to the *campesino/a*. He/she must follow specific acts of mortification preceding the sowing and must observe proper behaviours. For instance, we saw earlier how sexual abstinence was observed before the sowing and how consuming the wrong Hot food (eg. *mamey*) during this time may lead to an excess of Heat that will produce *chahuistle* (the Cold burning of young corn plants) in the *milpa* of the transgressor. If a careful Hot-Cold balance brings fertility and productivity, extremes of either Heat or Cold at the wrong time will lead to destruction and death.

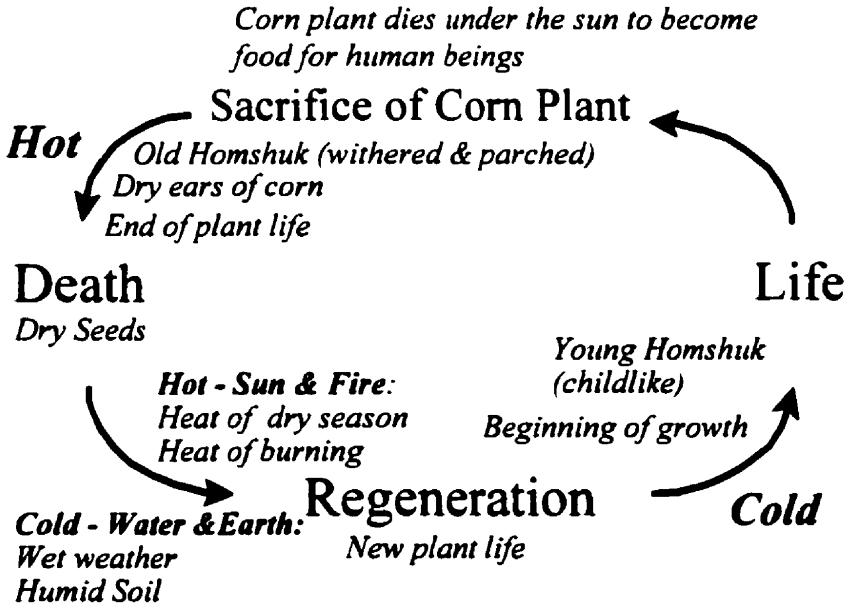


Figure 4.2 Maize Cycle and Milpa

The *milpa* cycle and the various other examples presented in the table suggest that categories of Hot and Cold give a structure to ritual observances associated with times of renewal. General relationships and order of events are depicted in figure 4.3. Again the basic cyclic structure of previous figures is used. We highlight both the sacrificial nature of renewal and similarities in related observances from agriculture, governance and health. The renewal of cycles are characterized by Hot endings and Cold beginnings, mimicking the Cold (humid) birth and Hot (dry) death of Homshuk, the corn god. In agreement with this order, acts of self-sacrifice precede the beginning of a new cycle, bringing the human body to the proper physical and spiritual state. We described in the previous chapter how vigil and acts of sexual abstinence and fasting produce an accumulation of inner energy, an excess of internal Heat that denotes a higher spiritual condition and makes a person worthy or deserving of what is being sought - a renewal or new beginning. Similarly, the initiation of the cycle itself is marked by rituals or *festejos* (celebrations) associated with water and the refreshments of eating and drinking. These include bathing and throwing all ritual remains (feathers and bones from sacrificed chickens, leftovers from remedies and the like) into the river. All are elements closely related to a Cold or refreshing condition⁷⁸.

Hot and Cold poles seem to bind the cycle of life's renewal. New life begins in water.

⁷⁸ The word *festejar* (celebrate) in Zoque Popoluca is *n'íc* which also means *beber agua* (to drink water) or *comer tamales* (to eat *tamales* - a traditional food of seasoned meat and maize flour steamed or baked in maize husks) [Elson & Gutiérrez, 1995: 20,76]. *Fiesta, celebración del pueblo* (community celebration) is translated as *s'í ñ*, a word meaning also *cielo* (the sky) and *alma* (the soul or human spirit) [Elson & Gutiérrez, 1995:87].

Its natural progression is a movement away from this life-giving liquid⁷⁹. Yet life is also a gift from the heavens. From them comes the solar warmth that gives growth, movement and strength to the human body and all forms of life. This energy increases in the *campesinos/as* as they age and dry up under the sun, toiling the land and giving their seed for procreation, while moving away from the leisure of a young wet life.

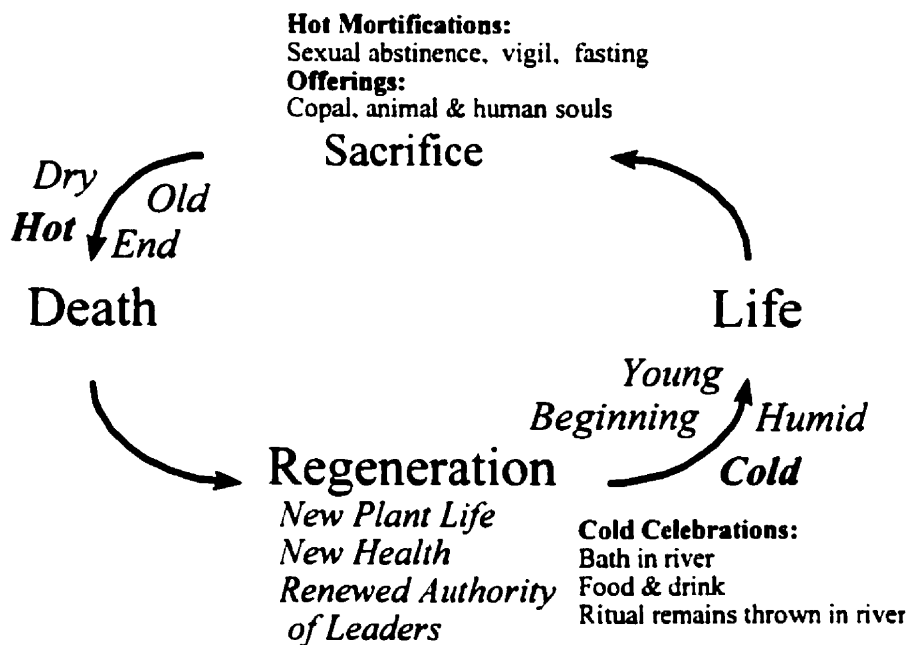


Figure 4.3 Sacrifice and Renewal

These are paradoxes that typify the sacrificial logic of *campesinos/as* and *milpa* production, paradoxes that are also expressed in related sets of complementary opposites tied in a cyclic motion of renewal: a beginning from an end, life from death, well-being from sacrifice, reproduction from destruction, fertility from dryness.

⁷⁹ See Chevalier (1994, #2: 1-2 & 7-8).

4.5 Health and Equilibrium

In addition to providing a structure to ritual observances, the Hot-Cold pair also gives people a means to conceptualize relationships between health, the human body, its soul, and gods and spirits. Relationships between them are complex. For example, Hot or Cold influxes cannot be classified as either harmful or beneficial. We noted earlier how both types are needed to bring about the fertility and productivity of the land. With respect to health, they can change their role, behaving at times as aggressive agents, and at other times as therapeutic ones. Their impact on the human body rests on a multiplicity of factors. Much depends on the person who is being affected (eg. child or adult), his/her physical state (eg. fatigue), and the natural or spiritual forces that may be interacting with the body and soul. This brings us back to the contextual elements of space (*lugar* - place or location) and time. In the realm of health, both elements take on a particular significance. The human body is one of the primary spaces where Hot and Cold interactions occur, producing disease or its cure, as the case may be. Time manifests itself in the body in the form of naturally changing physiological conditions in a person's life (e.g., rest-night / exertion-day, menstruation, pregnancy, ageing, ...), in some cases predisposing and in others protecting a person from potential Hot or Cold threats. The interplay between these various factors will be examined in the next chapter. But first, we look at basic ideas concerning the human body and notions of equilibrium.

Equilibrium Cycles

Researchers generally agree that since pre-Colonial times health has been associated with a condition of equilibrium within the body, and disease with its rupture. But this is as far as the consensus goes. Differing hypotheses about the meaning of the equilibrium concept itself results in disagreement and differences in interpretation of historical and ethnographic data. The problem begins with different inferences about what constitutes a healthy equilibrium state, and what constitutes a harmful disruption. Table 4.2 summarizes four different models of the equilibrium-disease complex. Three of these illustrate common conceptual constructions reported in the literature. The fourth is based on our own ethnographic work in the Sierra Santa Marta and the preceding observations concerning notions of cyclic movement in ancient Mesoamerican thought. The model is presented here as an alternative interpretation of historical and ethnographic information related to Hot-Cold equilibrium conditions of the body. The following sections summarize the main concepts and interpretations contained in the four different models.

Foster (1994): Humoral Equilibrium. Foster and other researchers who ascribe a humoral logic to autochthonous forms of healing in Mesoamerica tend to characterize a healthy body as a homeostatic system balanced by the application of Hot and Cold opposites. In other words, a healthy body is believed to be in a relatively stable condition of equilibrium, and Hot or Cold disruptions are counteracted with remedies of opposite value. This equilibrium condition is implicitly assumed to be static, marked by an optimum body temperature that nonetheless can be disrupted by external or internal influences. When disruptions happen,

the body becomes fragile, near or in a state of illness. Foster's definitions of "metaphoric" and "thermal" temperatures were discussed earlier. He uses these constructs to further define conditions of health and disease. According to the author, the healthy body is marked by "an evenly distributed thermal warmth, an equilibrium state somewhat closer to the hot pole than the cold pole" (1994:30). This warmth is defined as the normal or optimal body temperature, "a personal hot cold equilibrium representing health" (p.33).

Although men, women, old and young can have different optimal body temperatures, they are all on the warm side. Any variation from this personal norm is considered to put the person in what he designates as an "at risk state". Work or any other organic changes such as menstruation are interpreted as disruptions from the optimal body (thermal) temperature and therefore make a person vulnerable to becoming ill. Foster notes for example that:

"As a woman begins to menstruate, her body temperature is believed to fall, because of loss of warm blood. She remains in this cool state, "at risk" but not ill, until she ceases to menstruate. If, while menstruating, she drinks cold water or eats Very Cold food, such as broad bean soup, she is believed likely to suffer menstrual cramps known as *dolor de ijada*. The combined effects of blood loss and cold water or Cold food, neither of which in moderate quantity threatens a woman at equilibrium, produces the critical temperature differential that leads to pain." (1994:35)⁸⁰

⁸⁰ This quote on menstruation for Tzintzuntzan differs from the historical data reported for the Nahua by López Austin (1996:297-8), from that of rural communities in Morelos reported by Castañeda et al. (1996:137), from that of the Quichés of Guatemala reported by Neuenswander & Souder (1980: 147); and, from our own ethnographic work with the Zoque- Popoluca of Southern Veracruz. Foster describes menstruation here as a Cold state, while the other authors report it as a Hot state. Foster gives no indication if this belief in Tzintzuntzan was near unanimous or if it differed within the community or between different types of people interviewed. He contradicts himself however, as he has stated in other publications that in Tzintzuntzan (1986:68): "The menstrual period, pregnancy, birth and the period following childbirth are also times of Heat above

His model is based on the existence of a fixed and optimal equilibrium condition in each individual. This optimum state is a reference level of thermal heat that can be upset by hot or cold insults, be they metaphoric or thermal. Any variation from the reference level puts a person "at risk". If the variation is too pronounced, harm will follow. His model uses three different constructs: "thermal" and "metaphoric" temperatures, and the "at risk" state of health. These lead to problems in the model's internal consistency. We expressed our concern earlier about the difficulty researchers face in distinguishing between thermal and metaphoric temperatures. Foster's own informants shared this difficulty. To put the problem in simple terms, Foster defines the optimum temperature of the body as "thermal warmth". People tell him that this warmth is due to the heat of the blood, but they are not sure if they can call this heat "metaphoric" or "thermal". The split is 50-50 between informants (1994:32-33). One wonders if this split is simply due to informants not understanding the constructs that are being forced on them. The level of disagreement is significant given that it concerns the core of his conceptual construction of equilibrium and the "at risk state": the distinction between thermal and metaphoric heat on the element (blood) that defines his reference condition of a healthy body.

the normal [level]."

Table 3.2 Health and Equilibrium Models

Source:	Foster (1994)	Neuenschwander & Souder (1980)	López Austin (1996)	Sánchez (this thesis)
Basic concepts:	Two types of temperature: thermal & metaphoric. Hot & Cold insults (metaphoric & thermal) affect body temperature.	Two Hot-Cold models: "Ideal model" justifies people's actions; "Real model" guides behaviour. Each model is described by a different and characteristic Hot-Cold condition of the body.	Excess energy is accumulated during certain organic states of the body, provoking disruption of equilibrium and possibility of emanations harmful to others.	Body follows normal healthy cycles, alternating between Hot and Cold states of equilibrium in each cycle.
Normal (healthy) reference state of body:	Single optimum equilibrium state for each person. Optimum body (thermal) temperature is closer to Hot pole.	Ideal model: single (absolute) equilibrium state for all people is temperate (not Hot-not Cold). Real model: single healthy state of non-equilibrium is Hot for all people.	Implicit state of equilibrium, but Hot-Cold reference state not specified.	Multiple Hot & Cold reference states of equilibrium reached according to organic (body) condition (eg. exertion/ rest; menstruation, pregnancy).
Changes in organic (body) state: (work, rest..)	Non-equilibrium conditions	Non-equilibrium conditions	Non-equilibrium conditions	Multiple equilibrium conditions
Health impact during different organic states:	Condition of risk, vulnerable to disease when not in reference state	Hot working body in healthy status	State of weakness and vulnerability to disease when not in state of equilibrium	Healthy status
Health-Equilibrium relationship	Onset of disease due to cumulative or large single deviations from optimum state.	Ideal equilibrium state is lost during illness; normal healthy (Real) Hot state is maintained through Hot diet.	Onset of disease due to disruption of organic equilibrium state.	Vulnerability and disease result from disruption of Hot-Cold body cycles.

Neuenschwander & Souder (1980): Ideal & Real Organic States. The authors base their conceptual constructions on their ethnographic work with the Quichés of Joyabaj in Guatemala. They present two different models to describe the normal state of the body and how to keep it healthy. They label them: "ideal" and "real" models. Both have a cognitive value and function, and operate simultaneously in peoples' everyday life. The "ideal" model is used to justify actions, while the "real" one guides behaviour. The authors define the "ideal model" as follows:

According to Model I [the "ideal" model], the normal and healthy body of a Quiché should be in a state of equilibrium between m'an "hot" and hron "cold"... This balance or equilibrium is lost in case of disease and during transitory states such as menstruation, pregnancy and drunkenness (which are classified as "hot"). In all these cases, the body assumes the quality of the state, or of the disease and transfers this quality to the blood (and to the milk of lactating mothers) - p.146, my own translation.

A healthy temperate state of equilibrium is achieved by carefully balancing the ingestion of Hot and Cold foods in people's normal diet and avoiding sudden encounters with extreme Hot or Cold influences from the environment. When ill, the Hot-Cold balance is re-established by ingesting foods or exposing the body to conditions that have the opposite Hot or Cold value of the disease (p.162). In terms of the "real" model, they write:

The alternative point of view (Model II) is based in the concept that the normal state of the healthy body in a worker is hot (not cold, nor temperate) The quiché man that enjoys good health spends most of his life working in a hot environment. The exercise and the sun, as well as activities carried out close to a fire (such as burning lime or making bricks) are all and each generators of heat. And the woman, outside all the chores she carries out using the fire to roast the corn and coffee, making tortillas, cooking, and ironing, is found in a hot state during most of her adult life due to menstruation, pregnancy and breast-feeding. Rest, shade, and the cold of the night refresh the body to a certain point, but do not make it cold. (p.147, my own translation).

The diet of working people consists mainly of Hot foods "which provide strength". Cold foods are carefully combined with Hot foods or herbs to modify their impact on the body. In contrast with the "ideal model", diseases are not fought with Hot or Cold elements of opposite value. Instead, people avoid "shocks" between Hot and Cold extremes (p.162-3).

There are a number of similarities with Foster's model: both define an optimal and fixed equilibrium state; both give blood a particular importance in defining this state; both consider menstruation and pregnancy to be deviations from this optimum reference - a loss of balance, corporal conditions of non-equilibrium. However, there is a striking difference between both analytical approaches: Foster believes that work, pregnancy or menstruation produce a state of "risk" or vulnerability; while the people of Joyabaj believe these lead to a Hot body condition that is normal and healthy.

Neuenschwander & Souder try to account for the conflict between the ideal state of balance (temperate and healthy) and the real (Hot and healthy) working body by assigning them different roles: one to explain, and the other to guide behaviour. Their analysis however does not examine how a person can cope with this ever-present contradiction. Nor does it make clear if people consider a Hot and healthy working body to be in a state of balance or equilibrium. Their presentation implies that it is not the case, even when people seem to be reasoning in accordance to the "real model".

López Austin (1996): Excess Energy States. The author's work is based on historical records from the Colonial period and a review of a number of contemporary ethnographies. In direct opposition to Foster, López Austin considers the Hot or Cold nature ascribed to human and non-human beings to be more than a thermic state of the body (p.286). Hot and Cold refer to qualities that are assigned according to a complex set of criteria. Human beings in particular, experience changes in their Hot or Cold body condition throughout their lives. For example, internal Heat accumulates in the body with ageing and with the holding of public or political positions. According to him, ancient Nahuas further believed that organic changes (menstruation, physical exertion due to work, hunger, pregnancy) provoked a disruption of equilibrium in the body. The resulting non-equilibrium state was not conceived strictly as a pathologic condition, but as a specific weakness that made people very vulnerable to disease during these times. He also concludes that historical and contemporary ethnographic records portray these organic states as **an excess** of Heat in the body with the potential of harming others (p.284-301).

This model agrees in some points and disagrees in others with the two previous ones. All three models consider organic states (such as physical exertion or menstruation) to be deviations from some reference state of equilibrium. All three consider any deviation from this reference to put the person in a condition of vulnerability to disease. Unlike the previous models, López Austin does not provide an explicit definition of the reference state, nor does he indicate if it is an ideal (unattainable) or optimal (attainable) condition of the human body. The reader must assume the existence of a reference level because he associates recurrent

organic changes in people's lives with a loss of equilibrium and the build up of heat in the body during these times. Yet, in his treatment of Hot and Cold changes within the body, there is nothing that would prevent this implicit reference to vary from individual to individual, and even within the same individual according to age, social and political position, or other possible factors.

This Thesis: Multiple Equilibrium States. All three previous models treat Hotter or Colder states of the body as a rupture of equilibrium, a loss of static balance or harmony that can lead to illness. But in this Age of the Fifth Sun, where life is synonymous with movement, why should balance or harmony be static? For the Zoque-Popoluca, just as it was for the ancient Nahuas, and probably for most Mesoamerican cultures past and present, life is associated with cyclic movement. The literature provides ample evidence on beliefs that see the human body become Hotter or Colder at different times in a person's life. Typically, we are in a Colder state when young, and grow Hotter with age. A woman's menstruation cycle produces Hotter and Colder states. The pregnancy cycle is similar. Ideas about a day cycle also seem to have existed in pre-Colonial times and persisted through the centuries. We work during the day and become Hot; meals and the night's rest refresh us. Existing evidence on these changing body conditions will be examined in sections to come. For now, we focus on the notion of cyclic movement and its relation to a healthy body.

We have seen how in ancient Mesoamerican thought, the celestial bodies, the growth of plants, the fertility of the land and life itself followed a cyclic movement between

death and regeneration. These cycles represented dynamic processes in harmony, conditions of compromise and balance between the forces of the cosmos. There was nothing static in these ancient conceptions of equilibrium. The inner workings of the human body need not be an exception. It is possible to allow for **Hotter or Colder states of equilibrium** in the human body - organic conditions that are considered normal, healthy, and provide a reference from which people can justify or guide behaviour. This is depicted in figure 4.4. With this model, the body is characterized by a series of natural cycles between Hotter and Colder conditions. These dynamic cycles are in themselves an expression of harmony and balance. A simple analogy can be made with the equilibrium temperature of water in a pot. When left exposed to the outdoors, the sun will slowly warm the water over the course of the day. The coolness of the night will again make it colder. Differences in water temperature between night and day correspond to different equilibrium conditions of the pot and water with their surroundings (ambient temperatures, cloud cover, solar energy reaching the pot). Warmer water at the zenith of a bright sunny day, and colder water at dawn are normal phenomena. Their non-occurrence would be considered abnormal. Similarly, there is evidence in the literature to suggest that organic changes (eg. ageing, menstruation, pregnancy, exertion, etc ...) are considered normal or healthy. The regeneration of life would be impossible if these natural cycles ceased to exist.

