ACEQUIA MARÍA MAYANCELA: THE SAN ANDRÉS CANAL SYSTEM, CHIMBORAZO, ECUADOR

by

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ABSTRACT

I argue that the concept of hybridity is the most appropriate framework for analyzing colonial spheres of interaction, in contradiction to the more common application of binary conceptualizations of opposition. I apply this argument to the analysis of the history of the Acequia María Mayancela, a canal system that has existed for centuries and is still in use today in the town of San Andrés, Chimborazo, Ecuador. I analyze the physical components and historical use of the canal, specifically looking at the legal and religious impacts of Spanish colonialism on the use and perception of this canal system in the colonial and post-independence eras. I conclude that the concept of hybridity is exceedingly apt in discussing the historical trajectory of the canal and identify the canal as an important case in the study of the processes of hybridity in the colonial world.

Keywords: irrigation; hybridity; colonialism; Ecuador; Andes; Spanish Catholicism; Andean religion; Spanish colonial law
Laura, you’ve been there as my support throughout.

Though the future and the past aren’t always as we initially imagine them,

they will always be intertwined in the present.
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# GLOSSARY

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<thead>
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<th>Word</th>
<th>Definition</th>
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<tbody>
<tr>
<td>acequia</td>
<td>canal or ditch</td>
</tr>
<tr>
<td>cacique</td>
<td>indigenous leader</td>
</tr>
<tr>
<td>concertaje</td>
<td>system of debt peonage on a hacienda</td>
</tr>
<tr>
<td>corregimiento</td>
<td>administrative district in the Spanish colonies</td>
</tr>
<tr>
<td>doctrina</td>
<td>weekly meeting at a hacienda chapel for prayer and religious instruction</td>
</tr>
<tr>
<td>encomienda</td>
<td>grant of rights to exact tribute in the form of goods and labour from the indigenous occupants of a region</td>
</tr>
<tr>
<td>hacendado</td>
<td>hacienda owner</td>
</tr>
<tr>
<td>hacienda</td>
<td>landed estate</td>
</tr>
<tr>
<td>mitmaqkuna</td>
<td>relocated settlers within the Inka Empire</td>
</tr>
<tr>
<td>obraje</td>
<td>textile factory or mill</td>
</tr>
<tr>
<td>potrero</td>
<td>pasture; also used locally as a generic term for fodder crops</td>
</tr>
<tr>
<td>presura</td>
<td>Castilian term for the Germanic customary law of occupancy</td>
</tr>
<tr>
<td>quebrada</td>
<td>ravine</td>
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1: HYBRIDITY, DICHOTOMY, AND WATER IN AN ANDEAN CONTEXT

This investigation of the historical irrigation practices in the town of San Andrés, Chimborazo, Ecuador is an exploration of the hybrid nature of cultural interaction in the colonial enterprise (Figure 1.1) (García Canclini 1995; Giddens 1986). I examine the processes of domination, negotiation, adaptation and interpretation that took place here from before the Spanish conquest to the present (Gose 2008; Martindale 2009; Silliman 2009), scrutinizing the appropriateness of applying dichotomous classifications to the colonial and post-independence contexts in the Andes. I use the San Andrés canal system, or Acequia María Mayancela as it is commonly known, as an example of this hybridity in action over its history. I describe the physical components and extent of the canal system; its overall historic trajectory; and the economic, legal, and social meaning it has held in the town before the Spanish conquest, during the Spanish colonial era, and in the post-independence era. Each of these topics were chosen in order to understand how the local history of this one canal in this one small town in Ecuador is tied into the larger fabric of the history of colonialism as manifested through its physical construction, legal control, and religious significance.

I argue that: the concept of hybridity is the most appropriate framework for analyzing colonial spheres of interaction, in contradiction to the more common application of binary conceptualizations of opposition. The San Andrés canal system is an excellent case study for exploring hybridity due to its continued use since before the Spanish conquest up to the present.
Over the course of this thesis I: outline my methods of investigation (Chapter 2); describe in detail the physical elements of the canal as it exists today, tying this into the recorded evidence of the canal in the past (Chapter 3); discuss the legal elements of the canal in the Spanish colonial era, focusing on one particular legal case regarding a dispute over the use of water from the canal system (Chapter 4); and explore the connections between politics, religion, and the canal system in the post-independence era (Chapter 5). Each of these chapters will be discussed within the contexts of the nature and legacy of the colonial era, but more particularly within the contexts of the particular historical trajectories of the peoples whose interactions and entanglements created the unique history of the San Andrés canal system. The following sections of this chapter will engage the theoretical applications of the concepts of hybridity as a counter to the binary conceptualizations more commonly applied in literature on the Andes and the specific historical contexts of water use and management by the various peoples that have lived, traded, fought, and exchanged ideas here.
1.1 Hybridity in the Andes

Central to critiques of dichotomous categorizations of opposition in the Andes is the idea of hybridity (García Canclini 1995; Giddens 1986; Gose 2008:7-10; Shepherd 2004, 2005, 2006; Silliman 2009). This is a concept that has been explored in archaeological, historical, geographic and ethnographic literature, though not always using the same terminology (i.e., “transformation” [Bebbington 2000], “adaptation” [Boelens 2002, 2008; Gelles 2000], “entanglement” [Martindale 2009; Silliman 2009], “fusion” [Sallnow 1991], and “middle ground” [White 1991]). In this thesis, I follow Néstor García Canclini’s (1995:xxv) definition of hybridization as, “sociological processes in which discrete structures or practices, previously existing in separate form, are combined to generate new structures, objects, and practices.” García Canclini (1995:xxv) further notes, “the so-called discrete structures were a result of prior hybridizations and therefore cannot be considered as pure points of origin.” I similarly subscribe to Richard White’s (1991:x) notion of a “middle ground [on which] diverse peoples adjust their differences through what amounts to a process of creative, and often expedient, misunderstandings.” It is in this process of adjustment that hybridity is manifested. At its most basic, the concept of hybridity is the acknowledgement and identification of changes in ‘traditional’ practices over time (Giddens 1986). Thus, it conceptualizes both indigenous and colonial practices not as static and unchanging, but as being in constant flux and allowing for a measure of instability and negotiation within communities and with external forces (Bourdieu 1977, 1990).

The concept of hybridity is closely associated with postcolonial theory and the many discussions that have sprung from it (Dean and Leibsohn 2003; García Canclini 1995; Klor de Alva 1992; Mongia 1996; Pagán-Jiménez 2004). The term “postcolonial” is a controversial one and the boundaries of what is considered “postcolonial” is
uncertain (Fuchs and Baker 2004; Gosden 2001; Hulme 1995; Mongia 1996; Klor de Alva 1992). According to Chris Gosden (2001:241), “most former colonies have become independent and we live in a world coping with the consequences of colonialism.” As he understands the meaning of “postcolonial”, it is the state of existence, temporally and politically, after independence from a colonial power. Peter Hulme (1995:121) addresses this, though with a different perspective, noting that “[p]ostcolonial’ … should not be used as if it were an adjective describing a condition that is automatically and for all time assumed once a former colonial status has been left behind.” For Hulme (1995:122), “a country can be postcolonial and colonizing at the same time,” identifying that the shedding of one colonial master can often simply mean the arrival of a new one or the becoming of one.

These topics have been growing concerns in archaeology for the past two decades or so. Nicholas and Hollowell (2007) offer a comprehensive overview of postcolonial archaeology and the benefits and pitfalls of its agenda to create a more equitable power structure within the discipline, incorporating “studies of colonial sites, the unearthing of alternative histories, critiques of processualism, reflection on the ethics of practice, and the emergence of multivocal, subaltern, and world-systems approaches” (Nicholas and Hollowell 2007:62). Archaeologists such as Margaret Conkey (2005), Alfredo González-Ruibal (2007, 2008), Chris Gosden (2001), Andrew Martindale (2009), Stephen Silliman (2009), and Eldon Yellowhorn (2002) represent a small cross-section of postcolonial work in archaeology and the multiple perspectives that prevail throughout. I believe that the concept of hybridity, as a product of postcolonial discourse, is highly applicable archaeologically as the dynamics prevalent in colonial interaction have occurred in the past and are visible in the material culture of past societies.
The concept of hybridity is counter to the discourse of dichotomy, or the creation of binary categorizations into which all manner of human social constructions are placed, a common element in much of the literature on the Andes (Gose 2008; Silliman 2009). These dichotomous relationships include: indigenous/non-indigenous (Boelens and Doornbos 2002; Gade 1971; Gelles 2000; Korovkin 1997); tradition/modernity (Andrien 2001; Dussel 2000; Quijano 2000; Shanklin 1981); domination/resistance (Boelens 2006; Gelles 2000; Scott 1990; Stern 1987); male/female (Boelens and Zwartheveen 2003; Escobar 1995; Hamilton et al 2001; Voss 2008); nature/civilization (Comaroff and Comaroff 2003; Paarregaard 1998; Scott 2006; Urton 1992); and internal/external knowledge (Dewulf et al 2005; Korovkin 1997; Shepherd 2004, 2005, 2006). These binaries are prevalent in much of the literature on Andean culture, both explicitly and implicitly, and form the core of the discourse about current-day Andean culture (García Canclini 1995; Gose 2008:7). What they fail to account for, however, is the malleability exhibited by both Spanish and indigenous peoples in the Andes, the connected and inseparable histories of the region, and the dynamic processes that merged economic, religious, and political worldviews into a unique hybrid that is neither Spanish nor indigenous, and yet still both (Boelens 2008; García Canclini 1995; Lyons 2006; Tolen 1999).

García Canclini (1995:xxxvii) sees hybridization as being embedded in the globalizing processes of modernity, but also as “[representing] a challenge to modern analytic thought, accustomed as it is to the binary separation of the civilized from the savage, of the national from the foreign, of Anglo from Latino.” He sees the process of hybridization as having major ties to economics and global commerce, but as being present on a local scale as well:

\[ \text{Globalizing processes promote the expansion of consumers’ combinatorial faculties, but almost never in } \text{endogenous hybridization,} \]
that is, in local production circuits, which are increasingly conditioned by a coercive heteronomous hybridization that concentrates combinatorial initiatives in a small number of transnational headquarters for the generation of goods and messages, for the publication and administration of social meaning. [1995:xl-xli, emphasis in original]

It is through this coercive heteronomous hybridization, he argues, that it becomes associated with the processes of homogenization. Instead, he argues “that defending of heterogeneity and the possibility of multiple hybridizations is a first political move in an effort to keep the world from falling prisoner to the homogenizing logic with which finance capital tends to level markets in order to facilitate profits” (1995:xli). To García Canclini, “hybridization is not a synonym for fusion without contradiction but rather can be helpful in accounting for particular forms of general conflict generated in recent cross-cultural contact” (1995:xxiv). While he is focussed on current processes, he sees the application of the concept to past processes as being equally valid, noting how the concept and the term are relevant to discussions of syncretism, fusion, creolization and mestizaje\(^1\) (1995:xxxiv).

However, the concept of hybridity has its detractors. Padmini Mongia (1996:5) points out that many explorations of hybridity are prone “to the aspecificity and ahistoricity of a hybrid subject remarkably free of any gender, class or race constraints.” J. Jorge Klor de Alva (1992:4-8) echoes this concern, showing how the concept of hybridity can and has been politically appropriated by nationalist causes. He states, “the culmination of colonialism was the disappearance of the indigenes and their world, not into a brew of Indian-Spanish composition, but into the cultural vortex of the West” (1992:5-6, emphasis in original). While the decimation of the indigenous world is irrefutable, I disagree that it disappeared to become part of the “cultural vortex of the

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\(^1\) These are all terms that will be noticeably absent from this thesis. This omission is conscious and is rooted in my use of the concept of hybridity as an overarching concept that encompasses these other concepts.
West.” As has been noted by scores of Latin American anthropologists, indigenous cultures still thrive. I argue that all cultures are hybrids, shifting and adapting, incorporating and dismissing various characteristics. Issues of aspecificity and ahistoricity are amply addressed through the assessment of the historical trajectories of particular locales, in this case the San Andrés canal system: a system that has been used for centuries, through various political and economic regimes, and has been the locus of debate and imbued with dynamic social meanings throughout its history as the following chapters will discuss in detail.

Hybridity is a concept that identifies the shifting and adaptive nature of ‘traditional’ practices, acknowledging that practitioners are fully aware of the global context in which they are actors, and recognizing that there is an interplay between the global and the local in which each is affected by the other (Comaroff and Comaroff 2003; García Canclini 1995; Gose 2008; Martindale 2009; Silliman 2009). Hybridity, rather than essentializing both Spanish and indigenous peoples as static and unchanging, argues that, though each have unique perspectives on the world, they assess, incorporate, reject and transform the information and technology available to them in an interactive world, while also acknowledging the variances in power differentials between these groups throughout their histories (Bourdieu 1977, 1990; Said 2003). In short, the concept of hybridity is counter to the dominant discourse of dichotomy and is a more appropriate framework in understanding the situational and interconnected aspects of the cultural trajectory in Andean communities. It is particularly applicable to my work with the San Andrés canal system, as it has been a major aspect of the economic and spiritual life of the town preceding, throughout, and after the Spanish colonial era up to the present, making it an ideal subject for the study of the cultural exchanges, entanglements and interactions encapsulated by the concept of hybridity.
In the next section I will discuss the above theories and approaches within the specific topic of water and irrigation in the Andes. I will look at the pre-Hispanic history of irrigation in the Andes, the history of irrigation on the Iberian Peninsula, and the subsequent clashing and merging of these histories in the colonial and post-independence eras. These histories will be looked at within the context of irrigation in Ecuador and the history of the San Andrés canal system and how this all connects to the ideas of hybridity and the imposition of dichotomy in the literature.

1.2 Water and Irrigation in an Andean Context

The presence of irrigation is seen by some as being a major precursor for the rise and expansion of both coastal and highland empires in the Andean region (Burger 1992). In this view, the increase in food production allowed for an increase in population and, in many cases, required an increase in control of the labour force in order to build these large-scale irrigation systems (among other things). This view mirrors the basic premise of Karl Wittfogel’s (1957) *Oriental Despotism*. Wittfogel argues for a differentiation “between a farming economy that involves small-scale irrigation (hydroagriculture) and one that involves large-scale and government-managed works of irrigation and flood control (hydraulic agriculture)” (1957:3). While he never identifies at what point an irrigation system shifts from the small to the large scale, the indication is that governmental control, in contrast to community or individual control, marks the dividing line, rather than the physical extent or composition of the irrigation system. However, the use of the terms “small-scale” and “large-scale” indicate that size does matter. The assumption that is built into this statement is that if an irrigation system is small in physical extent, it is likely built by and for a specific community or household, but if it is large in physical extent, it was constructed to meet the demands of a greater political structure, be that an empire, nation, city-state, or other complex political system.
However, the parameters for what is considered a “large” physical extent are never discussed\(^2\).

It has been argued that governmental control of a labour force is not necessary for the construction of complex, large-scale irrigation projects (Bunker 2006; Lees 1994; Mabry and Cleveland 1996), and may, in some cases, have been detrimental to agricultural and hydraulic innovation (Glick 2005:61; Mabry and Cleveland 1996). Stephen Bunker (2006:9) notes that “[b]uilding and operating mountain ditch systems depends on social organization to implement, maintain, and operate complex technologies that only work if they are precisely fitted to the specific opportunities and challenges that their particular environment presents.” From his research in Peru, he argues that “[p]hysical evidence and legends about the earlier construction and maintenance of the older, topographically more challenging, systems built under or before the far less coercive indirect rule of the Inca state suggest, contrary to Wittfogel’s notions of environmentally determined despotism, that local communities guided by knowledge-based local authority and solidarity can construct and maintain technically and organizationally complex landscapes” (Bunker 2006:18). In short, Bunker argues that irrigation systems that Wittfogel would likely consider to be “large-scale” were not necessarily the work of governmentally controlled labour, but quite likely locally constructed to meet local needs and based on local knowledge. For the most part,

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\(^2\) In reviewing the literature on irrigation works, I have noticed the continuation of this pattern of the terms “large-scale” and “small-scale” being used without any defined criteria for what they mean. Jacinta Palerm-Viqueira (2006:376) comes the closest to a true definition stating, “the differentiation between small- and large-scale systems is based on the administrative and engineering demands of the systems”, but again fails to provide any real parameters for measurement. The canal system in San Andrés is, in my opinion, a large-scale system based on its physical extent of over 10 km of canals, with a source more than 5 km from the main use area, and the existence of an administrative system involving multiple levels of organization and coordination (i.e., household, community, municipality, and national participation) within the community of San Andrés (see Chapter 3 for a more detailed discussion). While these parameters are arbitrary, they seem reasonable and provide a defining line for the differentiation between small- and large-scale irrigation works.
scholarly discussions about irrigation systems today, in addressing the theories of Wittfogel, identify the shortcomings of his work and the issues with the application of such grand, universal theories to irrigation systems subject to local and regional particularities (Bunker 2006; Glick 2005).

1.2.1 Pre-Hispanic Andean Irrigation

Irrigation agriculture has long been an integral part of life in the Andes. Its centrality to the economic bases of the various state-level polities and empires in the region is impossible to overlook (Earle and Doyel 2008; Swenson 2003, 2006; Williams 2002). Irrigation, however, was far more than just an economically driven enterprise. The connection between water, particularly water sources, and religion in the Andes is extremely important in any discussion of irrigation and the economic aspects of agricultural production. While the ultimate goal of irrigation is to increase crop yields, the decisions about what type of irrigation will be undertaken, who will provide the labour for the construction of irrigation works, what crops will be irrigated, and how those crops are distributed are rooted in conceptions of the world far more complex than simple economic expediency. Based on this, any discussion of the variety of irrigation policies and practices must go beyond simple dichotomous explanations of how they changed and how they have remained unchanged. Instead, these practices and policies must be rooted in an anthropological view of the particular groups, their histories, and their specific understanding of the world, engaging the concepts of hybridity and entanglement as a result of cultural interaction through conquest or other means (Gose 2008; Martindale 2009; Silliman 2009).

The use of irrigation techniques in Andean agriculture extends deep into antiquity. Irrigation systems on the coast of Peru have been shown to extend as far back as 4700 B.C. (Haas and Creamer 2006:754). William Denevan (2001:143-144)
notes that irrigation has been used in the highlands of what is now Peru and Bolivia dating back to 3000 B.C. This is mostly canal irrigation on a fairly small scale, feeding fields adjacent to water sources (i.e. springs, rivers). The extent and complexity of these canal systems gradually increased over time, both in the coastal valleys and highland regions. By 1400-800 B.C. on the north coast of Peru, canal irrigation had expanded significantly. By the time of the beginning of the Moche period (A.D. 100), most of the major valleys of the north coast were being extensively irrigated with construction methods (open surface mud- or stone-lined canals [Kus 1984:413-414]) that, with some minor modifications, remained relatively unchanged through the Moche and Chimú periods (A.D. 100-1400) (Denevan 2001:143; Netherly 1984). In the highlands, canal irrigation was utilized as early as 200 B.C. in the Ayacucho Valley (Leoni 2006:280) and subsequently by the Tiwanaku state (circa A.D. 100) (Kolata 1986:759-760), and is evidenced in Wari agriculture as early as A.D. 540 (Glowacki and Malpass 2003:441). Canal irrigation, in combination with terracing, was used continuously throughout the pre-Hispanic era and up to the present (Denevan 2001:182; Goodman-Elgar 2008:3074).

