

Engaging with Indigenous Water Realities: Agricultural Cycle Rituals and Oral Tradition

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ABSTRACT

The Nahua communities in the Central Highlands of La Montaña of Guerrero region have a ritual-agricultural cycle closely related to seasonality, environmental processes, agriculture, and landscape. The most important celebrations in the region are those asking for a good rainy season, for the rain to end, and to thank for the harvest. Building upon the ethnoecological framework, this study explores ritual-agricultural practices, the water realities these practices make, and their implications in water conservation and communitarian management.

Keywords: Water management, water conservation, traditional agriculture, cosmos, Montaña de Guerrero, Nahua culture, Mexico.

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SIGNIFICANCE STATEMENT

In this work, we explore, from an ethnoecological approach, ritual-agricultural practices and their interconnections with the meaning and importance of water and its multiple forms of representation in the Nahua community of Acatlán, Guerrero, México. We consider that this research contributes to understanding the relations between nature and society from a cultural perspective (as sought by ethnobiological studies) but is also devoted to consolidating the ethnoecological framework through documenting the kosmos of an indigenous community.

INTRODUCTION

In numerous indigenous and rural villages in Mexico, religious ritual practices are closely related to natural cyclical phenomena and seasonal agriculture, particularly the *milpa* system¹ (Toledo and Barrera Bassols 2021). Such cycles are expressed at different temporal and spatial scales and are interrelated, as discussed by Toledo and Barrera Bassols (2008).

The practice of agriculture in regions like *La Montaña de Guerrero*, in central Mexico, where water is a highly restraining factor, depends on the presence of rain in specific adequate quantities at particular critical moments (Aguilera Lara 2014a; Serafino 2015). Therefore, the balance between the two main seasons of the year (dry season / rainy season) is a delicate issue in which ritual practices and knowledge about nature intervene (Good 2004; Hémond and Goloubinoff 2008; Villela 2008, 2009). In such a context, ritual practices are part of an assemblage of activities that make life possible.

Indigenous ritual practices linked to water and climate control have also been widely documented in central Mexico (Glockner 1999; Lorente 2011). Other works have explored hydraulic cultures and associated symbolism in pre-Hispanic Mexico (Rojas *et al.* 2009). However, although the literature on this topic is abundant, few studies have explored the role of ritual practices in the use and management of water (Ávila 2006; Argueta and Castilleja 2008).

In addition to studies on ritual and religious life, indigenous and peasant knowledge and local use and management of biodiversity in the mountain region of Guerrero have also been a focus of interest (Carabias *et al.* 1990; Casas *et al.* 1994; Illsley *et al.* 2001). Overall, these works have highlighted the great biocultural diversity of this region. However, compared to other parts of Mexico, it has not been sufficiently studied, partly because of the complex social conditions, as we will discuss ahead.

The ethnoecological framework

Ethnoecology can be defined as an interdisciplinary approach to exploring how human groups relate to what we call nature through the study of the *kosmos* (worldviews/ontologies), the *corpus* (the whole repertory of knowledge or cognitive systems), and the *praxis* (the set of practices and technologies). Ahead, we will abbreviate this complex of cultural elements as K-C-P. It is pertinent to mention that authors working on constructing this theoretical framework have emphasized the inseparability of these

elements (Toledo 2001; Toledo and Barrera-Bassols 2008; Toledo and Alarcón-Chaires 2012).

This approach has contributed to analyzing indigenous knowledge and practices, evidencing different ways of understanding and being in the world and relating to nature; in the case that we analyze in this study, water and the multiple elements it relates to. This set of practices, knowledge and ontologies have also been conceptualized as part of a living biocultural heritage that should be promoted due to its role in sustaining the networks of relationships that enable life (Boege 2017).

Studies on water management intersect with ethnoecological approaches on a global scale, through their shared focus on understanding the intricate relationships between human societies and their environments. In this diverse landscape, there is a growing body of literature that has been influenced by the ontological turn, bringing about a new understanding of human-water relations. This shift acknowledges the existence of diverse water realities and ontologies, allowing for a more comprehensive appreciation of indigenous water-related practices and facilitating meaningful engagements with them (Aigo *et al.*, 2020; Yates, 2017; Aigo and Ladio, 2016; Stensrud, 2016).

This article builds upon the idea of the inseparability of the K-C-P complex to study the network of relationships involved in indigenous water management, establishing a dialogue with recent developments in the field of Mesoamerican studies, anthropology, and other research fields, aiming to provide a more than cultural understanding of indigenous ritual practices and cosmologies (Navarrete 2018a, 2018b; Kruell 2021; De la Cadena and Blaser 2018; Escobar 2017, 2018; Blaser 2016; Tsing 2015). By drawing on this theoretical corpus, we seek to gain a deeper understanding of indigenous water practices and strengthen the ethnoecological approach to these issues.