It seems reasonable to associate "risk", or vulnerability to disease, with deviations from these normal body cycles and not from a fixed absolute state. In other words, what may be considered risky and potentially harmful are organic deviations from Hotter or Colder

equilibrium conditions that are normal at a particular point in time and space, as opposed to deviations from a fixed reference point that may or may not be attainable. Returning to a previous example taken from the Zoque-Popoluca, the Hot body of a *campesino* after working in the *milpa* all day under the sun is the expected natural condition of all *campesinos*. This is the normal healthy body temperature under the circumstances. He will be more susceptible to Cold foods such as pineapple while in this state, but the vulnerability is not necessarily the result of a loss of equilibrium or harmony. It is rather a normal vulnerability to Cold foods if eaten right there under the sun given his Hot condition. There is no need here for the researcher to devise "an at risk state" or "ideal" versus "real" mental models when trying to grasp the logic behind people's explanations and actions.

This alternative model minimizes the importance of a single reference or ideal equilibrium condition in the way people think (or thought) about health and disease. The approach offers the possibility of examining illness as a dynamic process in which different contextual elements interact. Thinking in terms of natural organic cycles in equilibrium, along a Hot-Cold axis, allows for harm or disease to occur in the event that a particular cycle is broken or disrupted. This is something that a single fixed reference model does not address.

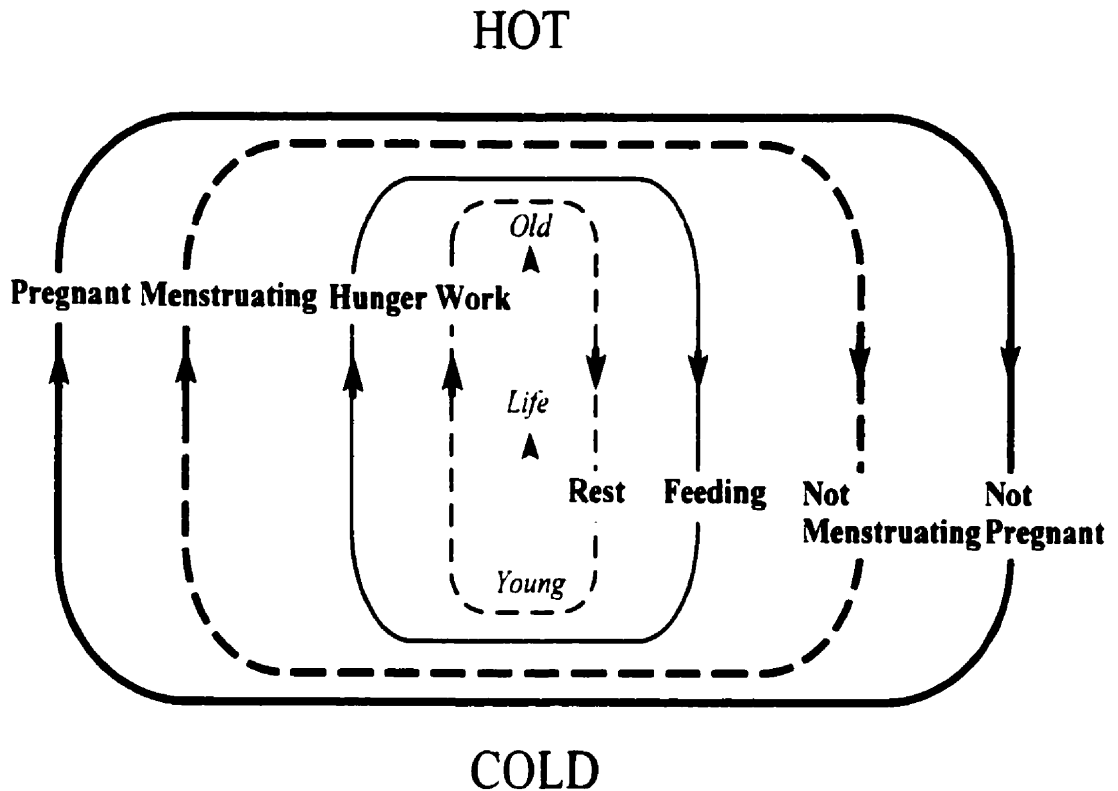


Figure 4.4 Natural equilibrium cycles in the human body

The preoccupation of Mesoamerican ancestors for the maintenance of cyclic movement in life is unquestionable. Countless sacrifices, mortifications and offerings to the gods stand as evidence. The next chapter will present different examples in which people associate illness with a series of symptoms that can be traced to disruptions of basic organic cycles. Anaemia is a case in point. It is considered a debilitating condition of the body that results from laziness or physical inactivity. But first, we examine existing historical and ethnographic data on organic changes in the life of a person.

The Human Body and its Organic Changes

Body Heat & Ageing. For the ancient Nahuas, the human being was conceived as an entity at the centre of the cosmos. He/she was the *macehualtin*, the one deserved by the gods' penance. In him/her converged all the forces of the universe into a synthetical equilibrium that made life possible. The body was a confluence of Hot and Cold elements. Some human organs were hotter than others: the brain, associated with the *tonalli*, was Hotter than the liver where the *ihiyotl* resided; the *teyolia* was concentrated in the heart, giving it a Hot value, while the stomach was considered Cold (Viesca Treviño, 1986:103). The body as a whole was also associated with more or less Hot states, variations resulting from natural physiological processes or particular occurrences. We have already referred to the potential Heat emanations from leaders. These also occurred in Elders. Two of their animistic forces, the *tonalli* and *teyolia*, increased in strength with the passing of years, building up an excess energy inside the body that was considered Hot and potentially harmful to others, specially children (López Austin, 1996:288-9).

Contemporary Zoque Popoluca *campesinos/as* do not distinguish between parts of the body as being Hotter or Colder. They typically looked puzzled when asked if some parts or organs were more or less Hot than others. No natural differences are reported either in other ethnographic studies of the area. The head can become Hot but only as the result of anger. We noted earlier, for example, that *icobacpijpa* which means "to become upset or irritated" translates literally as "the head becomes heated". Similarly, *cobacpiji*, meaning "to be bothered" or annoyed also translates into "head with heat". The breast milk of a

mother can also become Hot as the result of an argument with her husband or neighbour, or because of hard work. The Hot milk will harm the feeding child. Vomiting or watery stools may follow, and in some extreme cases even death⁸¹. Blood is also Hot when it is red and moving inside a healthy working body. But, as the reader will discover shortly, it can turn into water under certain illness conditions. When this happens, the body turns Cold, and by inference, so does this blood-turned-water. In a similar way, the spirit can be assigned a Hot value since the whole body will turn Cold when it is snatched away from the person by the *chaneques*. Münch reports that for the Nahuas and Popolucas of Southern Veracruz, the spirit is directly linked to the sun, the thunderbolt, maize and the moon; all of these are Hot elements that give "life" to the spirit. (1983: 193).

The body as a whole will change in temperature with age. Young children are considered Colder than adults and elders. As a child grows (*custam*), he/she becomes ripe or mature (*tsam* or *camáma*), eventually turning old (*tsamim*) and wrinkled (*xuchne*, *arrugado*), hard (*camam*) and dry (*cucaáy*) like corn in the *milpa*⁸². Plants and humans alike need Heat and humidity. These are key ingredients of life that interact in a balanced and cyclic movement of growth and reproduction, marked by a Cold, humid beginning and a

⁸¹ Interviews with elder midwives, i1106ge.94:3; i1506fe.94:6; i2910fe.94:3; & 0312in.94:4.

⁸² Excerpt of interview with Zoque Popoluca *campesino*: "*xuchne* ... is when a person is more older, it has now an age of 60-70 years, well ... you don't call it in popoluca "dry", you say ... *xuchne* ... it means since they are old, they are now dry ... they have turned very thin ... wrinkled", (my own translation), i2010an.94:1. From Elson & Gutiérrez (1995): to ripen (*madurar*) = *camáma*, *tsam* (p.26); hard (*duro*, *macizo*) = *camam* (p.16 & 26); old person (*viejo*) = *tsamim* (p.44); *camáma* = to become hard and ripe as in maize (*endurecer*, *madurar* -maíz) (p.10); *cucaáy* = *secarse*, *morir* (to become dry, to die), p.14; *ca* = *morir* (to die), p.10.

Hot, dry end. The waters of the uterus and of the phallus give origin to life⁸³, but from this point onwards, a maturing and drying process will follow. It is a movement away from water that will produce the seeds of future generations. Becoming dry under the sun is a necessity of reproduction, an offer of sacrifice in the cycle of life and death on earth. This norm applies equally to human beings, the soil and plants. Human beings advance in age turning hard and thin, just as the dry and bent corn plants in the *milpa* from which the seeds of a new crop will come, or the vegetation cover in the *acahual* that must die under the sun and fire before the sowing, giving the land the maturity needed to reproduce life once more⁸⁴ (Chevalier, 1994, #2: 1-11).

Other evidence concerning these basic changes in life came up in excerpts of conversations presented earlier. We found it in discussions of the Heat of the dead. This Heat represents a threat to children precisely because of their Cold young bodies. At the other end of the spectrum is the Hot condition of old bodies. The reader may recall that an old man and woman are given the task of sweeping the house during wake celebrations to rid it from the Heat of the defunct. Their own internal Heat accumulated through the years gives them protection and makes them well suited for the task. There was also an earlier reference

⁸³ semen = *tutuní*, literally "water from the penis" [i1106an.94:2].

⁸⁴ Sexual reproduction is also a drying process. For the ancient Nahua, a man was conceived as having a limited amount of semen, and was destined to become exhausted and drained as he gave his virile liquid to the woman during intercourse (López Austin, 1995:334). A ZoquePopoluca *campesino* also noted that when in a young couple, the man "takes the women like a meal" and has sex very frequently, the man will begin to lose his strength, "he begins to dry, he turns dry" and will begin to have difficulties in walking and carrying out his work [i2010an.94:4]. In a similar way, Zoque Popoluca women believe that "the baby will suck all the blood from the mother" when they become pregnant, interview i1910me.94:2.

to the Hot energy that accumulates in the bodies of community leaders preparing for the *carnaval*. This internal Heat acquired through vigil, fasting and sexual abstinence gives them the respect, power and maturity they need to govern. As the *campesino* remarked, without these mortifications they would be treated like "youths", weak Colder bodies unworthy of the authority to lead.

Rest & Work. Both of these functions appear to have been related to changes in the Hot-Cold balance of the body since pre-Colonial times. Among the ancient Nahuatl, work produced fatigue and the increase of *tonalli*, with a corresponding increase in the overall Hot state of the body. Rest and recreation, on the other hand, were considered a cooling experience⁸⁵. López Austin cites several Nahuatl words in support of this point, including: *tonalcehuia*, which means "to cool one's *tonalli*", used also to refer to "a rest for the one who walks"; *cehuia*, meaning both, "to rest" and "to cool what is hot"; and, *moceltiqui*, "the one who is cooling off" or "enjoying and relaxing oneself"(1996:292).

The work-rest cycle plays a very important role for the Zoque Popoluca. Münch, for example, characterizes the notion of health in the Sierra as "a balanced proportion between activity and rest" (1983:192). This idea is captured very well in the following excerpt. It is part of a conversation with a Zoque Popoluca medicinal plant healer in which he is discussing why people become pale or "*chipujo*":

⁸⁵ See López Austin (1996:291-293). Similar associations are reported for example: among the quichés, Neuensweander and Souder (1980:147); and, among the Nahuas of Hueyapan, Morelos, Alvarez Heydenreich (1987:113-4).

Excerpt from field notes: 17-10-94, pp. 7-8

[File: i1710je.94. taped interview, my own translation]

Je: Well ... he is very yellow... for example, lets say if a man comes now, a man in bad shape [*jodido*], ill, he is all yellow, all decoloured, that is called *chipujo*. And if you turn and see me on the other side, well, I am black. I am well, healthy. It means that all my blood is there ... because I work in the field, my blood is circulating. If I cut myself a bit, my blood is not .. red, but it's black, because my blood is strong [*macizo* - solid]. And there are others, poor fellows, you see them and their blood drips very reddish like .. it is like water, and that is the person that is in bad shape, he is *chipujo*.

A: And why does it happen? Because of many things?

Je: It is because sometimes, some, because they don't move ... some because they don't move in the field .. some because they are in the house, the laziness. They only sleep and sleep. They don't do exercise. They have a lazy body and if a time comes when you take them to do a heavy job, they cannot stand it, they cannot do it because they don't have a pulse! They don't have strength! That man is discoloured! He is un-reared [*descriado*]! ... and then like my own way of working, since I work in the field, with a machete, with an axe ... one makes strength, exercise. Of course the body will be hard [*macizo*], it is in good answer [responds well], because one eats well, drinks well ... the blood circulates well, thus the apparatus [body] also works well, because one is tired, but what you have to take care of the most is the blood ... because it is the one that circulates, the one that gives you life ...

Not unlike the Quichés of Joyabaj in Guatemala, a healthy body for the Zoque Popoluca is a body that is working hard, where the blood is in strong circulation due to physical exertion. Blood in this state is considered Hot, just as the body. This is a healthy condition of a *campesino* and is the result of hard work in the field, cultivating corn under the sun. The lazy, on the other hand, will become *chipujo*, weak and pale - a condition of illness caused by the disruption of the work-rest cycle. This loss of equilibrium results from a lack of physical exertion, not from a Hot or Cold influx on the body. The blood becomes as thin

as water⁸⁶. It ceases to circulate. The lazy are like the dead, with no pulse. Their bodies become Cold. Their strength and health is lost. They are *cu'tiñ*, literally "covered in excrement"⁸⁷.

But to be healthy one must also rest and refresh the blood. Rest is needed when the sun goes down at night to shine over the world of the death. Sleep will then refresh the body. When we are awake, blood circulates very rapidly, but when we sleep, "the blood does not circulate so much and can refresh itself"⁸⁸. The natural cycle of the human body is, therefore, to work hard during the day and rest during the night. This will keep the blood and body healthy, oscillating between a Hotter-day and a Colder-night condition. Breaking this cycle brings shame and disease to the person. It also makes the blood turn to water. The person loses his/her colour and becomes "*descriado*", reverting to a child's condition of excess water, weakness and physical inactivity.

⁸⁶ The idea of blood disappearing and turning into water will be found in peoples' descriptions of the manifestations of different diseases. It is a symptom of anaemia, sexual distress, and soul loss. These problems will be examined in detail in the next chapter. For now, we note the recurrence of the concept in varied circumstances. In the excerpt quoted, this idea is the reason why the healer states that "all his blood is there" when healthy. He is referring to the fact that it has not disappeared. It is there circulating strong and red (so strong it even looks black).

⁸⁷ From Elson & Gutiérrez (1995): *'tiñ* = *mierda* (excrement), p. 93; *cu'tiñ* = *flojo* (lazy), p. 18; *cu'tiñaji* = *flojera* (laziness), p.18.

⁸⁸ These last statements were made by the same healer in an earlier interview, when discussing traditions associated with the cultivation of maize, interview: i 0304je.94:2. On a third occasion, the healer noted that when we sleep, the blood is not working, "one remains absolutely dead", this state of non-movement allows the blood to refresh. "At the instant that you awake, everything begins to work", interview i1006je.94:10. López Austin notes that ancient and contemporary Nahuatl believe that the *tonalli* leaves the body during sleep (1995:243). The temporary departure of this solar force from the body is likely to cause a Colder state in the person during this time.

Hunger & Food. When we eat we refresh the body. Eating and drinking are times of leisure and refreshment. We noted earlier that the Popoluca word *n'íc* means both, "to drink water" and "to celebrate and eat *tamales*". Fasting, on the other hand, is an act of mortification that will increase the inner energy of a person, making it Hot, in preparation for ritual ceremonies. Food and water provide strength to the blood and the semen⁸⁹. They also give people the courage (*valor*) to work⁹⁰ and therefore play a very important role in maintaining the work-rest cycle. The importance of food is illustrated in the following conversation with a middle aged *campesino*, son of the village health worker. In this passage he is discussing one of three types of anaemia prevalent in the area:

Excerpt from field notes: 04-04-94, p. 1

[File: i0404an.94, reproduced from notes taken during interview, my own translation]

An: There are people [women] that eat soil. "the heart asks for it", they begin to turn *chipujo*, white, because blood is disappearing, they are turning white, pale. They turn *huesudo* [thin as bones].

A: What happens to the blood?

An: "Because they do not eat *tortilla*, their blood is finishing [*la sangre se le está acabando*]".

A: Because they eat soil?

An: Because they have a lot of worms or *bichos* [bugs]. The heart asks for it [to eat soil]. When the blood finishes, their feet become swollen. The quality of the blood changes, "it turns into water".

People must not only work hard to maintain their blood and body healthy, they must also eat

⁸⁹ Zoque Popoluca *campesino*, interview: i1106an.94: 3.

⁹⁰ Zoque Popoluca medicinal plant healer, interview i1006je.94: 23.

tortilla, a food made of maize, the product of the work of men and women⁹¹. Without this food, the blood will lose its strength, and just as before, the work-rest cycle will be interrupted. A person in this situation will become *chipujo* - weak, pale, with blood turned into water. Stomach worms are present in the *campesino's* explanation, but their role is to elicit a craving for eating soil. This craving is expressed as the "asking of the heart". Related to this idea of "a heart yearning for something to eat" is a common illness called *dolor de corazón* (a heart ache). Different people gave slightly different explanations of this illness. They all associate it with a pain in the upper part of the stomach that results from a lack of food, be it because the person is without food or because the meal has been delayed.

Some *campesinos* explain the association of heart and stomach with an old belief that the heart resided in the mouth of the stomach (*boca del estomago*). Yet the following excerpt of a conversation with a poor and old villager suggests a strong emotional longing, an "asking of the heart" that remains unfulfilled.

⁹¹ Another *campesino* told of the death of his aunt. She was a widow and had to work at her *milpa*. Her family would help her with the harvest. They found her one day at home with a swollen face and feet. They asked her: "What's wrong?" She replied: "I feel very tired, I have not eaten *tortilla* again. I eat very little." The nephew explained: "Then she went to the *milpa*, she hurt herself with a stick, instead of blood coming out, only water came out. Yes, only water. So my aunt died, she died of anaemia." I asked why the body was swollen. His reply was: "It is swollen because she has no more blood, It is only water." [interview: i0806pe.94:7]. The *tortilla* appears again in these words as an essential food requirement to maintain the blood healthy. I asked this *campesino* in a subsequent visit 6 months later what would happen if one stops eating *tortilla*. He answered without hesitation: "One would die, one would die". Even *mazeca*, the industrial corn flour does not provide sufficient nourishment. People remain hungry. They need to eat 3 or 4 times more, they cannot stand hard work with this type of food and want to come back from the field [interview: 271 | pe.94:8]. For some, the *tortilla* is a food that is neither Hot nor Cold because maize is grown in the *milpa*. For a traditional healer, maize is a fresh food (*fresco*), when eaten it "refreshes, fills [the stomach] and the body rests" [interview: 1006je.94:13].

Excerpt from field notes: 25-03-94, p. 1

[File: fnotesE.wps, reproduced from notes taken during interview, my own translation]

- A: Do you get diarrhoea with the ache of the heart?
 M: No, not diarrhoea but Heat [calor] yes.
 A: Why do you get an ache of the heart?
 M: "Because of thinking [*pensamiento*], because I have no money. What thing can I buy to eat? It was not enough".

The old man is unable to buy enough food for him and his family. His worry causes the pain in the stomach. But unlike eating earth, his hunger is a Hot condition⁹², just as with ritual fasting. Similar ideas can be found among the ancient Nahuatl.

Historical records referring to the ingestion of food and *pulque*⁹³ as means of fighting fatigue lead López Austin to infer that hunger was considered a Hot state while meals and alcoholic beverages were considered Cold (1996:294-5). He further supports this hypothesis with the following evidence: the verb *lehualani* meant "experiencing great heat" as well as "becoming faint from hunger"; *xiuhlatlā* literally "to burn in the fire" was used to mean "to be hungry". He cites also the cooling power of grains of corn expressed in the following incantation: "*mótech nihiyócuiz, mótech nicecévaz*", meaning "from you I will take my breath, from you I will refresh myself" (1996:294). Similarly, to feed someone

⁹² A medicinal plant healer also associated a condition of hunger with a Hot state [interview i1006je.94: 6].