Canal irrigation has been recorded as being used in what is now Ecuador since pre-Inkaic times. The majority of archaeological research on agricultural waterworks in Ecuador has been undertaken in the northern highlands, in areas near the capital, Quito, and north, although evidence exists in other parts of Ecuador's highlands (Knapp 1991). Unfortunately, radiocarbon dates for the start of irrigation technology in Ecuador are lacking, with only associative ceramic, documentary, and settlement pattern evidence available to place irrigation works within a general timeframe of “pre-Inkaic”. The general consensus is that the earliest major canals, such as those at Pimampiro (Mothes 1986), Caranquí (Bray 1992) and in the Guayllabamba and Mira Valleys (Bray 1992;
Knapp 1991; Myers 1974), would date from no earlier than early to mid second
century A.D., though possibly were not constructed until just before conquest by the

Water, water sources, agriculture, and, thus, irrigation, were extremely important
to the Inka. Tied into agricultural production, the core of the Inka economy, were
religion, warfare, labour control, land control, and water control. The interconnectedness
of these aspects of Inka life highlights both the complexity of the Inka world and the
centrality of agricultural production to the maintenance and expansion of the empire.

Water was intimately associated with Inka ideology and their belief in their right to
rule the peoples of the Andes. Sherbondy (1992:56-57) explains how the Inka creation
myth connects the caves of *Pacariqtambo*, from which the Inka emerged, to Lake
Titicaca, the largest lake in the Andes and the centre of the Tiwanaku state, one of the
most powerful and long-standing pre-Inka empires (A.D. 100-1200). Lake Titicaca,
whose water source was the sea in the Inka worldview (as it was for all Andean lakes), is
associated with the deity *Wiracocha*, worshipped as creator of the universe and claimed
by the Inka to have created them first among all peoples, giving them the right to rule
(Sherbondy 1992:55). The waters of Lake Titicaca were so important to the Inka that
each new king was anointed with water from a spring located an island in the lake and,
when establishing Cuzco as their capital after conquering the local people, water from
this same spring was poured into the water from the spring feeding the new city, which
was renamed *pacarisca* after the spring in Lake Titicaca (Sherbondy 1992:57).
Whenever an *ayllu* ("localized descent group" [D'Altroy 1992:245]) was relocated within
the empire, a frequent occurrence, the ritual of pouring water from their original source
into the new source at their new location was enacted in order to refound the *ayllu* at
their new locale (Sherbondy 1992:57).
Water, caves, and mountains were particularly connected in Inka ideology. Mountains as major water sources were significant in the Inka world as they were seen to link groups that irrigated their crops across a vast expanse of geography through a shared hydrology of springs emanating from a particular mountain:

Caves that were worshipped were often located near a spring or near the head of an irrigation canal. Mountains were also mentioned as sources for ancestors, and they were conceptualized as major sources of water, either because of the belief that a lake lying under the mountain provided water for the mountain, or because of a permanent snowcap or glacier that provided melt for streams, or simply because of a number of springs on the mountain’s slopes. [Sherbondy 1992:58]

The Inka saw land in the Andes in terms of water sources, so to control the water was to control the land.

The connections between irrigation agriculture, violent warfare, and imperial expansion formed the very basis of the Inka Empire and its meteoric rise throughout the Andes (Arnold and Hastorf 2008; Bauer 1996). As the Inka Empire rapidly expanded in the fifteenth century, it targeted areas with high agricultural productivity or the potential for high agricultural productivity (Bray 1992; Bunker 2006; D'Altroy 1992, 2002, 2005; D'Altroy, et al. 2000; Knapp 1991). The evidence that areas with pre-existing irrigation works were highly sought after by the invading Inka is significant (Bray 1992:222; Netherly 1984:233-234; Zimmerer 1993), as is the evidence of Inka construction and expansion of irrigation in areas where agricultural production could be increased (D'Altroy, et al. 2000:16-17; Kelly 1965:336; Knapp 1991:119-145). While the technology for irrigation works in the Andes had existed for centuries before the Inka appeared on the scene, it was their intensive use and expansion of irrigation systems that fuelled the rapid growth of their empire.

Under Inka policy, all resources were property of the empire to be distributed by the state to the population (D'Altroy 2002:231-235). The distribution of land to relocated
settlers, known as *mitmaqkuna*, was a part of the state ownership of land. The reasons for relocating populations, often hundreds or even thousands of kilometres away from their homelands, within the empire were multiple, including: removal of hostile groups to ensure Inka control; to gather “economic specialists” for easier collection of state ordered products; and as a manifestation of their belief in their divine right of rule over the Andes (D’Altroy 2002:248). These military, labour, and ideological reasons all were part of a massive reorganizing of the population base in the Andes to suit the needs of the Inka. The second example, the gathering of economic specialists, in combination with the above-mentioned corvée labour system, and the regular maintenance work of the peasants on the lands were what made the irrigation systems, and thus the agricultural production, of the Inka Empire so impressive.

### 1.2.2 Spanish Irrigation

The Spanish conquest in North and South America, and the subsequent colonial era, brought many changes to the political, economic, and social life for both the indigenous peoples of the Americas and the Spanish invaders and immigrants (Dunmire 2004). While the Spanish imported their culture to the Americas and imposed it on the indigenous peoples already living there, indigenous cultures and the ideas and objects that came with them also had a profound influence on the Spanish colonial world. This mode of incorporation and adaptation of new items and methods was not new for Spain. The history of the Iberian Peninsula is that of a blending of outside concepts and products that were adopted and modified to suit the peoples of the peninsula and their modes of living (Dunmire 2004:3-6; Glick 1995:xx-xxi, 2005:41; Jackson 1972:19-20). Conquests by Romans, Visigoths, Moors, and Christians all led to a hybrid worldview and a mix of technology and products unique in Europe by the end of the fifteenth century.
Control over the distribution of water on the Iberian Peninsula went through a series of alterations with the change of political regimes over its long history. Thomas Glick (1970:187-188) outlines three basic principles of water distribution that have been adopted throughout the Mediterranean from pre-Roman times to the medieval period:

1) The concept of proportional distribution: the cultivator receives water in proportion to the amount of land he works.

2) The concept of the individual’s responsibility to the whole community of irrigators: each irrigator has specific responsibilities for the upkeep of canals …

3) The idea that apportionment of water and policing of irrigation arrangements within a given system are the responsibility of the irrigators collectively … Justice in irrigation must be local because first, owing to the exigencies of cultivation it must be speedy, and second, only local men know the local custom. [Glick 1970:187-188]

Glick further notes the presence of these principles in the Assyrian Code of Hammurabi, placing a possible origin in the Middle East and deep in antiquity. Of particular interest to Glick is the local control of irrigation and “the recognition that irrigation can be controlled only through cooperation of the irrigators according to custom as interpreted by a body of elders” (Glick 1970:188).

In the Roman era, the core doctrine for water distribution was that of basic riparian right: “the right of a man living on the bank of a stream to divert water for his own use, so long as he did not cause damage to those living downstream” (Glick 1970:192). When multiple people claim water from the same source, a system of water in turn (i.e., once a day, or once every second or third day, etc.) and in proportion to land-holding size was used, though “priority according to use … could take precedence over that of size” (Glick 1970:193), implying that a large, but unused, piece of land loses its claim to water in preference to smaller, cultivated land-holdings. Glick (1970:192-194; 2005:66) notes the presence of these practices in medieval Valencia, on the Mediterranean coast of Spain, indicating continuity between Roman law and medieval Spanish practice either
through a direct carryover from Roman times or a reintroduction of Roman practice during the reconquest.

After the fall of the Roman Empire, the Iberian Peninsula fell under the domination of the Christian Germanic Visigoths. The only documentation regarding Visigoth water policy is through the invading Moors, who noted the dearth of irrigation on the Iberian Peninsula, hinting that the Visigoths basically had no irrigation to police (Glick 1970:195). While it is likely an overstatement to claim that there was no irrigation on the peninsula at the time, irrigation was not a priority of the Romans and was even less of a concern to the Visigoths. Agriculture at the end of the Visigoth era was noted to be in disarray due to plague, drought, and mismanagement (Dunmire 2004:13), so the lack of irrigation at the time of the Moorish invasions is not surprising.

Islamic irrigation law had “a strong tradition of communal irrigation, characterized by autonomous administration … [where] irrigation canals are the communal property of the individuals who contributed to their establishment” (Glick 1970:205-206). However, examples of water control being ceded to higher authorities exist in Islamic Iberia. Glick notes examples of irrigation officials that oversee the dispensation of water, maintenance of canals, and policing of water theft (Glick 1970:199-206). The Christian Kingdoms of the Iberian Peninsula held onto this system after the reconquest (Glick 2005:80).

Of obvious importance to the Christian reconquest of the Iberian Peninsula was the reestablishment of the Catholic faith. Central to this was the devotion to the Virgin Mary and her roles as protector, nurturer and even warrior (Hall 2004:10). According to Linda Hall (2004:18):

“Mary was particularly connected to the conversion in … Spain of Muslims and Jews and in the New World of indigenous peoples; to fertility, of humans, fields, and animals; and to health and especially
protection from epidemics, reflecting the European plagues of the late Middle Ages and the terrible devastation from European diseases in Latin America during and after the conquest.”

Her prominence in the religious aspect of the reconquest reached its peak during the eleventh, twelfth and thirteenth centuries, but she has been highly revered in the Mediterranean, including the Iberian Peninsula, since the first arrival of Catholicism in the region during the Roman era. Key here is “that the earlier Mediterranean reverence for mother goddesses made the development of Marian devotions rather easy both in the cities and in the countryside” (Hall 2005:21). The connections between Mary and mother goddesses was acknowledged during the reconquest by Alfonso X of Castile who saw Mary as being linked to the earth and having given birth to Jesus Christ in the same way that fertile soil grows plants, highlighting her symbolic connection to agricultural production.

A major part of the reconquest was the rededication of Muslim sacred spaces, such as mosques, to the Virgin Mary (Hall 2004:19, 27). While mostly an urban phenomenon in which Mary was seen to protect Christian forces in either attacking a Muslim held city or defending a Christian held city from Muslim forces, it was also evident in the countryside with the discovery of images of the Virgin in isolated places where they were hidden in caves and wells, away from Muslim forces during the Moorish era (Hall 2004:19). In many ways, Christian forces saw the reconquest of the Iberian Peninsula as reclaiming of territory not only through military means, but through spiritual means as well. Her association with water sources, such as caves and wells, is quite possibly a product of this time period.

This scenario played out similarly in the Spanish colonies of the Americas. A prominent aspect of the invasion of Aztec and Inka empires was the destruction of indigenous religious sites and the subsequent construction of churches dedicated to the
Virgin Mary. The attachment of Mary to sacred indigenous landscapes by these means is well documented throughout Latin America, and is often tied to particular stories and appearances by her at specific locales, particularly springs and bodies of water (Hall 2004:12; Sallnow 1991:141). For example, after the Spanish conquest, she became associated with Lake Titicaca, mentioned above as being central to Inka cosmology and the origin site for their creator deity, Wirachocha (Hall 2004:163). Hall (2004:166) asserts that:

[The Spanish conquerers of the Americas] were functioning very much as Alfonso X had in southern Spain three centuries earlier, attempting to unify a conquered region through the establishment of powerful religious ideas. Such an overlay had by no means completely wiped out the former purposes of the [rededicated] site, however.

In essence, the religious aspect of the reconquest of the Iberian Peninsula and the conquest of the Americas was built on previous entanglements and hybrid forms, creating further forms as the process continued. Her connections to water are very much in line with her role as nurturer and provider and, as will be discussed in more detail in Chapter 5, was a major aspect of religious expression in the Andes during and after Spanish colonial era.

By the time Spanish colonial expansion in the Americas began, which coincided with the completion of the reconquest of the Iberian Peninsula in 1492, Spanish agriculture and irrigation was a complex intermixing of Roman, Muslim, and Germanic policies and technologies. Large, ever-expanding estates owned by the elite, or latifundia, had become the norm in what was a semi-feudal, semi-mercantilist, agrarian based economy (Glick 2005). It has been argued that, in fact, pre-Colonial Spain was only missing one element of being a truly global capitalist state, that being control of a system of global trade, which they then obtained with their conquest in the New World (Dussel 2000, 2002; Grosfoguel 2000). Thus, it was in this state of expansion and
conquest, combined with a focus on agrarian growth, that the Spanish Empire was set to move into the New World.

1.2.3 Spanish Colonial Land and Water Practice and Policy in the Andes

The rapid expansion of the Spanish colonial empire in the Americas did not come with a well-established economic or political structure for how to run these vast, newly conquered territories. An argument could be made that the newly united kingdoms of the Iberian Peninsula known as the Spanish Crown were basically making things up as they went along, applying a patchwork of policies and practices from their own historical background and incorporating elements from the newly conquered territories. This was a method of imposition and incorporation that was not overly different from the methods employed by the Inka to control their rapidly expanding empire. While such a system may appear inherently disorganized and unstable, it was not without its strengths: 1) it provided a flexibility to react to different, unanticipated situations through the multiple options available from their past experiences and the newly conquered regions; 2) it allowed for the maintenance of indigenous practices, simplifying the process of exploiting indigenous products and labour by absorbing the existing systems of extraction relatively unchanged; and 3) it minimized the inevitably high levels of upheaval caused by invasion, conquest, and subjugation through the incorporation of existing systems.

The pre-existing presence of highly refined and well-established extractive systems that organized the channelling of goods and labour to a centralized authority in the Inka empire was not something the Spanish invaders could have ignored in order to replace them entirely with their own hybrid Roman, Islamic, and Germanic system. Peter Gose (2008:5) notes that, “disaffected Andean people allied with the Spaniards to defeat the Incas [resulting in an] inter-ethnic collaboration [that] led into a system of
indirect rule through indigenous lords (*curacas*), whose power over their own subjects initially increased under the Spaniards and remained crucial to the colonial order.” This led to a dynamic set of policies and practices in which indigenous people, both leaders and otherwise, inserted themselves, or were forcibly inserted, into the Spanish system, but also in which “Spaniards necessarily inserted themselves into Andean political-economic frameworks to benefit from them” (Gose 2008:8).

One of the first systems of land and labour control implemented by the Spanish in the Americas was the *encomienda* system. This system gave the first conquistadors rights to the labour and taxes of designated populations (Ramírez 1986:17). It was not a grant of land, but a granting of access to the people who worked the land. In general, the *encomienda* system did not change the existing patterns of tribute that existed in the Andes under the Inka, instead shifting the benefits from the *caciques* to Spanish lords (Ramírez 1986:27). As well, it was a familiar system to the Spanish as it continued the basic policies in regards to land claims of newly conquered areas during the reconquest of the Iberian Peninsula (Glick 2005:86-87, 97). The *encomienda* system peaked early in the colonial era and began to decline in the second half of the sixteenth century, only twenty or thirty years after the initial conquest (Ramírez 1986:37).

The *hacienda* system of land tenure developed in counter-point to the *encomienda* system (Sallnow 1983:48), with clear land ownership rights held by the *hacendado* (*hacienda* owner). In essence, it functioned as a system in which the *hacendado* allowed use of the *hacienda* lands to peasant farmers in exchange for tribute (i.e., rent/taxes) in the form of labour and, less commonly, goods or currency (Lyons

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3 The term “*curaca*” is interchangeable with the term “*cacique*” in discussions of the Andes. Both refer to indigenous lords with *curaca* or *kuraka* being the Quechua word and *cacique* originating in the Arawakan language of the Caribbean (Salomon 1986:237-238). While it might be considered more appropriate to use the term *curaca* or *kuraka*, I will be using *cacique* throughout this thesis based on its more frequent appearance in both primary and secondary sources.
2005:113; Williams 2003:712-713). Often, peasant farmers were unable to contribute enough to meet the hacendado’s demands and would end up in a condition of constant debt, obligating them to remain working on the same hacienda until the debt was repaid. This system of debt peonage, known as concertaje, had its roots in the seventeenth century. It gradually rose in prominence through the end of the colonial era and reached its peak in the post-revolutionary nineteenth century and continued in prominence well into the twentieth century (Lyons 2006:58-59; Williams 2003:712).

While irrigation in the Andes has been a topic of great interest among many scholars, most of the literature has focused on large-scale, pre-Hispanic systems of water control (Hayashida 2006; Knapp 1984, 1991; Mothes 1986; Park 1983) or modern irrigation in local contexts (Boelens and Dávila 1998; Gelles 2000; Gerbrandy and Hoogendam 2002; Trawick 2003) with relatively little attention paid to the effects of Spanish colonialism on irrigation systems, and vice versa. This is not to say the topic has been entirely ignored, but the central focus in the majority of studies on this topic has been the introduction of new techniques by the Spanish and the subsequent economic results, whether they were good or bad, within the context of the colonial enterprise (Barnes and Fleming 1991; Beekman and Weigand 1999; Realpozo and Gonzáles 2005; Sherbondy 1994, 1998; Simmons 1972; Thiemer-Sachse 1989). While some of the studies look more closely at construction and the debates about the antiquity of certain irrigation systems (Barnes and Fleming 1991; Beekman and Weigand 1999), and others are merely descriptions of Spanish systems in colonial territory (Simmons 1972), it is less common, particularly amongst English-language authors, for the social organizational aspects of colonial irrigation policies to be discussed (Realpozo and Gonzáles 2005; Thiemer-Sachse 1989). What should be clear from the preceding sections is that the connections between the material manifestations of irrigation
systems, the economic and legal ramifications of their implementation, and the social elements involved in organization and implementation are inextricably intertwined with one another and with the historical backgrounds of the peoples involved.

1.3 A Hybrid Canal?

Irrigation in central highland Ecuador is one small part of the complex structure of the global economy, and has been since the Spanish colonial era. The history of this region, from before its conquest by the Inka and the Spanish, until the present, is an example of the interactions between various groups and interests and the adjustments and adaptations made by all involved leading to what could be described as a hybrid region (García Canclini 1995). The focus of this thesis is on the history of one particular canal that brings water to the town of San Andrés, located near the northern border of the province of Chimborazo, Ecuador. What I will address are the deep connections the local agriculturalists in San Andrés have with the canal, its associated spring, and the policies and practices that have affected, and been affected by, the dynamic practices in this one small Andean town over the course of its history.