Here, we particularly focus on the ritual agricultural cycle, examining the role of ritual practices in water management and conservation. By directing our attention to the worlds that these rituals actively create, rather than merely represent, we aim to demonstrate the pivotal role of ritual practices in enabling the presence of water. Through this exploration, we believe that our work contributes to an alternative understanding of management and conservation, one that emphasizes the cultivation of relationships that sustain both human and non-human life. Additionally, we argue that studying the ritual agricultural cycle constitutes a way of approaching the K-C-P without dissecting it to the extent that it embodies

¹The milpa is a traditional intercropping system generally made up of corn, beans and squash, which complement each other in terms of the nutrients they need and contribute to the soil. The system is found throughout Mesoamerica, with variations in the other plants that might be included.

people's knowledge of the world but also participates in shaping reality, challenging the division between knowledge and practice.

Plural worlds

The different ways humans relate to nature, as revealed by ethnoecology and other disciplines, reflect a “pluriversalistic” reality (De la Cadena and Blaser 2018; Escobar 2018). In practice, however, we often struggle to recognize that they are more than cultural beliefs. In this regard, Blaser and de la Cadena (2009) note that social scientists seem to have no problem assuming that indigenous people believe that the hills or other elements of what we call nature have life, but very rarely do we consider that these affirmations have a status of reality. Underlying this attitude is an ontological assumption of one factual world or “mononaturalism”, that is, the idea that there are many worldviews but only one world (Latour 2004). By univocally defining the universe, this universalizing ontology turns other worlds into mere beliefs (Law 2015; Ingold 2018).

The division between knowledge and belief, history and myth, also relies on a similar assumption, subordinating other worlds to the criteria of a hegemonic reality (Blaser 2016; Navarrete 2018a, 2018b). The alternative option is to recognize that we live in a world of many worlds, a pluriverse rather than a universe, so there are not only different ways of understanding the world but multiple worlds. Thus, as a pluriverse, the cosmos “refers to the unknown constituted by [the] multiple, divergent worlds and to the articulations of which they could eventually be capable” (Stengers 2005). Moreover, instead of treating reality as a limited set of discoverable entities and processes, this alternative position treats “reals” as effects of contingent and heterogeneous relationships or assemblages (Law 2015).

It is crucial to say that these worlds do not exist in isolation; they are relational worlds. They interact with, have conflicts, are ignored, and sometimes are interrupted by other “world-making projects” or “worldings” (Escobar 2018, Blaser 2014). From this point of view, environmental conflicts and struggles for territory are struggles for possible worlds (Orrego Echeverria 2021) between what have been termed “life” and “death” projects (Toledo 2015). Thus, for Aigo *et al.* (2020), the concept of pluriverse allows us to analyze and understand the intermingling of heterogeneous realities that generate diverse waterscapes.

Building upon these insights, we understand the indigenous *kosmos* not only in terms of a symbolic system of beliefs but as ontologies in their own right (Toledo 2022). In this regard, the Mexican historian Federico Navarrete (2018a) has also pointed out the

need to review the cosmovision paradigm prevailing in Mesoamerican scholars, which, he argues, has diminished the epistemological value of cosmovision by circumscribing it to the symbolic and religious realm. Instead, he proposes to understand these worlds on their own terms. This implies considering seriously how human and non-human actors construct and reconstruct their worlds through various practices and procedures (social, productive, ritual) and using different forms of practical and conceptual knowledge.

Consequently, we conceptualize ritual practices as a specific way of relating to and transforming the world, focusing on its generative power. Likewise, we consider the ritual agricultural cycle as integrating different types of knowledge and practices, both productive and ritual, and connecting various elements and processes, constituting webs of relationships or entanglements as discussed by Tsing (2015). In this context, studying the ritual agricultural cycle is relevant to understanding indigenous management strategies and regulations of water use, administration and sharing, and its value in maintaining the net of relationships that sustain their *kosmos*. To this extent, such an approach also helps to understand the importance of water and relations around it and their role in the indigenous struggles to defend their territories.

This research aimed to understand the role of rituals related to the agricultural cycle and oral tradition in water management and conservation in a Nahua indigenous community of south-central México. Through studying ritual agricultural practices, we also looked for an understanding of how water is seen and enacted. Finally, we also tried to show how indigenous communities reaffirm their ways of understanding and being in the world against other hegemonic forms through ritual practices and oral tradition.

Rituals of the Agricultural Cycle

A ritual can be broadly defined as a way of relating to the world through which people try to influence reality (Hoffman 2012; Dehouve 2009). Through rituals, people express how they conceive their world, how it is, what is there in that world, and what they must do to maintain it. In addition, ritual practices are part of the indigenous ways of narrating, remembering, and inscribing history (Aguilera Lara and Urquijo 2021), a form of memory that connects the past, the present and the future of a human collective (Navarrete 2018). Religious ritual practices also establish identities and a sense of belonging to a group (Marshall 2002). In the case of Acatlán, Rosalba Díaz (2003) has documented the role of these celebrations in maintaining a sense of belonging among those who no longer reside in the community or are no longer engaged in agriculture.

Religious festivities are some of the public and collective expressions of rituals. In Mexican indigenous and peasant communities, festivities are integrated into an annual cycle related to agriculture that aims at influencing the natural processes. The rituals associated with the agricultural cycle occur within the framework of the Catholic holiday calendar, which has been re-dimensioned to meet the pressing needs of everyday life, and where we can see a Mesoamerican root (Gómez Arzapalo 2011).

