humans

MDPI

Brief Report

The Water Festival (*Layimama*) and Collective Identity in the Inter-Andean Valley of Ticsani, Southern Peru

Eliseo Zeballos Zevallos [1], Jesús Eduardo Carpio Obando [1], Katherine del Rosario López Vásquez [1], Pablo A. Garcia-Chevesich [2,3,*] and John E. McCray [2]

[1] Facultad de Ciencias Histórico Sociales, Universidad Nacional de San Agustín, Santa Catalina 117, Arequipa 04001, Peru; ezeballosz@unsa.edu.pe (E.Z.Z.); jcarpioo@unsa.edu.pe (J.E.C.O.); klopezv@unsa.edu.pe (K.d.R.L.V.)
[2] Department of Civil and Environmental Engineering, Colorado School of Mines, 1500 Illinois St., Golden, CO 80401, USA; jmccray@mines.edu
[3] Intergubernamental Hydrological Programme, United Nations Educational, Scientific, and Cultural Organization (UNESCO), Luis Piera 1992, Edificio Mercosur, 2do Piso, Montevideo 11200, Uruguay
* Correspondence: pablogarcia@mines.edu

Abstract

Water-related ritual practices constitute a central axis through which many Andean communities articulate cosmology, social organization, and collective identity. This study examines the Fiesta del Agua (*Layimama*), an ancestral ritual cycle celebrated in the inter-Andean valley of Ticsani (Moquegua, southern Peru), focusing on its symbolic structure, social roles, and implications for water governance and cultural continuity. Using a qualitative, interpretive research design based on documentary analysis of ethnographic, historical, and anthropological sources, the study analyzes how ritual practices surrounding water function as mechanisms of social cohesion, moral regulation, and symbolic management of a shared natural resource. The findings show that the Fiesta del Agua operates as a cyclical system composed of four interrelated stages (preparation, ritual performance, festive redistribution, and communal closure) through which water is sacralized as an *axis mundi* linking cosmology, agricultural production, and social prestige. Far from being a residual tradition, the festival actively reproduces collective identity, regulates communal access to water, and integrates Andean cosmology with Catholic symbolism through dynamic forms of religious syncretism. The article argues that the ritual management of water in Ticsani represents a culturally embedded governance system whose documentation and protection are essential in contexts of increasing hydrosocial stress and cultural erosion, indicating social, ecological, and political relevance of the findings and contributing to broader debates on human–environment relations, intangible cultural heritage, and the role of ritual in sustaining communal resource management.

Keywords: water ritual; collective identity; Andean cosmology; cultural heritage; water governance

Check for updates

Academic Editor: William Jankowiak

Received: 10 February 2026
Revised: 6 March 2026
Accepted: 24 March 2026
Published: 13 May 2026

Copyright: © 2026 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

1. Introduction

Ritual celebrations have long been recognized as central social mechanisms through which communities reproduce collective identities, reaffirm moral values, and regulate their relationships with the natural environment. Classical sociological theory conceptualizes ritual as a "moral force" that periodically renews collective consciousness and sustains social cohesion by transforming individual actions into shared commitments (Durkheim,

1912/2013; Turner, 1969). In agrarian societies, ritual practices are particularly significant because they tend to focus on elements essential for subsistence, among which water occupies a privileged position. Far from being understood solely as a physical resource, water is frequently endowed with symbolic, spiritual, and moral attributes that structure social organization and environmental governance.

In the Andean world, water holds a foundational cosmological status as a life-giving entity, a spiritual force, and a structuring principle of agricultural and social life. Springs, rivers, wetlands, glaciers, and irrigation canals are not merely material features of the landscape, but animate beings embedded within a sacred geography that connects celestial, terrestrial, and subterranean realms (Eliade, 1981; Limón Olvera, 2024). Within this worldview, ritual practices associated with water operate simultaneously as acts of worship, mechanisms of environmental management, and expressions of communal belonging. Through repeated collective participation, water rituals reinforce shared values, transmit intergenerational knowledge, and strengthen territorial belonging.

Anthropological and sociological research has documented water rituals across Andean and Mesoamerican societies as complex assemblages of material activities (such as canal cleaning, infrastructure maintenance, and communal labor) and symbolic actions, including offerings, purification rites, music, and dance (Gelles, 1984; Valiente, 1986; Melis, 2003). Ethnographic studies in Puquio, San Pedro de Casta, Andamarca, and Cajamarca demonstrate that ritual cleaning of canals, offerings at water intakes, and redistributive festivities operate not only as cosmological practices but also as mechanisms reinforcing cooperation and regulating irrigation systems (Gelles, 1984; Rivière, 1994; Gil García, 2012). Comparative work in Mesoamerica and northern Chile further shows that water ceremonies often integrate pre-Hispanic cosmologies with Catholic symbolism, producing adaptive syncretic forms that maintain ritual continuity under changing historical conditions (Broda, 2001; Madrigal et al., 2015; Vega & Vigueras Cherres, 2020).

Central to these practices is the Andean cosmovision, which conceives the world as a living system governed by cyclical processes of balance, renewal, and reciprocity. Water functions as an axis mundi linking Hanan Pacha (the upper world), Kay Pacha (the human world), and Urin Pacha (the inner or lower world associated with origins and regeneration; a realm representing the past, the dead, the unborn, and the roots of new life, often associated with fertility and the fertility goddess Pachamama), materializing the circulation of life between cosmic realms (Eliade, 1981; Limón Olvera, 2006; How to Peru, 2026). Deities such as Pachamama (Earth Mother) and Mama Qucha (Water Mother) are understood as guardians and distributors of fertility, and ritual offerings seek to maintain harmony between social life and ecological processes (Platt, 1996). In this sense, water rituals articulate cosmology, morality, and collective organization within a shared symbolic system.