I will look in detail at: my methods of research (Chapter 2); the historical trajectory of the town of San Andrés and the canal system that provides it with water for irrigation (Chapter 3); the application and interpretation of legal rights to land and water in the late colonial era in San Andrés (Chapter 4); and the religious connotations of land, landscape and water in San Andrés throughout its history (Chapter 5). These topics will each address the overarching theme of hybridity and the complex entanglement of ideas and practices resulting from the Spanish, and to a lesser extent the Inka, conquest of the region (Gose 2008; Martindale 2009; Silliman 2009).
2: METHODS

Initially, my intent for this project was to study the irrigation of the Colta region of Chimborazo, Ecuador, particularly the agricultural land immediately surrounding the site of the colonial city of Riobamba (now the town of Sicalpa/Cajabamba). Once I began my archival research in Quito, though, I found information on the irrigation in the region particularly lacking. However, it was during this research that I encountered a document detailing a legal dispute over access to water from a particular canal in the town of San Andrés (Archivo Nacional del Ecuador, Quito [ANEQ], Indígenas [Ind], 168.19), only 6 km outside of the modern city of Riobamba (Figure 1.1). Based on the background research I had done prior to leaving for Ecuador, I recalled that canals in this town had been noted since the early colonial era and up to the present (Anónimo 1991 [1605]:59; Knapp 1991:130; Paz Maldonado 1965 [1582]:265). I looked through the archives in Quito for more documents about this particular canal, as well as its source (the spring at Chuquipogyo) and was able to find a large amount of information. It became clear to me then that a slight shift in the geographical focus of my research, from Colta to San Andrés, was necessary.

Upon my arrival in San Andrés, it was obvious that I had made a good decision. The canal described in the documents was still in use and very important to the local agriculturalists living in and around town. I stayed in the city of Riobamba, immersing myself in the analysis of the documents I had found in Quito, physically exploring the canal in San Andrés, interviewing the local townspeople and authorities in San Andrés, and searching the archives in Riobamba for even more information. Each of these
endeavours proved to be extremely fruitful and I detail below my methods for collecting and analysing this data and my reasons for selecting these particular methods.

2.1 Physical Components

To record the physical components of the canal, I used a handheld GPS device\(^4\) to map its course over the landscape and record specific points of interest, such as where the canal split and where the materials used to construct the canal changed. For each waypoint recorded, notes were taken detailing the physical elements for that point and the immediate area. Photographs of the more salient features were taken, corresponding to specific waypoints and notes.

The goal of recording the physical components of the canal was to establish what materials were used to construct the canal, chart its course, allow for a deeper assessment of the depth of time associated with the canal as well as its shifting meaning over time through the influences of the different cultures in the region over time. Drawn maps and photographs of the canal were obtained to gain a visual context for how they are placed on the landscape. This provided insight into how irrigation is physically manifested and represented in San Andrés today and what connections these manifestations and representations have with the past. Based on time and resource constraints, obtaining information such as rates of flow, comparative crop yields for fields with and without irrigation water, field size and productivity, or proportional distribution of specific crops was never a goal of this project and such data were not pursued. While all of this potential data could have been useful, I concentrated instead on the basic physical elements of construction and use, which I see as being more applicable to a research program focusing on hybridity than the more functionalist aspects like rates of

\^4 I used the Garmin eTrex Legend HCx model, which has a range of error of +/- 10 m.
low, etc. As well, archaeological excavations were not conducted during this project due to the primary focus on mapping the canal and placing it on the landscape. The mapping portion of the project had a secondary goal of identifying potential locations for future archaeological excavations, but time and resource constraints prevented further explorations during this field season.

My analysis of this data involved creating a colour-coded diagram connecting each waypoint along the canal in the order of its physical location from the source to the terminus. My colour-coding scheme assigned a different colour for every physical element of the canal encountered, as well as for nearby features, such as roads and associated fields. Along with this, I plotted each waypoint on a topographic map, creating a map of the full extent of the canal and its place on the local landscape (Figure 3.1). Each element of the canal was analysed within a historical context, using primary and secondary sources to understand the context and potential origin for each. All of this information was then compared and contrasted with the information from secondary sources, the archival documents, and the oral history of the canal in order to place the physical manifestation of the canal within the full context of the history of the region and the long-standing importance of the canal to the town.

2.2 Archival Research

Archival research focusing on irrigation in San Andrés was undertaken in Quito at the Archivo Nacional del Ecuador (National Archives) and the Archivo Histórico del Banco Central del Ecuador (Historical Archive of the Central Bank of Ecuador), and in Riobamba at the Casa de la Cultura (House of Culture) municipal archives. For all of the documents I looked at, any information given about irrigation, specific irrigation works, springs, and other water sources used for agriculture was recorded in an Excel database, organized by archive, category, year, and, if available, document number. As
well, wherever possible, high-resolution, digital photographs of all documents referring to the canal were taken so as to allow for future perusal of the documents and more in-depth analysis.

The goals of the archival research were to gather evidence of the social and political contexts of irrigation in the region by giving me access to particular cases, such as legal proceedings, wills, and letters. This provided insight into both the daily lives of irrigators and those with whom they interacted. From this, I could identify the changes in implementation and organization of irrigation and the ways in which peoples of different cultural ancestry negotiated and adjusted to one another on a very practical level.

To analyse the documentary evidence, I read each document that referred to the canal, the spring, and the land/landowners in control of the land. From here, I transcribed and translated all of the documents and passages that discussed the use of water in San Andrés, the spring at Chuquipogyo, the Hacienda Chuquipogyo, and the associated landowners of the properties through which the canal flowed. All of this information was compared and contrasted with the information obtained about the physical components and the oral history of the canal in order to place the historical evidence within the physical and cultural context of the canal in the present.

**Archivo Nacional del Ecuador**

The National Archives in Quito are well organized and provide catalogues for most of the categories into which the documents are filed. I targeted three specific categories: Indígenas (indigenous peoples); Haciendas (estates); and Censos y Capellanías (Censuses and Chaplaincies), chosen based on the likelihood that these particular categories would contain information about irrigation. Of these categories, Indígenas and Haciendas had catalogues available. I looked through each catalogue in
its entirety, choosing to view each document that referenced San Andrés and Chuquipogyo. For Censos y Capellanías, I targeted specific years that the secondary sources revealed to be important to agriculture and irrigation in the region (Table 2.1). Again, any document referring to San Andrés or Chuquipogyo was looked through in detail and high-resolution photographs were taken of all relevant documents.

Table 2.1 - Important years in the history of San Andrés

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Event</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1540</td>
<td>First encomienda given in San Andrés</td>
<td>Yanez Quirola 1978</td>
</tr>
<tr>
<td>1555</td>
<td>First vision of Virgen de Chuquipogyo</td>
<td>Father Pedro Torres, personal communication 2010</td>
</tr>
<tr>
<td>1565</td>
<td>San Andrés founded</td>
<td>Yanez Quirola 1978</td>
</tr>
<tr>
<td>1566</td>
<td>Encomienda for Martín de la Calle renewed</td>
<td>Yanez Quirola 1978</td>
</tr>
<tr>
<td>1571</td>
<td>San Andrés officially a pueblo</td>
<td>Yanez Quirola 1978</td>
</tr>
<tr>
<td>1626</td>
<td>Drought begins</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1629</td>
<td>Drought ends</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1645</td>
<td>Earthquake</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1691</td>
<td>Drought begins</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1693</td>
<td>Drought ends</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1698</td>
<td>Earthquake</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1757</td>
<td>Earthquake in Latacunga</td>
<td>Alchon 1991</td>
</tr>
<tr>
<td>1764</td>
<td>Indigenous uprising</td>
<td>Velasco 1998[1789]</td>
</tr>
<tr>
<td>1778</td>
<td>Eruption of Tungurahua volcano</td>
<td>Simkin and Siebert 1994</td>
</tr>
<tr>
<td>1797</td>
<td>Earthquake</td>
<td>Borchard de Moreno 1988</td>
</tr>
<tr>
<td>1820</td>
<td>Riobamba declares independence from Spain</td>
<td>Ortiz Arellano 1998</td>
</tr>
<tr>
<td>1850</td>
<td>Death of Don Francisco Mayancela</td>
<td>Peñaherrera de Costales and Costales Samaniego 1992</td>
</tr>
<tr>
<td>1856</td>
<td>Indigenous water rights law passes</td>
<td>Williams 2003</td>
</tr>
<tr>
<td>1899</td>
<td>Appearance of Virgen de Chuquipogyo in battle</td>
<td>Costales Samaniego and Costales Peñaherrera 2001</td>
</tr>
</tbody>
</table>

Archivo Histórico del Banco Central del Ecuador

These archives, located in central Quito, have been converted over to microfiche and each document has been entered in a digital database, allowing computer searches for keywords. I searched for San Andrés and read through every document on this topic. While this archive has the facilities to create digital copies of their documents for researchers to take with them, time constraints prevented me from taking advantage of
this. As well, due to the fact that all documents were on microfiche, obtaining digital photographs was not possible. Instead, I took detailed notes from each relevant document and entered these into my Excel database.

Casa de la Cultura

The municipal archives in Riobamba, housed in the Casa de la Cultura, are loosely organized chronologically, rather than by category, and have no reference catalogues or digital database search functions. As such, I sampled the archives according to specific years, looking at all documents from these years (Table 2.1). Again, any document referring to San Andrés was looked through in detail and high-resolution photographs were taken of all relevant documents.

2.3 Oral History

To record the oral history of the canal, I went to San Andrés and, during my numerous mapping expeditions along the canal, talked to local townspeople and agriculturalists. I conducted all interviews orally, taking notes and, in some cases, recording interviews on a handheld digital recording device. Participants were recruited by word of mouth, chance encounters, and with much assistance from Father Pedro Torres, the local priest in San Andrés. All digital recordings were transferred from the recording device to a portable storage device and transcribed to text in MS Word. All hand-written notes were also transcribed into Word documents for ease of later reference.

The purpose of this ethnographic research was to place the canal in its cultural context by understanding how past and present irrigation practices are perceived by current-day agriculturalists. By placing current-day agriculturalists in historical context, I was able to make the connections between past and present practices in the region.
To analyse the oral history of the canal, I had the interviews transcribed and translated then coded the information into general categories of “construction”, “history”, “religion”, and “distribution”. The “construction” data included any mention of materials used to build or maintain the canal as well as the geographical placement of canal sections. The “history” data included any information that discussed the time-depth of the use of the canal, such as when it was built and when it was named. The “religion” data included all information about associated religious figures or icons, any associated rituals, and any discussion of the mythological origin of the canal. The “distribution” data included all information regarding the distribution of water to the fields, whether in a current or historical context. While there was occasional overlap, these categories proved to be relatively discrete in my interview data. This information was then compared and contrasted to the information from the secondary sources about water use in the Andes, the archival documents, and the physical components of the canal.

In conducting, recording, and transcribing the interview data, all efforts were made to ensure the protection from potential harm that could arise from such interviews. Any names given were recorded separately from the notes or digital recordings and assigned corresponding numbers, unless specific permission for the use of names in the final product was given or for local public figures such as the town priest and regional water director. To protect the anonymity of interviewees, informant identities were stored separately in a notebook, and kept in a locked office cabinet upon my return to Simon Fraser University. All interviewees were informed of the purpose of the study and given the option to refrain from participation. As most of the interviews were conducted on the spur of the moment and informally, signed consent forms were not given out, instead I relied on oral consent (see Appendix for details on interview structure, demographics, and informed consent).
3: SAN ANDRÉS: A TOWN AND ITS CANAL SYSTEM

3.1 Geographical Setting

San Andrés is located in the central highlands of Ecuador, on the northern edge of the province of Chimborazo, approximately 15 kilometres south of the border with the neighbouring province of Tungarahuia and 10 km northwest of Riobamba, the provincial capital of Chimborazo and closest major city (Figure 1.1). Mount Chimborazo, a long-extinct, ancient volcano, sits to the northwest of the town and, at 6310 meters above sea level (masl), dominates the landscape. The town itself sits at around 3000 masl, sloping gently to the east from a height of 3060 masl down to 2985 masl over the two kilometres of the town’s length from west to east. San Andrés is situated on a ridge running between two deep, steep sided valleys that contain the rivers Guayco to the north and Batzacon to the south. Both rivers flow from the north, turning gradually east as they pass San Andrés and merge to form the Guano River at the town of Guano 6.5 km east of San Andrés. These are all tributaries of the Chambo River, which flows north through Chimborazo Province and into the Pastaza River, a major river in the Amazon basin portion of Ecuador’s eastern jungles. The drop into the Guayco and Batzacon valleys on the north and south sides of town is a precipitous 40 m.

The soil in the San Andrés region is well known for its fertility due its volcanic origin (Knapp 1984:76-77), making this region a centre of agricultural production for thousands of years (Jijón y Caamaño 1927). The steep slopes of the valleys, in combination with the effects of human activities, such as agriculture, contribute to the erosion of these soft volcanic soils. This erosion is common throughout the equatorial Andes and is evident in both laminar deposits on valley floors and in the appearance of
deep, steep sided gullies and ravines (known as *quebradas*) (Knapp 1984:78-79). Both the valley bottoms and the ridge tops, such as the one San Andrés is located, are highly productive agriculturally because of this fertile soil.

With a mean annual rainfall of approximately 600 millimetres, agriculture in the area is possible without irrigation, but with it, crop yields are significantly improved (Knapp 1991:130). Precipitation in the general region is spread out for most of the year with a very short dry season occurring in January (Knapp 1984:54). Gregory Knapp (1984:54-56) has noted that “[v]ariation in distribution of rain as well as in total quantity of rain may be due to purely random factors operating from year to year, or may be due to directional, secular changes through time (climate change).” Further, Knapp (1984:44) points out:

> [a]reas on the external flanks of the Andes receive considerable moisture from rising air masses of the adjacent humid Amazon basin and Ecuadorian/Colombian coastal plains … [while] [i]n the internal valleys, rain is concentrated on the basin edges, while the centers of basins and canyons experience subsiding air and little precipitation.

The position of San Andrés in the intermontane valley of the Andes, on the northern edge of the basin featuring the city of Riobamba on the Tapi plain, places it in an area where most of the moisture from the Amazon basin and the coast is absent, but also on the edge of the basin where the bulk of the remaining moisture is likely to fall. This has resulted in an inconsistent pattern of precipitation in the area and the unreliability of crop production from year to year without the use of irrigation.

Water for irrigation is supplied via canal from further up the slopes of Chimborazo as opposed to the nearby rivers due to their inaccessibility as a result of the steep slopes. The rivers below the town are the primary water sources for the valley bottoms. There are a number of other springs in the area emerging from the base of Mt. Chimborazo that either flow into the two rivers or are channelled to water the fields of
this highly productive agricultural area. The San Andrés canal system, however, is the only system of its size and importance in the region, making it a unique aspect of the local economy and geography.

San Andrés is currently known in the region for its dairy products and potatoes (Solanum tuberosum) (Beilman 2009; Ortiz Arellano 1998). To feed the dairy cattle, a large number of farmers grow alfalfa (Medicago sativa) or other fodder crops, known generically as potrero. Other prominent crops currently grown in the region are maize (Zea mays), beans, quinoa (Chenopodium quinoa), and broccoli (Brassica oleracea italic). Maize, beans, and quinoa are mainly subsistence crops grown for household and local use, while alfalfa and broccoli are cash crops to be sold to the dairy industry or for export, respectively (Beilman 2009:4). Historically, maize, potatoes, alfalfa, quinoa, and cabuya, a fibre from the maguey cactus (Agave americana) used in textiles, were some of the most cultivated plants here (Anónimo 1991 [1605]; Knapp 1984; Miller 1959). Quinoa and potatoes are easily grown at high altitude, while certain varieties of maize also do well at altitude.

According to the 2001 census, San Andrés has a population of 10984 (Instituto Nacional de Estadistica y Censos [INEC] 2001). This population is mostly centered in the town itself, with some dispersed population in the countryside of the surrounding area. There is a slight gender imbalance with 53% female residents versus 47% male. This is reflected in the division of labour as “it is generally the women who work in … agriculture while the men tend to migrate to the Amazonian regions east of San Andrés to work in transportation or petroleum production” (Beilman 2009:4).
3.2 Historical Setting

The town of San Andrés has been a continually occupied site since well before the arrival of the Inka (Jijón y Caamaño 1927; Ortiz Arellano 1998; Peñaherrera de Costales and Costales Samaniego 1982; Yanez Quirola 1978). In the late pre-Inkaic period, San Andrés was a village near the northern edge of the territory of the Puruhá people, which encompassed most of what is now the province of Chimborazo and part of the province of Bolívar (Jijón y Caamaño 1927). Evidence exists that, before the conquest by the Inka, potatoes, maize, quinoa, and mellocos, a type of tuber native to the Andean highlands, were grown here (Anónimo 1991 [1605]:59; Yanez Quirola 1978:14). Once the area had been incorporated into the Inka Empire, mitmaqkuna from Condesuyo, near what is now Arequipa, Peru, were settled in the area (Newson 1995:360, Appendix 2; Ortiz Arellano 1998:12; Paz Maldonado 1965 [1582]:262). During the Inka era, and likely before, the town was known as Xunxi or Runci, a name of Puruhá origin to which the Spanish later added the prefixing appellation, San Andrés (Ortíz Arellano 1998:14; Peñaherrera de Costales and Costales Samaniego 1982:22).

The earliest encomienda granted for San Andrés was the territory of Xunxi as part of the Luisa encomienda given to Don Martín de la Calle in 1540 (Yanez Quirola 1978:22-24). Newson (1995:205) also connects Luisa to Xunxi, though she appears to conflate the two as being the same locale. Xunxi was the general territory around the town of San Andrés rather than the townsit itself. As I noted above, at the time of the conquest, the local people followed an agrarian lifestyle and the town site was no exception, as it used the waters from the spring at Chuquipogyo to irrigate the fields in and around the town.

After only a few decades of colonial rule, the economy of the region shifted dramatically to textile production in obrajes (textile factories) and sheep herding to
supply the wool for the *obrajes* (Newson 1995:207-214). Private mills were opened on *encomienda* lands, such as one opened in 1610 in San Andrés by Duque de Uzeda (Newson 1995:432n51). Woollen textiles became the mainstay of the regional economy in the seventeenth century and remained the focus well into the eighteenth, with an *obraje* being purchased by Julián Mancheno in San Andrés between 1717-1728 (Ortíz de la Tabla Ducasse 1993:216-217).

In the eighteenth century, though, as the Spanish Colonial Empire began to decline, so too did the textile industry in the Riobamba region, and elsewhere (Tyrer 1988:237-260). The economy of the region became more locally oriented towards the end of the colonial era as the markets for Spanish produced goods abroad shrank, reducing the need for woolen textiles from the region (Andrien 1995:217-219). The response by landowners was to either cling to the hope of a revived textile market or to look into marketable export crops. The San Andrés/Riobamba region mostly remained a textile production centre through the end of the colonial era and the subsequent republican era, after independence from Spain (Andrien 1995:81-94). Very little information about San Andrés is available from the nineteenth and early twentieth centuries, but what does exist implies that the textile mills remained open during this period, though with limited production, and the economy of the area was mostly locally oriented, with the rise in prominence of dairy farming beginning in the middle of the twentieth century (Yanez Quirola 1978:80).