MATERIAL AND METHODS

Study Area

South-central Mexico is renowned for its biocultural diversity, and the state of Guerrero is no exception. Among the various ethnic groups that call this region home, the Nahuatl stand out as the most numerous, mainly distributed in the Central and Highlands regions of the state². We have focus on this group due to their significance and substantial presence not only in the region but also throughout the country. Acatlán, an indigenous Nahuatl community in the municipality of Chilapa de Álvarez, situated in the La Montaña sub-region, serves as a case study for our research.

The arrival of the Nahuatl people to the lands that today are part of the state of Guerrero dates back to ancient times when this territory was part of the vast Mesoamerican region. Through migrations and displacements, the Nahuatl people settled in different parts of Guerrero, developing ways of life in close relationship with the land. One of the oldest migrations is that of the cohuixca, who traced their origin to one of the Chichimec tribes that left Aztlán in the 12th century to later establish Tenochtitlán. The cohuixca followed the route of Amacuzac and Zitlala until finally reaching Chilapan (now Chilapa) in the year 1260 AD (INPI, 2020; Dehouve, 2002 [1994]). Their historical inhabitation of these lands has contributed significantly to the rich biocultural diversity found in the area.

Acatlán (from the Nahuatl terms *akatl*, meaning 'reed grass' and *tlán* 'place') is located in the lower elevations of the Highlands sub-region called La Montaña (Figure 1). The climate is characterized by scarcity of rainfall, limited in quantity (700-1000 mm per year) and temporality (from June to September). Therefore, most agricultural systems are seasonal and highly depend on climatic contingencies. There are no flowing rivers like in southeastern Mexico, so most water supplies used for human consumption correspond to springs, whose water recharge also depends on rainfall.

Acatlán has its settlement in a valley crossed by the Atempan River. The community is surrounded by mountains, which provide shelter and access to various goods. There is also a small land-based body of water, locally known as "the lagoon," used for manually irrigating nearby lands. The community also has the *Atskwintsintlan* and *Komulian* springs and the *Kolosapan* wells, the primary water supply source for domestic use.

There are three main types of agriculture: rainfed, irrigated, and the so-called "moisture agriculture," which uses residual moisture from riverbank land. One type of rainfed agriculture with particular cultural importance in the mountains of Guerrero is the *tlacolol*, which refers to hillside agriculture using the slash-and-burn agricultural technique under a long fallow system, characteristically using the planting stick called *coa* (Casas *et al.* 1994; Aguilar *et al.* 2003). The farmers that practice this system are called *tlacololeros*. As we will see, the *tlacolol* culture is also present in the ritual dance with the same name performed during the rain petition celebrations.

Thus, in Acatlán and other communities in the mountains of Guerrero, the presence of water and rain in sufficient quantity and at specific moments plays a vital role in agriculture and daily life. In this context, ritual practices are part of the actions that the people of Acatlán and other communities in the region carry out to deal with water scarcity and enable the presence of water amidst the mounting challenges posed by global environmental change.

Ethnographic Research

This study is based on ethnographic research conducted in the field between 2013 and 2015 in the Nahuatl community of Acatlán. Following an ethnographic approach (Ingold, 2011), we documented the ritual-agricultural calendar and oral tradition to understand the indigenous *kosmos* and relational webs weaved by ritual practices. We focused on the celebrations taking place throughout the ritual-agricultural cycle. The methodology involved ethnographic register, a workshop, interviews with local leaders, and participant observation among peasant farmers in their daily life and ritual practices. Among the local leaders interviewed were past and present local religious and civil authorities, the principals or elders, and other people recognized within the community for their knowledge about the territory.

We received crucial help from two actors, a bilingual school teacher and a community art laboratory, "Laboratorio de Artes TETL", who hosted us and helped to organize the first interviews with pe-

²According to the 2020 Population and Housing Census conducted by the National Institute of Statistics and Geography (INEGI) in Mexico, there were an estimated 105,987 people who self-identified as Nahuatl speakers in the state of Guerrero.