Despite extensive scholarship on Andean water rituals, limited attention has been given to intercommunal systems in southern Peru where multiple settlements share a single irrigation intake. Existing references to the Fiesta del Agua, locally known as *Layimama*, in the inter-Andean valley of Ticsani (Moquegua, southern Peru) are primarily descriptive and lack systematic theoretical integration (Solórzano, 2010; Zeballos, 2015). The festival plays a central role in structuring relations between the communities of Bellavista and Calacoa, which depend on a shared hydrological infrastructure. However, its function as both a mechanism of collective identity reproduction and a culturally embedded governance institution has not been analyzed in detail.

This study addresses that gap by examining the Fiesta del Agua as (1) a structured ritual cycle, (2) a process through which collective identity is reproduced, and (3) a moral framework regulating shared water governance. The central research question guiding this

study is: How does the Fiesta del Agua contribute to the reproduction of collective identity and to the moral regulation of shared water governance in an intercommunal Andean context?

To answer this question, the study adopts a constructivist and relational understanding of collective identity, drawing on Durkheim's theory of ritual solidarity (Durkheim, 1912/2013), Turner's processual model of ritual and communitas (Turner, 1969), and anthropological interpretations of Andean cosmology as a relational ontology structured by reciprocity and complementarity (Platt, 1996; Allen, 1988). Within this framework, collective identity is understood not as a fixed cultural essence, but as a socially reproduced process enacted through ritual performance, symbolic exchange, and shared moral obligations. Water is analyzed simultaneously as a material resource and as a cosmological mediator linking sacred geography, social organization, and governance. The Fiesta del Agua is therefore interpreted as a ritual institution through which identity, cosmology, and resource management are co-constituted within a living intercommunal system.

2. Materials and Methods

2.1. Study Area

The analysis focuses on the communities of Bellavista and Calacoa, located in the district of San Cristóbal, province of Mariscal Nieto, Department of Moquegua, southern Peru (Figure 1). These communities are situated in the southern Peruvian Andes within the Moquegua-Osmore river basin. They share access to a common water intake known as Cargache (in Quechua, "hydraulic place"), which supplies irrigation water to agricultural terraces and pastoral systems. The shared hydrological infrastructure makes the Fiesta del Agua a key intercommunal community that regulates cooperation, coordination, and symbolic ownership of water.



Figure 1. Location of the towns of Bellavista and Calacoa within the Moquegua Region, Southern Peru.

The towns of Bellavista and Calacoa are in an area that forms part of the western Andean highlands and is characterized by rugged mountainous terrains, steep slopes, and deeply incised valleys shaped by fluvial erosion (IGN, 2013; INEI, 2018). Settlements and agricultural activities are concentrated along valley bottoms and terraced hillsides, where small-scale irrigation systems capture surface water draining toward the Moquegua-Osmore river basin (ANA, 2015).

Both towns are situated at relatively high elevations typical of the mid-to-upper Andes, a factor that strongly conditions land use, accessibility, and climatic conditions (INEI, 2018). The regional climate is best described as cold semi-arid to arid, with low annual precipitation and pronounced seasonality driven by the South American summer monsoon (SENAMHI, 2020; Garreaud, 2009). Most rainfall occurs during the austral summer months (December–March), while the remainder of the year is predominantly dry, with clear skies, low humidity, and high solar radiation (SENAMHI, 2020).

Temperatures in the area show strong diurnal variability, with relatively mild daytime conditions and cold night temperatures that frequently approach freezing during the austral winter, reflecting the combined influence of altitude and aridity (Garreaud, 2009). Interannual variability in precipitation further contributes to water scarcity and uncertainty, reinforcing the importance of communal water management practices and adaptive agricultural strategies in the region (ANA, 2015; Soldi, 1980).

2.2. Research Design and Analytical Procedure

The objective of study is the annual ritual cycle known locally as *Layimama* or Fiesta del Agua, celebrated in the austral dry season prior to the main agricultural cycle. The analysis reconstructs the four-stage sequence (preparation, ritual performance, festive redistribution, communal closure) as practiced in Bellavista and Calacoa. Although the festival has historical depth, the study focuses on contemporary forms documented in late 20th and early 21st century sources.

This study adopts a qualitative interpretive design grounded in hermeneutic analysis. Rather than conducting direct ethnographic observation, the research reconstructs the Fiesta del Agua through systematic analysis of documentary sources, including ethnographic monographs, regional anthropological studies, institutional reports, and historical accounts.

The documentary corpus was selected based on three criteria: (1) relevance to Andean water rituals, (2) reference to Ticsani or comparable ritual systems, and (3) analytical engagement with cosmology, governance, or identity. Texts were coded using an iterative thematic approach. Initial open coding identified recurring motifs (e.g., sacralization of water, ritual authority, reciprocity, redistribution, syncretism). These were subsequently grouped into analytical categories aligned with the study's theoretical framework: (a) cosmological mediation, (b) governance structures, (c) symbolic redistribution, and (d) identity reproduction. Moreover, the documentary corpus included peer-reviewed anthropological and ethnographic studies on Andean water rituals (e.g., Gelles, 1984; Melis, 2003; Gil García, 2012); regional academic theses and monographs addressing Moquegua ritual practices; institutional reports from government agencies such as ANA, SENAMHI, and INEI, providing contextual environmental and hydrological information; and local historical and cultural heritage documents referencing the Fiesta del Agua in Ticsani (e.g., Solórzano, 2010; Zeballos, 2015). These materials were retrieved from academic databases (e.g., Scopus and Google Scholar), university repositories, and institutional archives, ensuring coverage of both scholarly and locally documented sources relevant to the ritual system under study.