⁹³ *Pulque* is a traditional fermented drink made from the sap of the *maguey* (agave plant). Records from the early XVII Century describe the Nahuatl practice of cooling the body by resting, and drinking *pulque* prior to the performance of hard work. The term *necehuiliztli*, meaning "rest" or "cooling off" was used to describe such a practice (López Austin, 1996:292). The author also cites other evidence that *pulque* was considered a Cold beverage. It was necessary, for example, to avoid any form of sexual arousal for four days prior to the making of *pulque* to prevent it from becoming sour and losing its inebriating properties (1996:295).

was to "refresh" that person. Here, the author cites a text describing the good omen of the women born under the influence of the sign *ce cipactli*:⁹⁴

And if a women is born in this [period of thirteen days], she will also be prosperous, she will become rich, she will find what she needs to drink, what she needs to eat. She will feed people, she will enrich people; in her there will be access to the home; she will await for people with drink, with food; in her you will find your breath; because of her you will refresh your heart, your body, the one that lives with effort on earth ...⁹⁵

Appeasing one's hunger was indeed a cooling experience even though individual food items could vary in their Hot or Cold qualities.

Menstruation & Pregnancy. Many contemporary ethnographic studies refer to the Hot state of pregnant and menstruating women. Women are believed to be particularly vulnerable during this time to Cold influences, which instead of balancing the Hot state of the body may lead to different types of harm⁹⁶. This Hot state also produces emanations from

⁹⁴ *Cipactli* was a monstrous alligator that wandered the universe before the Gods gave it a structure. From the head of this monster were formed the 13 skies, the earth was formed from its middle, and the nine planes or surfaces of the underworld from its tail. This creature symbolizes the beginning of things and is the name of the first day of the month (20 day cycles). (Fernández, 1992:38).

⁹⁵ Códice Florentino, IV-V, 2, Biblioteca Laurenziana, Florencia. (Microfilm), cited in López Austin, 1996:294-5 (my own translation into English).

⁹⁶ Viesca Treviño (1986:172) for example, refers to ancient nahua practices requiring women during pregnancy (a state considered Hot) to eat only Hot foods. Castañeda et al. (1996:137-8) report that Cold foods (watermelon, lime, tomatillos, plums, and unripe fruits) are believed to hurt women during menstruation, while Hot foods (black beans, guajillo chile, broth) are considered good. See also López Austin (1996:290); Mak (1959:142); and, Neuenswander and Souder (1980: 147,161)

women's bodies that can harm children, animals, plants, or crops⁹⁷. Similar beliefs are found among the Zoque Popoluca. Menstruation, pregnancy and the post-partum period are considered Hot conditions⁹⁸ that warrant a number of preventive actions to protect the health of not only women but also of plants, crops and the wounded.

A pregnant or menstruating woman endangers the life of the injured if coming close to them. Her Hot state, just as with the Heat of the dead, will make the wound worsen, even to the point of causing death⁹⁹. For example, the wound of a snake bite will become swollen and the pain will increase. To guard against this, the injured must be taken as soon as possible to the safety of their home, avoiding any possible encounter on the way with a pregnant or menstruating woman. If a woman in the family or vicinity is in this condition, then the bitten person must be protected against the potential harm by wearing a red ribbon which has the tail of a rattle snake attached¹⁰⁰. Plants are also at risk. These include maize, beans, orange trees, calabash, chiles, papayas, watermelons, and melons. Again, a pregnant or menstruating woman will affect the plants just by passing near them. The Hot emanation from the woman will make flowers wither and the fruit fall and rot¹⁰¹. To protect

⁹⁷ See for example: López Austin (1996:297-8) and Castañeda et al. (1996:137).

⁹⁸ Münch, for example, notes that: "It is thought that menstruation, pregnancy, sexual abstinence, the spirit and the other world are Hot." [1983:200-1; my own translation].

⁹⁹ Interview with traditional healer: i2310je.94:9-10; and traditional midwife: i1106ge.94:4.

¹⁰⁰ Interview with snakebite healer: i1306ma.94:4.

¹⁰¹ Interviews with *campesinos/as* and traditional healers: i1106ge.94:3; i1910me.94:3; i1710je.94:5-6.

the plants, red ribbons are also used, tied around branches or in stakes around the parcel of land where they are growing. The red colour is used because "red is very strong" (*muy fuerte*) and can reject the Heat (*lo caliente*). This colour "takes away all wickedness (*maldades*)"¹⁰².

We discussed earlier how Zoque-Popoluca women must follow specific diets after childbirth. Cold foods must be avoided, including pork meat, lard, and fish. New mothers can eat Hot foods like chicken, chicken broth, rice, potatoes or egg. Midwives prepare a hot infusion containing camomile for the new mothers to drink. This particular ingredient is considered very Hot and will help reduce the inflammation of the womb. It will also clash with any Cold food ingested by the mother, producing an inflammation of the body. Water drunk by new mothers must be lukewarm lest they get diarrhoea¹⁰³. After childbirth, the midwife heats some stones, wraps them in special tree leaves and a cloth, and gives them to the new mother for her to apply on her stomach. This is done to dry the womb and retard the possibility of becoming pregnant in the near future. The drying process will delay the renewal of fertility in the woman¹⁰⁴. The hot stones are wrapped in leaves of *nucutsoya* (*higuerilla*), *totso ay* or *poixcuy*. These leaves are considered Cold and prevent the stones from burning the skin¹⁰⁵.

¹⁰² Interviews with *campesinos/as*: i1910me.94:4; i1710je.94:5.

¹⁰³ Interviews with traditional midwives: i0906dj.94:3, and i1506fe.94:3.

¹⁰⁴ Interviews with traditional midwives: i1106ge.94:1; i1506fe.94:13; n2611.94:2.

¹⁰⁵ Notes from interview with women of Santa Marta [file: n2611.94:2]. From Elson & Gutiérrez (1995): *nucutsóyay* = *higuerilla* (*planta*), p.77; *tsoy* = *medicina* (medicine), *veneno*

In sum, women must avoid Cold influences when their bodies are in a natural Hot state. Ingesting Hot foods and beverages or Hot medicinal plants is allowed. In like manner, harm from Heat emanations of women is prevented with the colour red, a Hot colour associated with strength. Hot is counteracted with Hot, and Hot-Cold confrontations are avoided. These traditions are certainly not an application of the "principle of opposites" that characterizes Foster's humoral theory.

We find similar reports in the literature of the dangers of Hot-Cold confrontations during menstruation. In their discussion of contemporary beliefs in rural communities of Morelos (Mexico), Castañeda *et al.* (1996:137-8) associate Cold influences on a Hot menstruating body with illnesses affecting the ovaries, womb and hips. These illnesses are also considered the main cause of sterility. Women may become Cold by eating Cold foods or by the work they do:

Women become *cold* when while washing the laundry their clothes get wet and don't dry out, then the pores of the stomach *suck in* (absorb) this dampness." (1996:137)...

The *cold* rises, gets in and stops the bleeding, blood clots come out and hurt, which is why you feel cramps. These clots get stuck together like balls of coagulated blood and can't get out. If women took more care in not getting wet and bathing with cold water, they could avoid these cramps". Likewise, eating cold and acidic foods "causes cramps especially during menstruation. (1996:138).

(venom), *remedio* (remedy), p.95; *ay* = *hoja* (leaf), p.9; *nucú* = *hormiga arriera* (arriera ant), p.77; *totso* = *lengua* (tongue), p. 91; *pooyix* = *menstruar* (menstruate), p. 83; *cuy* = *palo, árbol* (stick, tree), p.19.

Menstruation is considered a Hot organic state. If disturbed with Cold influences harm will follow. In these situations, the application of Hot substances will help bring back the body to its supposed normal Hot state, while Cold influxes would only make things worse. Also of interest in these passages is the association between Cold, humidity and water which is common among the Zoque Popoluca and has been noted before.

A women's nature. Castañeda *et al.* also report that the beginning of sexual maturity in rural communities of Morelos is associated with the "nature" of the woman (1996:137):

Women with a *strong nature*, will have their period early (9-12 years), it will be abundant and it will last a few days, they are girls who will soon have the *use of a man*, they will get pregnant easily and their blood will be very red. Those who have a *weak nature* will take longer to have their period and in general will be anaemic. Their blood is *thin*, as if *watered down*, and it will take them a while to buy (have) children.

A strong nature is considered Hot, while a weak one is associated with Cold (1996:137):

A *cold* woman has her period for 3 days, every 30 or 31 days, with little blood, and they tell her she shouldn't eat acidic or cold things so the blood will not *curdle*. She shouldn't bathe with cold water, or the blood will stagnate and then she'll have cramps...

A woman with a *hot* nature has her first period between 9 and 11 years of age, it lasts more or less 8 days and smells very bad. She has her period every 28 days, suffers because when it comes it feels like she is being *emptied* and that makes her feel bad. She uses many rags [cloths] and her body works very fast ...

Women who have a heavy period have a *strong nature*, are full of life and enjoy good health, so their stomach is cleaned and they will be able to become pregnant soon .

Unfortunately, this type of information was not sought during my field work in the Sierra.

It is presented here given the compatibility with many ideas encountered before, in particular with the associations Hot-Strong-Red and Cold-Weak-Water. These associations are also

important in Zoque-Popoluca concepts of disease. A healthy body, as noted earlier, is a strong body with strong blood that is red and Hot. Several illnesses (eg. anaemia, "soul loss", or "love sickness") result in an organic imbalance towards a Cold state characterized by weakness, lethargy, the transformation of blood into water, and a slow wastage of the body. We examine these illnesses next.

Chapter 5: Quintessential Ills of Old

The Popoluca of the Sierra consider *Susto* and *Mal Amor* two illnesses that lie outside the bounds of Western Medicine. People do not seek help from the local health clinic to deal with them. When asked why, they typically reply that doctors do not understand or know about them (“*ellos no saben de eso*”) and cannot treat them. Many remark that “these are not for doctors” (“*esas no son de doctor*”). Diagnosis, cure and prevention closely follow traditions of a remote origin.

5.1 Soul Snatching

The local notion of *espanto* or *susto* (fright) first came up during a conversation with Maria, a Popoluca community worker, while discussing people’s beliefs on the causes of diarrhea. An excerpt of the conversation follows.

Excerpt from field notes: 19-03-94, pp. 1-2

[File: i1903mg.94, taped interview, my own translation]

- A: How about envy, can you get diarrhea because of envy?
- M: I’ve heard about that in smaller villages [*rancherías*]. My *comadre* Juanita [godmother of her child] got sick. She told me: “ We bought a little cow, but someone put a spell on it. Someone paid a wizard [*brujo*], *hechicero* as they are called, and he put inside me a worm, a snake!” But I don’t believe it ... But if you get frighten [*si te da miedo*], fright attacks the body! Fright is indeed true [*el espanto es un cierto*]! It does make you ill. If you fall from a horse or into water, you stop eating, or else you get diarrhea at every moment, fever, headache, one becomes ill with fright [*enfermo de espanto*].
- A: How do you cure it?
- M: You go to a healer [*curandero*]. He takes your hand and checks your pulse. If he finds the pulse all the way up [the arm], one is very frighten. He cures people. He rubs the hand, [and then you] rest for 7 days without making water.

A: What do you mean “without making water”?

M: No bathing, no touching any water so it does not touch the hand....

M then recounted a case where a child had fallen into a river and the *chanecos* had him trapped [*encarcelado*]. The child was very thin and had diarrhea.

The people of the Sierra use the Spanish words *miedo* (fear), *susto* (fright), or *espanto* (a sudden great fear or apprehension) to refer to the illness. All three words convey the idea of an unpleasant emotion caused by an exposure to danger. This emotion in turn, causes a pathological condition. In the words of Maria, fear “attacks the body”. It takes away the appetite, produces diarrhea and fever. We also learn that the *chaneques* are somehow associated with the illness. In her example, these supernatural beings had captured the child that had fallen into the river. The Popoluca word for *susto* is *ts'igaŋjeequi* which is composed of the words *aŋjéc*, [to frighten (*espantar*)] and *ts'iy* [be left behind (*quedar*)]¹. The word thus contains two ideas: that of a frightening event which then causes something to be left behind. As the reader will soon learn, what is left behind is the soul of the frightened person. The word *ts'iy* is used to describe the common names given to the various types of fright, namely: *tsañts'iy* or *susto* produced by the sight or bite of a snake [*tsañ* = *vibora* or *culebra* (snake)]; *n'íts'iy* or *susto* produced by a fall in a river or other water body [*n'í* = *agua* (water)]; *cawats'iy* or *susto* that occurs when a person falls from a horse [*cawaj* = *caballo* (horse)].

¹ Literal translations according to dictionary by Elson and Gutiérrez. The Popoluca healers interviewed also agreed in the use of the generic word *ts'iy* to refer to the illness.

Conversations about fright with other healers and *campesinos/as* were followed to explore the links between the various elements encountered in the short conversation with Maria. Remarkable agreement occurred in the way people described the multiple symptoms of this illness and the meanings they attributed to them. The conversation below, for example, took place in a different Popoluca village. Juliana, an elder woman who spoke broken Spanish, answers questions about the changes in a person's pulse caused by fright. Her reply is translated from Sierra Popoluca by Maria.

Excerpt from field notes: 21-11-94, p. 8

[File: i2111jc.94, taped interview, my own translation into English]

- M: She says that she has noticed that when one is frightened by an animal that scares, then all the energy [*toda la energía*] sort of begins to throb [*empieza a latir*], all the heart and the head, one feels as if you have something sharp [*agudo*] here ... [the neck] that pulsates a lot, you also feel it in the head and here in the heart. And one begins to feel strong pulsations with fright [*susto*].
- A: But did old people [*los abuelos*] say that the *chaneque* stole the soul [*espíritu*]?
- J: Of course! Yes!

[M and J talk in Popoluca for a couple of minutes.]

- M: [She says] that when she grew up with her grandmother, she was not allowed to throw a stone in the water because, if you throw a stone in the water, the *chaneque* will grab your soul [*espíritu*], or if not, it will pressure you then ... it grabs your soul. And she also says that she was told "don't be mischievous [*no andes de traviesa*] because if you are, the *chaneque* will steal your soul and you will not [be able to] eat! And she thinks this is true. When the ... how do you say it ... the soul is grabbed by the *chaneque*, one then has no more appetite [*no tiene hambre*], and you begin to thin down [*enflacar*], thin down.

Juliana's recollection of her grandmother's admonitions makes clear the role of the *chaneques*. These supernatural beings can snatch the "espíritu" or soul of mischievous

children. But adults must also beware. *Chaneques* have the power to bring accidents onto the young and old alike. In that moment of weakness produced by fear, they will grab the person's soul and hold it captive. Accidents, in the eyes of the Popoluca, are a form of punishment prompted by moral misconduct. Children that misbehave or disobey their mother risk the retribution of the *chaneques*. Misfortune will also follow those adults who fail to respect traditional norms.

But what are the implications of soul loss to the human body? Both Juliana and Maria provide us with clues. Water, youth, and weakness are prominent elements in their conversations. To understand the associations between them we must recall that life is seen as beginning in water. The body gradually moves away from this tender or "unripe" stage of wetness or freshness towards a mature stage of reproductive dryness. The movement away from water is accompanied by a gradual increase in a person's inner solar force: the *tonalli* of the Nahua or the soul (*espíritu*) of the Popoluca. Within this natural progression of aging (from Cold-Water-Young to Hot-Dry-Old), a healthy human body is continually cycling between a daylight (Hot) exertion of work and hunger, and a refreshed condition brought by eating, drinking and the night's rest. People must seek to maintain this balanced path of life, of production and reproduction, through proper behaviour. Those who go astray risk retribution at the hands of the *chaneques* who have it in their power to deprive human beings from their live-giving solar force. In so doing, a series of reactions are unleashed inside the body which break that harmony that produces the healthy cycles of life.

The way people perceive and experience this loss of harmony, and the meanings they attribute to the illness are derived from two key ideas: one is the ability of a person's soul (*espíritu* or *alma*) to leave the body; the other is the ability of the *chaneques* to grab this soul until the proper treatment is followed and tributes for its release are paid. We will examine first the loss of a person's soul and the physical manifestations that ensue. People's explanations are guided by two sets of associations that complement each other, forming two opposite poles: Weak-Cold-Water-Young and Strong-Hot-Dry-Old.

The Soul's Departure

The belief that fright could cause a person's animistic force to leave the body can be traced back to pre-Hispanic traditions. López-Austin cites the definition that fray Alonso de Molina gave to the ancient Nahuatl word *netonalcahualiztli* as "*espanto del que se espanta de algo*" (fright of whom becomes frighten by something). The literal translation is "*abandono del tonalli*" or abandonment of the *tonalli*². Beyond this condition, the *tonalli* was also thought to abandon the body on a regular basis during particular times; two examples being sleep and sexual intercourse (see López-Austin, 1996: 244-6). These were considered times of leisure. It may be surmised that both were necessary periods which provided continuity to healthy body cycles: one balanced fatigue or physical exertion from work with rest; the other provided relief from sexual appetite, arousal and heat.

² See López-Austin (1996: 246). Fray Alonso de Molina published a book in 1555 about Spanish vocabulary in which he translated and explained words from Spanish into Nahuatl. His work was later revised by Bernardino de Sahagún, who in 1571 published a more complete version containing also translations from Nahuatl into Spanish.

In the Sierra Popoluca of today, the conversation excerpts with María and Juliana suggest that a time of fear (*miedo* or *susto*) is an instance where one's inner vital force also departs the body. Fear, however, is considered an unpleasant feeling of anxiety produced when a person is faced with danger. It is a time of weakness, not of leisure. As we shall see in later sections, this condition is caused by a moral transgression that leads to disturbances of body cycles and results in illness. In Juliana's explanations, the energy from within begins to throb with the onset of fear. Strong pulsations, normally found at the wrists, move upwards to the heart and the head as the soul departs the body. The ancient Nahua believed that the *tonalli* entered the body at birth, and left at the time of death, through the crown of the head (López-Austin, 1996: 246). In the Sierra Popoluca, people in general could not pinpoint a particular part of the body from where the soul departs, with a couple of exceptions. Juliana was one of them. She explains:

Excerpt from field notes: 21-11-94, p. 8-9

[File: i2111jc.94, taped interview, my own translation]

A: So the pulse moves upwards?

J: Yes!

A: It moves up, but I don't understand if when the *chaneque* grabs it [the soul], it comes out from the crown of the head ... How is it lost?

M translates the question in Popoluca and J gives a long reply which is summarized by M.

M: She says that when the pulse is reaching here [above the shoulder] it ... one is almost certain to die, then the spirit comes out of the mouth, then one dies.

A story recorded the day before in another Popoluca village described a similar idea.

A *campesino* narrated an incident involving a couple of men that went to catch crabs by the

sea side. On their way back home, one of them was grabbed by a sudden tiredness and asked his companion to stop and have a rest. He soon fell asleep and while he laid there on the ground, his soul “was forced out of his mouth and [he] never woke up again, ever!”³ In spite of differences in the exact point of departure between ancient Nahua beliefs and these two Popoluca examples, there is agreement on a general upward movement of energy from the body into the head as the soul leaves the person.

These two examples refer to terminal conditions where death is associated with the total departure of the soul from the body. But while the soul is being held captive by the *chaneques*, and the body is still alive, a link between body and soul continues to exist. This link is complex and brings together multiple relationships between the spirit, blood and a person’s pulse. The convalescent of *espanto* loses his/her pulse first at the wrist. As time goes by, the pulse becomes fainter and can only be detected higher up at the elbow, or at the shoulder in cases of extreme danger. The higher it is found, the more advanced the illness and the closer the person is to death⁴.

Adela, an elder Popoluca fright healer, translated for me the word “pulse” (*pulso*) as “*taanama*”. This is the same word she used to refer to the soul (*espíritu*). If one has no pulse at the wrist, “if it doesn’t jump” (*si no brinca*), then the soul in all likelihood is being

³ Interview with anonymous Popoluca *campesino*, ipg2011.94:12

⁴ Interviews with anonymous *campesino* (ipg200394:27), and fright healers (iap0111.94:1; and ijs1006.94:22)

held captive⁵. Elson and Gutierrez (1995: 4 & 19) translate *anamaj* as *corazón* (heart) and *espíritu* (spirit). The neighbouring Nahua of the Sierra speak of the pulse in the palm of the hands and joints of the arms as the “little hearts” of the spirit. And in close agreement with Popoluca beliefs, if these become faint or disappear, it means that the spirit of a child is becoming more sad and weak from being trapped by the *chaneques* (Ramírez Hernández in *Culturas Populares*, 1983: 25).