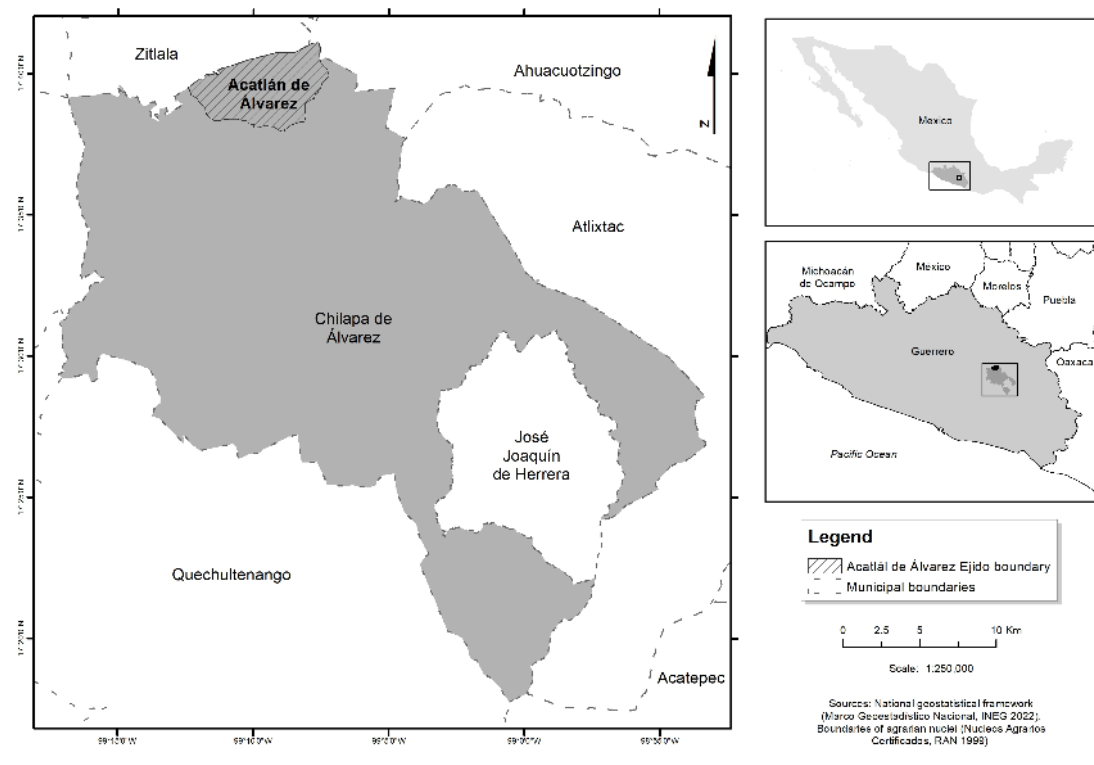


Figura 1. Study Area.

ople they considered knowledgeable about the community. Some of the interviews were conducted in Nahuatl with the help of the bilingual school teacher, who acted as a translator.

We conducted in-depth and semi-structured interviews about the following topics: the ritual-agricultural calendar, sacred places, forms of use and management of water, and oral traditions about water availability issues. A total of 13 people (5 women and 8 men) participated in the interviews, ranging from 20 to 85 years old. These interviews were audio recorded and then transcribed for subsequent analysis. We follow the methodology of the Laboratorio Nacional de Materiales Orales (LANMO 2023) for the transcription of the interviews and initial content analysis, consisting of categorizing the content into main themes from the interpretation of the data.

In addition to the interviews, the ethnographic record involved participant observation in everyday life situations, religious festivities, ritual activities, walks with people from the community to sacred sites and visits to the *milpa* to gain insight into water-related practices. These situations also enabled meaningful conversations that were a source of great insight. We used a field diary to record our observations, thoughts, subjective impressions, and incidental conversations.

The workshop was carried out with a group of youth from the community with the assistance of the community arts lab. The workshop lasted three days with 7 participants (4 women and 3 men). During the workshop, the participants identified sites of historical and ritual significance. The workshop also functioned as a focus group through which we explored their vision of the territory and how they relate to it. In this way, we followed the web of practices, stories, and relations to beings that are linked to the presence/absence of water.

The interviews were combined with the field notes and the evidence gathered through the workshop. In this way, we followed the web of practices, stories, and relations to beings that are linked to the presence/absence of water. Data analysis followed an interpretivist approach, focusing on elucidating the different aspects involved in community access, management and conservation of water. We also paid attention to how ritual practices become entangled with processes of defense of the territory.

We were doing fieldwork when the extreme weather events of 2013 occurred (see below), experiencing and witnessing some of their effects. In 2015, we faced deteriorating security conditions in Guerrero, forcing us to stop our fieldwork. This research

followed the Latin American Society of Ethnobiology Code of Ethics (Cano Contreras et al. 2016). We obtained the oral consent of Acatlán authorities and those who directly participated during all stages of the research. Academic products have also been published with the permission of past and present local authorities and have been returned to the community and direct participants.

RESULTS AND DISCUSSION

The Ritual Agricultural Cycle

Table 1 shows the temporal and seasonal description of the rituals and the productive agricultural cycle of Acatlán. In general terms, the agricultural cycle is composed of the following agricultural practices: preparation of the soil for sowing, seeds selection, plowing, sowing, first soil³ first fertilization, second soil, second fertilization, first weeding, second weeding, harvest, de-kernel, storage and stubble re-collection. The celebrations of the ritual-agricultural cycle can be categorized into two groups: the first group of celebrations aims at encouraging rain and plant growth; the second group consists of thanksgiving ceremonies to close the rainy season.

La Petición de Lluvias (Rain Petition) (April 25 – May 4) is the principal celebration of the first group, which includes the feasts of *San Marcos* (St. Mark/-Mark the Evangelist), also called Seeds Blessing, the *Atsajsilistle*, and the *Santa Cruz* (Holy Cross). They aim to bring out alternation between the dry and the rainy season at a crucial moment when the temperatures reach their annual peak, and there is uncertainty about the starting of the rains. Other festivities that are intended to bring about rain are the following: San Isidro Labrador (May 15) and the feast dedicated to San Juan Bautista (Saint John the Baptist) (June 24).