Texts were coded using an iterative thematic approach. Initial open coding identified recurring motifs (e.g., sacralization of water, ritual authority, reciprocity, redistribution, and syncretism), which were subsequently grouped into analytical categories aligned with

the study's theoretical framework. To enhance analytical transparency and replicability, a summary codebook was developed defining the principal categories used during the thematic analysis (Table 1). Coding reliability was strengthened through iterative review by multiple authors, who independently examined the documentary corpus and subsequently compared coding decisions. Discrepancies were discussed and resolved through consensus. Analytical memos were maintained throughout the process to document interpretive decisions and ensure procedural transparency.

Table 1. Summary codebook used for thematic analysis of documentary sources.

Code	Analytical Category	Operational Definition	Example Indicators in Documents
CM	Cosmological mediation	References to water as a sacred entity or cosmological connector linking natural and spiritual realms.	Pachamama, Mama Qucha, axis mundi, sacred springs, ritual offerings to water.
GS	Governance structures	Social roles, norms, or institutional arrangements regulating communal water use and ritual authority.	Devotos, lari, regidores, irrigation commissions, communal responsibilities.
SR	Symbolic redistribution	Ritualized exchange or redistribution of goods, food, beverages, or prestige during the festival.	Livestock donations, food sharing, monetary gifts, public redistribution of resources.
IR	Identity reproduction	Ritual practices reinforcing collective belonging, social prestige, or cultural continuity.	Communal participation, music and dance, ritual roles, reaffirmation of community ties.

To enhance replicability, the selection of documents followed predefined inclusion criteria: (a) relevance to Andean ritual systems, (b) explicit discussion of water-related practices, and (c) analytical engagement with cosmology or governance. Coding was conducted manually using iterative thematic categorization. Initial open coding generated descriptive categories, which were subsequently grouped into analytical themes aligned with the theoretical framework. Analytical memos were maintained to document interpretive decisions, ensuring procedural transparency.

Interpretation followed a hermeneutic cycle in which descriptive passages were read in light of broader theoretical constructs, and theoretical concepts were refined through re-engagement with empirical descriptions. This dialogical process allowed the construction of an interpretive model linking ritual stages to governance functions and identity formation.

While the study does not claim the immediacy of participant observation, the systematic triangulation of academic and institutional sources permits reconstruction of the ritual as a coherent social system. Future ethnographic work could deepen experiential dimensions not accessible through documentary analysis.

3. Results

The festival mobilizes the entire community, transcending age and gender divisions. Key ritual roles include the *devotos* (ritual sponsors), *lari* (ritual specialists), water stewards, and communal authorities. These roles structure participation, distribute prestige, and reinforce social hierarchies while ensuring collective accountability.

Participation is not limited to ritual performance but extends to communal labor, food preparation, music, and dance. Through these practices, the festival becomes a space where collective identity is enacted and reaffirmed through embodied experience.

Catholic elements (such as crosses, blessings, and civil marriages) are integrated into the festival without displacing its pre-Hispanic cosmological foundations. Rather than

representing cultural loss, this syncretism illustrates the adaptive capacity of Andean ritual systems to incorporate external influences while preserving core symbolic meanings.

Finally, the Fiesta del Agua in the Ticsani valley unfolds as a cyclical process composed of four interconnected stages: preparation, ritual performance, festive redistribution, and communal closure (Figure 2), as described below. Each stage fulfills specific symbolic and social functions while contributing to the overall coherence of the ritual system.