If a faint or disappearing pulse is a sign of weakness, a healthy pulse is associated with strong blood. The relationship between blood and the soul is well summarized by José, another Popoluca firght healer:

Excerpt from field notes: 10-06-94, pp. 22-3

[File: i100694js.94, taped interview, my own translation]

- A: Oh! When people talk about the spirit [*espíritu*], it is the soul [*alma*]?
 J: Yes, it is the soul [*alma*], yes
 A: And it is then linked to the blood?
 J: It is in the blood, yes, because without blood the spirit [*espíritu*] could not live. It must have .. it must have a certain environment. Because the soul [*alma*] is contained in the blood, without blood it can't.
 A: And when one dies, what happens to the spirit?
 J: Well, it leaves [the body] because the blood did not work anymore, it stayed still, the blood does not work anymore ... it is like a car, when you add some gasoline, it runs, it escapes, it goes as far as it can. When it finishes, prau! Up to there it went, and the engine works no more. It is like this, when one is well nourished, well eaten, well everything, one has the courage [*valor*] to work. One has the desired to walk and everything. But when this is not [the case], well ... you can't! One has no courage to work because one has not been

⁵ Interview with anonymous healer (iap1101.94:7-8). An identical translation (*anama* = pulse = spirit) was also given by a Popoluca *campesino* (i.pg2011.94:6).

nourished [*no está alimentado*].

We encounter in these words the close association between work, health, and nourishment that was explored in the preceding chapter. The soul gives energy to the body but needs at the same time a “proper environment”: a healthy blood in circulation which derives its strength from proper nourishment - the consumption of maize, the product of the *campesinos*’ labour. María and Juliana, just as José did, stressed in their description of symptoms the loss of appetite and the resulting withering away of the body. Adela, in like manner, summarizes the consequences of soul loss as follows⁶:

Yes, [you become] tired, *chipujo*, sleepy, you don’t have the desire to walk, just tired, one frightens [easily], and when asleep, one jumps all the time as if grabbed by nightmares at night.

The reader will recall that *chipujo* is a pathological condition associated with the disruption of the work-rest cycle. It can be caused by the lack of physical exertion. It is the fate that awaits the lazy, for example. The body becomes yellow (pale); the blood turns to water; the pulse disappears and the body loses its strength⁷. With *susto* or *espanto*, it is not surprising to find this general state of weakness and even the transformation of blood into water, given the loss of solar energy from the body. People’s explanations contain direct associations between *espanto*, weakness, Cold and water that are centuries old. For example, Alonso de Molina summarized the meaning of the Nahuatl sentence “*ninotonalcahualtia yuhquin atl nopan quiteca*” with the word “*espantarse*” (to become frighten) which

⁶ Interview with anonymous fright healer (iap1101.94: 11). Münch (1983:199) also reports very similar symptoms that the Popoluca of the Sierra associate with *espanto*.

⁷ See section on work-rest cycle in preceding chapter and interview: i1710je.94: 7-8

translates literally as “*me abandona el tonalli como si alguien hubiera echado agua sobre mi*” (“the *tonalli* abandons me as if someone had thrown water over me”)⁸. A very similar idea is found today among the Nahuas of the Northern Sierra of Puebla. Aramoui reports:

Now then, independently of the type of fright involved, the belief in Cuetzalan is that when someone becomes frighten, his/her blood will always grow cold, because it is the blood itself that becomes frighten, the one which “goes away with the fright” [se va con el susto] as people say. It is believed that it becomes diluted until it is converted into a liquid without consistency or properties, despoiled of its energetic qualities [my own translation, 1980: 79].

The close link between blood and energy, and the changes that occur due to fright are also reported by Olavarietta (1977) and Kelly (1956) in neighbouring communities to the Sierra Popoluca. Olavarietta writes:

It is believed that, as the subject receives the adverse impression that fright [*espanto*] unleashes, whatever the specific agent that caused it, “the blood contracts and weakens”, to such a degree that if a small amount was extracted, it would present a pink colour, and its texture a thickness below that which is normal, even to the point of appearing “thin” [*delgadita*]. Moreover: if the *espanto* is not taken care of on time and in an appropriate way, the blood stream will continue to diminish in volume (“the blood becomes exhausted”) [*se va agotando la sangre*] until it produces death [my own translation, 1977: 72]

Kelly, twenty years earlier noted remarkably consistent beliefs concerning blood⁹:

Blood is what ‘fortifies’ [*fortifica*] the body. It is found present since birth but becomes stronger as the person grows. The blood can turn into water due to illness or vice; this is very dangerous, because the end result is death.

Olavarietta also reports an interesting belief in los Tuxtlas closely related to *espanto* and

⁸ Cited in López Austin, 1996:237.

⁹ Isabel Kelly (1956) Santiago Tuxtla, Veracruz. *Cultura y Salud* (Edición mimeográfica). México. Cited in Olavarietta (1977: 72-3), my own translation.

Strong-Weak associations. She noted that people distinguish between the strength (*fortaleza*) and weakness (*debilidad*) of the spirit (*espíritu*) that a person is endowed at birth. Those born with a strong spirit (*espíritu fuerte*) have a lesser risk of falling prey of *espanto*, while those with weak spirits (*espíritu debil*) must take great precautions to safe guard against it since their “weak spirits” cannot withstand strong emotions produced by fright (1977:73).

To sum up, very similar ideas survive today among the Sierra Popoluca, linking the spiritual world with traditional moral teachings and ancient conceptions about the inner workings of the human body. Figure 5.1 summarizes the main associations encountered in peoples’ accounts of the patterns of distress caused by fright and the meanings they attribute to them. The healthy progression of a person’s life can be disrupted abruptly by a moral transgression. The *chaneques* will respond by causing an accident that will frighten the transgressor and force the soul to flee the body. This energy-giving force from the heavens is then trapped by the guardian spirits. The body without its soul cannot continue its normal functions. The Work-Rest cycle and Fasting-Eating cycle become disrupted. Health gradually fails and if the person’s soul is not retrieved, death is sure to follow. The appetite is lost. Nightmares prevent a peaceful rest. The courage to work vanishes. Without food and physical exertion, the body and blood become weak. The pulse fades away. Maturation stops. An un-natural reversion to a state of higher humidity and inactivity follows. The body becomes swollen, the blood turns to water. Like maize struck by *chahuistle*, a body deprived of its solar energy is destined to die of excess Cold and wetness.

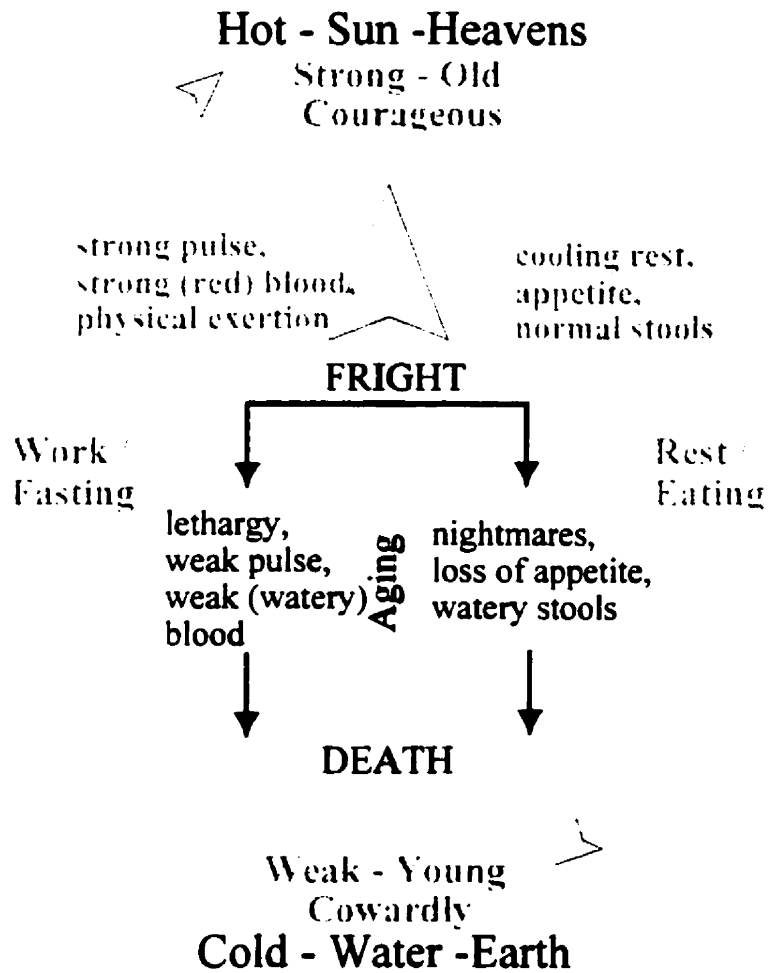


Figure 5.1 Fright

Guardians of Tradition

We noted earlier how the *chaneques* have inherited many of the attributes of ancient gods and continue to this day to uphold that ancient covenant of exchange and reciprocity between humans and the spiritual world. People's beliefs about these creatures are imbued with ambiguity. Not god, yet not human, the *chaneques* embody the good life without the need to work. Their world is filled with riches but they demand of humans self-restraint and sacrifice. They are asexual, often described as dwarfs - not young, nor old; mature but with childlike features. They bring on punishment to people but at the same time are capable of forgiveness. In a world of relentless change, they are the guardians of tradition. The function of these spiritual creatures is well summarized by Münch (1983: 199). He writes:

The *chaneques* provoke that people fall to the ground or into water so as to capture their soul and devour it. This happens for failing to observe the rules of hunting, of fishing, of collecting [medicinal] plants and of all norms of conduct in general. Humans who do not have respect for customs are punished by the *chaneques* with frights from snakes, horses, from the wind or water. People are very afraid of falling because the *chaneques* trap the souls of their victims inside an earthen pot before eating them. [my own translation]¹⁰.

As "Kings of the Earth"¹¹, these supernatural creatures who dwell in the freshness of the Earth, punish humans by snatching that inner solar force endowed to them by the heavens, trapping it inside an earthen pot. Their intention is to devour it - an act that would

¹⁰ At the time of my fieldwork in 1994 (a decade later), the same ideas were common in the Sierra. Breaking with traditions may bring harm to people, whether in hunting, fishing, collecting medicinal plants, or simply when proper healing prescriptions are not followed. We came across an example in an earlier chapter where the *chaneques* sent the snake to bite again the convalescent *campesino* who failed to follow the prescribed sexual abstinence required of his injured state [interview with anonymous snakebite healer, iMR1306.94:11-12].

¹¹ Münch, 1983: 199.

be equivalent to *campesinos/as* devouring grains of corn with no intention of replanting the seeds that renew the cycle of the maize plant's life. It is a threat of total destruction of life - the severance of the human-divine covenant. Yet the *chaneques* are ready to forgive and trade the soul back to the transgressor provided that certain traditional rituals are followed.

A remedy to soul loss requires the services of a *salmero/a*, a specialized traditional healer (often an elder woman or man) who searches for the lost soul of a person and intercedes before the *chaneques* to retrieve it. Diagnosis of the illness begins at home, within the family. Through observation, a mother, for example, notes when a child becomes restless during the night, or if the appetite and desire to play have been lost. If anyone in the family (parents, grandparents, brothers or sisters) recalls an occurrence in the past that could have frightened the child, then the *salmera* is called in. The healer queries the afflicted and hears also the accounts from family members regarding possible causes, locations and times where frightening events could have occurred¹². The healer examines the colour of the skin (whether the person is *chipujo* or not) and proceeds to take the pulse, starting at the wrist and moving up the arm until it is first detected. A weak pulse at the wrist indicates a slight state of danger. When it can only be found close to the shoulder, the person is nearing death.

¹² According to various people in the Sierra, it is possible for a person to suffer from several types of fright at the same time. These could have occurred at different places and times in the past, each contributing to the progressive deterioration of a person's health. Among the neighbouring Nahua of the Sierra, the healer in his/her diagnosis asks for white *copal* and a gourd filled with water. She/he then breaks with the teeth a piece of copal into seven smaller pieces and lets them fall into the gourd. Some pieces will float and others will sink to the bottom. The ones that sink indicate the number of different places where the person was frightened before becoming ill [Ramírez Hernández in *Culturas Populares*, 1983: 25].

[“ya está para morir”]¹³. Different accidents or occurrences have different degrees of gravity associated with the loss of the soul. Age and an innate strength of a person’s soul also affect how bad the impact of a fright occurrence can be. Children are more easily frightened than adults and the consequences are more threatening to their health. When a child falls into a river, his/her condition may become life-threatening if not healed from soul loss. A snake bite or a strike of lightning always produce dangerous conditions of fright for old and young alike, independently of the damaging effects of the poison or burns¹⁴.

Treatment involves different elements that overlap in time and complement each other. One is the *ensalmo* or “saying of incantations”. In the words of Adelina, an elder Popoluca *salmera*¹⁵:

Yes, to return it [the soul] you must pray to him [the *chaneque*]
 Yes you must pray. First to god, the holy ghost, all of them ... and you begin to call his name and you say to the *chaneque* that he let your pulse go from where it has you trapped, where it has you hidden, where you got frighten. You begin to talk to him. If it [the *chaneque*] is from here, then you talk to him in his language [my own translation from Spanish]

The co-existence of Catholic and ancient spiritual beliefs is evident in this passage. By way of introduction, the healer refers to the Holy Trinity (the Father, the Son and the Holy

¹³ Interviews with elder *salmera*: i1101AP.95:8; and elder *campesino*: i0806PGS.94:6

¹⁴ A person bitten by a poisonous animal must be cured from both, fright and the effect of the poison. These are two separate ills that affect the person simultaneously. Each has its own healing procedures. Some snakebite healers of the Sierra prefer to treat only the poison aspect of the bite and then call on a fright healer (*salmero/a*) to complete the healing by retrieving the soul of the convalescent that is being held by the *chaneque* [interview with anonymous snakebite healer, iMR1306.94:11-12]

¹⁵ Interview with anonymous fright healer: iAP1101.95: 6-7

Spirit) but her prayer will also include other Catholic divinities that have a following in the area: the *Virgen del divino Verbo*, *San Juan Bautista*, *Señor Salvador del Monte* (our Saviour of the Mountain). Then the names of the ancient Popoluca Spirits are invoked: *chane chane*, *tsabastchane*, *tun̄jchane*, *tícchane*, *carreterachane*, etc.¹⁶ The healer must identify the location where the frightening occurrence took place, and in the prayer intercede with the corresponding *chaneque* that guards that particular place. As Adelina notes, she must identify and contact the supernatural creature responsible for snatching the soul. She does this in the language spoken in that location (eg., Nahuatl, Popoluca, Spanish or another)¹⁷.

The *salmera*'s comments attest to the power of the *chaneques*. The afflicted must acknowledge the existence of these ancient spirits and their role in depriving people from their health. Humans must pray to them and, as we shall see shortly, both healers and

¹⁶ The prayer by the *salmera* was taped in the Popoluca language. Unfortunately, due to health reasons I was unable to return and work with her to translate this prayer into Spanish. *Chane chane* is a reference to the main *chaneque*, the one Münch refers to as the "*Chaneque Mayor*", the "Owner of the House" or "King of the Earth, of water, plants and animals". *Chaneques* of lesser authority are under his/her command, watching over all living things on earth, including human society (1983:173-74). *Tsabastchane* (literally the red *chaneque*) refers to the *chaneque* of the Red Earth (*Tsabats Nas*), the guardian of the sacred place where the snake-bite healers make their initiation as discussed in Chapter 3. *Tun̄jchane* refers to the *chaneques* that prey on people that are frightened on the road [*tun̄j* = *camino* (path or road)]. *Tícchane* is the *chaneque* that dwells in the house [*tíc* = house]; and *carreterachane* is a new term that refers to the *chaneques* that steal your soul from being frightened when you are assaulted by thugs on the road (*carretera*) to the Sierra. During the early 90s, a gang of bandits was operating in the area, assaulting vehicles on the main road to Soteapan.

¹⁷ Among the Nahuatl of Cuetzalan (State of Puebla, Mex.), healers must travel in their dreams to discover the places where their patients' were frightened and the spirits captured their souls (Aramoui, 1980:69). Similarly, among the Nahuatl of Hueyapan (State of Morelos, Mex.), when the state of fright is considered dangerous, the afflicted and the healer must go to the place where the frightening occurrence took place to perform the healing rituals (Alvarez Heydenreich, 1987:188).

patients must make offerings and become deserving of what they seek, in this case to retrieve the trapped soul of the transgressor. Only by subordinating oneself to this relationship of exchange with the spirits can health be recovered. Here lies the reason why doctors and Western medicine are considered impotent in dealing with the consequences of fright. Their rejection of traditional spiritual beliefs disqualifies them before the people of the Sierra to have any sort of influence in the specifics of soul loss.

While reciting the *ensalmo*, the healer carries out a *tallada*. This is a physical procedure in which the healer uses a piece of black or white *copal* and with it rubs the palms of the patient's hands with a slight pressure to encourage the pulse to return. If the pulse does not appear there, or is felt to be weak, she/he continues the rubbing with *copal* up the arm¹⁸. Some healers also take a small mouthful of *aguardiente* and suck lightly in addition to the rubbing at the points in the hand and arm where a healthy pulse should exist¹⁹.

¹⁸ Münch (1983:200) reports that for the Popoluca of the Sierra, the *chaneques* are believed to capture the person's soul from the five principal points of the body: the palms of the hands, the soles of the feet, and the nape (upper back of the neck). I did not come across these ideas during my field work. However, other reports in the literature for different Mesoamerican Peoples do describe similar beliefs. For example, Ramirez Hernández reports for the neighbouring Nahua that healers first search for the pulse of their patients in the palms of the hands and joints of the arms (wrists, elbows, and armpits), since according to the elder women, it is in these parts of the body where the "hearts of our spirit" are located [Culturas Populares, 1983:25]. Alvarez Heydenreich (1987: 186) reports for the Nahua of Hueyapan that the "*sombra*" (shadow) or spirit of a person is harmed (*se daña*) by fright (*susto*), leaving the wrists, up the arm until it reaches the heart. The spirit or *sombra* of a person is thought to be located in the wrists, feet and heart. If a fright is slight, the spirit is affected in the arms and legs and the body loses its strength. When fright is strong, it may affect the spirit at the heart. If this one leaves the body, death is certain to follow.

¹⁹ Interviews with a Popoluca *campesino* (i0806PGS.94:6) and an elder healer (i1106FGS.94:4). Similarly, Olavarrieta (1977:85-8) reports for the neighbouring communities of the Sierra a healing procedure for *espanto de agua, de chaneque y de muerto* (fright from

Adelina referred to the *tallada* as *tanc'w'itpa* which can be translated literally as “we are healing your hand”²⁰. Coals from the *fogón* (house fire) may also be used to *sahumar*²¹ or burn some *copal* during the *ensalmo*²². When asked why *copal* and *aguardiente* are used, most people replied that both of these were the traditional offerings²³. Indeed, we noted in Chapter 3 that *copal* was a common gift to the Gods in pre-Hispanic Mesoamerica. The use of *aguardiente* seems to be more recent, perhaps substituting *pulque*, another type of fermented drink from the agave plant used by the Nahuatl to fight fatigue at least since the XVII Century. The rubbing with *copal* and the sucking with a mouthful of *aguardiente* on the points where the soul of a person is normally manifest symbolize their offering to the *chaneques* in payment for the soul of the patient. These same gifts (*copal* and *aguardiente*) are then thrown directly into the river during the ritual bath marking the end of healing and the beginning of a renewed healthy state.

water, *chaneque* and death corpse) in which the “technique of sucking” is used. The healer *sahuma* with *copal* the patient, takes a mouthful of wine sherry and also introduces in his mouth some grains of black corn (*maíz morado*) and proceeds to suck the “pulses” of the patient which are located in the wrists, temples, elbows, knees and ankles.

²⁰ According to B. Elson’s dictionary: *tan-* = dual reference pronoun (you and me), p.3; *c'í* = *mano* (hand), p.11; *w'í* = *bueno* (good), p. 99; *w'ís'íy* = *sanar* (heal), p.10; *-pa* = suffix of verb indicating that action is incomplete.