The second group of celebrations includes the *Xilocruz* (the Holy Cross of the *xilotl*, the Nahuatl name for young corn) (September 14) and *San Miguel Arcángel* (St Michael the Archangel) (September 29), when people thank the rainy season and ask for its end. Finally, during the *Todos los Santos* (All the Saints, also called the Day of the Dead), the products obtained from the agricultural cycle are offered to the deceased people.

The rain petition is performed at specific points of the territory. On the first day, offerings are laid in the church. On the second day, people climb to the sacred place of *Cruzco*, located at the top of the *Tepeueue* Hill, to give offerings to the entities that control the

rain and the wind. By the last day, people visit the community springs and other water sources like *Komulian* and *Kolosapan* wells and the *Atskuintsintlan* spring. In places where people practice their offering, in the hills and around water bodies, there are always “water crosses” (Broda, 2001), with the power to attract rain and protect crops.

At the core of the rain-petitioning ceremony are the ritual fights and the ritual to attract good winds. Another central element is the dance of *tlacoleros* which represents agricultural activities and natural phenomena that intervene in agriculture. Unlike other dances performed in different festivities, the *tlacoleros* is only performed on this occasion.

In the ritual fights, children, youth, and adults personify *tekuanes* (jaguars) and fight each other to promote the coming of the rain (Díaz Vázquez 2003; Gómez Arzapalo 2012; Martínez Ruíz 2015). The Nahuas from Acatlán consider that the harder the fight, the more abundant and frequent the rain will be, establishing an association between the blood and the water. They also see the blood spilled during the fight as an offering to the earth that makes it fertile (Figure 2). This association adds up to other elements identified by Neff (2005) that suggest a continuity between the ancient god Tlaloc -the god of water and the *tekuane*.

The ritual to attract good winds and scare away the potentially harmful ones is performed by the *kojtlatlastin*, also known as *ejecame* or *ajacame* (winds). The dance’s leader, known as *ejecatl* – the same name as the ancient god of the wind – is the one who brings the *teponaxtle*⁴ and a kind of trunk called *xochiltepochtle* that he spins with his feet, orienting it to the four cardinal points.

The thanksgiving festivities parallel the corn maturation stages. They take place in the fields, the cemetery, and the wells. During the *Xilocruz* and *San Miguel* festivities, farmers make offerings in their plots and the graveyard to the entities intervening in the rain supply, allowing the crop to grow. Also, as part of the ceremony, they light up *cuetes* (small fireworks) to scare away the *mayantle* (hunger). The collective expression of the celebration is conducted at the church and the well of *Kolosapan*.

Understanding Nahua Ritual Agricultural Cycle

The ritual agricultural cycle shows the multiple connections between water and other elements of nature and life. For example, ritual fights show a link between blood and rain, pointing to their character

³It refers to the practice of adding soil to the plant.

⁴Also known as a *teponaxtle* is a type of slit drum used by the ancient Mexica (Aztecs) that is still used today by various indigenous groups in Mexico.



Figura 2. Ritual fight to propitiate rain.

Tabela 1. Ritual and agricultural calendar of Acatlán, Guerrero, Mexico.

Gregorian calendar	Seasonality	Ritual festivity	Agricultural activity
April 25	Dry season	San Marcos (seed blessing)	Clearing the fields
May 1-3	Dry season	<i>Atsajsilistle</i> (rain petition)	Clearing the fields
May 3-4	Dry season	Santa Cruz (rain petition)	Clearing the fields
May 15	First rains	San Isidro Labrador (blessing of the seeds)	Seed preparation Plow / <i>Tlacolol</i>
June 23-24	Rainy season	San Juan Bautista	Sowing
June 30; July 1-2	Rainy season	Octava de San Juan Bautista	Sowing
Variable	Rainy season	<i>Titlamakaba</i>	–
September 14	Rainy season	<i>Xilocruz</i>	First <i>jilotes</i>
September 28–29	Last rains	San Miguel	First <i>jilotes</i>
October 30-31	Dry season	Eve of the day of the dead	Harvest
November 1–2	Dry season	Day of the Dead	Harvest
End of November	Dry season	–	Harvest
December	Dry season	Ceremony to save the corn	Corn cleaning Shelling Corn storage

Legend: Links between the seasonality of rain, the ritual calendar and the agricultural calendar of the community of Acatlán, Guerrero, Mexico.

as vital liquids (see Broda 2001; Hémond and Goloubinoff 2008). Considered an offering to the earth, the blood spilled on the ground during ritual fights is also linked to fertility and the nurturing of the gods, as Pury-Toumi points out (1997).

This relationship between water, blood, and fer-

tility is also established at another moment of the celebration, which is when the young *tekuanes* who want to get married offer their future brides a bouquet of red *tomoxochitl* flowers (*Hylocereus speciosus* and *Hylocereus elegantissimus*) that stand out as a symbol of fertility.