The place of San Andrés within the regional, national, and international spheres is complex. While mostly locally oriented today, the economy of San Andrés has been, and continues to be, influenced by national projects and the global economy. In the next section, I will explore the details of the canal that has supplied water to San Andrés throughout its history in order to create a framework for assessing the multifarious...
cultural contexts and the varying levels of local, regional, national, and global integration of the town of San Andrés during its history.

3.3 The Acequia María Mayancela: The San Andrés Canal System

3.3.1 Physical Description of the Canal Today

The Chuquipogyo spring (Figure 3.1, point 1; Figure 3.2; lat. 1°32′16.85″S, long. 78°43′58.38″W) emerges from the earth at 3319 masl at the base of Quebrada Cascajal at the foot of Mount Chimborazo. The water from the stone-lined, partially cement-covered spring is diverted into a cement channel alongside its easterly natural course, under the Pan American Highway, towards the Hostería la Andaluza (formerly the manor house of the Hacienda Chuquipogyo; Figure 3.3). The Hostería la Andaluza sits directly beside the spring, separated from it only by the two-lane highway. Once the channel has brought the water to the east side of the highway, it turns away from the natural channel to the south-southwest, away from the Hostería la Andaluza, dropping about 2 m in elevation (Figure 3.4). The now underground canal continues south-southwest for a short way, with the highway to the west and cultivated fields to the east. There is an off-valve to the fields east of the canal 275 m from the spring and about 10 m lower (Figure 3.5), and 208 m further south another stream, flowing from the north via an unnamed quebrada, along the bottom of which runs an old dirt road, intersects with the canal (Figure 3.6). It is unclear if the waters mix, but a substantial amount of water, likely from the stream, flows into the adjacent field indicating that either the waters do not mix or that the volume of water from the stream is accounted for and subtracted from the canal.
Figure 3.1 - Map of San Andrés canal system (Acequia María Mayancela)

- Chuquipogoy spring: source of Acequia María Mayancela, 3319 masl; lat. 1°32'18.8"S, long. 78°43'58.38"W
- Canal enters Quebrada Apostono where it meets with Quebrada Chica Chaca, 3254 masl, 1555 m from Chuquipogoy; lat. 1°33'3.14"S, long. 78°44'12.36"W
- Remains of stone road or wall in Quebrada Aportoono, 3192 masl, 3259 m from Chuquipogoy; lat. 1°33'36.76"S, long. 78°43'33.30"W
- Canal diverted from natural course into cement-lined lined channel at the mouth of Quebrada Aportoono, 3158 masl, 4029 m from Chuquipogoy; lat. 1°33'57.41"S, long. 78°43'22.03"W
- Canal crosses under highway to San Andrés, 3100 masl, 6260 m from Chuquipogoy; lat. 1°34'57.26"S, long. 78°42'48.37"W
- Just below mill in San Andrés, canal splits into three branches. 3038 masl, 7600 m from Chuquipogoy; lat. 1°35'20.67"S, long. 78°42'14.53"W
- Start of stone-lined side canal where it splits from main north branch of canal system in San Andrés, 3020 masl, 860 m from base of hill below mill (8460 m from Chuquipogoy); lat. 1°35'20.85"S, long. 78°41'47.92"W
- End of stone-lined side canal from main north branch of canal system in San Andrés, 3015 masl, 1055 m from base of hill below mill (8655 m from Chuquipogoy); lat. 1°35'16.62"S, long. 78°41'44.11"W
- End of north branch of canal. 2964 masl, 1862 m from the base of the hill below the mill (9462 m from Chuquipogoy); lat. 1°35'34.47"S, long. 78°41'32.63"W
- Remains of stone wall near end of main north branch of canal, 2981 masl, 2025 m from the base of the hill below the mill (9628 m from Chuquipogoy); lat. 1°35'38.41"S, long. 78°41'29.02"W
- Stone-lined section of main south branch of canal in San Andrés, 3013 masl (low end), 908 m from the base of the hill below the mill (8538 m from Chuquipogoy); lat. 1°35'26.34"S, long. 78°41'51.64"W
- Beginning of the side canal to the small part of San Andrés on the south side of the Pan American Highway: 2966 masl, 1107 m from the base of the hill below the mill (8707 m from Chuquipogoy); lat. 1°35'29.90"S, long. 78°41'49.71"W
- Side canal in south neighbourhood of San Andrés, across the highway ends. 3007 masl, 1330 m from the base of the hill below the mill (8832 m from Chuquipogoy); lat. 1°35'37.03"S, long. 78°41'50.21"W
- Main south branch of canal splits; beginning of south branch of south canal. 2986 masl, 1528 m from the base of the hill below the mill (6228 m from Chuquipogoy); lat. 1°35'36.95"S, long. 78°41'36.65"W
- Main south branch of canal splits; beginning of centre and north branches of south canal. 2965 masl, 1828 m from the base of the hill below the mill (9428 m from Chuquipogoy); lat. 1°35'41.43"S, long. 78°41'33.54"W
- Centre branch of south canal ends. 2960 masl, 2750 m from the base of the hill below the mill (10050 m from Chuquipogoy); lat. 1°35'58.11"S, long. 78°41'13.86"W
- South branch of south canal ends. 2979 masl, 2537 m from the base of the hill below the mill (10137 m from Chuquipogoy); 1°35'55.37"S, long. 78°41'28.60"W
- North branch of south canal ends. 2975 masl, 2705 m from the base of the hill below the mill (10005 m from Chuquipogoy); lat. 1°35'53.06"S, long. 78°41'16.54"W
Figure 3.2 - Chuquipogyo spring, partially covered by cement slabs and vegetation

Figure 3.3 - View from Chuquipogyo spring, under the Pan American Highway, towards Hosteria la Andaluza. The natural watercourse has been left mostly dry with the water from the spring routed through the cement-covered channel under the bridge (right)
Figure 3.4 - *Hostería la Andaluza*, former manor house for *Hacienda Chuquipogyo*. The path (lower left corner) is the location of the underground channel of the canal. The stone wall in front of *Hostería la Andaluza* marks the far side of the natural channel the water would flow through had it not been diverted to its present course.

Figure 3.5 - Metal off-valve to fields on the east side of the canal, immediately south of *Hostería la Andaluza*

Figure 3.6 - Stream from the west intersecting with canal
From here, the canal continues underground, turning slightly to the west to cross back underneath the highway, but resumes its south-southwest course immediately after crossing. A stone wall prevents direct access to the canal, but its cement-covered path remained visible (Figure 3.7). After 270 m, the stone wall turns abruptly to the northwest and water from the canal pours out from underneath it into a natural channel running southwest alongside a dirt road, dropping about 2 m to 3305 masl (Figure 3.8). This natural channel is the beginning of the Quebrada Apotondo. The water continues along this course to the south-southwest for a short ways further, eventually taking a wide sweeping turn to the southeast. About halfway through this turn, 1555 m from the source, the small, beginning portion of Quebrada Apotondo is met by the larger Quebrada Chilca Chaca, which comes from the northwest. The road that runs alongside the canal crosses the quebrada at this point and, thus, the canal itself (Figure 3.1, point 2; Figure 3.9; lat. 1°33'3.14"S, long. 78°44'12.36"W). Here, the water from the canal falls 15 m from 3264 masl to 3249 masl into the deep, steep-sided portion of the Quebrada Apotondo (Figure 3.10). In the quebrada, the canal flows along the natural streambed of the ravine. I encountered four off-valves for side canals in the ravine used to water fields on the steep sides of the ravine. Three of the four were metal valves anchored in cement (Figure 3.11) and the fourth was a stone-lined channel placed on the side of the main canal to divert water with no valve control (Figure 3.12). Approximately halfway down the quebrada, 2887 m from the source, I encountered a recently used fire pit (3198 masl) and 105 m after that what looked to be the remains of a stone wall at the base of a path leading up and out of the ravine (Figure 3.13). 267 m further down the ravine, and 6 m lower (3192 masl), is what could be the remains of a stone path or fallen wall (Figure 3.1, point 3; Figure 3.14; lat. 1°33'36.76"S, long. 78°43'33.30"W).
Figure 3.7 - Top of stone wall (bottom) with cement-covered canal (middle)

Figure 3.8 - Water from the canal as it emerges from beneath the stone wall.

Figure 3.9 - View to northwest, up Quebrada Chilca Chaca where it intersects with Quebrada Apotondo. The water in the quebrada comes from the canal that runs alongside the road, but on the opposite side of the stone wall (right)
Figure 3.10 - Water from the Chuquipogyo spring right before it falls into the deep, narrow portion of Quebrada Apotondo

Figure 3.11 - Metal off-valve anchored in cement near the top of Quebrada Apotondo
Figure 3.12 - Stone-lined off-valve near the mouth of Quebrada Apotondo

Figure 3.13 - Possible remains of a stone wall in Quebrada Apotondo
Quebrada Apontondo opens out onto a broad, flat, well-farmed area after 2.2 km through the ravine and a drop of 91 m through the *quebrada* and 161 m below the source. At the mouth of the ravine, the stream turns south for 264 m, dropping 1 m to 3158 masl, where it is routed into an uncovered cement channel and turns southeast once again (*Figure 3.1*, point 4; *Figure 3.15*; *Figure 3.16*; lat. 1°33'57.41"S, long. 78°43'22.03"W). After 386 m and a drop of 14 m, the canal crosses underneath a road and is enclosed in cement on the other side (*Figure 3.17*). This cement-covered section is short (127 m) and turns to the south. The uncovered, cement-lined canal continues further south for 341 m, staying at approximately the same level (3143 masl), until it is routed into another natural channel alongside a dirt road running southeast (*Figure 3.18*). The canal flows southeast for 1377 m along the road, dropping 43 m to 3100 masl, until they both intersect with the highway (*Figure 3.1*, point 5; *Figure 3.19*; 6265 m from source; lat. 1°34'57.26"S, long. 78°42'48.37"W). Where the road intersects with the...
highway, a sign is posted indicating the initiation of a nationally sponsored project of the Ministry of Agriculture to improve the irrigation system for the town of Paquibug San Pablo, near Quebrada Apotondo to the northwest (Figure 3.20). The canal again crosses underneath the highway and continues to the southeast towards San Andrés.

After crossing under the highway, the canal turns slightly more to the west, but continues southwest through a cement-lined, uncovered, channel to San Andrés (Figure 3.21). More off-valves begin to appear as the canal gets closer to town. The path of the canal slowly turns more to the west as it approaches town. After flowing through a relatively flat area, 1219 m since crossing the highway and 40 m below (3060 masl), it reaches the top of a hill, just above town marking the western edge of town, and flows through a mill, providing power to the mill machinery and dropping 22 m (Figure 3.22).

Figure 3.15 - Water from Quebrada Apotondo re-routed at mouth of ravine into a cement channel
Figure 3.16 - Cement-lined canal at the mouth of Quebrada Apotondo

Figure 3.17 - Canal crosses under road just south of Quebrada Apotondo and is covered by cement
Figure 3.18 - Cement-lined canal where it turns to the southeast and is routed into a natural channel alongside the dirt road

Figure 3.19 - Canal crosses under the Pan American Highway just to the northwest of San Andrés
Figure 3.20 - “Agriculture ECUADOR – With infinite love; Project: Irrigation system, 'Paquibug San Pablo. National Government of the Republic of Ecuador. The Homeland of us all!’” – my translation; sign indicating government sponsored irrigation improvements outside of San Andrés

Figure 3.21 - Cement-lined canal just outside of San Andrés
At the base of the hill below the mill, 7600 m from the source and 3038 masl, the canal splits into three cement-lined channels (Figure 3.1, point 6; lat. 1°35'20.67"S, long. 78°42'14.53"W). Two of these channels merge in town to form the main south branch (Figure 3.23) while the third channel is the main north branch (Figure 3.24). The north branch runs north-northeast for 62 m, where an off-valve to the east connects to the south branch of the canal after 308 m and a drop of 11 m. The north branch continues north-northeast for 129 m then turns ninety degrees to the east-southeast. After flowing through a dirt-lined section for 77 m, dropping 9 m, a cement-lined side canal splits off from the north branch to the north. This cement-lined section of the side canal runs 94 m along some small fields and briefly turns east. A dirt-lined canal continues 210 m to the north, dropping 2 m, to water the fields on the edge of the steep drop into the Rio Guayco valley (Figure 3.25). Where the cement-lined section turns east-northeast, it runs for 68 m until it meets the northbound road to San Isidro Patulú, the town on the other side of the Rio Guayco. It runs along the cement-lined gutter on the side of the
road for 199 m, dropping 19 m, then is diverted by a makeshift barrier made of trash and dirt (Figure 3.26) into a dirt lined channel to water the fields on the side of the valley wall, ending in a field near the Rio Guayco, 503 m from where it split from the north branch, 771 m from the base of the hill below the mill and at 2997 masl (Figure 3.27).

The cement-lined main north branch continues east-southeast for 68 m then turns south for 26 m before resuming its east-southeast course for 152 m, dropping 1 m. Here, another side canal branches off. This side canal runs to the north and is dirt lined for 36 m, then turns northwest, crossing under a road through a cement-lined channel. From here, it meanders 182 m through some small fields, ending in a field above the east side of the road to San Isidro Patulú (3028 masl). At the point where side canal turns northwest and crosses under the road, a new 44 m, cement-lined, section that will

Figure 3.23 - Main south branch of canal as it passes by a house in San Andrés
Figure 3.24 - Main north branch of canal at the base of the hill, near the mill, in San Andrés

Figure 3.25 - Dirt-lined side canal from main north branch above the Rio Guayco valley
Figure 3.26 - Side-canal along road to San Isidro Patulú; diverted by trash and rubble to fields on the side of the road

Figure 3.27 - View into Rio Guayco valley from the end of the side canal along the road to San Isidro Patulú
run to the east-southeast from this dirt-lined portion was being constructed at the time of mapping (Figure 3.28). This section reconnects to the main north branch, dropping 1 m, after 85 m. Between where the side canal branched off and the newly constructed section rejoins, the main north branch of the canal continues east-southeast with a number of off-valves to various small fields.

Figure 3.28 - Installation of new cement lining along main north branch of canal in San Andrés

The cement-lined main north branch flows east for 116 m then turns northwest for 140 m. Here, the canal is at 3027 masl, at the lip of the steep drop into the Rio Guayco valley. A cement-lined side canal departs the main channel to the west, along the steep drop to water the fields in the valley. After 118 m, and a descent of 7 m, the cement-lined side canal turns northwest, flows for 52 m, through various fields, before the cement ends. The dirt-lined side canal flows for 95 m, ending in a pasture, 1 m
lower at 3019 masl. The main north branch turns east again for 43 m where the side canal breaks off from it, drops 6 m, then turns south for another 42 m before turning east-southeast once again.

After 72 m and a drop of 1 m, a stone-lined side canal splits to the northeast from the main canal (Figure 3.1, point 7; Figure 3.29; lat. 1°35'20.85"S, long. 78°41'47.92"W). This side canal drops 5 m into the Rio Guayco valley, watering the hillside fields and those on the flatter area where the side canal ends after 195 m at 3015 masl, 860 m from base of hill below mill (8655 m from the source) (Figure 3.1, point 8; lat. 1°35'16.62"S, long. 78°41'44.11"W). The main north branch gradually turns southeast from here (Figure 3.1, point 7) and runs for 416 m, dropping 16 m, most of it cement-lined except for a 19 m dirt-lined section, watering various fields along the way. Another side canal splits off, this time to the south. This dirt-lined side canal runs for 105 m. The cement-lined main north canal continues southeast for another 230 m, dropping 9 m, where it turns south. After 75 m, and a drop of 8 m, the cement ends and the now dirt-lined main north branch ends after another 56 m, at 2984 masl (54 m lower than the base of the hill, 335 m below the source), 1862 m from the base of the hill below the mill (9462 m from the source) (Figure 3.1, point 9; lat. 1°35'34.47"S, long. 78°41'32.63"W). A path extends southeast from the terminus of the canal and leads to nearby fields. 164 m southwest from the end of the canal, along the path, are the remains of a stone house with a grinding stone situated just outside of the ruins (Figure 3.1, point 10; Figure 3.30; lat. 1°35'38.41"S, long. 78°41'29.02"W).
Figure 3.29 - View of stone-lined side canal (left) from main north branch of canal above the Rio Guayco valley

Figure 3.30 - Remains of stone house near the end of the main north branch of the canal
The main south branch of the canal brings water to most of the small household fields in San Andrés proper. Two cement-lined branches form the beginning of the south branch (Figure 3.1, point 6). One branch heads southeast, the other south. The southeast branch runs underground for 230 m, dropping 11 m, before it meets up with the south branch, as well as the side-canal from the north branch that reconnects to the south branch. The south branch heads south for 129 m, dropping 11 m, then turns east (Figure 3.31). It runs east for 183 m, meeting up with the southeast branch and the section from the north branch. The combined flows that make up the cement-lined south branch flow east from here for 98 m, dropping 3 m, then turn north for 88 m before turning east again. After the cement-lined main south canal runs east for another 79 m, it leaves the main road grid of town and flows into the fields behind the church.

Figure 3.31 - Main south branch of canal where it turns east in San Andrés
The section of the main south canal behind the church is wide (2 m) and stone-lined. It runs east-southeast and has four stone diversions for adjacent fields along its length. The stone-lined section ends after 361 m, dropping 11 m (Figure 3.1, point 11; Figure 3.32; Figure 3.33; lat. 1°35′26.34″S, long. 78°41′51.64″W), becoming cement-lined once again. Along this section is an old dirt road, which was reported to me by townspeople and the local priest to be the colonial, and possibly Inka, road between San Andrés and Guano (Figure 3.34). The cement-lined canal continues east-southeast for 48 m, dropping 1 m, then turns south for 86 m before turning east-southeast again. It continues east-southeast for 35 m before a side canal splits from it to the south (Figure 3.1, point 12; lat. 1°35′29.95″S, long. 78°41′49.71″W). This cement-lined side canal

Figure 3.32 - Stone-lined south branch of canal in San Andrés, behind church
Figure 3.33 - Stone off-valve along south branch of canal in San Andrés, behind church

Figure 3.34 - Canal running alongside old road (on right) reported to be colonial, and possibly Inka, road to Guano
flows south for 135 m, rising 17 m\(^5\), until it meets the Pan American highway, which it flows underneath, emerging 1 m lower as a dirt-lined canal in the small section of San Andrés on the south side of the highway. The now dirt-lined canal continues south for 48 m, then turns east, becoming cement-lined once again. This cement-lined portion runs for only 17 m before it again becomes dirt-lined, ending 4 m lower at 3007 masl in a small field after 23 m (Figure 3.1, point 13; lat. 1°35'37.03"S, long. 78°41'50.21"W).