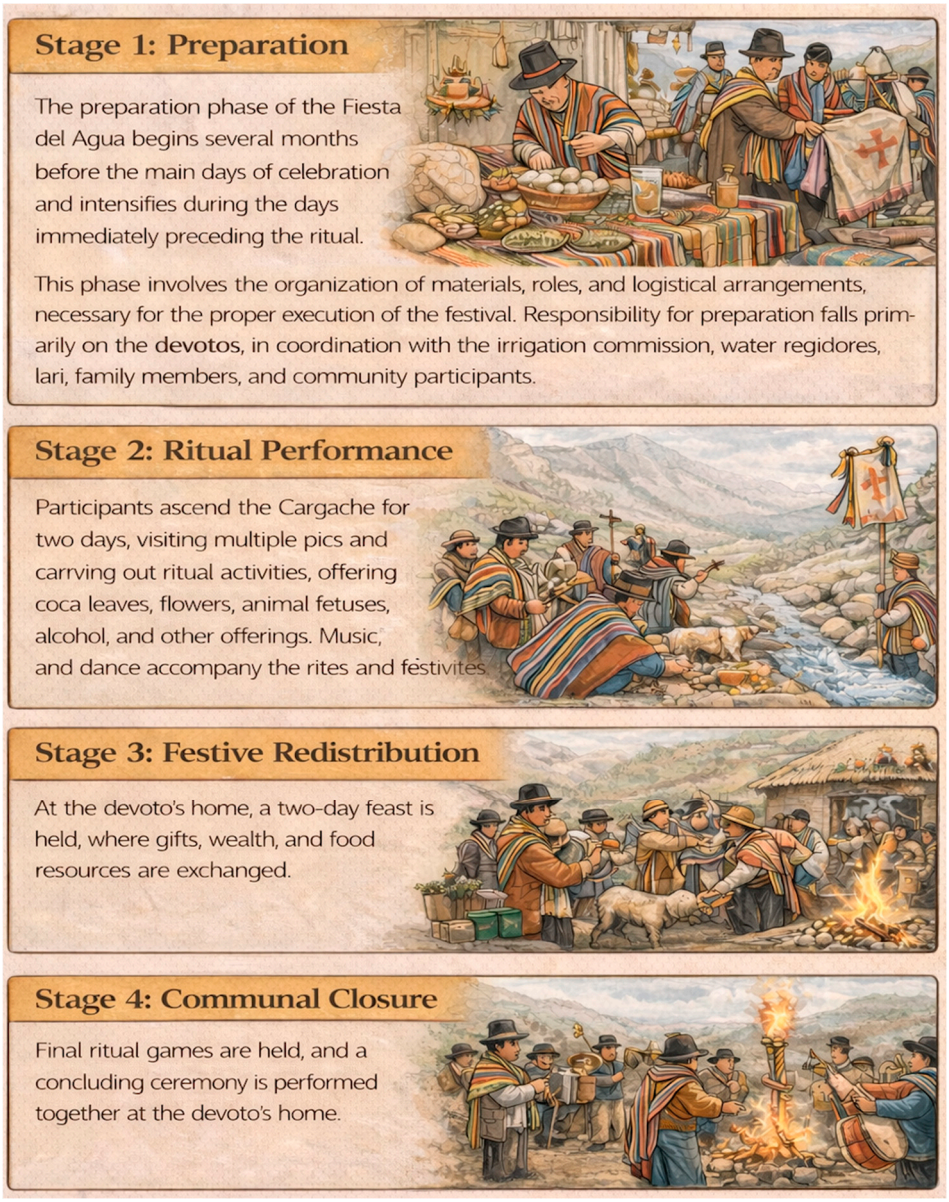


Figure 2. The four stages of the Fiesta del Agua (Own work using ChatGPT-5).

3.1. Preparation

The preparation phase of the Fiesta del Agua begins several months before the main days of celebration and intensifies during the days immediately preceding the ritual. This phase involves the organization of materials, roles, and logistical arrangements necessary for the proper execution of the festival. Responsibility for preparation falls primarily on the *devotos*, in coordination with the irrigation commission, water regidores, *lari*, family members, and community participants.

During this phase, ritual objects are assembled and safeguarded. These include coca leaves (*k'intu*), animal fat, *santa taco* (ferrous oxide powder), flowers, maize, fetuses of

camelids (*sullus*), alcohol, chicha, incense materials, and textiles. Many of these objects are inherited within families and are stored with care until the festival. The *lari* is responsible for requesting specific ritual elements and preparing the components of the ritual table.

In the days immediately before the ascent to the water intake, livestock donated by families is gathered, and arrangements are made for its later sacrifice and preparation as food. The irrigation commission coordinates food preparation teams, selects individuals who will remain in the community rather than ascend to the intake, and ensures that each community provides an alpaca for ritual sacrifice.

On the evening before the ritual ascent, preparation intensifies in the home of the *devoto*. The *untuche* is prepared in the presence of "regidores" (councilors), family members, and community participants. At the same time, the ritual flag is sewn from a single thread, painted with a cross using *santa taco*, and attached to a long cane decorated with colored ribbons. Ritual clothing is also prepared, including ponchos, hats, traditional women's garments, and paired ceremonial cups worn by the *devotos*. The preparation phase concludes late at night, marking readiness for the ritual performance.

3.2. Ritual Performance

The ritual performance phase takes place over two principal days and is centered on the ascent to the water intake known as Cargache, a site shared by the communities of Bellavista and Calacoa. Participation includes *devotos*, regidores, *lari*, family members, musicians, and community members from both localities.

The ritual sequence begins early in the morning with communal meals prepared by families and volunteers. Participants then organize into groups and proceed toward the intake site. Traditionally, the ascent was made on horseback or mule, with participants stopping at several designated points along the route. At each stop, participants rest and share alcohol, performing a symbolic crossing of arms that represents the division of water toward each community's irrigation canals.

Ritual activities intensify upon arrival at Cargache. Women gather to prepare floral necklaces using flowers brought from the community and fruits such as *pulla-pulla*, collected from nearby cacti. Men, particularly the regidores, collect plants such as cacahuara (*Cantua buxifolia*), which are used to adorn hats and ritual clothing. These adornments are placed on key participants, including the *devotos*, regidores, padrinos (Godfathers), and *lari*.

The central ritual consists of offerings made at sacred points near the intake. The *lari* leads the ritual actions, arranging the ritual table and performing payments to the water using coca leaves, animal fat, incense, alcohol, and, in some cases, camelid fetuses. Sacrificial acts are conducted in accordance with established ritual norms, and offerings are directed toward ensuring adequate water flow, agricultural productivity, and communal well-being.

Throughout the ritual performance, music, chanting, and collective movement accompany the offerings. Participants remain at the site for several hours before beginning the descent back to the communities. This phase concludes once all designated offerings have been completed and participants return, marking the transition from ritual actions to the subsequent festive activities.

3.3. Festive Redistribution

Festive redistribution takes place during the phase locally identified as the modern celebration of the Fiesta del Agua. This phase occurs after the ritual payments to the water and is organized over two consecutive days, one centered on the male *devoto* and the other on the female *devoto*. During these days, the homes and communal spaces of the *devotos* become focal points for the reception and distribution of food, beverages, music, and gifts.