As we have mentioned before, the rain petition takes place on the top of the hills and bodies of water, which are the places where the elements necessary for life come from and where powerful other-than-human entities live. The above shows a point of continuity with the ancient Mesoamerican world, where mountains were treated as storehouses of wealth (i.e., seeds, water, clouds, thunders) (López Austin 2013). Furthermore, the bodies of water where the rain petition takes place are protected by aquatic entities related to water supply, especially rain: the *atlchikueye* (*atl*, ‘water’, *chikueye*, ‘eight’) and the *achichinztlin* (*atl*, ‘water’, *chichi*, ‘dog’, *tzintlin*, ‘plural diminutive’).

The relationship between the mountains and the provision of goods is also present in the seeds blessing ritual, performed on the top of the sacred hill of *Teyapan*. According to Alfredo López Austin (2009, 2012), in the Mesoamerican world, the seeds and the rain came from the same place: the underworld, located in the lower part of the sacred mountain, the site of origin of all the things that were to be born and that sustain life.

San Marcos is also associated with elements of the weather, the provision of rainfall, and the mountains. He is also considered the guardian of animals and *nahuales*⁵ due to the Catholic iconographic reference in which it appears accompanied by a feline (Goloubinoff 1994; Hémond 2000). This association between the mountains and water is also present in the oral tradition of other Nahua communities, where mountains are presented as storehouses and San Marcos as the hero who delivered the seed sheltered within the hill to the indigenous farmer groups (Villela 2009). In Acatlán, the oral tradition also shows this relationship, providing an insight into the role of hills in providing rainfall and food (see Aguilera Lara 2014b).

The Mixtec communities in the upper part of La Montaña region also associate San Marcos with the rains. In various towns of Alcozauca and Metlatonoc, it has been documented that San Marcos in Mixtec is named Sa’avi. This term currently means rain, but this was the name of the ancient Mixtec god of rain (Casas et al. 1994), pointing out the adaptations and continuities of indigenous cosmologies. Transformations and continuities in indigenous knowledge and cosmologies have also been considered an expression of indigenous communities’ historical resilience (Aigo et al. 2020)

The celebrations that close the ritual agricultural cycle celebrate the first fruits and ask for the corn’s maturation, which will only be possible if the rain ce-

ases (Figure 3). Hence the celebration of *Xilocruz* can be understood as a way to thank the entities which enabled the corn to grow and a request to bring out the end of the rainy season. So that the corn can mature, becoming a *jilote* (young corn), then an *elote* (fresh corn), and finally in *mazorca* (cob). This is the second time the Santa Cruz (Holy Cross) is celebrated. However, on this occasion, Santa Cruz is the corn plant, as indicated by the very name of the celebration. Thus, the cross has a double role throughout the agricultural ritual cycle: 1) it attracts rain, and 2) it heralds the arrival of food and the dry season. In this sense, it is worth noting that in the region, the Holy Cross is also referred to as *Santa Cruz de los Mantenimientos* (The Cross of our Sustenance) (Good 2004). *Los mantenimientos* – the sustenance – are what human life needs to sustain itself, which was called *tonacayotl* in ancient times (Molina 1970). This is the term used by the community of Acatlán to refer to corn and beans. A principal (elder) expresses this idea as follows: “*tonacayotl*, because we feed on them, our flesh is made out of that, because *nakatl* means flesh⁶ [...] that is why the corn and beans are *tonacayotl*”.

The following festivity of gratitude is *San Miguel*, which takes place in the context of the subsequent stage of corn maturation. San Miguel, the saint to whom this celebration is dedicated, is the patron saint of battles. In Catholic iconography, he carries a sword with which he threatens a demon or dragon.

At this time of the year, people face a difficult situation regarding the provision of food: on the one hand, food reserves are scarce, but on the other, it is time for the first corn to arrive. However, the outcome of the harvest is still being determined as the rain may continue and ruin the crop. For this reason, people try to drive away the *mayantle* by launching fireworks and presenting offerings to maize maturation and water-related entities. Thus, the work of the saints and other powerful other-than-human entities is essential to balance the rainy and dry seasons.

The deceased also intervenes in this process, so the town of Acatlán thanks them during *Todos los Santos*, offering them the first fruits. They attract the wind and clouds, making the soils fertile and the seeds productive. Among the Nahuas of the Alto Balsas of Guerrero, the dead also has the power to bring rain and intercede before the gods (Good 1996, 2004). This power is linked to their physical features: since they don’t have a physical body, they are fast and light and can get to places where the living cannot go.

⁵According to Roberto Martínez González (2010; 2011), the term *nahual* or *nahualli*, in Nahuatl, refers to two different but related concepts. The first alludes to an anthropomorphic character who is credited with the ability to change shape at will. The second, to a co-essence or alter ego, generally zoomorphic, that is intimately linked to a human person.

⁶*Nakatl* (also spelled *nacatl*) can be translated as flesh or meat.



Figura 3. Offering in the milpa on the eve of Xilocruz.