²¹ *Sahumar* refers to the act of perfuming the person and location of the healing by burning aromatic substances. In this case, black or white *copal* (pine resin) is used as incense.

²² Interview with anonymous healer: i1101AP.95:8. See also González in *Culturas Populares*, 1983:30-1.

²³ A couple of healers noted that *copal* is what the *chaneques* eat [interview with anonymous healer: i1101AP.95:9; and interview with elder community leader [i1106FGS.94:5]. Münch (1983: 200) reports a Popoluca belief that *copal* is a Hot aroma which is transformed into beautiful flowers that please the *chaneques*. I did not come across similar beliefs during my own field work.

The *ensalmo* and *tallada* are carried out on the convalescent for seven days. During this period the patient must follow certain restrictions. In cases where the symptoms of fright are considered advanced or dangerous, it is best for the afflicted not to leave the safety of his/her house. Visitors other than healers are also not allowed into the house since the soul of the person struck with fright is thought to be particularly weak and vulnerable to external influences²⁴. In addition of staying home and not talking to people, the patient must abstain from sex, otherwise he or she will not heal. The patient is not allowed to go to the river or water well to have a bath²⁵ until the seventh day, when more offerings to the *chaneque* are made in a ritual bath by the river in exchange for the trapped soul. These offerings include *copal*, *aguardiente*, and a chicken in exchange for the patient's soul. It is on this seventh day also that the house of the patient is swept. The sweepings, and all the remains of the treatment (including the coals used to burn the *copal* in the *sahumada*) are thrown into the river along with more *copal*, a bit of *aguardiente* and the sacrificial chicken²⁶. We

²⁴ According to an elder community leader, for seven days nobody must enter the house of the convalescent. He or she must see no one other than the healer (interview: i1106FGS.94:4). Münch similarly recorded that for those 7 days, the convalescent cannot be visited. Only the mother or wife can come into the room to bring food or to *sahumar* (1983:200). And, Santiago (1982) notes a very similar prescription: while the person is receiving treatment from *susto*, he or she is forbidden to greet or talk to others whether in the street or in the home (in *Culturas Populares*, 1983:31).

²⁵ González notes that if a person goes back to the river or well, the *chaneques* will again frighten him/her and this time death is sure to follow (in *Culturas Populares*, 1983: 31). Münch (1983: 199) also reports the need for patients and healers to fast during the seven-day period. Olavarrieta (1977:87-8) notes for neighbouring communities of the Sierra, that patients also have dietary restrictions. They must eat only *atoles* (liquid meals based on ground maize and water) and refrain from eating meat and chile. If this is not done, the body will become swollen due to “a terrible accumulation of water” with mortal consequences.

²⁶ Interview with anonymous healers (pseudonyms used): i1101AP.95: 3,8-9; i1202JSP.94:12-13.

encountered all these elements (the sexual abstinence, the offerings, the ritual bath, the sweeping of the house, the throwing of remains from healing rituals into the river) in previous chapters; all were associated with the renewal of health.

There are a number of variants used by different healers. Some use the sucking technique with a mouthful of *aguardiente* during the *ensalmo*, others do not. Some burn *copal* during every *ensalmo*, others just *sahuman* the patient on the seventh day. When the condition of the frightened person is deemed not too fragile, he or she can go to the healer's house to receive treatment. In some circumstances, when the afflicted cannot leave the house and the healer is in a different village, part of the treatment after a first personal encounter can be carried out by the healer with a piece of clothing from the patient (a shirt or dress for example)²⁷. In this case, the *ensalmo* and *tallada* are performed during the first visit, then the healer will do the *sahumada* on the piece of clothing every day for seven days. Some healers perform the ritual bath at a waterfall²⁸; others do it anywhere along the river, as long as the water is flowing [“donde corre el agua” (where the water runs)]²⁹. One healer noted that she only offers a sacrificial chicken (*pollo del reemplazo*) in cases where the illness is life threatening, as in the case of a snakebite or when a person is struck by lightning³⁰.

²⁷ *ibid*, p.9.

²⁸ Interview with anonymous healer: il1202JSP.94:12-13.

²⁹ Interview with anonymous: il101AP.95:9

³⁰ *ibid*, pp.9-10.

Popoluca healers did not use an explicit Hot-Cold categorization in their explanations about “fright”, its causes or possible remedies. Tedlock (1987) noted this same absence of explicit references to Hot and Cold categories in her research on healing traditions among the Quiché Maya of Guatemala. This absence of terms lead her to question the relevance of humoral theories in local medical beliefs and practices, and claim that humoral reasoning is often “blown out of proportion” by anthropologists who tend to use faulty interviewing techniques couched in humoral terms. She concluded that healers in particular did not include a Hot-Cold categorization in their explanatory models of illness etiology, and that traditional medicinal treatments “are based on generations of experimentation with specific plant substances rather than on humoral reasoning” (p. 1080).

Our analyses presented in previous chapters support in some respects Tedlock’s misgivings about the preeminence of humoral reasoning in Mesoamerican healing practices. However, the author seems to have thrown out the baby with the bath water. A tenuous humoral influence does not mean that Hot-Cold concepts are in any way less relevant in health beliefs of traditional societies. Much to the contrary, our exploration of the cultural construction of “fright” (an illness common to many Measoamerican Peoples) demonstrates how the Hot-Cold axis in fact structures explanatory models of disease. We do not need to encounter the terms “hot” or “cold” in people’s accounts. These concepts are imbedded in native symbology and become manifest when indeed we take a comprehensive look at the symbolic meanings and relationships associated with beliefs on causation, distress patterns, and treatment of the illness.

Unlike Tedlock's conclusions, our analysis of this particular illness shows that traditional treatments are neither exclusively grounded on an empirical knowledge of medicinal plants, nor do they necessarily follow a humoral reasoning. Fright, for the Popoluca and Nahua of the Sierra, is seen as a condition in which a vital form of energy is taken away from the body. Without this energy, the body cannot function normally. Basic organic cycles become disrupted and lead to a series of pathological conditions. Treatment is logically guided, first and foremost, by procedures to restore the lost energy. But this is a feat that is not to be achieved with the application of herbal remedies alone. It requires rituals tied to transactions between the spiritual world and human beings. Through this phenomenon called "fright", the spiritual world of ancient times remains ever present in the Sierra, for it is the *chaneques* alone who can castigate moral transgressions by depriving people of their souls. They alone can return these human souls, demanding in exchange penance and sacrifice.

Copal, aguardiente and the soul of a chicken are paid to the *chaneques* in exchange for the soul and health of the convalescent. But proper procedures must be followed. The healer and patient must first become deserving of what they wish to achieve. They must fast and abstain from sex. They must pray to the gods and perform the *tallada, sahumada* and ritual bath. During the healing period of 7 days, there are prohibitions which provide protection against making things worse. Sexual intercourse, as we saw in Chapter 3, is a refreshing condition that debilitates the body. Spiritual meanings aside, it would be hardly advisable to engage in sex while the body has lost part of its solar energy and is threatened

by an excess of humidity. Avoiding a bath in this condition is also advisable since it prevents contact with water from wells and/or rivers where mischievous water *chaneques* roam. Seclusion avoids the possibility of an encounter with pregnant or menstruating women, those that may be carrying the “heat from the dead”, or elder men and women with a high level of inner energy bestowed on them by the passing of years. Heat emanations from all these persons are considered dangerous to the injured, the ill and children. Finally, not sweeping the house during the healing process is reminiscent of the same prohibition during the 21 days following a death in the family. As we noted in the last chapter, sweeping may scare away the spirit of the dead during this time of mourning. In the case of fright, the soul that is vying to return to the body of the afflicted may also be frightened away while the healing has not been completed. The sweepings from the house in both cases are taken to the ritual bath and are thrown into the moving waters of the river, the source of life and renewal. In sum, all these prohibitions do not follow a humoral logic but do involve, as we described in earlier chapters, the Hot- Cold, Heaven-Earth, Sun-Water divisions of the universe so characteristic of ancient Mesoamerican thought. Figure 5.2 summarizes the countering of soul loss.

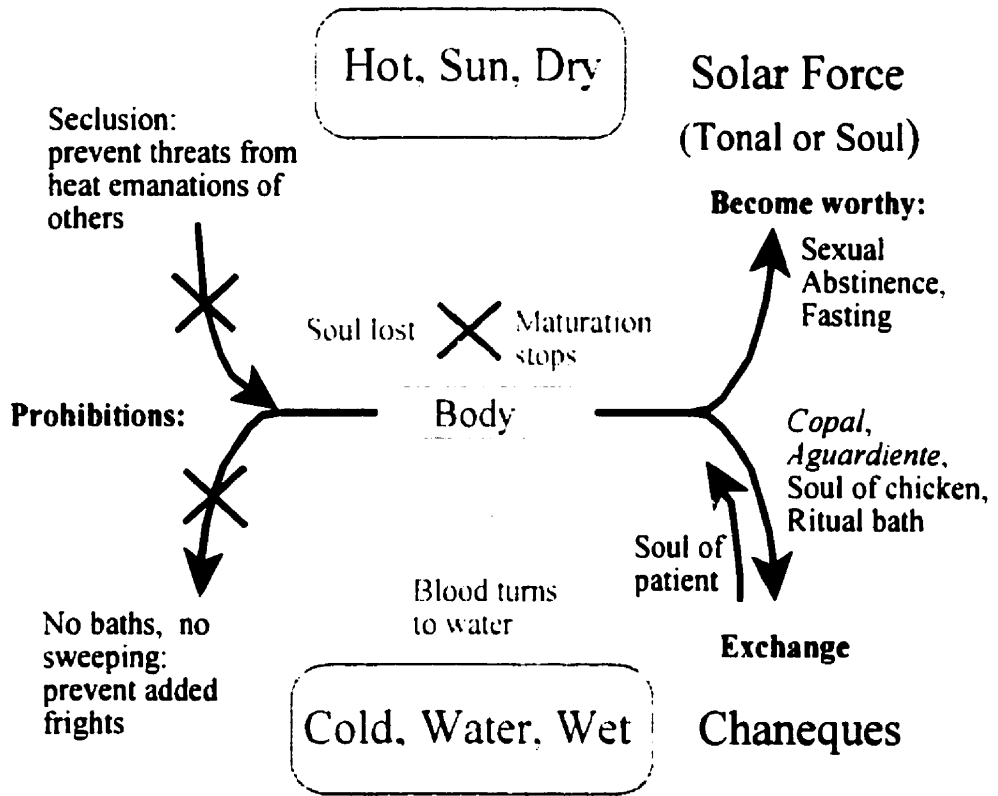


Figure 5.2: Treating soul loss

5.2 Love Sickness (*Mal Amor*)

In sharp contrast to *Susto*, an illness common to many indigenous Peoples of Mexico, *Mal Amor* has virtually escaped un-recorded, confined within the cultural boundaries of the Sierra Popoluca. None of the contemporary ethnographies of the area, including those about the neighbouring Nahuatl and mestizo communities of Los Tuxtlá make mention of this illness. Yet, the stories heard from Popoluca villagers during field work are remarkably consistent. These stories were told by *campesinos* and *campesinas* from different villages, different religions (Protestant and Catholic), different occupations (healers and common folk). All narratives shared many common elements and contained beliefs and associations that were congruent with one another. More strikingly, the stories recorded were accounts of past lived experiences in the villages, often involving relatives or close acquaintances of the narrators.

There is also an ancient story reproduced and translated into Spanish by León-Portilla (1987), first recorded in Nahuatl by fray Bernardino de Sahagún in the mid XVI century. Historians date its composition between the years 1430 and 1519. It is believed to be one of those ancient stories that were memorized by students of the Calmécac, the pre-Hispanic Nahuatl centres of higher education. Its importance probably did not reside in the sexual content of some passages, but in its foreboding of the ruin of Tula in the years that followed the events described. It is nonetheless the sexual content of the story that is relevant to our analysis of *Mal Amor*.

Léon-Portilla (1987: 374-6) notes that the main character in this ancient story, the *Tohuenyo*, was no other than *Titlacahuan-Tezcatlipoca*, one of three wizards and Gods that appeared one day to put an end to the glory of *Quetzalcoatl*. According to *Mexica* tradition, *Titlacahuan* was an ally of *Huitzilopochtli* and *Tlacahueapan*³¹. Together, they succeeded in destroying the greatness of the toltecs, the nahuatl-speaking people who founded Tula and ruled Central Mexico between 900-1200. In the plot of the story, the *Tohuenyo* manages to marry the beautiful maiden daughter of king *Huémac* by making her ill of desire for wanting to have his penis inside her³². Below is a translation of the relevant parts of the story into English.

The Story of the *Tohuenyo*³³

And here is another thing
that *Titlacahuan* undertook,
he made something that resulted a portent³⁴:
he transformed himself, took face and figure of a *Tohuenyo* [foreigner].
Walking about naked, with the thing dangling,

³¹ *Titlacahuan-Tezcatlipoca* is one of the names of the god of the night and of destiny. *Huitzilopochtli* was the solar god of war, and *Tlacahueapan* was a “great man”, a sorcerer follower of *Tezcatlipoca*. *Quetzalcoatl* in this case refers to the great priest of Tula, the symbol of knowledge and wisdom, son of *Mixcoatl* who lead the toltecs in their conquest of Central Mexico.

³² *ibid*, p.374.

³³ The text was translated into English by myself from León-Portilla’s Spanish translation of the original nahuatl text recorded by Sahagún (1987: 377-382). The italicizing and underlining is my own. The author explains that *Tohuenyo* was a name used to refer to a “foreigner”, noting that “*to-huen-yo*” can be literally translated from the nahuatl as “that which is our offering”, alluding to the fact that foreigners were commonly used as sacrificial offerings to the gods (p. 384)

³⁴ an omen

he started to sell *chile*.

he went to set himself up in the market, in front of the palace.

Now then, the daughter of *Huémac*³⁵,

who was very fair [*muy buena*]³⁶

many of the toltecs

desired her and were after her.

they had the intention of making her their bride.

But to none *Huémac* made any concession,

to none he gave her daughter.

So that daughter of *Huémac*

looked toward the market,

and came to see the *Tohuenyo*: he is with the thing dangling.

As soon as she saw him,

she immediately went into the palace.

Because of this the daughter of *Huémac* became ill then,

she became tense, she entered into a great fever [*grande calentura*],

as if feeling poor of [missing]³⁷

the bird - virile member - of the *Tohuenyo*.

³⁵ Huémac, according to Sahagún was the Lord of the toltecs at the time because Quetzalcóatl did not have any children and thus became a priest. Other sources place the reign of Huémac one century after Quetzalcóatl was expelled from Tula (see León-Portilla., 1987: 383; and Sodi, 1987: 115).

³⁶ “Muy buena” from the nahuatl text *cenca qualli* means literally “she was very good”. This is an expression that today in contemporary Mexico is also used to refer to a very attractive woman (León-Portilla, 1987: 383).

³⁷ The text reads in Spanish: “*como sintiéndose pobre del pájaro*”. León-Portilla (1987: 383) notes the use of the nahuatl word *itotouh*, meaning in the text: “his bird, his phallus”. It is the possessive form of *tótol* (= *pájaro* or bird).

And Huémac learned about it soon:

her daughter is now ill.

He then said to the women that were taking care of her:

“What did she do, what is she doing?

How did my daughter began to enter into a fever?”

And the women that were caring for her answered,

“It is the Tohuenyo, who is selling chile:

he has put the fire into her, he has put the yearning [*el ansia*] inside³⁸,

with that is how it began, with that is why she ended ill”.

.....

[the next few verses describe how Huémac orders all his subjects to look for the Tohuenyo. But he was nowhere to be found, until he chose to come back to the market, in front of the palace where he had first appeared. We return to the story when he is brought before the king.]

And when he was brought before him [the King],

immediately Huémac questioned him:

“Where is your home?”

The other one answered:

“I am a Tohuenyo,

I am selling *chilito*.”

And Lord Huémac said to him:

“Well, which is your life, Tohuenyo?

Put the maxtle³⁹ back on, cover yourself.”

To this the Tohuenyo answered:

³⁸ The text reads in Spanish: “*le ha metido el fuego, le ha metido el ansia*,”

³⁹ Maxtle or Máxtlatl refers to a type of clothing used by males from the main indigenous groups of Mesoamerica at the time. It consisted of a cloth that was wrapped around the waist and then between the legs, tying it at the front and allowing both ends of the cloth to fall down at the front and back (León-Portilla, 1987: 383).

“Well we [ourselves] are like this.”

The Lord then said:

“You have awoken a yearning in my daughter,
you will cure her.”

The Tohuenyo answered:

“Foreigner, my lord,
That cannot be.
Kill me, finish with me,
death to me!
What are you telling me?
I am but a poor seller of chile.”

Then the Lord told him:

“No, you will cure her,
do not be afraid.”

And soon after they cut his hair,
they bathe him and after this,
they anointed him,
they put a *maxtle*, they tied on a cloth.
And when they left him groomed like that,
the Lord told him:
“Look at my daughter,
there she is secluded [*guardada*].”

And when the *Tohuenyo* went in to see her,
then he cohabited with her,
and with this she was cured in an instant.

At once, the *Tohuenyo* was converted into the son-in-law of the Lord.

But there was a price to pay. The story continues on. *Huémac* is ridiculed by his people because a “foreigner” has become his son-in-law. To appease his critics, the king uses treachery in an attempt to get the *Tohuenyo* killed. He sends him into battle with an army made of crippled and dwarfs but the *Tohuenyo* wins the battle and *Huémac* is forced to honour him, now as a war hero. The events described in the story will be blamed many years later for the tragedies that Tula was to suffer in her decline as the hub of regional power in the 12th and 13th centuries.

Five hundred years have passed since the story of the *Tohuenyo* was first told by Nahua elders to the Spanish Conquistadors. In the Sierra Popoluca of today, afflictions similar to the one suffered by the maiden princess of long ago are not uncommon. The existence of this illness first surfaced during field work, just as with *susto*, when talking to people about human wastes. Luis, a Popoluca community leader, was describing the different types of diarrheas common in his village. One of them, *punic'tiñ*⁴⁰, is accompanied with abundant mucus in watery stools and is typically associated with the hot season (*tiempo de calor*). “According to the elders of the village” said Luis, “if you have seen a meal and did not [could not] eat it, you can also get it”. Luis is a literate, Protestant leader in the village. He explained he did not think much of these old ideas, but continued: “Or, if you

⁴⁰ *punic'tiñ* is composed by the words: *punic* = *pus* (pus or mucus), p. 84; [*ní* = *agua* (water), p. 75 ; *púc* = *podrir* (to rot, p. 84), *infectar* (become infected, p.23)] and *'tiñ* = *mierda* (feces), p. 93; Elson & Gutiérrez (1995). The word refers to feces accompanied with pus, a water resulting from rotting or infection.

bought a kilo of meat and it did not go far enough (*no lo alcanzó*), because the heart asked for it, you will get it [the diarrhea with mucus]⁴¹”. Right then he switched his conversation to a disease that they call in the area “*Mal Amor*” (“bad love”) or “*moya cacuy*” [literally: “*flor enfermedad*” or “flower disease”]. “You get it when a guy (*muchacho*) sees a girl (*muchacha*) that he likes to the point of wanting to talk to her. If she raises her face and looks at you and you bow your head down - if you do not look at her, you get hot [*te da calor*].” Luis called this heat “*mal de ojo*” (illness of the eye). The eye becomes red and the face and head begins to hurt “as if it was broken”. A mucus (*puníc*) “more yellow than the one in the feces” comes out of the eyes. “You lose the bird [the penis]. It disappears. They say that there are many that have a pain in the chest and then try to feel [their crotch] and they have no more bird.” Luis went on to tell a story about his grandfather:

People say that my grandfather lost his bird. Down there in the city there are centres of vice, but not here. Here, if you are going to have a lover [*querida* = dear one], you go to the mountain. He was with one, and another [person] suddenly appeared. He [the grandfather] kind of became ashamed [*como que se avergonzó*] and left her. He went away running. His bird disappeared. A short time later, he died. ... The old folks know how to cure it. Soon the same woman must wash her *can* (female genitals) and keep the water for the man to drink; or else the urine of the woman; or if not, they steal the dress [of the woman] and they boil it and they give this “water from the women” (“*el agua de la mujer*”) to him. The water helps [ease] the pain of the heat (*dolor de calor*) and returns the bird. He drinks it and rubs it in the head so the heat goes away.⁴²

Inquiring if this could only happened to men, he replied:

In [the village] it happened also with a man [he knew]. [The woman] saw

⁴¹ Interview with Popoluca community leader: i1903an.94: 2.