Families, relatives, padrinos, local authorities, and visitors from neighboring communities arrive to participate in the celebration and bring offerings that include money, livestock, agricultural land, and crates of beer. These contributions are delivered publicly, often by placing money in the hats of the *devotos*, while the donors are served drinks in return. The exchange is accompanied by live music provided by bands and orchestras, as well as continuous communal dancing.

All goods received are systematically managed during the celebration. Specific individuals are assigned to remove money from the *devotos'* hats, record the amounts in notebooks, and register the number of beer crates and other goods received. Livestock donated by family members is slaughtered and prepared to provide meals for participants throughout the celebration. Food and drinks are shared widely among attendees, including community members, invited guests, and musicians.

The redistribution process extends beyond immediate consumption. Monetary contributions and goods are later totaled and reviewed during the final day of the festival. The volume of redistributed resources varies among families, depending on kinship ties, economic capacity, and prior commitments, but participation in redistribution is collective and involves the entire community.

3.4. Communal Closure

Communal closure occurs on the final day of the Fiesta del Agua, marking the end of the ritual and festive cycle and the return to everyday activities. This phase begins with the formal accounting of all monetary and material contributions received during the previous days. The totals are publicly reviewed, and families associated with the *devotos* are recognized according to the magnitude of their contributions.

Following the accounting, a series of ritual games is carried out involving the *devotos*. These games typically consist of guessing the contents of wrapped gifts. Incorrect guesses result in symbolic penalties, usually involving the consumption of alcohol. These activities are conducted publicly and are attended by community members and visitors.

During this phase, characters such as *kjarpas* (children disguised with masks) reappear and perform playful actions that are tolerated only within the temporal limits of the festival. Musical groups associated with earlier ritual phases, such as *pules*, *negritos*, and *jarpas*, also reemerge. One of the final acts includes retrieving the ritual flag placed earlier during the celebration; the individual who successfully takes the flag is publicly acknowledged.

The closure continues with the burning of the final *untuche* at the entrance of the community, accompanied by the last offerings of wine and chicha. Ritual clothing, such as ponchos and symbolic objects, is removed and stored. A communal announcement is then made to designate the next *devoto*, who assumes responsibility for organizing the following year's festival.

The festival concludes with a final gathering at the *devoto's* home, where remaining food and drinks are shared. After this gathering, participants disperse, signaling the formal end of the Fiesta del Agua and the resumption of daily agricultural and communal activities.

3.5. Ritual as Governance Mechanism

Beyond its symbolic dimension, the four-stage cycle of the Fiesta del Agua functions as a governance mechanism embedded in cyclical time. Preparation organizes responsibilities and coordinates intercommunal labor prior to the agricultural season. Ritual performance at the shared intake reaffirms collective ownership and moral accountability over water distribution. Festive redistribution transforms private contributions into public obligations, reinforcing reciprocity networks that underpin cooperation in irrigation maintenance.

Communal closure institutionalizes continuity through the public designation of the next devoto, thereby ensuring annual renewal of responsibility.

Through this cyclical structure, water governance is not external to ritual but enacted within it. The festival re-legitimizes authorities, redistributes prestige, and publicly reaffirms norms regulating access to shared hydrological infrastructure. In this sense, *Layimama* constitutes a living governance system in which cosmology, morality, and material management converge.

4. Discussion

The analysis of the Fiesta del Agua (*Layimama*) in the inter-Andean valley of Ticsani shows that these water rituals are not merely symbolic remnants of a premodern past. Instead, they function as culturally embedded institutions through which communities express collective identity, organize and regulate access to shared water resources, and adapt to shifting environmental and social conditions. Viewed in comparative regional and cross-cultural perspective, the Ticsani case provides both empirical evidence and theoretical insight into broader debates on human–environment relations, governance of common-pool resources, and the safeguarding of intangible cultural heritage (Durkheim, 1912/2013; Turner, 1969; Aranda Dioses, 2023).

A first contribution of this study lies in confirming, through a detailed local case, that Andean water rituals follow a broadly shared structural logic while remaining highly adaptable to specific ecological and social configurations. The four-stage ritual cycle identified in Ticsani (preparation, ritual performance, festive redistribution, and communal closure) closely parallels structures documented in Peruvian areas such as Puquio, San Pedro de Casta, Andamarca, Pumani, and the Sondondo Valley (Valiente, 1986; Gelles, 1984; Rivière, 1994; Dana-Echevarría, n.d.). This recurrence supports the notion of an Andean "ritual grammar" that organizes time, assigns moral responsibility, and synchronizes social life with agricultural and hydrological cycles (Turner, 1969; Melis, 2003). At the same time, the Ticsani case shows how this grammar is locally reconfigured in intercommunal contexts where multiple settlements depend on a shared water source. The joint participation of Bellavista and Calacoa around the Cargache intake illustrates how ritual can function as a stabilizing mechanism that mitigates potential conflict by framing water as a collectively entrusted entity rather than a territorially bounded asset, as also observed in other shared-irrigation systems in the Andes and Mesoamerica (Madrigal et al., 2015; Broda, 2001; Brugge, 1983).