The cement-lined main south canal continues east-southeast for 124 m, dropping 12 m, then turns south, passing between two houses (Figure 3.35). After 93 m, and a drop of 9 m, it meets the north side of the paved road to Guano and turns east-southeast to follow to the road in the cement-lined gutter. The canal continues east-southeast along the roadside for 304 m, where there is a major diversion that splits the water, sending a branch under the paved road to the south, with the remainder of the water continuing along the side of the road in the cement-lined gutter (Figure 3.1, point 14; Figure 3.36; lat. 1°35'36.95"S, long. 78°41’36.55"W).

The south branch of the main south canal is dirt-lined after crossing under the paved road to Guano and flows south for 73 m before turning southeast (Figure 3.37). After this turn, it becomes cement-lined once again and flows for 127 m then meets the south side of the paved road to Guano (Figure 3.1, point 15; lat. 1°35'41.43"S, long. 78°41'33.54"W). The canal splits here with a branch splitting south while the rest of the water (the centre branch of the main south canal) continues along the side of the road in the cement-lined gutter for 96 m, dropping 13 m. The centre branch of the main south canal then splits, sending a small channel southeast to water fields adjacent to the road while the rest of the water continues to flow along the side of the road. This side-canal

\(^5\) While there are certain points where the canal flow went up hill, carried by the momentum of the water through the channels, this climb rate of 12.6 cm/m is high. This is likely the result of the range of error (+/- 10 m) on my handheld GPS. The actual rise is likely far less steep than indicated by the waypoints, which were taken on different days.
Figure 3.35 - Canal passes between two houses on the eastern edge of San Andrés

Figure 3.36 - Main south branch of canal splits, with water diverted here under the paved road to Guano to the south side
Figure 3.37 - Dirt-lined portion of the south branch of the main south canal after crossing underneath the paved road to Guano

runs for 270 m, dropping another 2 m, before meeting back up with the branch flowing along the side of the paved road. This centre branch of the south canal continues to flow along the south side of the paved road to Guano, watering the adjacent fields, for 355 m and dropping 10 m, then crosses under the road to the north side. After another 100 m, dropping 6 m, the centre branch of the south canal ends in a maize field at 2960 masl (the lowest point on the canal system, 78 m below the base of the hill in town and 359 m below the source), 2750 m from the base of the hill and 10350 m from the source (Figure 3.1, point 16; lat. 1°35'58.11"S, long. 78°41'13.86"W).

The south branch of the south canal from where it split when the canal met the south side of the paved road to Guano (Figure 3.1, point 15) is cement-lined and flows south for 179 m, then turns east for 37 m, dropping 2 m, before turning southeast. It flows southeast for 189 m, dropping 8 m and watering the adjacent fields, then splits with
a branch to the east and a branch to the south, both of which are cement-lined. The east branch flows for 130 m, turns south for 100 m, then turns west, dropping 1 m, flows west for 75 m where it rejoins the south branch. The south branch flows south-southeast for 90 m, dropping 1 m, until the east branch rejoins it. The cement-lined south branch of the main south canal meanders generally southward from this point for 213 m, dropping 1 m and watering the adjacent fields, until it ends at the lip of the drop into the Rio Batzacon valley at 2979 masl (59 m below the base of the hill in San Andrés and 340 m below the source), 2537 m from the base of hill below the mill and 10137 m from the source (Figure 3.1, point 17; lat. 1°35'59.30"S, long. 78°41'28.60"W).

The north branch of the main south canal flows southeast from the diversion point on the paved road to Guano (Figure 3.1, point 14) through the cement-lined gutter on the north side of the paved road to Guano for 282 m, dropping 7 m, before it turns east-northeast, away from the road into the small community of San Miguel. It flows east-northeast through the tiny town, watering the small local fields, for 236 m, rising 5 m, before turning south. It meanders generally southward for 143 m, dropping 1 m, then turns southeast. The cement-lined canal flows southeast for 363 m, dropping 8 m, then turns southwest, ending 52 m later (2705 m from the base of the hill below the mill and 10305 m from the source), after dropping 1 m to 2979 masl (59 m below the base of the hill in San Andrés and 340 m below the source) (Figure 3.1, point 18; lat. 1°35'53.06"S, long. 78°41'15.54"W).

The San Andrés canal system is made up of 16489 m of canals from the source to the ends of the various branches and side canals (Table 3.1). The majority of these canals are cement lined (10457 m; 63.42%) with 11.25% (1176 m) of these covered (7.13% of the canal system). 4592 m (27.85%) of the canal system runs through natural channels, all of this between the source and the hill where the mill is located on the
western edge of the town of San Andrés, with the bulk of this the section running through
Quebrada Apontondo (3215 m; 70.01% of the natural channels, 19.50% of the canal
system). Dirt-lined sections appear sporadically throughout the system, making up
5.36% (884 m) of the canal system. Stone-lined sections make up 3.37% (556 m) of the
canal system. There are two stone-lined sections, one along the main south branch of
the canal, behind the church in San Andrés (361 m; 64.93% of stone-lined section,
2.19% of canal system), the other a side canal branching off of the main north branch of
the canal system (195 m; 35.07% of stone-lined section, 1.18% of canal system). The
canal drops 359 m from its highest point (3319 masl at the Chuquipogyo spring) to its
lowest point (2960m at the end of the centre branch of the main south canal). The
length of the canal from the source to its lowest point (also the furthest point on the canal
from the source), excluding other branches and side canals is 10350 m. The average
rate of descent from the source to its lowest point is 3.46 cm of vertical drop for every 1
m of horizontal distance.

Table 3.1 - Physical characteristics of the San Andrés canal system (Acequia María
Mayancela)

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (m)</th>
<th>% of canal system</th>
</tr>
</thead>
<tbody>
<tr>
<td>dirt</td>
<td>884</td>
<td>5.36%</td>
</tr>
<tr>
<td>cement*</td>
<td>10457</td>
<td>63.42%</td>
</tr>
<tr>
<td>natural</td>
<td>4592</td>
<td>27.85%</td>
</tr>
<tr>
<td>stone</td>
<td>556</td>
<td>3.37%</td>
</tr>
<tr>
<td>total</td>
<td>16489</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

*covered vs. uncovered cement sections of the canal

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (m)</th>
<th>% of canal system</th>
<th>% of cement sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>cement (no cover)</td>
<td>9281</td>
<td>56.29%</td>
<td>88.75%</td>
</tr>
<tr>
<td>cement (covered)</td>
<td>1176</td>
<td>7.13%</td>
<td>11.25%</td>
</tr>
</tbody>
</table>
3.3.2 Past Uses of the Canal

Early Spanish observers noted the presence of *acequias* (canals/ditches) that brought water to San Andrés from the mountains above. In a 1582 document, Father Juan de Paz Maldonado (1965 [1582]:261) stated, "*No pasa ningún río por junto a este pueblo caudaloso, sino es un arroyo que pasa por junto a este pueblo, donde beben los indios, y otras acequias que traen de lo alto de la cordillera que meten en el dicho pueblo*" ("No river flows by the town, but a stream passes by the town, where the Indians drink, and other canals from the high mountains that bring water to the town" – my translation). An anonymous author in 1605 recorded, "*Cerca del pueblo pasa un río pequeño, muy frío como destilado de las nieves y que no cría ningún pescado. También entran en el lugar algunas acequias que bajan de la sierra; de ellas se sirven para beber y lavar la ropa*" ("Near the town passes a small river, very cold with meltwater from snow and does not carry fish. Also, entering the town are some canals that descend from the mountains; these are used for drinking water and washing clothes" – my translation) (Anónimo 1991 [1605]:59). As well, an 1818 legal dispute over water rights in San Andrés, which includes an earlier dispute from 1786/1787, describes a system of *acequias* from Chuquipogyo and Apotondo to San Andrés as being used since "time immemorial" (ANEQ, Ind, 168.19, 16r, 20r, my translation).

The physical evidence of early use of this canal is difficult to determine. Due to modern refurbishments of the canal most of its length is now cement-lined from the source at the *Chuquipogyo* spring and into town in San Andrés. Throughout the canal system there is a smattering of stone- and dirt-lined sections, including diversion placements for routing water to fields or side canals, which could very well have been used in the colonial era, or earlier. One particular section, located in the fields behind the church in town (*Figure 3.32, Figure 3.33*; map, point 11 [waypoint 081/026]), is
potentially an excellent area for dredging and/or excavation of the canal to obtain diagnostic artifacts or charcoal for radiocarbon dating as it remains lined with stone and appears to have had a minimal amount of alterations in recent times. As well, excavations of the old road beside the canal (Figure 3.34) would likely reveal much about previous modes of living in the region such as trade networks, diet, and the various modes of cultural interaction that would have shaped the region in the past. Such methods of research were, unfortunately, beyond the scope of this project.

The historical evidence for irrigation in San Andrés before the Spanish conquest is small but convincing (Paz Maldonado 1965[1582]:265; Anónimo 1991[1605]:59). The indication from these reports is that these acequias were present in San Andrés prior to the Spanish conquest. The lack of a natural water source in San Andrés, due to its physical location on top of ridge between two rivers, combined with the evidence of crops such as maize being grown in prehistory is a fairly strong indicator that irrigation canals were being used at least in the Inkaic period, if not earlier. While the San Andrés area does receive enough annual rain for non-irrigated agriculture (Knapp 1991:130), it is close to the bare minimum, and extra water via irrigation could only help to increase yields and reliability. My own observations of current-day crops highlight that the use of irrigation greatly increases the productivity of the fields (Figure 3.38; Figure 3.39). While this shows that irrigation in San Andrés was not strictly necessary, its use would be of great help in maintaining a population living on what would otherwise be a waterless ridge top. With the historical sources indicating the presence of an irrigation system in San Andrés prior to the Spanish conquest the question is the depth of time for such a presence and what were the indications, material and otherwise, of the various cultural influences (i.e., Puruhá, Inka, Spanish) in the region as evidenced in the canal.
Figure 3.38 - Irrigated maize field in San Andrés

Figure 3.39 - Non-irrigated maize field in San Andrés
Inka rule in much of what is now Ecuador was short and, in many areas, insecure (Bray 1992:218-219; Newson 1995:121). With less than sixty years of partial control, establishment of the Inka Imperial model was incomplete in much of Ecuador at the time of the Spanish conquest, particularly the further north they were from Tomebamba, the northern Inka military base at the site of the modern city of Cuenca (Newson 1995:125). The Puruhá region was directly to the north of the secured Cañari region, where Tomebamba was located, and the indications are strong that the Puruhá region, and thus San Andrés, were under control and well established within the Inka Empire by the time of the Spanish conquest (Bray 2008; Newson 1995:135; Salomon 1986:192).

Inka control would have certainly included control of water sources and water distribution, as well as labour. The presence of mitmaqkuna from Condesuyo, an area with a reputation for complex irrigation works extending back to pre-Inkaic times in southern Peru (Bunker 2006; Gelles 2000; Trawick 2003), gives us possible evidence for Inka influence on irrigation here. Stone-lined portions of the canal could also be indicative of Inka construction (Bray 1992) (Figure 3.32). As well, the word Chuquipogyo is of Quechua origin (chuqui = arrow [González Holguín 1989 [1608]:112]; pogyo/pukyu = spring [González Holguín 1989 [1608]:296], translations mine), not Puruhá. This fits with the Inka practice of naming water sources in their own language to dedicate them to Wiracocha (D’Altroy 1992:245). The name for the mountain, Chimborazo, also appears to be a Quechua import as the Puruhá name for the mountain has been identified as “Mamashimbu” (Costales Samaniego and Costales Peñaherrera 2001:104), making the Inka influence in the area appear stronger still. Thus, the indications for a possible Inkaic origin for the acequia exist.

However, the possibility also exists that the irrigation system was constructed, in some form, prior to the Inka conquest of the Puruhá region. With the full knowledge of
the extent of political control in the pre-Inkaic Puruhá era incomplete, the management of labour, land, and water amongst them is unknown. The population size and density of the town of San Andrés is undetermined prior to the Spanish conquest, though it is known that the current town site did support populations deep into antiquity (Jijón y Caamaño 1927). Yet the evidence of crop production and a population based here prior to the Inka conquest may indicate a need for irrigation in order to have enough of a crop yield to support them. According to Bunker (2006:18), the need for a high level of political control was not necessary to mobilize a labour force to construct such a system. His contention, which is counter to the model proposed by Wittfogel (1957) that the control of labour by a centralized political force backed by strong military control was necessary for the construction of large-scale public works, holds that small-scale community organization is also capable of organizing the construction of large public works though assessing needs and utilizing local knowledge of the landscape (Bunker 2006:18). The presence of mitmaqkuna from Condesuyo, a region in southern Peru well known for its irrigation works, in San Andrés does not necessarily indicate that they were irrigation specialists as there could have been many reasons for these particular people to be sent to San Andrés (D’Altroy 2002:248; Trawick 2003:42-48). The linguistic evidence for an Inka origin of the canal is similarly shaky. The use of the Quechua name Chuquipogyo, could simply be due to a rededication of the source after the Inka conquest rather than an Inka origin for the irrigation system stemming from this source (Sherbondy 1992:57).

The presence of stone-lined canals is far from definitive proof of Inkaic origin for the canal. While they have been confirmed as being “very old” (interview with Padre Pedro Torres, July 7, 2009, my translation), the use of stone to line canals was not limited to the Inka era. Stylistically, the stone- and dirt-lined sections of the canal do not
conform to any particular ethnic group or chronological era. The stones used to line sections of the canal were not cut or aligned in any particular way that could help determine whether they were Inka stones or from the colonial era or later. Hyslop (1984:318) discusses the Inka use of stone drainage culverts along the Inka road system in the Ecuadorian páramo, but the style of stone is not definitive enough to allow any speculation that the stones in the canal are of Inka origin. The use of stone for lining canals is documented in Spain by Glick (1970:177), who notes its use in Spain’s American colonies as well, but once again, descriptively, it is difficult to assign these sections an era simply based on the fact that they are stone. There is a high probability that materials from various times and places were recycled and what appears to be ancient could in fact be a modern addition. As canal construction and maintenance is highly dynamic and constantly occurring (Bunker 2006; Gelles 2000; Trawick 2003), as evidenced in San Andrés by the use of many different materials throughout the canal system and the relatively recent and ongoing conversion to mostly cement-lined channels, choosing a timeframe for use based on purely visual observations of the canal would simply be guesswork.

In short, the circumstantial evidence is supportive of the possibility of the canal existing prior to arrival of the Inka in the region. The verification of this would require obtaining solid dates, radiocarbon or otherwise, through archaeological investigations of the canal. Some possible locations with good potential for finding such data would be the possible stone wall/road in Quebrada Apotondo (Figure 3.1, point 3), the remains of the stone house on the eastern edge of San Andrés (Figure 3.1, point 10), and the stone-lined section of the canal behind the church in San Andrés (Figure 3.1, point 11). However, further archaeological investigations would be useful for more than simply figuring out how old the canal is. Each of these potential locations or excavation would,
in all likelihood, provide information on a variety of aspects of life in the region in the
distant past from basic economics such as agricultural subsistence and trade to
identifying the spheres of interaction between the peoples of the region and those
around them, including those whose presence was somewhat ephemeral (i.e., traders,
travellers, etc.) and those whose presence was more permanent (i.e., conquerers,
settlers, etc.).

3.3.3 Acequia María Mayancela Today

Agriculture in San Andrés is centred on the Acequia María Mayancela, the
currently used name for the canal that runs from the Chuquipogyo spring, through Quebrada Apotondo to San Andrés and San Miguel. The canal provides water for the
numerous plots of land in town and in the nearby surrounding area. Most of the plots of
land are quite small, particularly those in town, and are largely family plots used by
specific households. The canal waters a few larger plots of land on the edges of town,
including two indigenous collectives on the eastern edge of town, near San Miguel, and
the Hacienda Josephina on the western edge of town, near the highway.

In the course of my interviews with local elders, it was repeated to me that the
land through which the canal runs to get to San Andrés was, in the past, one continuous
hacienda (the Hacienda Chuquipogyo). Today, this land is now split up into three major
land holdings and numerous small plots. This redistribution of land occurred in the
1970s (a specific date was not found in the historical record) as a result of the period of
agrarian reform that began in 1964, peaking in Chimborazo in the mid-1970s (Black
1985). In discussions with local people throughout the canal region, they universally
stated that the water from the canal was entirely destined for San Andrés, not for any of
the intervening land between the spring and the town. In my explorations of the canal
and its side canals, I found this to be basically the case, with a few exceptions of where water is diverted from the canal between the source and the town.

I asked numerous individuals along the canal when the cement linings and covers had been installed. I received varying responses ranging from two to twenty years. There was no particular pattern for responses according to geographical location along the canal. For example, near the source I was told fifteen years and two years, while in town I was told twenty years and five years. In my conversations with Carlos Avalos, the president of the Municipal Directory of Irrigation Water, I was told that the cement linings and covers were put in place sporadically over the past twenty-five years, with no systematic pattern of construction (i.e., from source to terminus). Basically, sections were lined with cement when money was available and need was determined greatest at that particular time. During my exploration of the extent of the canal system, two sections, one in town and one just outside the eastern edge of town, were in the process of having cement linings installed.

On the side of the highway near San Andrés, where the canal crosses under the highway (Figure 3.1, point 5), a sign posted by the current national government has been erected giving notice that they are expanding and improving the irrigation for the town of Paquibug San Pablo (Figure 3.20). Paquibug San Pablo is located near the mouth of Quebrada Apotondo, on the west side. From my explorations along the canal, it appears that the water from the Acequia María Mayancela does not contribute to the irrigation of Paquibug San Pablo. There is a stream that crosses underneath the canal from the east, towards Paquibug San Pablo and the Rio Batzacon valley, near the mouth of Quebrada Apotondo that is likely the focus of this irrigation project.

Carlos Avalos reported to me that from 1979 until 1994 access to water from the canal was highly disputed. Hoarding of water by users higher up along the canal system
was the general cause of these disputes. The lack of a proper schedule for the distribution of the water during this time period allowed for those with earlier access to the water to be in control of it. These disputes frequently led to legal claims and sometimes to violence. The implementation of a distribution schedule in 1994, which allocated access on an hourly basis and took into account all fields from the final highway crossing to San Miguel, alleviated the cause of the disputes and provided a proper forum for complaints about abuse resulting in a time of peace along the canal up to the present. For the most part, this time of peace was very evident in town as most people were more than happy to discuss the canal with me and take me to parts of it I might have otherwise missed. However, there is still suspicion of outsiders and the possibility of water theft. This was exemplified near the end of my explorations of the physical extent of the canal when a local woman who claimed to be in charge of that particular section of the canal accosted me. She very bluntly, yet politely asked me to leave. I explained what I was doing and that I had received the permission to map the canal from the water director, but she was adamant and I respected her wishes. She escorted me back to the main road between San Andrés and Guano and watched me until I rounded a corner on my way back to town.