⁴² Interview anonymous community leader i1903an.94: 2-3 (reproduced from notes taken during the interview; my own translation from Spanish).

someone she liked and her *can* went away [*se le fue el can*], only the lips were left behind. She began to call his name. They went to look for him: “she is dying because you gave her the heat [*le diste el calor*]. After he gave it to her (showing with his hands the act of sexual penetration) it [the female genitals] returned to the woman. But if the man does not want to [have intercourse], his urine is given to her so she heals.”⁴³

The Popoluca narratives contain striking similarities with the ancient story of the *Tohuentlyo*. First, we encounter a sexual desire that goes unfulfilled and produces a state of illness. The victim is invaded by an intense heat and anxiety, a sexual yearning for the missed lover. The forms of healing are also compatible and even identical in one case. Luis describes two types of cures. One involves collecting “water from the woman”, be it urine, wash water from the genitals or from a dress, and having the man drink from it and rub it on his head. The other cure, just as in the seven-century-old story, involves sexual intercourse. This one seems to be the preferred solution in spite of its social cost. King *Huémac* suffered public ridicule by having “a foreigner” copulate with his daughter. Popoluca men and women who agree to sexual intercourse as a form of healing must suffer the consequences of this remedy, albeit physical recovery is in all cases immediate.

What prompted Luis to talk about *Mal Amor* was the idea that came up during an earlier conversation about having an unfulfilled desire, a yearning for something that is so strong as to cause disease. The yearning for food that cannot be gotten will cause a watery diarrhea accompanied with mucus. The yearning for a sexual relation that is not possible will lead to the disease of love. In both cases, the impossibility of satisfying a strong desire

⁴³ *ibid*

belongs to the realm of social relations: a *campesino* that aches for the riches of others⁴⁴; men and women that long to satisfy their sexual needs outside the official norms of society⁴⁵.

There are other interesting parallels between diarrhea and *Mal Amor*. Luis's narratives point to two possible ways of getting ill in both cases: one is the longing (for food or sex) produced through a person's sight (looking at a meal, or looking at a woman); the other is a yearning caused by an interruption (food that is not sufficient for a particular occasion, or the sudden stop of a sexual act). The yearning for food that was never eaten results in mucus coming out as bodily waste. The yearning for sex that began through a person's sight and was never fulfilled results in mucus coming out of the eyes. "A mucus that is yellower than that in the stools" we are told, yellower than the *punic'tiñ* or "feces with pus". We encountered in Chapter 4 the association between pus and solar heat. The yellow mucus or pus excreted with the stools or from the eyes are in both cases linked to the heat that invades the body from that unfulfilled desire. This association (unmet strong desire - heat - excretion of yellow mucus) can also be found in a form of *mal de ojo* reported in neighbouring communities to the Sierra, to which we now turn.

⁴⁴ A *campesino* that lived in the poorest section of Soteapan (the head town of the *Municipio*) once told me a very similar cause of diarrhea to that given by Luis. He referred to *dolor de corazón* (ache of the heart) as a reason for getting diarrhea when he was unable to eat something that he saw others had. It is interesting that when talking with Luis about *Mal Amor*, he mentioned how people first feel a pain in the chest before noticing the disappearance of their penis. A link between an unmet strong desire, the heart, and an eventual harm to the body appears to exist in both instances.

⁴⁵ With respect to *Mal Amor*, we will note in coming paragraphs the element of shame that qualifies that sexual yearning. Luis' grandfather, for example, became ill as he ran away, "ashamed" of being caught in the act.

Luis called “*mal de ojo*” the heat that invades the afflicted. Interestingly, he did not refer to the overall illness of *Mal Amor* with this name but only to the resulting disease of the eyes. Another *campesino* named a closely related eye condition “*ixcuypij’hy*”, meaning literally “the eye is becoming Hot”⁴⁶. This condition can happen to a boy who sees a girl he likes but is unable to embrace. The girl will become ill with “hot eye”. She will get a fever and her eyes will cry but without pus excretions. The *campesino* was referring in this particular case to younger children and a situation not involving a sexual angst. However, “*Ojo Caliente*” (Hot Eye) seems to be a more appropriate description of the eye affliction occurring with *Mal Amor*. The Spanish name “*mal de ojo*” and its common translation as “*evil eye*” are both problematic because they have come to encompass different types of ailments having different causes and modes of treatment⁴⁷. For the area of Los Tuxtla, Olavarietta is careful to make the distinction between unlike phenomena often slated with the same Spanish name. One is an act of witchcraft in which harm to the eye is purposefully caused by one person to another. The other is an ailment that is caused involuntarily by a person with a “strong gaze” (“*vista fuerte*”) when suddenly seeing something that he or she particularly desires but is unable to touch. This can happen, for example, when an older person looks at a child. If not touched by the person with the strong gaze, the child becomes restless, eventually develops a fever and cries continually. The ideal cure is for the mother

⁴⁶ Interview with anonymous *campesino*: i2911ml.94: 8-9. Also from Elson and Gutiérrez (1995): *ixcu* = *ojo* (eye), p.60; *piji* = *calor* (heat), p.81; and -‘*hy* = substantive suffix forming verb; ie. “*se calienta el ojo*” or “the eye is becoming hot”.

⁴⁷ López Austin (1996: 296-300) notes also how the term *mal de ojo* was used by the Spaniards early in the conquest to indiscriminately group together many different ailments.

to identify the culprit and have him or her caress and talk to the child. If the person responsible for the illness cannot be found, an alternative is to rub and cover the child with a used piece of garment from the victim's father that contains his sweat. If not treated, the eye disease can result in death. When the disease is in an advanced stage, the child secretes a yellow mucus from the mouth (1989: 81-83). Similarly, López Austin distinguishes a particular case of "*mal de ojo*" among the ancient Nahua, different from many other types of ailments called by the same name by the Conquistadors, and which he assigns to strong feelings of covetousness or envy. We are told that in ancient times, when a person had an intense desire for someone or something, he or she became very sad and melancholic. This state could produce harm to others, plants and animals included, particularly when the person was considered to have a strong gaze ("*vista fuerte*"). The condition of sadness produced a negative form of energy that emanated from the body and was transmitted through the sight to the living thing that was close by. The emanation was so strong that it could produce the death of a coveted child or small animal. Plants were said to become dry (1996: 298).

The parallels between these forms of "Hot Eye" and the eye affliction that accompanies *Mal Amor* are interesting. They all involve a strong feeling of desire that cannot be satisfied. They all result in a dangerous condition of illness that may lead to death. In all cases a strong heat invades the body. In all cases, the person that becomes ill is not necessarily the one with the strong unfulfilled desire, but the one that appears to be the weaker of the two. This is the coveted child, the princess that hides ashamed in the palace,

the man that lowers his sight away from the woman he desires, or the father that runs away, ashamed after being caught in the act. In a similar way, we shall read in a coming story about a young married man becoming ill with *Mal Amor* when abandoned during foreplay by an assertive would-be lover who disliked the rough and rushed treatment she was receiving.

In the following paragraphs we will further explore the symptoms and treatments of *Mal Amor* by presenting other accounts of the illness from different Popoluca *campesinos* and *campesinas*. Each narrative brings particular nuances that contribute to create a more complete depiction of peoples' beliefs. The stories were recorded in three different villages. We begin by presenting an occurrence that happened not long before the time of the narration. Part of this story is told by Luis. It involved his brother Juan and his son-in-law, Pedro.

Pedro was on his way to the *milpa* one day when he met a young woman that was recently married. She told him, "I want to accompany you". His answer was "No because you are married". She got the heat and ached all over ["*le dió calor, le dolía todo*"]. Her father-in-law later asked her why she was ill. She told him that she had seen badly at the boy and got the heat ["*el muchacho vi mal y me dió calor*"]. The father-in-law [of the girl] went to see the boy and warned him that if she died, he was going to kill him. Then Juan arrived. He doesn't believe in that type of illness⁴⁸. The father-in-law wanted the boy to sign a paper that would commit him to pay for the wake in case she died. Juan got into a verbal fight with the girl's relative but eventually agreed to a settlement. Juan was going to use an old cure in a last

⁴⁸ Both Luis and Juan converted not too long ago to a Protestant religion, and now officially reject most traditions and old beliefs as "superstitions". Their rejection is particularly strong when outsiders are present. I met an elder relative of them that was also officially Protestant and denied to me any beliefs related to traditional medicine, but as confidence in our acquaintance grew, the person eventually revealed to me that he-she was a well respected healer and still practiced the *ensalmo* and other old cures. I was helped in my discovery by the fact that I arrived one day to this person's house in the middle of a healing session.

attempt to heal the girl. He went to Pedro and asked him: "Have you no esteem for her?" Pedro replied: "Father, I didn't do anything!" Juan insisted: "You are going to cure her. Pee in this bottle!" Juan had washed the bottle beforehand. He collected one litre and then went very early in the morning to the house of the girl who had lost her *tots* (genitals). The father-in-law divided the content of the bottle in two. Juan said: "This is the last try [*último intento*], drink half a litre and wet your head a bit [with the rest]." The girl was healed.⁴⁹

When Juan was asked about *Mal Amor* in a different conversation, he recounted several stories. One of them was the same incident involving Pedro, his son-in-law. Below is his version of events:

Excerpt from field notes: 20-03-94, pp. 8-10

[File: i2003pe.94, story reconstructed from a taped interview, my own translation]

Yes... but if a woman has a husband then it is very hard, very hard because the husband gets angry. It has not been too long since I ... I have a son-in-law but I did not know [what was happening] since I live here ... they had been living for a year I think, in the house of his father, down there. And one morning I went for a stroll .. my brother-in-law Mario lived in that house with the laminated roof ... I always go to see him, sometimes in the evening, sometimes in the morning. I got out of bed early in the morning, went out and I went there. When I arrived, he was not in. Only my sister was there, she was grinding [maize]. "My brother-in-law?" I said. "He went out. He went for a stroll". It was seven o'clock. At seven thirty he arrived. He said: "Did you make something to eat for my brother-in-law?" The woman said no. "Oh!" he said, "Give him something to eat now, lets eat because I am hungry. Come to the table, we are going to eat". She made chicken soup.

But he had come down [to the village earlier]. He said to me: "Don't you know anything about it?" I reply "No!" "Well, your son-in-law has been accused, they are going to consign him today to Soteapan." I asked: "What did he do?" He says: "Well I don't know very much, but a women accused him. That sometime ago, about six months [back] she wanted to embrace

⁴⁹ The story was reconstructed from filed notes taken during the interview with an anonymous community leader, interview: i1903an.94: 3. All the names in the story are pseudonyms.

him and now the woman says she feels very ill" ... with fever. And he said that the woman had lost the organ [*el miembro*]. And so they blamed my son-in-law that it was him, that because of him her organ fell down [*se le cayó el miembro*], because she wanted to embrace him and she couldn't, but six months past. He said: "Well, they are about to hand him over, her father-in-law is very angry ... he presented the accusation. They already went to look for a rope to tie him, to take him consigned to Soteapan".

I said: "How did it happen? Did he grab her or did he not grab her? How can they take him tied? I also know the law ... it says that if a woman, I am going to speak [to her] from two metres or five metres, the law does not charge you because you are going to talk to her from a distance. That is not an offence." "Yes" he said "But you see what difference that makes!" I tell him: "Well, I am not going to eat, I am going to see, to see what is happening".

And I went into the *agencia* [municipal house]. "What are you doing here?" [he asks to the people inside]. "Well, we are here, we are going to consign your son-in-law". I tell them: "But ... what is the accusation?" Then spoke the man of the woman: "My daughter-in-law is very ill", he said. "Because of him, because she wanted to embrace him on the road and they couldn't". I said: "But there is no justice for this ... I tell you this frankly, because I was once in Soteapan. I was standing there and someone came to say that a man had died, he came to inform that the son-in-law of Aurano had died several days ago because of witchcraft. And the *síndico* [the receiver of legal complaints] said: "Look I am very sorry, very sorry as a friend". The man answered: "I am only reporting the news". [The *síndico* replies:] "But we cannot report that point. That point, the government does not ... does not get involved in Acayucan" [nearby city outside the Sierra]. In the opinion of the lawyer there, this can not be registered [*no entra*]. If it was a cut, a bullet shot or a beating ... yes, but not this. [The man replied:] "So, you are not on my side?" "Yes, I am on your side, I don't said it did not [happen]. But it cannot be entered.⁵⁰" [The man:] "So what do we do?" [The *síndico*:] "Well go pay, but down to Acayucan, we cannot acknowledge that notice. That man was not killed with blows, yes ... he was killed by witchcraft. That ...we disavow witchcraft". [The man replied:] " Oh, Okey..."

So I told them about that instance, and said: "They don't record these things. They don't acknowledge this illness. They don't know about it". And then

⁵⁰ The discussion centres around the impossibility of the local authorities to register witchcraft as a cause of death in the records of the legal office of the *Municipio*. The local authorities accept the cause but cannot officially recognize it.

I said: "Yes, but if you are going to accuse my son-in-law, you are not going to take him tied. I will take him down myself, like that, without being tied. I will take him to Soteapan and we will inquire there. Yes, I know that surely the authority will disavow this matter, I am sure!"

[Once in the head town, they go before the local judge:] "Judge" said the man, "I accuse him, lets tie him up!" I tell him: "Well if you are going to tie ... tie.. tie me up also, but I am going to get it off". The judge stated his opinion, he said: "No, you can not grab him because of this motive". Then I said to him [to the father-in-law]: "Look, if you feel that I ... if you are angry because I am getting involved in these matters, I will go out, but you also go out [of the room] ... let them [judge and accused] intervene." He then said: "Well .. no .. look because this man... well... we are looking for a way for him to cure her ... because I am looking for that to cure." [Juan replied:] "Well, that is another matter!"

The end of the story was not taped. But from field notes, the following reconstruction can be made: Juan told the father-in-law that if nothing had worked in trying to heal her, he had a last cure. The man agreed to try it. Juan went to Pedro and asked him to give him his underwear and to wet it with his urine, "Very wet". Don't ask. You give it to me." He then made a "tea" with the underwear (soaked the underwear in water) and went to see the girl. She asked her to drink some. She drank it and said: "What are you giving to me that is so refreshing [*que refresca tanto*]?" and she asked for more. Juan noted: "Yes it refreshes! I gave her a bit ... and she asked for more. She finished the bottle! People ask for more when you give them some, and with that she was cured."

Juan's narrative corroborates not only Luis's story, but also many previous interpretations of the illness. Not recognized by the laws of the country, nor by the official health services of the area, *Mal Amor* is an illness about human relationships that is dealt with through local remedies. In this sense, it is not surprising to see Juan equate its rejection

by the outside world to that of witchcraft. It is something that the people of the Sierra believe in, but others from the outside don't, including outside officials from the municipality and State. In this particular occurrence described by Luis and Juan, both the boy and girl are married. The option of sexual intercourse is never considered. Instead, recourse is made to a form of treatment that was also presented in earlier accounts. Water from the sexual organs, in this case a mixture of water and urine from the boy, is used to cool off the heat that invaded the young married woman. The urine is collected from the boy's underwear⁵¹. But why not collect the urine directly in a bottle or gourd? Perhaps using this piece of cloth to make the curing potion or "tea" introduces an element of pudency into the sexual nature of the cure. This piece of clothing (used for the prude covering of the genitals) brings to mind the orders of King *Huémac* to put a *maxtle* and a cloth on the naked *Tohuenyo* before sending him to have sex with his daughter. The bath and anointing could have sufficed given the naked ways of the *Tohuenyo*, but before he was sent in to see the maiden princess, he was required to clothe himself.

Maria is a community worker and *campesina* who lives in a neighbouring village. She had tangentially referred to a "hot disease" in a previous talk. Probing now further in light of the information from the preceding stories lead to the following discussions.

⁵¹ Münch (1983) briefly refers to *mal de ojo* in the Sierra de los Tuxtla as a disease caused by people with a strong sight (*mirada fuerte*) that affects children. One of the possible cures he recorded was the use of a dirty underwear of a family member to rub the child's face (p. 202), another is the application of saliva from the person with the strong gaze in the front of the child (p. 222).

Excerpt from field notes: 25-03-94, pp. 2-3

[File: i2503me.94, story reconstructed from a taped interview, my own translation]

Q: You also had talked previously about a hot illness or *piji cacuy*. What is *piji*?

M: *Piji* is hot, like fever [*calentura*]. That happens to you when a man is cheating on a woman. When she is hot, and at that moment she has a headache. When a man likes a woman and did not talk to her. But this is a story that some say exist, but I do not believe it. They get ill because they don't have the faith of god⁵². A healer told me about the heat of a man or a woman. They become weak, the organ disappears [*el órgano se le va*].

[Maria becomes ashamed and does not go on]

Q: I've heard about that illness, but they call it *moya cacuy*.

M: It is the same one. *moya* is a flower, because of the woman. Its [called like that] when it happens to the man. But *piji cacuy* is the same for both man and woman.

Three months later, Maria was more comfortable in discussing various topics with a male outsider. In the following excerpts we learn more about the social implications of the illness and how people deal with them.

Excerpt from field notes: 13-06-94, pp. 1-3

[File: i1306me.94, story reconstructed from a taped interview, my own translation]

Q: Do you remember that you talked to me about the disease of *Mal Amor*? If a woman gets ill with it, and she is not married, would her parents get mad at her?

M: I know of an experience. There was a young boy that people called the "*sapito*" [small frog] and a very young girl, of about 15 years [of age]. They say that she went out to play and met the boy who she liked. She decided to have him closer to her, to embrace him, but they could not do

⁵² Maria is a devout Catholic. Her first reaction, just as that of Luis and Juan, is to distance herself from what she is about to tell me, assigning such beliefs to others. But as conversations follow, the distancing seems to disappear.

it because people were coming by. She wanted him. She wanted to have sex. So she went home. [The story was told to her by the girl's mother.] When she arrived home, her head began to ache and [she] began to gesture. She began to call him with her hand and to call for the name of the boy. The mother tried to ignore her condition so that people would not find out and begin to defame her girl. But time passed and they decided to go and find people that can cure that. The man [healer] checked her over and took her clothes off. She was not naked when he was close [to her]. He saw her from far away, and the organ [female genitals] she did not have it anymore. He said that she only had a hole, the illness was in a very advanced state. The healer went to look for the boy so he would make love to her and heal the girl. But the boy had left to go and work far away because he felt ashamed. The girl could not be healed and she died. ...

Once more we encounter the same causes, the same symptoms, the same cures: a sexual yearning that goes unfulfilled, a sentiment of shame, a headache, an intense heat, the disappearance of the genitals, sexual intercourse as the solution, and death as the end result if the illness is left untreated. We noted in Chapter 3 that people in the Sierra consider long periods without sexual relations to be harmful, leading to headaches and pain in the eyes from an internal buildup of heat. Not unlike Maria's story, Olavarietta also reported a case in los Tuxtlas where a healer was treating a young woman that had continuous headaches, explaining that she suffered from "accumulated sexual energy" in her body due to a state of "sexual deprivation" (1989: 66). The author remarks that after a certain age, the body is thought to become surcharged with heat energy if sexual impulses do not find a normal outlet. Lopéz Austin similarly notes that the Ancient Nahua considered the lack of sexual relations when needed by the body to be a cause of illness. Widowers, for example, had to consume ocelot meat to "cool the bodies in need of sexual relations" in order to avoid becoming ill (1996: 333).

In the story told by Maria, the social stigma was too much for the mother to bear until it was too late. By the time the healer was called in, the sexual organs of the girl had vanished. The healer concluded that fulfilling the girl's sexual desire was the only hope for survival, just as the ancient King *Huémac* must have reasoned of her daughter's condition.