From the perspective of governance, the findings reinforce arguments that ritualized systems can operate as effective forms of common-pool resource management. In contrast to formalized, state-centered water governance models, the regulation of water in Ticsani relies on moral accountability, ritual obligation, and social visibility. Roles such as *devotos*, *lari*, regidores, and padrinos concentrate responsibility and prestige while embedding governance within everyday social relations. Comparable arrangements have been described in other Andean and Mesoamerican contexts, where ritual offices such as *varayoq*, *mayordomos*, or water stewards combine symbolic authority with practical management functions (Melis, 2003; Madrigal et al., 2015). The Ticsani case thus supports theoretical approaches that view ritual not as an epiphenomenon of governance, but as one of its constitutive mechanisms, particularly in small-scale agrarian societies where ecological sustainability depends on cooperation rather than coercion (Ostrom-inspired interpretations echoed in Soldi, 1980; Trujillo et al., 2018).

The cosmological dimension of the Fiesta del Agua further strengthens this interpretation. By positioning water as an *axis mundi* linking *Hanan Pacha*, *Kay Pacha*, and *Urin Pacha*, the ritual embeds hydrological processes within a moral universe in which imbalance

has social and spiritual consequences (Eliade, 1981; Limón Olvera, 2024). Comparative evidence from Tarapacá, Isluga, Cajamarca, and Ecuador suggests that such cosmological frameworks are mobilized not only to explain environmental variability but also to motivate collective action in response to it (Gil García, 2012; Vega & Vigueras Cherres, 2020; Trujillo et al., 2018). In this sense, *Layimama* can be interpreted as a preventive governance strategy oriented toward maintaining balance before scarcity or conflict emerges, rather than a reactive response to crisis (Pereira Valarezo, 2009).

Religious syncretism, often framed in the literature as evidence of cultural erosion, appears in this study as a key mechanism of ritual resilience. The incorporation of Catholic symbols, civil marriages, crosses, and Christian iconography into the Fiesta del Agua does not displace its pre-Hispanic cosmological foundations. Instead, these elements are resignified within an Andean moral framework, allowing the ritual to remain socially relevant across historical transformations (Platt, 1996; Limón Olvera, 2006). Similar patterns have been documented in water festivals in Mexico, Bolivia, and northern Chile, where Catholic symbolism is integrated into indigenous ritual systems without negating their underlying logic (Madrigal et al., 2015; Allen, 1988; Vega & Vigueras Cherres, 2020). This finding directly addresses a common critique in social studies regarding syncretism, emphasizing agency, adaptation, and cultural continuity rather than loss (Fernández, 2018).

The role of the Fiesta del Agua in reproducing collective identity and social prestige further situates the Ticsani case within broader anthropological debates. As in other Andean ritual contexts, participation in *Layimama* constitutes a public arena in which families demonstrate commitment, generosity, and moral standing. The redistribution of food, drink, and gifts during the festive phase reinforces reciprocity while simultaneously differentiating prestige, reflecting dynamics described across the Andes (Durkheim, 1912/2013; Mercado Maldonado & Hernández Oliva, 2010; Ansión, 1986). Ritual expenditure thus operates as both a moral obligation and a means of accruing symbolic capital, underscoring the inseparability of economy, morality, and identity in Andean societies (Godelier, 1999).

From a contemporary sustainability perspective, the Fiesta del Agua acquires renewed relevance. Current debates on water governance increasingly recognize the limitations of purely technocratic and centralized management models, especially in regions affected by climate variability, institutional fragmentation, and cultural marginalization (Aranda Dioses, 2023; Limón Olvera, 2024). The Ticsani case illustrates how culturally grounded practices can sustain collective responsibility for water through shared values and moral sanctions rather than formal enforcement. While ritual alone cannot resolve large-scale hydrological challenges, its capacity to reinforce ethical relationships with water and foster cooperation suggests that such practices can complement modern governance frameworks (Soldi, 1980; Trujillo et al., 2018).

Finally, the limited documentation and external recognition of *Layimama* highlight the vulnerability of ritual-based governance systems in the face of modernization and cultural homogenization. Unlike more widely studied Andean festivals, the Fiesta del Agua of Ticsani remains underrepresented in national and international heritage discourses, despite its historical depth and social relevance (Solórzano, 2010; Zeballos, 2015). This marginality poses risks not only for cultural continuity but also for the erosion of locally embedded knowledge systems that have historically supported sustainable water management. By documenting and analyzing this ritual in comparative perspective, the present study contributes to ongoing efforts to safeguard intangible cultural heritage while advancing interdisciplinary scholarship on human–environment relations (Aranda Dioses, 2023).

In sum, the Fiesta del Agua of the Ticsani valley exemplifies a broader Andean tradition in which ritual, cosmology, governance, and identity converge around water as a shared and sacralized resource. At the same time, its intercommunal configuration,

adaptive syncretism, and governance implications provide original empirical and analytical contributions to comparative studies of ritualized sustainability. Recognizing such practices as active social institutions rather than symbolic remnants is essential for understanding culturally grounded pathways toward resilient human–water relationships.

Limitations of This Study

One important limitation of this study lies in its reliance on documentary analysis rather than direct ethnographic fieldwork. The reconstruction of the ritual sequence and its social meanings is therefore based on previously published ethnographic studies, historical documents, and institutional reports rather than on participant observation or interviews with community members. While the triangulation of multiple documentary sources allows the identification of recurring patterns and provides a coherent interpretive framework, it does not capture the full experiential, emotional, and locally negotiated dimensions of ritual participation. In addition, documentary sources may reflect the interpretive perspectives of their original authors and may not fully represent contemporary transformations of the festival. For these reasons, the present analysis should be understood as an interpretive synthesis of available documentation rather than a comprehensive ethnographic account. Therefore, future research based on field observation, interviews, and longitudinal documentation would help deepen understanding of how the Fiesta del Agua is experienced, interpreted, and adapted by present-day communities.