Without exception, every person I talked to in San Andrés said that without the irrigation canals, there would be no farming in the area. They all explained that their maize, potatoes, potrero, and other crops would not be viable if they did not have the water from the canal. While, technically, these crops could all be grown in the region without irrigation, and often are, the rainfall in the region provides only the bare minimum to grow crops and is not always reliable. When asked how long the canal has existed, most people said such things as “it has always been here” or “for centuries.” A few people attempted to assign specific timeframes to the canal, with one person in town
saying two hundred years and another in San Miguel saying fifty years (though he may have been referring to the particular section by his house, close to the end of the canal).

Every discussion I had about the canal included some version of the story of María Mayancela. All the people I interviewed described her as an indigenous landowner or a cacica (feminine of cacique). She was said to have donated the canal to the town because it had no water and the people needed to grow crops to feed themselves. Frequently the conversations would turn at this point to the topic of the chapel at the Hacienda Chuquipogyo and the Virgen de Chuquipogyo. Many interviewees told me that every year, at the end of May, the townspeople form a procession to bring a statue of the Virgen de Chuquipogyo from the spring of the same name to the church in San Andrés and celebrate mass in her honour. When asked directly if there was a connection between the Virgen de Chuquipogyo and María Mayancela, most people did not make a direct connection, only connecting the two by their common association with the canal (see Chapter 5 for an in-depth discussion of this topic).

### 3.4 Conclusions

The canal system in San Andrés, known today as Acequia María Mayancela, has been in use since at least the colonial era and likely much earlier. It is an integral aspect of economic and spiritual life for the people of San Andrés and its connection to the town has been an essential part of the central identity of the townspeople for centuries. The physical construction, ideological connotations, and the legal/economic underpinnings of the canal have changed repeatedly over time, depending on the political, economic, and social climate of the times. For example, the conversion to cement lining, while a functional change to help eliminate water loss from absorption and evaporation, is rooted in the political climate of development and capitalist expansion while still being focused
on the same patterns of irrigation from before. Similarly, the universal assertion that the use of all water from Chuquipogyo is the exclusive right of the town of San Andrés, and has always been that way despite the break-up and redistribution of large land-holdings, highlights the elements of continuity despite changing political and economic climates. These two examples help to show the complex interplay between adaptation, incorporation, and continuity that are so integral to the concept of hybridity. The people of San Andrés have been quick to adopt new ideas and practices, integrating them into those already established, while maintaining their core connection to the canal and what it represents to the community. The complex entanglement of ideas and practices rooted in the exchange and interaction of cultural collisions (García Canclini 1995; Gose 2008; Martindale 2009; Silliman 2009) is exemplified in the history of this one canal in a small town in highland Ecuador.

Establishing a solid chronology is important to the understanding of the temporal continuum on which these entanglements occurred and understanding the cultural trajectory of the region over the entire course of its history. Unfortunately, conducting archaeological excavations was beyond the scope of this project due to constraints in time and resources. There are numerous locations along the canal system with a high potential for archaeological excavations. In particular: the area surrounding the Chuquipogyo spring (Figure 3.1, point 1); the possible road/wall in Quebrada Apotondo (Figure 3.1, point 3); the mill in San Andrés (Figure 3.1, point 6); the remains of the stone-house with the grinding stone (Figure 3.1, point 10); and the stone-lined section of the canal behind the church in San Andrés and the associated old road (Figure 3.1, point 11) all could contain excellent data that would help establish a proper chronology and contribute to the understanding of the changes in organization and control of water in San Andrés over its history.
4: WATER RIGHTS IN THE SPANISH COLONIAL ERA: THE 1818 CASE OF LOS INDIOS DE SAN ANDRÉS V. DON RAFAEL MANCHENO

4.1 Legal Precedents in Spanish Colonial Irrigation Policy

Legal rights to land and water in the colonial Andes were rooted in the continuous entanglement of the historical trajectories of Spanish and indigenous systems (Gose 2008; Martindale 2009; Silliman 2009). In a colonial system wherein one group (the Spanish) held power over another group (the indigenous inhabitants), generally the laws and beliefs of those in power hold sway over pre-existing modes of legal interpretation. However, throughout the colonial enterprise, the Spanish Crown had been in the contradictory position of attempting to extract as much wealth as possible out of the colonies and those who lived within them and protecting the indigenous people from the colonists sent to extract this wealth. As this contradiction became more pronounced over time and the depredations of the colonial elite grew in scale, the Crown constantly needed to assess and reassess regulations in regards to legal control of land and water (Gose 2008:118-123; Ramírez 1986:211). Much of the Spanish legal code was carried over from their homeland to the colonies, but these were by no means uniformly applied. Instead, legal claims to land and water rights were intense negotiations rooted in the often conflicting, yet at times surprisingly complementary, traditions of Spain and the Andes, resulting in hybrid ‘traditions’ on both sides of the consciously perpetuated Spanish/indigenous divide.

In the following sections I will outline a brief history of the development of Spanish irrigation law on the Iberian Peninsula before the onset of the colonial era and
its subsequent transference and interpretation in the colonial Andes in regards to its entanglement with previously established Andean precedents for water rights and land tenure. I will then relate this to a specific legal case in the town of San Andrés, Ecuador, from the late colonial era, discussing this entanglement in this particular and time and place. The overarching theme of hybridity in policy and practice will be the primary focus within the contexts of the legal and economic setting of San Andrés during this time period.

4.1.1 The Development of Irrigation Law on the Iberian Peninsula

The Christian Kingdoms of the Iberian Peninsula were the inheritors of Roman, Muslim, and Germanic patterns of irrigation and water control (Glick 2005:96). The Romans were not overly concerned with irrigation, leading to laws that were essentially individualistic (Glick 1970:192-194; 2005:66). Islamic irrigation law was more detailed and focussed on community ownership, construction, and maintenance of irrigation systems (Glick 1970:199-206). However, the reconquest of the peninsula from the Islamic Moors reintroduced some of the Germanic laws from the Visigoth era, which had been modified somewhat over the centuries by Christian Iberians that had relocated further north during Moorish rule (Glick 1970:195, 2005:87). The reconquest brought with it resettlement by these Christian groups, leading to new land claims as the reconquest continued south.

Under both Germanic and Islamic law, the sovereign of a conquering kingdom owned all conquered land until he granted it to his subjects (Glick 2005:87). The application of Germanic customary law of occupancy, presura in Castilian, became commonplace in regards to these lands during the reconquest. In short, presura allowed newly conquered land to be claimed simply by occupying it and bringing part of it under cultivation (Glick 2005:86-87). This was also applied to water law, as conquest, in effect,
reset water claims on newly conquered land and created a “first in time, first in right” (Glick 2005:97) system whereby a new settler could gain rights to water on newly claimed land simply by being the first to use it.

As the reconquest moved south, and away from the mostly depopulated frontiers into the occupied and managed landscapes of the Moors, a new system of land claim and settlement was necessary (Glick 2005:100). The Kingdoms of Castile and Aragón instituted the *repartimiento*, a system of surveying and organizing landholdings, which ultimately led to the removal of Muslims from the land and replacing them with Christian farmers (Glick 1995:127-166). In enacting this policy, there were three basic options open to the conquerors: 1) learning and continuing the Muslim agricultural and irrigation systems; 2) replacing the systems with dry farming; or 3) replacing the whole system with herds of sheep (Glick 2005:101). In the large number of cases in which Moorish irrigation systems were maintained, inquests were held to question the Muslim farmers and irrigators about how the system worked along with the adoption of Muslim terminologies and system of officials (Glick 2005:101). It was this hybrid legal system, in regards to land and irrigation, that the Spanish brought with them to the Andes.

4.1.2 Spanish Irrigation Policy and Practice in the Andes

The introduction of Old World plants and animals in the Andes was an important determinant of land and water policies in the colonial era. For example, the high cultural value of wheat (*Triticum aestivum*) to the Spanish led to its widespread introduction in the Andes (Glick 2005:93; Newson 1995:13). This cultural importance led to the relegation of maize from an elite crop to a peasant crop (deFrance 2003; Hastorf 2003). Unlike maize, wheat is not reliant on irrigation, and the expansion of wheat agriculture may have actually helped contribute, among other factors, to a decline in irrigation systems during the colonial era (Bunker 2006:92; Knapp 1991:49). As well, wheat is not
overly affected by altitude (Larson 1998:179n20), and thus had a wide range of areas in which it could be, and was, grown.

The arrival of Old World ungulates for meat, dairy, and woollen textiles required the intensive cultivation of fodder crops, such as alfalfa, which required regular provision of substantial quantities of water to grow (Newson 1995:166; Saeed and El-Nadi 1997). This led to increased demand for water, which, in turn, led to the expansion or modification of existing irrigation systems, the creation of new ones, or the rehabilitation of old ones fallen into disuse (Bunker 2006). In the highlands, the majority of the herding was done in the páramo (high altitude grasslands where agriculture was not viable) (Newson 1995:207), so any damage caused to irrigation systems through trampling would have been minimal, but the indirect effects of herding would have been apparent in the increased need for fodder crops like alfalfa and their need for regular irrigation water.

The above paragraphs, while highlighting the functional relationships between introduced plants and animals with indigenous crops and irrigation systems, also show some of the ingrained cultural aspects inherent in the colonial system. The focus on Old World foods, such as cereals and meat products, as well as woollen clothing by the elite Spanish overlords likely caused shifts in irrigation practices in the San Andrés area. While at first glance, the presence and dominance of Spanish crops and animals might lead to the assumption of full Spanish control with clear lines delineating the Spanish world from the indigenous world, the reality was much more blurred. As we will see in the case below, alfalfa was a crucial crop to indigenous farmers in the San Andrés region and one that was inextricably connected to contested access to water.
4.2 Los Indios de San Andrés v. Don Rafael Mancheno: The 1818 Dispute

This legal case from 1818 centres on the use of water in the town of San Andrés from the spring at Chuquipogyo, flowing to town via Quebrada Apotondo (ANEQ, Ind, 168.19). The core of the debate is the diversion of water by Don Rafael Mancheno, a powerful local landowner, to run a mill at the site of the water's entrance into town (ANEQ, Ind, 168.19, 12v). Smallholder farmers upstream from the mill, who protested the removal of water from the irrigation system that feeds their farms, contested this diversion (ANEQ, Ind, 168.19, 1r, 20r-20v). The local farmers' cases extended back to agreements made with Rafael Mancheno's father, Don Ventura Antonio Mancheno, on the use of water from the same source at Chuquipogyo.

4.2.1 The Mancheno Family

The first mention of the Mancheno family in the region is the purchase of an obraje in San Andrés by Julián Mancheno between 1717-1728. Shortly thereafter, in 1730, Julián Mancheno is recorded as having married Rosa Maldonado y Sotomayor (Archivo Histórico de Riobamba - Casa de la Cultura Ecuatoriana [AHR/CCE], Protocolo y Escrituras Públicas [PROT/EP], 1730.07.15). This marriage solidified the Mancheno family in the area as they had previously been centred in Chimbo, to the west of San Andrés, and the Maldonado family were well established in the area by this point in time (AHR/CCE, PROT/EP, 1730.07.15).

In 1764 there is brief mention of a Capitán Don Ventura Mancheno, likely the son of Julián Mancheno, as the owner of the Hacienda de Luisa, which occupied the same territorial expanse as the former Encomienda de Luisa, including Xunxi (San Andrés) (AHR/CCE, Protocolo y Juicios Civiles [PROT/JC], 1764). Don Ventura is next mentioned in relation to San Andrés in a 1778 document detailing the transference of
property from his sister, Doña Mariana Mancheno y Maldonado, to Don Ventura (AHR/CCE, *Protocolo* [PROT], 1778.11.27). Following this was a document from 1786, which was included as supplementary material within the 1818 legal case, regarding the use of water from the *acequia* from Chuquipogyo, through Apotondo to San Andrés (ANEQ, Ind, 168.19, 24r-26r), which I will discuss further below. In 1795, Don Ventura Mancheno introduced livestock to his lands in Calpi and San Andrés (ANEQ, Ind, 139.4).

Following the catastrophic earthquake in 1797 which destroyed the city of Riobamba, the administrative centre of the *corregimiento* (administrative district), discussions involving Don Ventura Mancheno, who had held office a number of times in the Riobamba government, took place in regards to getting water to the new site of the city (Ortíz Arellano 2005:91, Anexo 6). In these discussions, Don Ventura protested the potential use of water from the *Chuquipogyo/Apotondo* canal as this water was needed for his fodder crops, mill, and the people of San Andrés (Ortíz Arellano 2005:91). Among the residents of the new site of Riobamba, and owners of a house in town, were "Ventura, Justo, y Julián Mancheno" (Ortíz Arellano 2005:108, 117). The final mention in the colonial era of the Mancheno family in San Andrés is the 1818 legal case against Don Rafael Mancheno (ANEQ, Ind, 168.19). From this, we can see that the Mancheno family was prominent not just in the small town of San Andrés, but also in the *corregimiento* government and in the city of Riobamba itself.

### 4.2.2 The 1818 Lawsuit

Central to the 1818 lawsuit was a 1786 agreement between Don Ventura Mancheno and local farmers wherein Don Ventura ceded use of water from the *Chuquipogyo/Apotondo* canal system to these farmers. (ANEQ, Ind, 168.19, 12v, 16r). In the 1818 case, Pasqual Paca, Pablo Carrillo, and Juan Guillcapi, claimed that they
and their ancestors had used this water since time immemorial and protested the loss of this use to Don Ventura Mancheno’s son, Don Rafael Mancheno:

Que há oído a sus mayores y há visto el deponente estar en poseción a los Indios Pasqual Paca, Juan Guilcapi, y Pablo Carrillo y muchos Indios de aquel territorio, como que tienen sus Terreno laborado, y siempre con regadio desde tiempo inmemorial, sin impedimento de persona alguna [ANEQ, Ind, 168.19,13r]

[The council has heard and witnessed that the Indians Pasqual Paca, Juan Guilcapi, and Pablo Carrillo and many Indians of that territory, have possession of this land, as they have worked the land, and always have irrigated since time immemorial, without hindrance from any person – my translation]

After Don Ventura’s death, his son, Don Rafael Mancheno, inherited the land, mill, and water rights previously held by Don Ventura (ANEQ, Ind, 168.19,1r, 16r).

In 1818, Pasqual Paca, et al, sued Don Rafael for blocking the water from their canals in order to bring it to his newly inherited mill:

Y resultando la verdad de la estada informacion de inmemorial posecion, y violento despojo servirse igualmente sean restituio dio los Suplicantes, al aprovechamiento que tenian, y con lo obrado se de cuenta a su Alteza como lo tiene mandado, condenando lo en las costas al detentador Don Rafael Mancheno [ANEQ, Ind, 168.19, 12v-13r]

[And having proven the truth of the stated information of immemorial possession, and of violent dispossession to be equally returned to the supplicants, as they had previously used, done as commanded by his Highness, condemning the holder, Don Rafael Mancheno, to cover the costs – my translation]

Que há visto en poseccion pacifica, y sin impedimento de ninguna persona a los que lo presentan, del Agua que entra al Puebla de San Andres, y se introduce al convento de este; y esto le consta por que há vivido el Testigo desde su infancia por que se hacerad en el sitio de Apotondo, de donde son los despojado; que desde ahora dos años poco mas ó menos les há impedido Don Rafael Mancheno desde que se posecionó de los Molinos que tiene heredados de su
padre Don Ventura Antonio, en las cabezeras de San Andrés. [ANEQ, Ind, 168.19, 13r]

[The witness has seen the peaceful use of the water, and without impediment from any person, which enters the town of San Andrés, since childhood at the site of Apotondo, where the dispossessed are located, the use of which has for two years been more or less prevented by Don Rafael Mancheno since he came into possession of the mills he inherited from his father, Don Ventura Antonio, at the headlands of San Andrés – my translation]

Don Rafael based his defense on a statement by his aunt, Doña Mariana Mancheno y Maldonado, from the 1786 agreement (ANEQ, Ind, 168.19, 24r-26r). In the 1786 agreement, Doña Mariana challenged the granting of water to the local farmers, specifically noting that the alfalfa fields being used by the farmers also contained abandoned canals and were covered with trees:

*Por el mes de Mayo de setecientos ochenta y tres, adquirio mi parte las cuadras por donde trancitan las Aguas de el litigio, y antes de haber adquirido su propiedad, y á las poseya con aguas, como lo declaran los Testigos haber visto que en las Tierras de mi parte habia arboles, vestigios de acequia, y algunos canteros y cuadras de Alfalfar, cuyas circunstancias persuaden con evidencia la posesion de las aguas, por que sin ellas, no podrian subsistir las cuadras, en un terreno sumamente seco, como és el de la disputa, ni habria necesidad de construir la acequia que vieron los Testigos. Aqui és de notar una circunstancia verdaderamente recomendable, y es que Eustaquio de Escobar, Manuel Guebara y Ventura Silva; declararon que siendo Muchachos vieron la acequia, los Arboles, y cuadras; y siendo el primero de sesenta años, el segundo de ochenta y cinco y el tercero de ochenta, no caveduda, sobre que la posesion de las aguas, tiene de antiguedad sesenta años lo menos. [ANEQ, Ind, 168.19, 25r]

[In the month of May seven[teen] hundred eighty-three, I acquired the blocks of land through which the disputed waters pass, and before having acquired the property, including those with the water, as declared by the witnesses that these lands of mine had trees, remnants of a canal, and some plots of alfalfa, which circumstances are persuasive of evidence of the possession of water, because
without them, the plots could not survive in the extremely dry ground, as is claimed in the dispute, nor would we need to build the canal seen by the witnesses. Of note here is the truly recommendable circumstance that Eustaquio de Escobar, Manuel Guebara and Ventura Silva declared that as little boys they saw the ditch, the trees, and the plots; with their ages being sixty years, eighty-five years and eighty years, respectively, there is no doubt that the possession of the waters dates back at least sixty years. – my translation]

From this we can see that the land in question, which is the same block of land being discussed in 1818, had been irrigated for alfalfa for decades prior to the legal cases in both 1786 and 1818 and that irrigation was essential to the production of alfalfa because “the plots could not survive in the extremely dry ground.”