The conversation with Maria continued:

- Q: So when one becomes ill with it, others think it's bad?
- M: Yes, people begin to whisper and make gossip instead of looking at how to help.
- Q: If the woman is married and falls ill with *Mal Amor*, would her husband get angry?
- M: Yes, he gets angry. He would help her to heal but the husband would abandon her later.
- Q: And if this happens to the man, would the woman get angry?
- M: They also fight, yes they fight because of that. ... [She was told of another case by a healer from a different village. They are very close friends, this is why he tells her these stories.] A boy and a girl liked each other very much although both were married. One time they met each other by the stream. She was carrying a bucket because she went to fetch water. He was going to his *milpa*. The woman stopped him and pulled him to the side of the path. The boy was too rushed and kind of rough, so she left. She grabbed her bucket and left. She left him there lying on the ground. So the boy got up and went home. His wife was there sweeping the house and when she saw him, she asked: "What's with you? Why are you sad?" The man said that nothing had happened, but she insisted and touched his face and told him he was too hot. He negated that something had happened. So his wife went to bring the healer. And he came to see him. The boy said that he had a hot illness, like the illness from a lightning [*enfermedad de rayo*]. The healer looked at him. He gave him water to drink. The boy drank a lot of water. The healer did not believe what the boy was telling him. When the illness of *Mal Amor* grabs you, the ill drinks a lot of water, his mouth is somewhat going inward and very dry, and one has a very bad ache of the head and is very hot. That's why the healer already knew what had happened to the boy. The boy did not want to confess. The healer told him: "send your wife to do an errand to the *milpa* or the river." The husband then asked the woman to go to the river to fetch water for the horse. "Yes, I will go" said the woman. When she was not there, the healer told the boy:

“Now, tell me what happened.” And yes, the boy did tell the healer. So the healer went secretly to see the other woman and asked her to wash her organ and to give him her juice in a bucket [M blushes and says:] That’s very dirty [*bien cochino*] but he said that this is how it must be done. Then the healer made seven small *posoles*⁵³ with that and with the saliva of the woman and went to give them to the boy to cure him.

Q: And what did the husband of the woman think?

M: No, he did not know. He came home and asked her what was the healer doing around here. She answered that he only came to visit. This is why the healer is good, because he did it secretly, to avoid any more problems.

The healer in this story plays a role of social mediator. He intercedes in favour of the ill in a way as to prevent a social conflict between and among the couples and relatives. His cure also includes “sexual waters” from the woman, but this time he adds her saliva and uses both to prepare a drink with maize dough served in seven⁵⁴ small earthen pots. We noted earlier how mothers use saliva to counter a hot condition from “*mal de ojo*” in their children. The “juice”, the saliva, the earth pot, are all Cold elements used to counter the Hot condition of the man afflicted with *Mal Amor*. The sexual nature of the “juice” helps appease the sexual yearning.

A healer from yet another village gave remarkably consistent answers when asked about *Mal Amor*. The following excerpt is from a conversation in which the topic is broached for the first time.

⁵³ Drinks made from maize dough usually served in small earthen pots

⁵⁴ We have encountered the number 7 in many healing rituals of the Zoque-Popoluca before. Münch (1983: 188) notes that ideas of illness in the area are related principally with seven dieties: the sun, the moon, the Earth, the lightening, water, wind, and maize.

Excerpt from field notes: 10-06-94, pp. 16-17

[File: il006je.94, story reconstructed from a taped interview, my own translation]

- Q: People tell me that urine is used in curing *Mal Amor*.
- H: Well, about *Mal Amor* ... that happens when for example one is walking and you see a girl so beautiful! A gorgeous woman! And you wished to call her, you wished to talk to her but you have no courage to do it, and she likes you and just because you can't get to her at that moment, that is when the disease sets in after a while. After a while you get like a fever, and then other ills get to you, until at the end, when you are bedridden you then begin to call the name of the girl. By then you are lost, you are ill. When a person is in that state, you must call the girl. The girl must come and sit with the young man to talk about the way in which the boy or the girl got ill, and if they felt affection or did not feel affection [for each other]. And then, so as not to use the urine, then you can make a small *posole* for him to drink. Or if not, she can give him seven times her saliva from the mouth, with that is enough to heal.
- Q: Seven what? I'm sorry?
- H: Seven salivas, she must give him seven little salivas, or... she can make him seven *tortillas*, the girl must eat a piece and the boy must eat a piece [of each].
- Q: Does the saliva refreshes? Is it cold?
- H: It's fresh! It's fresh.
- Q: I am trying to understand why would the urine need to be used in the last case, if ...
- H: It's because many do it with the end of .. so that the person becomes refreshed, because the thing of the man [he touches his penis] one doesn't have it [anymore], it goes away from you. Yes, so he becomes well, it is better to call the girl. Because sometimes one does it in secret, so the father or the mother don't get to know. Because sometimes it can be even dangerous because they can have a problem with the father or the mother. Sometimes you tell the girl: "Look so-and-so is like that, he is found ill because of you. Go and talk to him to see what did he want to say, what does he have". And so if she has good faith, the girl goes. But if not, if the girl does not go there are many that have died like that. Many have died like that. There are some that cannot stand it, they die. It is like that. We have seen it. Or else, another way to deal with it, you have to take out seven cups of water from each well that is abandoned ... the wells must be abandoned, they must have been abandoned for a while. And from there you take the water out and you take it to give it to that

man, he must drink it from the side, from the side and [must be] *ensalmado* and this is how he can be healed, but the girl must sometimes be there, at the time of the *sahumación*, she must be there.

This was the most abstract conversation that was recorded on *Mal Amor* in the sense that it did not involve the narration of a particular life occurrence of the illness. The healer refers in his explanations to young would-be lovers that are unmarried. Once again we hear about a sexual desire, a moment of weakness (lack of “courage” to call the girl), fever, and the disappearance of sexual organs. The healer also brings up his role as mediator, interceding in secret to prevent social conflict, this time between parents. We find again, as we did in all previous cases, the involvement of the person causing the strong desire in the cure itself. The use of urine is also acknowledged, so is the use of saliva and the presence of the number 7; but other elements not encountered before are also present. Two alternatives to the use of sexual waters are described. One is the sharing of seven tortillas, the fruit of a man’s and women’s labour, an act that could symbolize a marital union between the couple (the *chaneques* would never tolerate the sharing of this precious product between an unfaithful spouse and lover). This act of sharing possibly legitimizes the sexual desires of the unmarried youths. The second alternative is the drinking of seven cups of water from abandoned wells. These are fertile waters fresh from the Earth, un-polluted by humans⁵⁵. In this case, the healer also mentions the traditional rituals of *ensalmo* and

⁵⁵ I had the opportunity to interview a “*Mujer Rayo*” (Lightning Women), a powerful and respected healer in the Sierra. During my visit, she talked about a young boy she was treating from a constant painful headache, a Hot condition. As part of the cure, the boy’s head is refreshed with water that comes from a well. The water is collected very early in the morning, “before people take from it”. She must be the first person in the new day to collect water from

sahumar performed in the presence of the person eliciting the strong sexual yearning. But the water must be drunk from the side, as if its Cold fertility was too strong to be faced directly. Both alternatives bring out the presence of the spiritual world into the healing process, albeit in a convoluted manner.

With *Susto*, healing was guided mainly by the need to re-establish harmony; to provide the afflicted with that which was taken away and is now lost. When the soul of a person is snatched, the body is drained from its solar energy and reverts to a state of Coldness and humidity. This is a state where the blood has disappeared, depriving the body from its source of vitality. Unable to mature, the body is destined to die by rotting in an excess of water. Healing rituals seek to retrieve the lost source of solar energy so that the normal body functions can resume. With *Mal Amor*, the various forms of healing described also seek to regain a harmony lost. This loss becomes manifest in the body as a state of emptiness, a sexual yearning that remains unfulfilled and leads to the disappearance of the reproductive organs. The disease is a break in the cycle of regeneration of life. The human body is now at the other end of the spectrum, deprived of its source of fertility, withered and parched. If left untreated, its fate will be certain death from an excess of heat.

These concepts can again be traced to ideas existing long ago among indigenous populations. Klor de Alva (1993: 188-9) writes that for the Nahuatl of the Colonial period, a person's well-being, or harmony with the cosmos, could only be maintained through a

the well for it to be used in the healing [i1505fer.94: 8-10].

rigorous regime of self-control, self-denial and self-sacrifice. Sexual transgressions or over excitation produced an excess of sexual “forces” that would break down the balance required to maintain a healthy state. The excess energy was associated with a form of contamination known as *tlazolmiquiztli*, meaning “death or disease from refuse, from what is worn out”.

The author writes:

This suggests that disease or death produced by a breach of sexual conduct is the product, like garbage itself, of a physical wearing down or the result of something superfluous - an excess that, again, pollutes the transgressor along with the bystander (p.188).

Like the Popoluca of today, the breach in moral conduct and guilt (shame) did not reside in the idea of having offended the divine, but rather in the loss of self-control and self-denial that breaks the harmony between the individual and the cosmos. Allowing oneself to become overwhelmed by sexual desire is an act of irresponsibility and weakness that brings emptiness to the body, depriving it of its source of fertility, leaving it worn out as the dry and empty stalks of maize in the field after the harvest. The cure for the Popoluca (and for the ancient people of Tula) is very much at odds with the teachings of Spanish Catholicism or those of humoral medicine. It consists in re-establishing the harmony lost within the body by satiating the sexual angst. This is a feat that may be achieved with the consummation of intercourse or with drinking the “sexual waters” of the one desired. Figure 5.3 summarizes the various elements involved in people’s explanations.

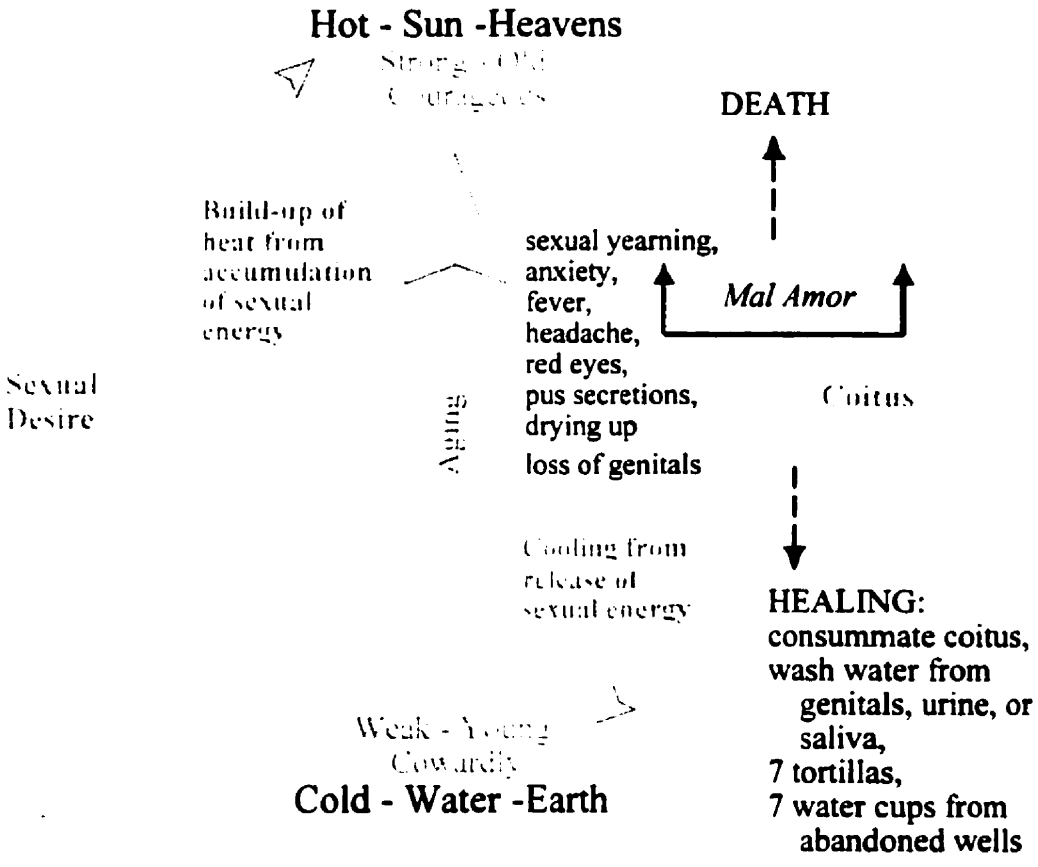


Figure 5.3 *Mal Amor*

Chapter 6: Concluding Remarks

The last century in particular brought radical changes to the Sierra Popoluca. The State and outside economic interests became progressively involved in shaping people's modes of production, drawing indigenous *campesinos/as* into a capitalist economy and the private ownership of resources. This increased contact also led to further economic dependency and the loss of local political autonomy. In the realm of health, however, a strong native character was retained in the acculturation of the Popoluca, to the point that we can discern today with little difficulty two distinct but co-existing health cultures: one indigenous, based on ancient beliefs and practices particular to the native view; the other one founded on Western medicine, mediated through government and private health clinics, the sale of patent drugs in local stores, and the health curriculum in schools. Syncretism of the old and the new is on-going. It is a complex process of negotiation, rejection, accommodation and synthesis. In this co-existence of health cultures, people can draw from indigenous and Western traditions simultaneously. At times these complement each other, as in the case of an accident, where the injured is first taken to the health clinic to treat the physical wound, and then to a *salmera* to heal the *susto* caused by the accident. At other times, the old and the new can challenge each other or work at cross purposes, as in the case of a medical doctor impeding the offering of a sacrificial chicken by a midwife, or a mother giving her child a single antibiotic pill handed by a friendly neighbour to stop a bout of diarrhea.

New practices emerge, old ones are abandoned, while still others persist. Similar processes of cultural borrowing and blending were likely at play during the Colonial and Post-Colonial periods. In these earlier times, the main confronting influences in the Sierra were Popoluca and Nahuatl health traditions and the Hippocratic Humoral medicine of the Conquistadors. From these many interactions between Western, Colonial and pre-Hispanic traditions derive what we can characterize today as the indigenous health beliefs and healing practices of the Zoque-Popoluca. The data presented in this thesis suggest that prehispanic influences remained very strong within this mingling of traditions⁵⁶. Yet, these propositions are in direct contradiction with the diffusionist hypotheses of Foster that portray a “folk variant of Greek humoral pathology” as the “dominant nonscientific” conceptual framework of traditional medicine in Mexico⁵⁷. What is striking in Foster’s generalizations is that the author himself carried out his doctoral research sixty years ago in the same Popoluca villages of this study, at a time where ancient traditions were probably much stronger given that neither Western medicine nor Protestant religions had made much inroads into the Sierra before then.

⁵⁶ In support of this argument we refer to Lopez-Austin who proposed that the Spaniards tolerated the survival of indigenous ideologies of the more isolated groups as long as the people showed a modicum of conversion, and traditions did not represent scandal or a danger of subversion or resistance to oppression. The resulting incongruence that persisted between the worldviews of the conquerors and the conquered protected on the one hand the dominated groups through the cohesive function of their indigenous ideology, but also served the actions of the Spaniards, as it ensured the political and economic marginalization of these same indigenous groups, and perpetuated the myth of the need for tutelage (1996:25).

⁵⁷ See Foster G. M. *Tzintzuntzan: Mexican Peasants in a Changing World*, pp.185-186. Little Brown, Boston, Mass., 1967.

Disagreement with many of Foster's humoral arguments lead to the different themes of inquiry of this study. First, a brief exploration into native ethics showed that there is no arbitrary separation between contemporary indigenous medicine, native morals, and ancient spiritual traditions as Foster's humoral postulates suggest. Even though the author accounted for the obvious presence of Christian elements in folk medicine as illustrated in the excerpt below, he views these elements as peripheral to the conceptualizing logic of an illness, its symptomatic expression and treatment included. He writes:

Humoral medicine was even versatile enough to cope with Christianity's teaching that disease was sent as punishment, by a wrathful God, a personalistic view of causality diametrically opposed to the naturalistic basis of humoral pathology. God, savants argued, obviously sent disease, but he did it through natural means, thus leaving unscathed the primary Greek premise of naturalistic causality (Foster, 1996: 186).

In his view, Christian spirituality could only justify the occurrence of disease but could not explain its inner workings, nor the human attempts to fight it - those roles were reserved solely to humoral theory. Little or no room was allowed for the expression of a native worldview. Contrary to this position, we argue in Chapter 3 that the moral of self-sacrifice, a logic of self-mastery and abnegation rooted in ancient spiritual tradition, is strongly manifest in health beliefs and practices of the Zoque-Popoluca today. Spiritual elements predating the Conquest are often explicit in the ways people perceive or experience symptoms of an illness, the meanings they attribute to its cause, or the practices they use to prevent and treat it. In other instances, these spiritual elements seem absent in people's accounts but a native sacrificial logic distinct from Christian ascetic values remains ever present nonetheless.

The second theme of inquiry was the exploration of prehispanic and contemporary Hot-Cold belief systems and their interrelationship with health matters. Here again, the arguments for the diffusion of Greek humoral pathology were challenged and attention was drawn to the relevance of an ancient complex code of Mesoamerican cultures dealing with notions of equilibrium and the cyclic movement between Hot and Cold. Inferences by several researchers (Foster included) about conditions of static equilibrium between the human body and Hot or Cold influences are contested. A healthy body is presented instead as an ensemble of physiological cycles in harmony, characterized by movement between Colder and Hotter states (e.g., birth-death, young-old, rest-work, feeding-hunger, menstruation, and pregnancy cycles).

Lastly, the congruency between pre-Colonial ideological elements and contemporary health beliefs and practices of the Zoque-Popoluca was illustrated through the exploration of two particular illnesses, *Susto* and *Mal Amor*. The analyses depict the holistic and dynamic essence of native health traditions. Contrary to Western and humoral medicine which draw an overly rigid line between biological (natural) and psychological elements, the indigenous culture approaches health as a coherent set of physical, emotional, and social interrelations grounded on native moral teachings. Health and disease for the Popoluca cannot be understood in isolation from spirituality. Its omnipotent presence is very explicit in our examination of *Susto*. With *Mal Amor* it becomes concealed in the self-mastery and abnegation demanded of every human being by native ethics. Hot and Cold elements appear prominently in peoples accounts, but links to some form of humoral reasoning are highly

unlikely. Tedlock's suggestion of a traditional form of medicine founded primarily on the empirical knowledge of plant remedies does not apply here either. *Susto* and *Mal Amor* bring out the richness and diversity of concepts in native health traditions. One disease has been amply reported in the literature for different indigenous groups; the other appears concealed inside the Sierra Popoluca. One centres almost exclusively on relationships of exchange between human beings and the spiritual world; the other on the desires of the flesh between men and women, and the moral teachings of self-denial and self-control. One involves death from an excess of humidity; the other from an excess of heat. And yet, in spite the multiplicity of concepts and the particularities of both illnesses, many elements in people's explanations point to consistent systems of logic that are of a very remote origin. Highlighting these has been in essence the main purpose of this investigation into native symbolism. Many associations between ideas in people's accounts have been identified and the principles that guide their internal consistency and coherence are presented as hypotheses. Their similarities to relationships that go back for many centuries have been traced in a number of historical records. The analysis of these two quintessential ills of the Popoluca, in particular, helped us bring to the fore something that Foster ardently tried to deny of Mesoamerican Peoples: the relevance of ancestral prehispanic thought in their contemporary health beliefs and practices.

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Appendix: The Discovery of Maize

There are several reasons for presenting the following materials in this appendix. First, I have not come across any other written records on the Zoque-Popoluca myth describing scenes on how *Homshuk*, the corn-god, made maize plentiful enough to sustain humanity. These scenes were recorded in Ocotal Chico during my field work in 1994. Several elements in them came up in discussions with autochthonous healers from the Sierra, indicating to me that the knowledge about them may not be uncommon, even though they have not been recorded on paper. What is remarkable about the narration is the many striking parallels with the Nahua myth on the discovery of maize by *Quetzalcoatl* transcribed hundreds of years ago. In addition to enriching the written accounts of the corn-god myth, the material presented here also provides a vivid example of the robustness of oral tradition among the Popoluca of the Sierra, and reinforces the validity of a basic premiss of my investigation: the existence of a common cultural Mesoamerican heritage between the Popoluca and their Nahua neighbours in the Sierra Santa Marta.

The first part of this appendix presents a translation of the ancient Nahua text describing the discovery of maize. This myth forms part of the document known as the "Legend of the Suns", a manuscript belonging to the *Códice Chimalpopoca*. It is an anonymous manuscript written in náhuatl with the Spanish alphabet, and dated 1558. The following translation into Spanish is given by Miguel León-Portilla (1987: 166-71). The translation into English is my own.

El descubrimiento del maíz

*Así pues de nuevo dijeron (los dioses):
"¿Qué comerán (los hombres), oh dioses?
¡Que descienda el maíz, nuestro sustento!"*

*Pero entonces la hormiga va a coger
el maíz desgranado, dentro del Monte de
nuestro sustento.*

*Quetzalcóatl se encuentra a la hormiga,
le dice:*

*"¿Dónde fuiste a tomar el maíz?,
dímelo."*

Mas la hormiga no quiere decirselo.