It is worth noting that in the Mesoamerican world, the dead inhabited the same place as rain and seeds. An association that prevails between different peoples of Mesoamerican tradition (López Austin 2000). These festivities also show the relationship between the living and the dead in Acatlán, in which the dead do not inhabit a marginal place but actively participate in the community's life. So that they also work. For this reason, the community recognizes the dead's role in providing rain and food. A vision shared by other Nahuatl communities in Guerrero (Good 1996, 2004).

As we can see, the ritual-agricultural cycle's stages, spaces, elements, and purposes overlap and interrelate. In this way, water is worshipped because it is necessary for daily life and all phases of corn cultivation. The hills are also revered because they are places where springs, rain, and winds come from. But corn needs more than only water; it also requires land. The land nourishes the corn, which sustains humans, becoming part of their flesh. When people die, their remains feed the land. The dead intercede for the living people to obtain water and corn, and the living people share the fruits they harvest with the dead. Then, when there is no food left, and the level of the water bodies is low, the cycle restarts.

Storying the World

Oral tradition also provides a complex image of the indigenous world of Acatlán, its geography, the entities that inhabit it, the type of relationships that the community establishes with them, and that shape the relationship between people and water. It also high-

lights water's crucial importance for the community, co-substantial to its existence.

Thus, according to oral tradition, although today, the community of Acatlán has several springs, this was not always the case. There was a time when the community of Acatlán had to ask for water from the neighboring community, which often denied them access to its bodies of water. This situation changed thanks to the intervention of the *caballeritos* or *atlapixquej*, conceived as a kind of *nahuales* with the power to shapeshift into balls of fire and watch over the community water bodies. The *atlapixquej* of Acatlán faced those of the neighboring community in a battle for the bodies of water, defeating them. The community attributes its victory to divine will, which favored Acatlán because of the other community's behavior.

The *caballeritos* also play an essential role in protecting water bodies from everyday threats. Every night they engage in battles with *nahuales* from other communities who want to hoard the community water bodies. They also ensure that springs are clean and notify when they need to be cleaned.

Other entities that protect water bodies and regulate their access are the *atlchikueye* and the *achichin-zintlin* (see above). Besides them, some amphibians and reptiles are also considered guardians of the water bodies they inhabit. For example, the *atlchikueye* (see above) is a female entity that inhabits and protects large bodies of water in the community, comprising the lagoon, the river, and the *Atskuintsintlan* (*atl*, 'water', *tskuintlin*, 'dog', *tlan*, 'place') spring. Furthermore, she is related to the rainy season, so people give her offerings on the rain petition.

The *achichinzintlin* also lives and protects the *Atskwintsintlan* spring, whose name refers to them. In the oral tradition, they are portrayed as aquatic entities who try to take people to the depths of the spring. Thus, for instance, people remember that several community members died during the works to conduct the water from *Atskwintsintlan* to the town. Following a reciprocity principle, the community considers their death as the offering the water guardians took for themselves in exchange for water. This spring provides water for domestic use in the community, where people leave offerings on the last day of the rain petition.

Lastly, animals like amphibians and reptiles are also considered water guardians since their behavior is associated with the presence of water and the coming rains. Accordingly, if someone kills one of these animals, the body of water where it is found can dry up.

Oral tradition and the ritual-agricultural cycle describe a landscape very different from the one we could tell from our point of view, made up of a greater diversity of actors and relationships. So, the landscape is not the passive object of human action, but it is animated by the action of the entities that inhabit it. Accordingly, other-than-human entities are active subjects that make decisions, intervening in the presence/absence of water. In the case of animals like amphibians and reptiles, they are considered more than that; they are beings that can punish/reward people according to their behavior.

Thus, water is considered a divine good rather than a property. But the idea that water is a sacred good also has moral implications to the extent that it establishes the duty to make good use of water, share it, venerate it and ask for it when it is scarce (Figure 4).

By establishing a standard of proper conduct, oral tradition plays a central role in shaping people's environmental and social behavior. For example, by establishing the moral obligation to share, the oral tradition about the *caballeritos* affects water use and the relationship between Acatlán and neighboring communities. The moral obligation to take care of their bodies of water is also implicit in this set of stories since the actions of the *caballeritos* would not make sense without the community's effort.

Thus, although there are no explicit rules on the use and access to water in the community, the moral values implicit in the oral tradition regulate people's behavior. So, we can also think of oral tradition as outlining an ethics of care based on respect, reciprocity, gratefulness, and sharing. These values shape people's relationships with humans and other-than-

human beings, allowing the flourishing of life.

Acknowledging this shared reality among different communities in the region was the starting point for constructing the social water management project "Agua para Todos" (Shared Water for All) developed by the Grupo de Estudios Ambientales y Sociales A.C (Environmental Studies Group)⁷ in different communities in the region to improve water availability putting in the center indigenous concerns. Such experience points out the need for adequate recognition and understanding of local knowledge, values and practices to face the challenges of territory management and defense (Illsley et al. 2008).

Moving Forward: Ritual and Narrative in Time of Crisis

During the last decade, the indigenous communities of the Center and Highland regions of Guerrero have seen new threats to their territories and ways of life, such as the irruption of organized crime. They have also been disproportionately affected by extreme weather events, which arise as a menace to their lives.