Don Rafael Mancheno claimed longstanding use of the water by the town of San Andrés in 1818 to indicate his family’s rights of control of the water. While his father and aunt had ceded some of that control to local farmers, Don Rafael reasserted control by blocking the water going to the fields held by Pasqual Paca at the mouth of the Quebrada Apotondo and redirecting the water to his mill on the hill just above the town of San Andrés:

Que la consta al Testigo que el Agua que entra al Pueblo y es del uso de todo los de San Andres, han estado en inmemorial posesion las partes del Protector, y el Testigo las ha aprovechado tambien, sin contradiccion de ninguna personas, hasta que despues que mismo Don Ventura Antonio Mancheno (que haran como dos años) ha impedido aquel uso Don Rafael Mancheno, hijo del Primero y poseedor de las cuadras y Molino en las cabeceras de aquel Pueblo, con grave dueño de todos los Indios. [ANEQ, Ind, 168.19, 12v]

[The testimony consisting of evidence that the water entering the town is for the use of all in San Andres, with immemorial possession protected by the governor, to the benefit of the witnesses, without contradiction from any person, until after Don Ventura Antonio Mancheno (who had for two years) prevented use by Don
Rafael Mancheno, his firstborn son and possessor of the quadrants and mill at the headlands of this town, with mastery over all of the Indians. – my translation]

Don Rafael based his claim that he had the right to enforce his control of the water on the assertion that his family had owned the property for generations and thus controlled the water rights, and on his mastery of the Indians of the region.

The final judgment in the case fell in favour of the indigenous farmers, giving them access to water from the Chuquipogyo/Apotondo canal for irrigating their alfalfa fields upstream from San Andrés based on the use of false witnesses by Don Rafael Mancheno and the prior agreement between Don Ventura Mancheno and the farmers:

*Teniendo por estas razones como ineficases las gestiones agrapada al Expediente, a hade servir Vuestra Alteza decretar la restitucion de las Aguas en favor de los Indios expresados al principio de esta representacion, y más que habitan en aquel rezinto, y por cuyas Tierras está el aqueducto por donde las conducen al Pueblo y demas destinos, condenando al despojante en las constas daños y perjuicios como és de Justicia. [ANEQ, Ind, 168.19, 38v]*

[Given these reasons and the ineffectual efforts to exacerbate the proceedings, in order to serve your Highness we must order the restitution of the waters to the Indians as expressed at the beginning of this representation, and more who live in this district, and whose land the aqueduct passes through on its way to the town and other destinations, condemning to the dispossessed the damages and prejudice of Justice. – my translation]*

To summarize, the core of the dispute was the use of water from the canal based on the depth of time each group claimed to have had access: the indigenous farmers claimed rights based on use since “time immemorial”;

while the Mancheno family claimed rights to the water based on having owned the land for generations. While Spanish law on the Iberian Peninsula and in the Americas had generally given precedence to the rights of conquerors through the law of *presura*, this case resulted in a decision favouring the indigenous farmers based partly on their claims to ancestral rights prior to the Spanish conquest. Both the indigenous farmers and the Mancheno family utilized the Spanish legal system in their attempts to secure water rights from the canal.
4.3 Discussion

From this legal case, we see a clear example of two sides claiming rights to water based on laws of occupancy. While Rafael Mancheno claimed rights to control of the water due his family’s possession of the land for generations, Pasqual Paca, et al, claimed rights to use the water from the canal based on ancestral use since time immemorial. Don Rafael Mancheno implicitly applied this via the legal concept of *presura*, the right of occupancy following conquest (Glick 2005:86-87), while the local farmers sought protection based on ancestral claims to the land preceding the conquest. What is striking here is that the indigenous claims were successful, indicating that the Spanish courts had incorporated pre-conquest use into their legal code, in contradiction of the concept of *presura*. That the Spanish descended landowners would attempt to use *presura* to claim legal rights is not surprising, but neither should the indigenous use of the Spanish legal system or the Spanish recognition of pre-conquest use rights, particularly at this late point in the colonial era. The use of concepts such as riparian right to divert water and priority of use over size of landholding (Glick 1970:192-194, 2005:66) by indigenous people could imply the adoption of these ideas from the Spanish system. Ideas of property rights among both indigenous people and the Spanish would have changed in the centuries since the conquest. Each would have found ways to work within the existing systems, either indigenous or Spanish, often turning these systems towards their own ends (Gose 2008:6-8).

By claiming their ancestral right to use the water from the canal, Pasqual Paca et al, were both employing the ideas of common property from pre-conquest days and using it within a Spanish legal context that was increasingly oriented towards private property ownership (Dussel 2000, 2002; Godoy 1991). The Spanish system was often contradictory on these topics as it ostensibly looked towards the common good of the
people at the same time as centring power with the wealthy elite. As well, the Spanish Crown attempted to protect indigenous peoples through laws to restrain abusive landowners while simultaneously denying full legal recognition to indigenous peoples (Gose 2008:6-14). This is evident in the Mancheno case through the usage of the phrase “para el bien comun” (“for the common good” – my translation) (ANEQ, Ind, 168.19, 1v, 12r) but also its concern for private property rights throughout.

The Spanish perceptions of the utility of irrigation are of interest here and manifest themselves in an intriguing way in this case. Glick (2005:101) points out that during the Spanish reconquest of the Iberian Peninsula, the conquering Christians were, for the most part, ignorant about the Moorish irrigation systems. What the Christian invaders encountered in Moorish Iberia was an irrigated landscape with a system of organization and control that was, for the most part, locally run to meet the needs of the community (Glick 1970:205-206). On newly reconquered lands, the Christian powers were more likely than not to attempt to learn what they could about the existing irrigation systems using them where they could but with few attempts to expand or improve on them (Glick 2005:80). Often, irrigation systems were allowed to fall into disrepair if the conquerors did not feel it was worth the effort to maintain them (Glick 2005:81).

Evidence from the Andes confirms that this general attitude towards irrigation lingered in Spanish practices as they established colonial rule (Bunker 2006:92). With the Spanish primary crop being wheat, which did not need irrigation to grow, this makes sense. In the legal document discussed above, irrigation for crops is only ever mentioned in regards to alfalfa (ANEQ, Ind, 168.19, 1r, 2r, 25r, 33v, 36r, 38r). I also noted this connection in a number of other documents (Archivo Histórico del Banco Central del Ecuador [AHBCE], General [Gen], JJC.00633; 1 doc.; 20f., 9r; ANEQ, Ind, 168.8, 3r, 14v; ANEQ, Ind, 34.17, 2r; ANEQ, Censos y Capellanías [CC], 36.13, 1v;
While irrigation was not the exclusive domain of alfalfa production, the connections between the influx of sheep, the market for woollen textiles, and production of alfalfa for fodder and the need for irrigation are important. Because sheep were so important to the local economy as they were the supply for the woollen textile market (Newson 1995:166), the need for a fodder crop was equally important. Alfalfa, an import crop from the Old World used specifically as a fodder crop, became one of the dominant crops in the region. As mentioned above, alfalfa requires substantially more water to grow than crops such as wheat, maize or potatoes (Saeed and El-Nadi 1997), thus placing a far greater emphasis on the acquisition of water, and thus legal rights to water, through irrigation. Farmers along the canal system needed the water from it in order to grow the alfalfa needed to feed the sheep that would provide wool for the mills that were the basis of the regional economy in the Spanish colonial era. Thus, the canal, which had been in use since “time immemorial,” was a source of debate and negotiation as a result of the complex entanglement of Spanish and indigenous needs and wants, exemplifying the concept of hybridity in action.

### 4.4 Conclusions

The colonial era in the Andes marked a general decline in the use of irrigation with the replacement of maize with wheat in many places and the subsequent abandonment of previously used canals. Only with the rise of the woollen textile industry and the need for fodder for the herds were canals rehabilitated for alfalfa production. Claims of rights to water were similar to those employed during the reconquest of the Iberian Peninsula in that all land and associated rights were the property of the Crown until granted otherwise, but claims could be made by simply occupying land and using it for cultivation (Glick 2005:97). The same held true for water rights, which is made
abundantly clear in the Mancheno case through the attempts to establish evidence of prior use by both sides.

The Spanish use of indigenous systems of irrigation and acknowledgement of prior rights of use before the Spanish arrival, in combination with the use of the Spanish legal system by local indigenous farmers, highlights the complexity of the entanglements resulting from Spanish colonialism in this region (García Canclini 1995; Gose 2008; Martindale 2009; Silliman 2009). The creation of a hybrid system of knowledge and practice is exemplified here through the intertwining of various cultural aspects in such a way as to make them an inseparable and new cultural system of knowledge and practice that is neither Spanish nor Andean, yet still both. While each group, Spanish and indigenous, successfully sought to differentiate themselves from one another in this particular case, it is clear that definitions of what it meant to be ‘Spanish’ or ‘indigenous’ had been altered over time based on continued contact with one another and the adoption or rejection of particular ideas and practices. The results were differentiated identities that continued to constantly shift and redefine themselves through the colonial era and beyond.
5: LAND, RELIGION, AND IRRIGATION: THE SAN ANDRÉS CANAL SYSTEM

5.1 Land and Religion in the Colonial Andes

The Spanish colonial enterprise and the post-independence Republican era in Ecuador, and elsewhere in Latin America, were more than periods of economic domination by European descended elites, they were also characterized by ideological coercion and adaptation. Peter Gose (2008:272-274) argues that as objects of worship (i.e. ancestor mummies, idols) were destroyed during the Extirpation of the early colonial era and the indigenous population was forced into consolidated settlements (reducciones), the surrounding landscape was elevated in religious importance among the indigenous peoples. This, then, led to an increase in ‘idolatry’ in the countryside, outside the villages, and the alleged ‘worship’ of natural landscape features. The connections between mountains and the water from springs were important in pre-Hispanic Andean religion (Sherbondy 1992), thus springs were likely prominent locales for this so-called ‘idolatry’ during the colonial era (Sallnow 1991).

In the sixteenth and seventeenth centuries, in order to address these very issues and develop the strategies mentioned above to combat ‘idolatry’ and bring the indigenous peoples into the Catholic faith, a number of legal and religious councils were held in Lima (MacCormack 1994). These councils brought about the legal precedents of the Extirpation, requiring the destruction of the physical manifestations of Andean religion, the forced relocation of indigenous people, the destruction of their old villages, and indoctrination into Catholicism. While none of these projects were ever wholly successful, they did bring about a definitive alteration in the religious beliefs and
practices of indigenous peoples. Over time, religious focus changed from objects to landscapes, leading to the attempted Christianization of landscapes through such means as placing crosses or building chapels on spaces that were considered sacred (Gose 2008:294-307).

5.2 The Hacienda System in Post-Independence Ecuador

The wars of independence in Ecuador were largely fought by and for the Spanish-descended elite whose primary goal was to transfer the existing system from the colonial era to benefit themselves, as opposed to benefiting the Spanish Crown (Klor de Alva 1992). In many ways, the hacienda was the defining aspect of Ecuador in the post-independence era until the 1960s (Lyons 2006). Within its sphere of influence were such topics as the national and local economies, race/class relationships, and religious indoctrination (Kay 1980; Lyons 2006; Williams 2003). With its central place in post-independence Ecuadorian life, particularly in the highlands, the hacienda’s effects on day-to-day life in highland communities were extensive. Throughout this period, liberal and conservative forces fought to either limit hacienda power or increase it, respectively (Williams 2003). The nineteenth century saw periods of alternating presidencies between liberals and conservatives, but by the end of the nineteenth, and throughout much of the twentieth century, the liberal ideologies of private land ownership and a free labour force not bound by slavery or indentured servitude began to dominate the economy of the country (Lyons 2005, 2006; Williams 2003). However, this period also saw the entrenchment of the hacienda system, including concertaje, the system of debt peonage intimately tied to the hacienda system (Lyons 2006:43), as the core of the nation. Recognizing the interconnectedness of these influences on Ecuadorian communities is crucial in understanding life in Ecuador during this era and up to the present (Lyons 2006:13-15).
5.2.1 The Liberal vs. Conservative Debate

By the middle of the nineteenth century, the role of the hacienda in the national economy of Ecuador was heavily debated (Williams 2003). Liberal political forces, generally centred among coastal plantation owners and their military connections, looked upon the highland haciendas as backward remnants of the colonial era that held the nation back from achieving its economic and social potential. Conservative hacienda owners and their political allies, amongst whom were other military leaders and the Catholic Church, saw the hacienda as the core of the national economy and an integral part of the social make-up of the nation. These sides of the debate rose and fell in political prominence as presidencies came and went in the second half of the nineteenth century, but by the end of the nineteenth century a balance had been struck that oriented the country along liberal economic lines, so as to be part of the rapidly growing global economy, but still emphasizing the hacienda as the predominant form of land tenure and labour market (Grieshaber 1979; Williams 2003).

Derek Williams (2003) cites the government of José María Urvina (1851-1859) as initiating the gradual move towards liberalization of the Ecuadorian economy. Prior to the Urvina administration, “early republican Ecuador is best characterized by its continuity with colonial attitudes, institutions, and geography [where] … [h]acienda and church interests, geographically concentrated in the central-north sierra around Quito, continued to dominate political decision making” (Williams 2003:698-699). The Urvina government set about passing laws that: 1) abolished African slavery (1854) (Williams 2003:702); 2) “ended the colonial institution of the protecturía de indígenas (legal tutelage), which had made Indians dependent on local officials (usually clergy) for legal representation” (1854) (Williams 2003:703); 3) “mandated the parcelization of Indian lands to individual households” (Williams 2003:706) while still “guarantee[ing] [Indian]
access to lands held ‘in common’” (1854) (Williams 2003:707); 4) redefined concertaje in such as a way as to allow for a more mobile indigenous labour force by means of allowing payment of debt in cash rather than solely by labour and releasing labourers from commitment to a hacienda upon payment of their debt, regardless of the term of the contract (1854) (Williams 2003:707); 5) “protect[ed] Indian pueblos from water-source appropriations” (1856) (Williams 2003:697); and 6) officially abolished “[t]he onerous contribución de indígenas (Indian tribute)” (1857) (Williams 2003:703), ending a phasing out process begun in 1845. The core aspects of the Urvina laws were to move away from the colonial past, expand and mobilize the labour force, and reduce the power of hacienda “feudal lords” (Urvina 1856, quoted in Williams 2003:697), and reconcentrate power with the state.

The subsequent conservative government of Gabriel García Moreno (1860-1875) reacted to Urvina’s laws by re-emphasizing the role of the hacienda, as well as that of the Catholic Church, as central elements in its “morality-and-order program” (Williams 2003:726), which was based on the largely colonial ideals of a paternal relationship between hacendados and their indigenous subjects. Hacendados responded to Urvina’s laws by attempting to have particular articles that constricted their power removed or altered and by arguing in “defense of the estado terrateniente (landlord state) – a model of state power that conflated hacienda interests with the national well-being” (Williams 2003:727). To further quote Williams:

In contrast to the Urvinista focus on economic inequality, landlords continued to blame the Indians’ lowly condition on cultural inferiority. Indian backwardness did not stem from economic servitude but rather from bondage to barbaric customs. Only through painstaking religious tutelage from priest and patron, they asserted, would the Indian be brought slowly into the civilized world. [2003:729]
However, Williams also asserts that, “[t]he differences between liberal Urvinista and conservative landlord viewpoints were constructed upon a common conception of the Indian as a passive, childlike member of society who required tutelage” (2003:727).

The main differences were in application as Urvina felt that the state should provide said tutelage while the landlords believed that it should be provided by themselves and by the Catholic Church. In essence, the conservative response to Urvina’s laws were to maintain a mostly colonial style relationship between landlords and tenants, with great emphasis on the paternal influence of the hacendado and the Catholic Church in the lives of indigenous people.

During the decades in which these debates took place, life itself on haciendas was only very modestly modified. The increased mobility of labourers was regionally variable depending on the extent of landholdings and the relative impoverishment and population size of the indigenous peoples working on them (Williams 2003:715-716). In the central highlands of Ecuador, the concentration of land among relatively few landowners, combined with the depth of indigenous poverty rendered many of the promises of the laws inapplicable in this region (Williams 2003:716). These same conditions often led to indigenous peons fleeing their haciendas and migrating to the coast where pay was better (Lyons 2006:51). Imprisonment for failure to pay off debt was still enforced (Williams 2003:711-713). In short, despite plenty of debate and legal precedents that might indicate otherwise, the institution of the hacienda, as well as concertaje, remained largely intact in highland Ecuador, with some modifications (though much of the legal changes were ignored), from the colonial era until the 1960s (Lyons 2006:48-69).

José María Urvina’s assertion that hacendados were “feudal lords” (quoted in Williams 2003:697), though a politically targeted statement, is not without corroboration.
elsewhere. Steve Stern (1988:832) notes that, “the nineteenth-century meaning of ‘feudalism’ referred less to economic relations than to political, social, and jural patterns,” and it is likely these elements to which Urvina was referring, though the economic aspects also are applicable (Lucero 2003:28-30; McFarlane 1998:310). The feudal lord-and-subject relationship is a well-documented aspect of life on a hacienda (Lyons 2006:3; Sallnow 1983:51; Williams 2003:728). A “feudal-like legacy” (Stern 1988:832) has commonly been how much of Latin America has been described in regards to the effects of the colonial era on the present and the intervening period. But to classify this as a solely feudal organization would be overly reductive and would ignore the abundant evidence of a far more complex and integrative system (Stern 1988:840-842).

Stern discusses Wallerstein’s concept of “coerced cash-crop labour” (Wallerstein 1974:126-127, quoted in Stern 1988:847). This idea includes the gradual integration of liberal economics throughout the nineteenth and twentieth centuries and the maintenance of a lord-and-subject relationship on haciendas, and is a significant element of the economic trajectory of Ecuador after independence (Lyons 2006; Williams 2003). However, to classify the hacienda as strictly an economic system rooted in Old World feudalism yet highly amenable to capitalist enterprise misses the social and political aspects Stern (1988:832) mentions. The roles of race and ethnicity as well as of religion were integral in hacienda life. As noted above, a major aspect of political manoeuvring dealt with race relations. The abolition of slavery and expansion of suffrage by the Urvina administration was one element of this, but also his movement of indigenous rights to the forefront of the political agenda marked the heightened importance of race in republican Ecuador (Williams 2003:703).
The racialization of life in Ecuador, a carry-over from colonial times, was perhaps of even greater importance in the republican era. Deborah Yashar succinctly sums up the place of indigenous people in the racial hierarchy of highland Ecuador:

Beginning with the colonial period, indigenous people were declared subjects of the state, property of landlords, and members of churches that displaced them their lands, limited their freedom of movement and cultural expression, and curtailed their autonomy. While independence nominally offered the opportunity to institutionalize juridical equality, indigenous people remained second-class citizens throughout the nineteenth and much of the twentieth century. [2005:87-88]

While Yashar falls into the trap of ignoring indigenous agency and portraying them as passive actors, the assertion that, in the view of the landowning elite and the national government, indigenous people did not hold equal status with the generally European-descended gentry due to the simple fact of their indigenousness is difficult to refute. This is highlighted by the almost interchangeability of the terms Indian and peasant/peon in much of the literature (Gose 2008; Lyons 2006; Stern 1987).