*Quetzalcóatl con insistencia le hace
preguntas.*

Al cabo dice la hormiga:

"En verdad allí."

*Entonces guía a Quetzalcóatl,
éste se transforma enseguida en hormiga
negra.*

*La hormiga roja lo guía,
lo introduce luego al Monte de nuestro
sustento.*

*Entonces ambos sacan y sacan maíz.
Dizque la hormiga roja
guió a Quetzalcóatl
hasta la orilla del monte,
donde estuvieron colocando el maíz
desgranado.*

*Luego Quetzalcóatl lo llevó a cuevas a
Tamoanchan.*

*Allí abundantemente comieron los dioses,
después en nuestros labios puso maíz
Quetzalcóatl,*

para que nos hiciéramos fuertes.

Y luego dijeron los dioses:

*"¿Qué haremos con el Monte de nuestro
sustento?"*

Mas el monte allí quiere quedarse,

The discovery of maize

So then they again said (the gods):
"What will they eat (the humans), oh gods?
Let maize descend, our sustenance!"

But then the ant goes and takes
the threshed corn, inside the mountain of
our sustenance.

Quetzalcóatl meets the ant,
he says to it:

"Where did you go to get the corn?,
tell me."

Yet the ant does not want to tell him.

Quetzalcóatl questions it with insistence.

At last the ant said:

"Truly there."

It then guides Quetzalcóatl,
he transforms himself at once into a black
ant.

The red ant guides him,
it introduces him then to the Mountain of our
sustenance.

Then both remove and remove corn.

It is said that the red ant
guided Quetzalcóatl
to the side of the mountain,
where they were depositing the threshed
corn.

Then Quetzalcóatl carried it on his back to
Tamoanchan.

There the gods ate abundantly,
after Quetzalcóatl placed corn on our lips,

so that we would become strong.

And then the gods said:

"What shall we do with the Mountain of our
sustenance?"

But the Mountain wants to remain there,

*Quetzalcóatl lo ata,
pero no puede moverlo.*

Quetzalcóatl ties it [with a rope],
but can not move it.

*Entre tanto echaba suertes Oxomoco,
y también echaba suertes Cipactónal,
la mujer de Oxomoco,
porque era mujer Cipactónal:
"Tan sólo si lanza un rayo Nanáhuatl,
quedará abierto el Monte de nuestro
sustento."*

In the mean time trying his luck was
Oxomoco, and also trying her luck was
Cipactónal, the woman of Oxomoco,
because it was a woman Cipactónal:
"If only Nanáhuatl throws a thunderbolt,
the Mountain of our sustenance will become
open."

*Entonces bajaron los tlaloques [dioses de la
lluvia],
los tlaloques azules,
los tlaloques blancos,
los tlaloques amarillos,
los tlaloques rojos.*

Then the tlaloques [gods of rain] descended,
the blue tlaloques,
the white tlaloques,
the yellow tlaloques,
the red tlaloques,

*Nanáhuatl lanzó enseguida un rayo
entonces tuvo lugar el robo
del maíz, nuestro sustento,
por parte de los tlaloques.
El maíz blanco, el oscuro, el amarillo,
el maíz rojo, los frijoles,
la chia, los bledos,
los bledos de pez,
nuestro sustento,
fueron robados para nosotros.*

Nanáhuatl threw at once a thunderbolt
then took place the theft
of corn, our sustenance,
by the tlaloques.
The white corn, the black one, the yellow
one, the red corn, beans,
chia, amaranth,
amaranth fish.
our sustenance,
they were stolen for us.

The transcription of the Zoque-popoluca version now follows. It was tape-recorded in Spanish, during the same interview in which I recorded the "egg" and the "bath" scenes of the corn myth that are presented in the body of the thesis. The narrator is Pedro Gonzalez Santiago (P). The transcription of the scenes and their translation into English are my own.

Excerpts from filed notes: 08-06-94

[File: i0806pe.94, pp.18-29]

P: Y otra historia más añadido, dice que había un cerro, un cerro ahí. Entonces, el [Homshuk] dice que le dijo a un pájaro, ese no se como se le llama en Español.

A: ¿Y en Popoluca?

P: En Popoluca se llama ut tut, se llama un pájaro así, igualito como el pichón, pero está más grande que el pichón. Se ve, bueno, es azul, azul, pero la cola larga, ahí se ve la cola, que como que se había comido la cola. No lo ha visto, verdad?

A: No.

P: No, nosotros si lo conocemos. Lo conocemos en popoluca, se llama ut tut. Entonces porque dice que ahí, todas las mañanas encuentran maíz, tirado así, en el camino, ahí, hay un camino. Se lo encuentran ahí tirado. Entonces le dijo: "Hora, usted va a dar como vigilante. Fijele bien, no se vaya a dormir! Fijate que animales van a sacar el maíz. Porque ahí lo llevan el maíz." Toda la noche.

A: ¿Y quién lo regó? ¿Homshuk?

P: fijese que el maíz estaba guardado en una bodega, en un cerro! en un cerro! Ahí está, en un cerro, pero de pura roca, sí. Entonces, está guardado el maíz. Pero dicen que el arriero, como es canijo ese, se mete y van a sacar. El arriero sí encuentran algo de comer, se lo llevan, el arriero ... se lo lleva.

Entonces le ordenaron al pájaro que se lo cuidara, y que se fije de donde lo saca.

P: There is another story added, there was a hill there. Then, he [Homshuk] told a bird, I don't know its name in Spanish.

A: And in Popoluca?

P: In Popoluca it is called *ut tut*, just like the pigeon, but bigger. It is blue but its tail is long. The tail looks like it has been eaten somewhat. Have you seen it?

A: No.

P: We do know it. In Popoluca it is called *ut tut*. The story tells that every morning corn could be found scattered on the road, there on a road. It could be found there scattered. He [Homshuk] then said: "Now you are going to be a watch person. Watch carefully, don't fall asleep! Watch which animals are taking the corn out. Because they take the corn with them." All night

A: And who scattered it? Homshuk?

P: look the corn was being kept in a warehouse, in a hill! A hill! There it was, in a hill, but one made of pure rock. The maize was stored there, but it was said that the *arriera* ants, since they are very sneaky, they get in and carry it away. If the *arriera* finds something to eat, it will take it away, ... the *arriera* will take it away.

So he ordered the bird to take care of it, and watch where it [the corn] is taken out from.

Entonces dijo: "Sí me voy a quedar." Entonces, todavía quedo en ser la tarde. Ya es de noche. Aguantó, hasta las nueve, durmió. Pero, se paró en el mero camino en donde pasan los arrieros. Entonces, y como estaba dormido, la hormiga esa se le comió la cola. La colita se le comió. Entonces, y no se fijaba.

Y al día siguiente, vino ya el Homshuk, dice: "¿Te fijaste donde salió el maíz?" "Sí, sí .." dice el mentiroso. "¿A donde?" "Allá!" Dice: "Oye? y la cola, que te pasa?" "Mira!" Y fijese que le había comido la cola, y no sintió, no había visto. Pero Homshuk se lo vio! "Mire y en la cola, que le pasó?" "No" dice, "No, no tiene nada." "No!" dice, "Está comida la cola! se comieron anoche." Entonces, lo voltearon, "Ha, Sí!" "¿Y quién?" dice. "Pus me dormí." "Entonces, no fuiste un buen velador!" "Pus, no. Me dormí. No aguanto." "No sirve para nada, lo voy a buscar otro." Entonces buscó al tapa-caminos ¿Lo conoce?

A: No.

P: ¿No? Es un pájaro también. Sí, ese grita de noche, no duerme. Sí, y se llama tapa-caminos porque el .. ese siempre nos espera en el camino. Se levanta a cada rato y se cae. Sí, el tapa -caminos. Entonces, tantito voy a hablarle está noche, "se va a quedar vigilando, porque ya se lo mandé a aquel y se le comió la cola y sin cuidar donde salió el maíz."

"¡Ah bueno!" Dice: "Usted, fijese bien, porque mañana te voy a preguntar." "Ah bueno" dice. Entonces, se quedó en el

The bird replied: "Yes, I will stay." It was then the afternoon. Now it's night. He lasted until nine, he fell asleep. But it was standing in the middle of the path of the *arriera* ants. So, because it was asleep, those ants ate its tail. The little tail was eaten. And it did not noticed.

The next day Homshuk arrived, he said: "Did you watch where the corn came from?" "Yes, yes ..." replied the liar. "Where?" "There!" It said. "Listen, and your tail?, What happened to it?" "Look!" His tail had been eaten, and he did not feel it, he had not seen. But Homshuk noticed it! "Look, what happened to your tail?" "No" he replied, "no, it had nothing." "No! your tail was eaten! Last night it was eaten." He then turned the tail around [to show the bird]. "Ha, yes!" "And who?" "Well, I fell asleep." "So you were not a good watcher!" "Well, no. I went to sleep. I could not stand it." "You are good for nothing, I shall go and look for someone else." He then looked for the *tapa-caminos* ["path-stopper"]. Do you know it?

A: No.

P: No? It is a bird also. That one yells at night, it does not sleep. Yes, it's called the *tapa-caminos* because it is always waiting for us on the road. He flies for a bit and then lands. Yes, he stops in [blocks] your path. So [Homshuk] talked to him briefly that night: "you will keep watch, I already asked that other one and his tail was eaten, he didn't watch where corn came from."

"Good!" [Homshuk] said: "You pay attention, because tomorrow I will inquire with you." "Fine" [the bird] replied. He

camino, pero como el no duerme, entonces, cuando todas se salieron, entonces el les dejó pasar. Entonces, el los siguió. Sí, se encontró al tapa caminos. El tapa-caminos los fue a seguir hasta el lugar donde ellos se meten a sacar el maíz. Entonces, el le vio. Y al día siguiente, ya vino el Homshuk, el dios del maíz, ya lo vino a preguntar:

"¿Y usted, vistas?" Dice, "Sí, sí." "¿Y a donde?" "Por allá, allá en el cerro. Ahí donde está partida la roca, ahí se meten. Sacan puro maíz." Ahí era un banco de maíz. "Ah, bueno." Dice: "Y ahora, que vamos a hacer?" Entonces, el dice que buscó un señor, era el mismo rayo. Como el tenía poder, hablaba con el. Dice, le dijo: "Mira, mira que aquel lugar era un banco, hay que abrirlo." "¿Pero, como?" Dice: "Usted lo puede partir." Entonces el hombre como era el rayo, hizo un relampagazo y llegó en el mero cerro, se lo trono ahí, se lo partió! Y dice que como era puro pedregal, un pedazo de piedra, dice, se le llegó en la rodilla, se le hirió, entonces, sangró el maíz. Porque ahora, hay un maíz. Yo no lo tengo, pero he visto donde lo tienen, ese maíz está pintado como de sangre. Lo ha visto usted?"

A: Sí, sí, como rayitas ...

*P: Sí, unas rayitas. Entonces, dicen que esa es la sangre del que partió la roca ahí. Sí, la sangre del mismo rayo. Dice que una piedra ... sí ahí se prendió como una bomba, y entonces, un pedazo de piedra se le llegó a la rodilla, entonces chorreo el maíz ahí la sangre, entonces dice que ahora significa el **nuc nɪ piñ**. El que partió ahí, se le llama en*

stayed on the road, but because he doesn't sleep, when all of them came out, the bird let them by. It then followed them. Yes they [the ants] found the *tapa-caminos*. The *tapa-caminos* followed them to the place where they go in to remove the corn. So it saw this place. And the next day, Homshuk arrived, the God of corn, he came and asked the bird:

"And did you see it?" [the bird] replied, "Yes, yes." "And where?" "Around there, there in the hill. There, where there is a crack in the rock, there they go in. They take out only corn." There was a bank of corn. "Alright." "And now, what shall we do?" The story says that he then went to look for a man, it was the thunder himself. Since he had power, he spoke to him. He told him: "Look, that place there is a bank, it must be opened." "But, how?" [Homshuk] replies: "You can brake it." Then, since the man was the thunder, he threw a thunderbolt to the middle of the hill, it blasted there, it broke it into pieces! And [the story] says that since the hill was made of rocks, one piece of rock came and hit the knee [of the thunder] injuring him, he bled on the corn. Because now, there is a [type of] maize. I do not have it, but I've seen places where people have it, that maize is coloured as if with blood. Have you seen it?"

A: Yes, yes, with streaks ...

P: Yes, some streaks. So, people say it is the blood of the one who broke the rock there. Yes, the blood of the thunder himself. They say a rock ... it blasted as if with a bomb, and then, a piece of rock hit his knee, and so he dripped his blood on the corn, so it is said that today it means **nuc nɪ piñ**. The one who broke it there it is called

popoluco, el rayo: *nuc cuya*

in popoluca, the thunder: *nuc cuya*.

A: *¿Qué es nuc nɛ piñ ?*

A: What is *nuc nɛ piñ* ?

P: *nuc nɛ piñ* . *Nuc dice nucuya, el mismo rayo se llama nuc cuya. Porque ese rayo parece que ahora por eso, ahorita no llueve, porque yo he visto cuando llueve, el primero que tiene que tronar para abajo. Sí, truena, sí tiembla la tierra entonces es cuando ya viene la lluvia. Pero ese no lo escucho todavía. Por eso no ha llovido. Entonces, dice que es poderoso, y que el mismo ... el mismo le dio poder el Homshuk. Sí, usted va a quedar aquí, en el tiempo de lluvia usted va a anunciar. Entonces, ese fue el que partió el cerro ese, y ahí lo descubrió el maíz. Y dice, había mucho maíz.*

P: *nuc nɛ piñ*. It's *nucuya*, the thunder itself is called *nucuya*. Because that thunder, right now is not the rainy season, but I have seen when it's due to rain, first thunder down below must be heard [in the valley]. If it thunders, if the earth trembles, then it's when the rain is coming. But I have not heard it yet. That's why it has not rained. So, it is said that he is powerful, and that himself, himself was given power by Homshuk. If you stay here during the rainy season, you will hear the announcement [of the rain]. So he was the one that broke in parts that hill, there corn was discovered. And they say that corn was plentiful.

No in-depth analysis of either myth will be attempted here since such a task lies beyond the scope of the study. There are however several comments that are worth noting. Both myths share many fundamental elements. They both deal with the preoccupation of gods in providing for the sustenance of humankind. In both, the gods that represent wisdom and self-sacrifice, *Homshuk* and *Quetzalcoatl*, take on the task of searching for this source of sustenance. In both myths, corn is the nourishment that will give strength to human beings.

The idea of corn being the nourishment and source of strength for people is very explicit in the Nahua myth. We see *Quetzalcóatl* put grains of corn on the lips of the first

human beings. *Oxomoco* and *Cipactónal*, the nahuatl couple "equivalent to the Adam and Eve of the hebrew Bible"; the text specifies that this was for the purpose of them becoming strong (León-Portilla, 1987: 170). In the Popoluca myth, *Homshuk* creates corn for her mother to eat after her request for help: "because she was very poor" tells the story reported by Münch (1983: 167); in the version transcribed by López Arias, *Homshuk's* mother tells him: "I am dying because I hardly eat". The corn-god responds to her plea by asking her to give him the sacred bath from which corn will be created (Culturas Populares, #25, 1983: 14).

Also in both myths, the gods know the *arriera* ant holds the secret to human sustenance. Both gods have to find a way for the ant to reveal its secret. The *arriera* ant in the end guides them both to the Mountain that withholds the sacred nourishment. This creature plays a very important role in the mythology of both cultures. In this Nahua myth, *Quetzalcoatl* converts himself into a black ant and is guided by the red *arriera* ant into the mountain of our sustenance. Marching side by side are the red and black colours that represented wisdom for the ancient nahua (León-Portilla, 1987: 169). With regard to the Popoluca, we can recall in the first scene of *Homshuk's* story how a corn child was crushed in the stone into a dough and placed in a womb-like container inside the *arriera* ant hill. The corn-god-child emerged from this ant hill, transported on the backs of the *arriera* ants to the watering place where his journey in life would begin.

As both myths progress, we find *Quetzalcoatl* going inside the mountain and taking

some corn to present to the gods and to Oxomoco and Cipactonal. In the Popoluca myth, *Homshuk* has already introduced corn as the nourishment of life to his mother, in the earlier "bath" scene (described in the main text). What the gods ponder now, in both myths, is how they can become the owners of the mountain of sustenance. The gods saw that it was not enough to have a few grains of corn, but that it was necessary to own it in abundance to be able to cultivate it and ensure the sustenance of people forever (León-Portilla, 1987: 170). In both myths, the gods resort to the lord of thunder who with a thunderbolt breaks open the mountain, giving humans access to the nourishment that will give them strength from that day forward.

In the ancient Nahua myth, Nanáhuatl or Nanahuatzin takes on the image of the god of thunder. Gods in pre-Hispanic Mexico were often referred to by different names depending on the particular actions that the deities were performing, or in order to emphasize some particular characteristic quality of the Gods. Nanahuatzin is the god with the pustules, the symbol of humility and self-sacrifice, who in Teotihuacan casted himself into the fire and was converted into the sun Tonatiuh (León-Portilla, 1987: 170).

The names given by our Popoluca narrator to the lord of thunder (nucuya) and to the corn sprinkled with the thunder's blood (nucnɪpiñ) are very interesting¹. Both contain the

¹ Elson also translates nucnɪpiñmoc as "maíz rayado" (streaked corn) [nɪpiñ = blood (p.76); moc = maize (p.71)], giving the example: *Jém nucnɪpiñmoc wiñ'tipɛ moc* or "El maíz rayado es el maíz original" (The streaked maize is the original maize), just as our narrator remarks at the end of his story [*Jém* = *el, la* (the), p.64; *wiñ'tipɛ* = *el primero* (the first one), p.98]; *wiñ'ti* = *primero, antes* (first, before), p.98].

word "**nucu**" which literally means "*arriera* ant" (B.Elson, 1995:77). Also, Elson (p. 77) includes in his dictionary, the word: **nucuwɪ'day** which he translates as "*ser de cuento (arcaísmo)*" or in English: "a being or character from old stories (tales) - archaism" [**wɪ'dáya** = *envejecer* (to grow old); **wɪ'daya** = *esposo* (husband) or *viejo* (old man) p.99]. Could the name **nucuya**, used by Pedro to address the lord of thunder, be a derivation of this ancient name? Perhaps this old mythical character can be associated and described with the words "old-husband-*arriera* ant". The *arriera* ant and the thunder are two mythical creatures closely link to the origin of corn. The myth itself weaves together several associations that suggest such relationships. The thunder, the story tells, shall announce the rains, that sacred liquid which will fertilize the earth and allow the corn-god to grow. As we noted earlier, the corn-god child itself gestates inside the *arriera* ant hill, and it is the ants themselves that bring the corn-god-child out of the womb-like (ant) hole into this world.

Just before braking the mountain open, the ancient Nahua myth has the *tlaloques* descending from the mountains. These are the gods of rain that come from the four points of the universe to fertilize with their rain the corn that is about to be endowed to human beings. The myth describes them as the blue, white, yellow, and red *tlaloques*². In the

² León-Portilla gives us the ancient nahua colours and origins of each *tlaloque*. The blue *tlaloques* came from the South, the white ones from the East, the yellow ones from the West and the red ones from the North (1987: 170). López Austin notes, however, that the distribution of colours was not the same throughout Mesoamerica. In what he calls "the most frequent division in the central high plateau", he assigns the blue colour to the South, white to the West, black to the North, and red to the East (1989: 65). For the region of los Tuxtlas (our area of study) Münch gives us the following colour associations: black-West, yellow-South, red-East,

Popoluca myth, this fertilization took place also in the earlier bath scene, when *Homshuk's* mother poured water on the corn-god's head creating with this act maize of every colour, the one that is black, the yellow one, the red and the white. Both myths make perfectly clear that the lord of thunder will bring the rains that will allow the corn to grow.

Four hundred and forty years separate both transcriptions, the first one recorded by Nahua scholars in the early years of the colonisation, the second one narrated by a Popoluca *campesino* that doesn't know how to read or write. His skill as a narrator is nonetheless outstanding, so is that of his father Don Frumencio from whom he learned these passages. Equally remarkable is the narrative excellence of their forbearers who kept the story of *Homshuk* alive from generation to generation, going back for centuries.

and white-North (1983: 154-55). These are the same colours of corn created as water poured down from *Homshuk's* head in the mythical bath. The sequence of appearance follows a rotation around the cardinal points in a counterclockwise direction (West-South-East-North).