5. Conclusions and Recommendations

This study examined the Fiesta del Agua (*Layimama*) celebrated in the inter-Andean valley of Ticsani, focusing on the communities of Bellavista and Calacoa, with the aim of documenting and describing its ritual sequence and social organization. The results show that the festival constitutes a structured and cyclical process composed of four clearly differentiated phases (preparation, ritual performance, festive redistribution, and communal closure), each involving specific actors, practices, and symbolic elements. Together, these phases articulate a coherent system through which water is honored, managed, and socially integrated.

The findings demonstrate that the Fiesta del Agua is not an isolated ceremonial event but a comprehensive communal process that mobilizes labor, material resources, ritual knowledge, and social relations. Through preparation, communities organize responsibilities, gather ritual materials, and coordinate collective participation. Ritual performance at the shared intake of Cargache establishes a formal moment of interaction with water, involving offerings, music, movement, and the participation of specialized ritual roles. Festive redistribution transforms material contributions into shared consumption and public exchange, while communal closure restores everyday order, consolidates memory, and ensures continuity through the designation of future ritual responsibility.

Taken together, these practices reveal the central role of the Fiesta del Agua in sustaining collective identity and intercommunal cohesion among populations that depend on a shared hydrological system. The festival functions as a recurring social mechanism through which cooperation is reaffirmed, obligations are renewed, and communal ties are maintained. At the same time, the documentation highlights the importance of ritual roles (e.g., *devotos*, *lari*, regidores, padrinos, and participants of different ages and genders) in structuring participation and ensuring the transmission of ritual knowledge.

By providing a detailed descriptive account of the Fiesta del Agua in Ticsani, this study contributes to the documentation of Andean ritual practices that remain underrepresented in academic literature. In a broader sense, the manuscript underscores the relevance of local, culturally embedded practices in shaping relationships between communities and

water, especially in regions where access to water is central to agricultural production and social life.

Recommendations

Future research could build on the present study in several complementary directions. First, ethnographic fieldwork involving participant observation and in-depth interviews would allow for a closer examination of individual perspectives, emotions, and interpretations associated with the Fiesta del Agua, complementing the documentary-based approach adopted here. Such work could provide greater insight into how meanings are negotiated across generations and how ritual participation is experienced by different social groups.

Second, comparative studies across valleys, regions, or countries in the Andes would help situate the Ticsani case within a wider spectrum of water-related rituals. Comparative analysis could identify shared patterns and local variations in ritual organization, timing, symbolism, and social roles, contributing to a more comprehensive understanding of water rituals in Andean societies.

Third, future research could explore the relationship between ritual practices and contemporary water management challenges. Examining how traditional rituals interact with modern irrigation infrastructure, state regulations, and environmental pressures (e.g., climate variability or water scarcity) would provide valuable insight into the changing role of ritual in present-day governance contexts.

Fourth, interdisciplinary approaches combining anthropology, geography, history, and environmental studies could deepen understanding of the spatial and temporal dimensions of the Fiesta del Agua. Mapping ritual routes, sacred sites, and irrigation networks over time would help clarify how ritual landscapes are constructed and maintained.

Fifth, future research could assess alcohol's role in shaping participation at the Fiesta del Agua by treating it as an empirical variable within a dynamic analytical framework. Rather than presuming a unidirectional effect (i.e., alcohol availability increasing attendance), studies should evaluate potential bidirectional relationships: alcohol consumption may reinforce participation through mechanisms of social cohesion, while high attendance may in turn structure patterns of alcohol distribution and use. Such analysis would require longitudinal attendance data combined with measures of alcohol availability and consumption, while statistically controlling for structural factors including hydrological variability (water scarcity or abundance), agricultural calendars, and migration dynamics. This approach would permit a more nuanced assessment of causality and interaction effects.

Finally, given the limited documentation and recognition of the Fiesta del Agua in Ticsani, future research could contribute to initiatives aimed at safeguarding intangible cultural heritage. Studies focused on documentation, community-led archiving, and cultural transmission may support local efforts to preserve ritual knowledge while respecting community autonomy and values.

Author Contributions: Conceptualization, E.Z.Z., J.E.C.O. and K.d.R.L.V.; methodology, E.Z.Z., J.E.C.O. and K.d.R.L.V.; validation, P.A.G.-C.; formal analysis, E.Z.Z., J.E.C.O. and K.d.R.L.V.; investigation, E.Z.Z., J.E.C.O., K.d.R.L.V. and P.A.G.-C.; resources, J.E.M.; data curation, E.Z.Z., J.E.C.O. and K.d.R.L.V.; writing—original draft preparation, E.Z.Z., J.E.C.O., K.d.R.L.V. and P.A.G.-C.; writing—review and editing, J.E.M.; visualization, E.Z.Z., J.E.C.O., K.d.R.L.V. and P.A.G.-C.; supervision, P.A.G.-C.; project administration, P.A.G.-C. and J.E.M.; funding acquisition, J.E.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research was partially funded by the Center for Mining Sustainability, grant number 470266.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

Acknowledgments: The authors thank the Center for Mining Sustainability for providing the necessary support to develop this manuscript. Finally, in the course of preparing this manuscript, the authors used ChatGPT-5 for writing purposes and ensuring proper grammar, as well as generating Figure 2. The authors have reviewed and edited the tool's output and assume full responsibility for the content of this publication.