In this context, the importance of ritual and oral tradition takes on a new light, emerging as essential mechanisms through which people deal with contemporary social and environmental problems. In the following paragraphs, we explore water-related stories and their role within this context.

One of the extreme weather events inscribed in the collective memory of the Acatlán community was the impact of the cyclonic system Ingrid and Manuel in September 2013, categorized as an unusual weather phenomenon. The hurricanes caused torrential rains across the country, especially in the South, Southeast, and Gulf of Mexico, causing human deaths and material damage. In the state of Guerrero, one of the most affected areas was La Montaña, the Highlands region, causing damaged crops, flooded rivers, mudslides, and isolated towns (Aparicio and Franco 2018).

In Acatlán, the rains caused complete losses in agriculture. On the causes of these phenomena, the explanation developed by the community weaved both local and global narratives. Following media reports, people attributed the heavy rains to climate change. But they also drew on oral tradition to explain the phenomenon.

Although unusual, this was not the first time they had faced an event like this. A long time ago, the community had gone through a similar situation. On that occasion, there was continuous rain for many days. The river overflowed its banks, and the fields were underwater. Crops and animals were lost. For the rain to cease, the village priest called to a mass. Peo-

⁷The Grupo de Estudios Ambientales y Sociales (GEA) is a non-profit organization that promotes local access to potable water and the sustainable use and management of water, soil and biodiversity, currently working in central Mexico.



Figura 4. Community conservation area.

ple prayed for the end of the rain, but it did not stop. Hence, they concluded that maybe their behavior had been the cause of the disaster.

Based on this story, people explained the events of 2013 in similar terms: “perhaps we have misbehaved”, they claimed. But they not only attributed what happened to climate variability but saw themselves as playing a part in this process. In this context, storytelling was not only an act of remembering the past but a way of understanding the present and explaining and making sense of the environmental changes they were experiencing.

Oral tradition and ritual have also been vital in the struggles for the territory against the organized crime⁸. Fighting between rival criminal groups for the control of the area has brought violence and insecurity to this region of Mexico (Kyle 2015; Sánchez Valdés 2015). They have also broken into sacred sites and ritual activities. Thus, in May 2015, criminal groups announced a fight between rival groups at the community’s sacred place of *Cruzco* (see above) on the same day as the rain petition. The community debated whether to continue or not with the preparations. Contrary to what we could imagine, they decided not to cancel the rain petition that year.

Earlier that year, a criminal group settled in the sacred site of *Atskuintsintlan*. The community saw this as an affront to them and the entities that inhabit that space. According to oral tradition, one of the beings that guard the spring asked the criminal group to leave, who responded with violence. As a result, the members of this criminal group would end up suc-

cumbing to a rival group. For the people of Acatlán, this was the consequence of the offense done to the spring entities, the community, and the sacred place.

In these examples, narrative and ritual are practices through which the community navigated their present and articulated their concerns, constituting a way of recognizing the fibers of their entangled reality. Thus, these stories involve multiple human and other-than-human entities, times, places, and scales. Through them, the community also reaffirmed the moral norms about how people should relate to other-than-human beings, their spaces, and the consequences of breaking them.

Finally, oral tradition and ritual practices also constituted ways of resisting, disputing, appropriating territory and reaffirming their ways of being in the world against other hegemonic forms. Territorial struggles thus emerge as a theme that goes beyond the battle for resources.

CONCLUSION

The ritual-agricultural cycle serves as a remarkable lens through which the intricate tapestry of actors and interconnected relationships that enable water to exist is revealed. These rituals participate in establishing a relational web of human and non-human entities, including humans, gods, the dead, the wind, guardians of the water, mountains, water bodies, animals and corn, among others. So, we can also think of the rituals as part of the practices of care that sustain the net of life and ensure the generosity of other-than-

⁸The criminal activities of these groups involve the production of drugs, kidnapping, and extortion.

human entities.

The practices of care that the relationship with water-related entities elicits also outline water differently. Rather than a singular, isolated element, water is outlined as a multiplicity, emerging as a complex or assemblage, a product of the web of relationships within it. The ritual-agricultural cycle and the oral tradition further portray the landscape not simply as a surface with physical features but as an ongoing creative process in which both humans and other-than-human entities participate.

By establishing a standard of appropriate conduct, oral tradition stories also regulate people's social and environmental conduct, influencing other-than-human entities' decisions. Nahua knowledge practices prompt us to consider that the presence/absence of water and life itself results from compliance with moral norms and the effectiveness of rituals. As a result, water conservation and management arise as the outcome of crafting careful relations with other-than-human entities.

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DATA AVAILABILITY

The data used to support the findings of this study are available from the corresponding author upon reasonable request.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

CONTRIBUTION STATEMENT

Conceived of the presented idea: JAL, ACG
Carried out the experiment: JAL
Carried out the data analysis: JAL, ACG, DM
Wrote the first draft of the manuscript: JAL, ACG

Review and final write of the manuscript: JAL, ACG, DM, AC, VT
Supervision: ACG

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