Conflicts of Interest: The authors declare no conflicts of interest.

References

Allen, C. J. (1988). *The hold life has: Coca and cultural identity in an Andean community*. Smithsonian Institution Press.

Ansión, J. (1986). *Desde el rincón de los muertos: El pensamiento mítico en Ayacucho*. Gredes.

Aranda Dioses, E. (2023). Representaciones sociales y cultura del agua: Prácticas cotidianas y elementos hídricos del territorio en la ciudad de Piura. *Revista de Urbanismo*, *48*, 177–193. [CrossRef]

Autoridad Nacional del Agua (ANA). (2015). *Plan de gestión de recursos hídricos de la cuenca Moquegua–Osmore*. Autoridad Nacional del Agua.

Broda, J. (2001). *Cosmovisión y ritualidad agrícola en Mesoamérica*. INAH.

Brugge, D. M. (1983). *Navajo ceremonial system*. University of Arizona Press.

Dana-Echevarría, S. (n.d.). *Los dansaq y la Fiesta del Agua (Ayacucho, Perú)*. Consulado del Perú en París.

Durkheim, E. (2013). *The elementary forms of religious life*. Free Press. (Original work published 1912).

Eliade, M. (1981). *The sacred and the profane: The nature of religion*. Harcourt Brace Jovanovich.

Fernández, F. (2018). Memorias en resistencia: Festividades y ritualidades andinas en Santiago de Chile. *Athenea Digital*, *18*(1), 269–291. Available online: https://atheneadigital.net/article/view/v18-n1-fernandez/1850-pdf-es (accessed on 20 January 2026). [CrossRef]

Garreaud, R. D. (2009). The Andes climate and weather. *Advances in Geosciences*, *22*, 3–11. [CrossRef]

Gelles, P. H. (1984). Agua, faenas y organización comunal: San Pedro de Casta–Huarochirí. *Anthropologica*, *2*(2), 305–334. [CrossRef]

Gil García, F. M. (2012). Lloren las ranas, casen las aguas, conténganse los vientos: Rituales para llamar la lluvia en el centro y sur andino. *Revista Española de Antropología Americana*, *42*(1), 145–168. [CrossRef]

Godelier, M. (1999). *The enigma of the gift*. University of Chicago Press.

How to Peru. (2026). *The three Pacha Realms of Incamythology*. Available online: https://howtoperu.com/the-three-pacha-realms-of-inca-mythology/ (accessed on 2 March 2026).

Instituto Geográfico Nacional del Perú (IGN). (2013). *Atlas geográfico del Perú*. Instituto Geográfico Nacional.

Instituto Nacional de Estadística e Informática (INEI). (2018). *Compendio estadístico departamental: Moquegua*. INEI.

Limón Olvera, S. (2006). Entidades sagradas y agua en la antigua religión andina. *Latinoamérica. Revista de Estudios Latinoamericanos*, *43*, 85–111.

Limón Olvera, S. (2024). Agua y axis mundi en la cosmovisión andina. *Latinoamérica. Revista de Estudios Latinoamericanos*, *78*, 43–66. [CrossRef]

Madrigal, D., Alberti, G., & Martínez, J. (2015). *Ritualidad y gestión comunitaria del agua en la Apantla, México*. Universidad Nacional Autónoma de México.

Melis, A. (2003). *Cequia Aspiy: La fiesta del agua en Puquio entre tradición y modernización*. Iberoamericana–Vervuert.

Mercado Maldonado, A., & Hernández Oliva, A. V. (2010). El proceso de construcción de la identidad colectiva. *Convergencia*, *17*(53), 229–251.

Pereira Valarezo, J. (2009). *La fiesta popular tradicional del Ecuador*. Ministerio de Cultura del Ecuador.

Platt, T. (1996). *Los guerreros de Cristo: Cofradías, misa solar y guerra regenerativa en una doctrina colonial*. ASUR.

Rivière, G. (1994). El sistema de aynuqa: Memoria e historia de la comunidad. *Revista Andina*, *12*(1), 97–125.

Servicio Nacional de Meteorología e Hidrología del Perú (SENAMHI). (2020). *Caracterización climática de la región Moquegua*. SENAMHI.

Soldi, A. M. (1980). *Agua y sociedad en los Andes peruanos*. Pontificia Universidad Católica del Perú.

Solórzano, M. (2010). *La fiesta del agua, turismo místico en el departamento de Moquegua*. Escuela de Turismo y Hotelería, Arequipa.

Trujillo, C. A., Rangel, J. A. M., Carrera, J. R. A., & Tapia, K. R. L. (2018). Significados del agua para la comunidad indígena Fakcha Llakta, Ecuador. *Ambiente & Sociedade*, *21*, e01003. Available online: https://biblat.unam.mx/hevila/Ambiente&sociedade/2018/vol21/4.pdf (accessed on 20 January 2026).

Turner, V. (1969). *The ritual process: Structure and anti-structure*. Aldine.

Valiente, T. (1986). La fiesta del agua en Puquio. *Allpanchis*, *28*, 87–97. [CrossRef]
Vega, V. G., & Vigueras Cherres, P. (2020). Temporalidades y memorias corporizadas en los rituales aymaras del norte de Chile. *Cultura y Religión*, *14*(2), 100–120. [CrossRef]
Zeballos, E. (2015). Desarrollo, modernidad y tecnología andina. *Cuestiones de Sociología, Investigación en Ciencia y Desarrollo*, *4*, 113–123.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.