5.2.2 The Hacienda and Religion

The role of the Catholic Church in the promulgation of the hacienda is extremely important. Michael Sallnow (1983:39) argues that, "it was largely through ecclesiastical means that the hacienda established itself as a politically dominant and ideologically coherent institution in colonial society." A core aspect of this argument lies in his assertion that "[t]he very recognition of an hacienda as a centre of population turned on whether or not it possessed a place of worship" (Sallnow 1983:49). In essence, without a locus for religious expression, to which hacienda residents and labourers must visit regularly to complete their religious obligations, a hacienda would not only be incomplete, but it would not exist as a political entity at all. Sallnow emphasizes the "liturgy of pilgrimage" (1983:51) as a crucial element, seeing the connections between
“the notion of the vow, freely made but morally compelling” (1983:50) and the hacienda’s relationship between production and a labourer pledging fealty to the hacienda lord. To Sallnow, the ambiguity inherent in these relationships was a defining feature of a hacienda as labourers essentially pledged fealty not only to the estate owner, but also to the patron saint or particular manifestation of the Virgin Mary to which the hacienda place of worship was dedicated. Through this, labourers were obligated both contractually and morally to the hacienda, binding them to it spiritually as well as economically.

Sallnow’s argument that the hacienda system was rooted in religious obligation is supported elsewhere. Barry Lyons (2005:109-111) discusses the colonial practice of doctrina, a weekly meeting at the hacienda chapel for prayer and religious instruction that lasted through to the middle of the twentieth century. Attendance was mandatory, often coerced through the threat of whipping, though the enforcement was a community affair rather than through hierarchical power held by the hacendado. In the post-Urvina presidency of Gabriel García Moreno (1860-1875), the doctrina was revitalized as part of his “master plan to create a ‘pueblo católico’ – a pious and morally superior Ecuadoran [sic] citizenry” (Williams 2003:726). García Moreno saw a partnership between the Catholic Church, the government, and the haciendal/hacendado as essential in bringing his vision into reality. As noted above, the general hacendado view of their indigenous peons was that they were culturally inferior and in desperate need of consistent and detailed instruction in the civilizing lessons of the Catholic Church (Williams 2003:729).

As noted in an earlier section, Peter Gose (2008:294-307) discusses in depth the Christianization of Andean religion. An important aspect of this is the connection between Christianized forms of indigenous Andean religious expression and haciendas. In particular, Gose discusses Andean mountain spirits and the ancestral claims to them
made by indigenous peoples. He states, “[t]he link between the mountain spirits and communal Christianized ancestral authority is … particularly close, and extends into support of communities’ claims to the land against the depredations of haciendas and mining companies” (Gose 2008:297). Interestingly, when mountain spirits take human form, they often appear as “a man with white skin, blond hair and blue eyes … tall, thin, has long hair and a beard, rides a white horse, wears silver spurs and a vicuña poncho or the clothes of a hacendado” (Gose 2008:297-298). Lyons points out this same phenomenon, noting further that some “mountain lords neither speak nor understand Quichua, only Spanish” (1999:40). Lyons (2006:104-106) identifies mountain spirits as being unpredictable, capable of both inflicting pain and even death while also being sources of “benevolence and moral authority.” This theme is expanded upon by Gose, who asserts that “Andean people invoke the image of these white political authorities only to subject them to their own forms of sociality, and thereby ideally remake them into a power that is no longer alien, one they can live with” (2008:299). The manifestation of an at once benevolent, tutelary, violent, and unpredictable mountain spirit as a hacendado seems apt based on the contradictory roles of disciplinarian, instructor, benefactor, oppressor, and caretaker the hacendado has played in the lives of hacienda peons (Gose 2008:297-300; Lyons 1999, 2001, 2005, 2006:236-245; Williams 2003:711-713).

These examples bolster Sallnow’s argument, which lacks the pre-Hispanic connections to holy sites and their later conversion to Catholic sites during the colonial era reported by Gose (2008:294-307). Thus, while Sallnow is correct that indigenous labourers were connected spiritually and economically to their haciendas, in many cases it is probable that the spiritual connection to the place of worship existed prior to the Spanish conquest and was subsequently appropriated and converted by them as part of
the colonial order (Gose 2008:294-307). Sallnow does briefly discuss the possibility of a pre-Hispanic precedent for the *hacienda* in Inkaic and pre-Inkaic intertwining of geographical, economic, and religious space, stating that “it is possible to view the institutional splitting of the *encomienda* into Crown-controlled *corregimiento* and privately-owned *hacienda* as a continuation of a process already underway in pre-Columbian times” (1983:51-52). However, the appropriation of indigenous religious expression, sacred spaces, and systems of extraction is an underdeveloped theme in his article. Instead, Sallnow frames his discussion within the feudal versus capitalist nature of the *hacienda* debate, concluding that *haciendas* were both, neither, and much more than these, all at the same time. He poses that the ambiguity mentioned above created a flexibility inherent in the *hacienda* system that allowed for its longevity and placed it outside the purview of feudalism (1983:50-51). Despite his assertions of the ambiguity of the *hacienda* placing it beyond categorization within feudal or capitalist definitions, he still defines it in such terms:

[U]nder certain conditions, particularly those of economic depression, [the *hacienda*] may appear feudal, under others it may display distinctively capitalistic traits - indeed, landlords attempting to dispossess their labour-tenants may use an 'anti-feudal' ideology precisely to support their efforts. … [T]he essentially ambivalent character of the colonial estate [was] at once a feudalistic hierarchy of individuals and groups subordinate to a *patrón* and a capitalistic enterprise based on commoditized land and labour. [Sallnow 1983:51]

Stern’s later discussion of the literature on this debate sums up the problems with such an approach, stating that “the colonial problem exposes the limited historical applicability of our Europe-centered categories, especially 'feudalism' and 'capitalism’” (1988:869). To Stern, “the underlying logic of an economy may be rooted precisely in its tendency to combine diverse relations of production into an optimal package” (1988:870), indicating that economic evolution evinced in Latin America followed a path particular to the specific histories and influences in the region and was not simply a cog
in the European world system. As well, these “diverse relations of production” reach beyond simple economic terminology and must include the complex social realities of the people applying and affected by them.

5.2.3 Water Control: The Church, the State, and the Hacienda System

Derek Williams (2003:697) began his article with a brief discussion of José María Urvina’s 1856 call for legislation to protect the water rights of indigenous towns from the depredations of hacienda appropriation. While Williams used this as an example of Urvina’s liberal protectionist and anti-hacienda policies and did not delve into the details of the law (which was passed shortly thereafter [2003:698]), the example highlights the prominent place water rights held, and still holds, in the priorities of indigenous townspeople. The dispensation of, and competition for, water in the highlands of Ecuador created defined battle lines between hacienda interests and indigenous subsistence needs beginning in the colonial era and extending right through the republican era to the present. With the hacienda rising to prominence and reaching its peak during the republican era, this is also logically when water rights were drawn up in such a way as to favour the hacienda, despite the 1856 Urvina law. Unfortunately, the specific topic of water rights during this era in Ecuador is highly under-researched, making a detailed discussion difficult.

However, water for agriculture is discussed in its religious context by Gose (2008:295-296), and this can be integrated into the discussion of the re-emphasized role of the Catholic Church in mid-nineteenth century Ecuador during the presidency of García Moreno (Williams 2001, 2005). Gose (2008:300) argues that the emergence of mountain spirits as white authority figures, such as hacendados, began only in the nineteenth century, after the colonial era had ended. The Christianization of mountain spirits was a combined process of transference from the already partially Christianized
sacred objects and structures, mentioned previously, and the state emphasis of Catholicism in Ecuador in the 1860s-1870s (Williams 2001, 2005). The connections between mountains, water and agricultural fecundity have already been established in Chapter 1, but Gose (2008:295-296) takes the connections further, noting the use of crosses to guard crops and bring rain and associated mountain water from springs and their affiliation with mountain spirits in a highly Christianized way. The re-emphasis of Catholicism as a unifying force in Ecuador by García Moreno led to the suppression of non-Christian rituals among indigenous people and thus, a likely reaction of attempting to legitimize their practices within the Catholic Church through the Christianization of ritual noted by Gose. Aspects of religious control included banning of “idolatrous” ceremonies, particularly those involving alcohol (Williams 2001:162-166), a well noted aspect of agricultural rituals in Ecuador (Butler 2006; Tolen 1999).

Under García Moreno, municipalities, including indigenous communities, saw a reduction in local autonomy in the implementation and application of their own rules and regulations (Williams 2001:158-159). This increased outside control, particularly after the drafting of a new constitution in 1869, saw Church and state play a more active in role in attempting to homogenize Ecuadorian culture. Included in this was an increase in state labour obligations for the upgrading of the communication and production infrastructure of the country (Williams 2001:151). While García Moreno’s expansion and modernization of the road and railway systems has received the bulk of the attention in the literature, little has been said about the effects of the García Moreno regime on irrigation and agriculture. The likelihood is that much of this remained within the local control of hacendados and changed very little in structure from the colonial period until the 1960s and the era of agrarian reform (Sallnow 1983:50).
5.3 Acequia María Mayancela: The Re-Christening of a Canal

The canal from the spring of Chuquipogyo through Quebrada Apotondo to the town of San Andrés, is known locally today as Acequia María Mayancela (Figure 3.1). Based on the lack of reference to the canal by this name in any official documentation during the colonial and republican periods, it is likely that this is a local name that has become the entrenched mode of reference for the canal in the area. The only official mention of this name I could find was in an article written by the current water director for San Andrés, Carlos Avalos (2007), who briefly discusses the oral history of the canal and its place in life in San Andrés today. While most of this article discusses the current state of the canal and its recent history, Avalos (2007:36) provides a short history in which a Doña María Mayancela, the niece of the first indigenous priest of the town of Yaruquíes’, Father Lobato, was the owner of the Hacienda Chuquipogyo. She was not using the water from the spring and saw that San Andrés was without water and arid, so she donated the canal to the town. The implication is that, prior to the donation of the canal to San Andrés by María Mayancela, the town had no water at all.

Published discussions of the Acequia María Mayancela are rare, but there are a few references in the literature to the Virgen de Chuquipogyo, a manifestation of the Virgin Mary associated with the Chuquipogyo spring and the Hacienda Chuquipogyo. As mentioned in Chapter 3, the Virgen de Chuquipogyo is still honored today in a procession that starts from the spring and ends at the church in San Andrés, following much the same path that the canal leading from the spring does. Evidence exists that the Virgen de Chuquipogyo has been associated with the canal since the very early colonial era and has remained a key element in the religious life and rituals of the town.

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Footnote: Avalos (2007:36) cites the late Ecuadorian poet and politician Dr. Luis Costales Cazar in the text as having researched this, but fails to provide a bibliography or the dates from Costales Cazar’s work. In a later conversation I had with Mr. Avalos, he confirmed that the reference was not particularly reliable.
Figure 5.1 - Pamphlet for yearly procession in honour of the *Virgen de Chuquipogyo*, with brief history of *La Virgen*

up until the present. In one of my conversations with Father Pedro Torres he told me that, early in the colonial era, a vision of the Virgin Mary is said to have appeared at the spring leading to its re-sacralization as a sacred Christian site. He then showed me a pamphlet from the 1990s calling for the townspeople to participate in the yearly procession dedicated to the *Virgen de Chuquipogyo* (*Figure 5.1; Figure 5.2*). According to this pamphlet, the *Virgen de Chuquipogyo* dates back to at least 1555. Alfredo Costales Samaniego and Dolores Costales Peñaherrera (2001:104-105) discuss the appearance of *La Virgen de Chuquipoyo* mounted on a white horse during an 1899 battle between Liberal and Conservative forces outside of San Andrés in which she protected soldiers on both sides of the battle, a legend that resembles those from the reconquest of the Iberian Peninsula involving Mary and Saint James (Hall 2005:25). Costales Samaniego and Costales Peñaherrera also note the connections between the *Virgen de Chuquipogyo* and Mount Chimborazo (also known as “Mamashimbu” [2001:104-105]), identifying ritualized prayers to both in the heat of battle as supplications for help. While they do not identify any direct connection to the canal, the
association between the spring, the canal, and the town of San Andrés requires untangling in order to understand the interrelationships between them.

Figure 5.2 - Current statue of the Virgen de Chuquipogyo, stored in the church in San Andrés

As previous chapters establish, the canal was in use very early in the colonial era and was built prior to the arrival of the Spanish, quite possibly prior to the arrival of the Inka. This evidence very clearly does not mesh well with the history given by Avalos that a hacienda owner in either the colonial or republican era was the first to bring water to
San Andrés. As well, the history of the Virgen de Chuquipogyo extends back to the early colonial era and its association with the spring is well established. The connections between these two iconic figures in the town of San Andrés has not been previously explored but is required if we are to understand the history of the canal and its long-standing importance to San Andrés. Both the oral history and the documentary evidence need to be analysed to gain a clearer picture of what occurred.

5.3.1 The Documentary Evidence

In 1850, Don Francisco Javier Mayancela Carrillo, cacique of Yaruquíes and husband of Ancelma Lobato, died (AHR/CCE, PROT/EP, 1850.03.10, 26r, 27v). They had nine children together, all of whom died before Don Francisco. Due to his lack of direct heirs, in his will he left half of his estate to “los indios de esta Parroquia y sus anejos” (“the Indians of this parish and its annexes” – my translation) (AHR/CCE, PROT/EP, 1850.03.10, 29r). Don Francisco owned land in a variety of locations in northern Chimborazo province, including in Sicalpa, Yaruquíes, Riobamba, and the Hacienda Chuquipogyo, which included Calpi and San Andrés (AHR/CCE, PROT/EP, 1850.03.10, 28r). The remainder of his estate was divided between his funeral arrangements, repayment of outstanding debts, with what was left over to be distributed amongst the children of his siblings Margarita, Mariano, and Luisa (AHR/CCE, PROT/EP, 1850.03.10, 29r).

Hacienda Chuquipogyo undoubtedly contained the canal we have been discussing, a fact further confirmed in an 1866 document discussing whether the hacienda should be considered under the jurisdiction of Riobamba or Ambato (ANEQ, Haciendas [Ha], 138.5, 10v). However, Don Francisco’s will never specifically mentions the canal or the disbursement of water. As well, which parish and annexes he specifies
is not clear. On top of this, at no point in any of the documents I read was the canal referred to by the name Acequia María Mayancela, or any other name for that matter.

In their discussion of the Mayancela connections to the Duchicela family, Peñaherrera de Costales and Costales Samaniego (1992:94-102) note that Don Francisco’s sister was named Doña María Luisa Mayancela, though she is referred to in the documents I read only as Luisa. She, along with most of Don Francisco’s nieces and nephews, became involved in a dispute of Don Francisco’s will after his death, seeking clarification of the disbursement of his estate (Peñaherrera de Costales and Costales Samaniego 1992:95-96). However, in reviewing the documents cited by them, their dispute was concerned with the Yaruquíes portion of his estate and no more (AHR/CCE, PROT/EP, 1863.01.10 f. 7; AHR/CCE, PROT/EP, 1863.03.14 f. 58; AHR/CCE, PROT/EP 1864.08.08 f. 373).

I encountered no references to the name Mayancela in regards to San Andrés or Chuquipogyo other than the documents referred to above. With the exception of the lone reference to Don Francisco’s sister as Doña María Luisa Mayancela (Peñaherrera de Costales and Costales Samaniego 1992:95), I could find no direct link in the documents to any person named María Mayancela associated with this canal or Hacienda Chuquipogyo. It is possible that one of Don Francisco’s nieces was named María, but no list of names for his siblings’ children was found.

To summarize the documentary evidence: The Cacique of Yaruquíes, Don Francisco Javier Mayancela Carrillo, owner of Hacienda Chuquipogyo, located in Calpi and San Andrés, and land in Riobamba, Yaruquíes and Sicalpa, willed upon his death half of his estate to the indigenous people of his parish. Whether his parish was restricted to Yaruquíes or included the indigenous people of all of the lands he owned is unclear. We know that Hacienda Chuquipogyo was the location of the canal in question.
and that this canal is now known as *Acequia María Mayancela*. We have one person possibly named María Mayancela (Don Francisco’s sister) who could be the benefactor who donated the canal to the town. Her involvement in subsequent legal clarifications of his will would appear to support this theory. Unfortunately, at no point in any of the documents I analysed were there any references to the canal and only the one very brief mention of the *Hacienda Chuquipogyo* and no details about how it was to be disbursed were given.

The *Hacienda Chuquipogyo* and the *Chuquipogyo* spring were important to the region in more ways than just economics. The spring had been dedicated to the *Virgen de Chuquipogyo* since 1555. She has had a yearly procession from the spring to the town since that time. When the *Hacienda Chuquipogyo* was the dominant power in the region, the chapel dedicated the *Virgen de Chuquipogyo* was the central place of worship for the *hacienda* workers. The deep connections between the *Hacienda Chuquipogyo*, the canal, and the town are necessarily explored through a deeper investigation of the oral history as given by the people of San Andrés.

### 5.3.2 The Oral History

From my own research in San Andrés, the oral history is much as Avalos (2007) says. I was told by numerous townspeople that the canal has been used for centuries and was donated to the town by a landowner named María Mayancela. As well, it was explained to me that before the canal existed, the town was arid and crops would not grow. Avalos agreed that the canal has been used for hundreds of years, but provided no dates. Dates were also not forthcoming in my discussions with the townspeople, nor with Father Torres, the town priest, with most giving guesses (which ranged from 50-400 years) or generalities (e.g. “hundreds of years”). In short, while the canal is universally
thought to be very old, no one in town knows how old it is or when it became known under its current appellation, *Acequia María Mayancela*.

However there may be more to the name of the canal than a tenuous association with a possible historical person. In my interviews with the elders of San Andrés, it was relayed to me that María Mayancela was a *hacienda* owner and the controller of the water, which she gave as a gift to the town of San Andrés (“*La María Mayancela había sido la dueña de la hacienda, y ella tenía la dueña de las aguas, y ella regalo al pueblo, a San Andrés*”). The legend of María Mayancela, though, was elaborated further:

“*Que venia María Mayancela con el Chimborazo, el es un personaje, un personaje grande, entonces venia todos los domingos a la misa. El es blanco decían, chimbito por eso es que así son los hijos así. Venia montado a caballo, no caballo, en … de ver que el pueblo estaba seco, y como el agua le pertenecía a ella, no tenía a quien regalar.*”

[That María Mayancela came with Chimborazo, he is a person, a great person, then came every Sunday to mass. He is white, it is said, as are his children. He came mounted on a horse, not a horse, on … to see that the town was dry, and as the water was hers, and she had no one to give it to. – my translation]

“*Pues una persona, sino que era blanco de la cabeza y venia montado en un venadito, en un venado, entonces como siempre ha habido la travesura de los niños, le robaron el venadito y el se enojo y no volvió mas.*”

[For one person, but his head was white and he came mounted on deer, on a deer, then as has always been the mischief of children, they stole his deer and he was angry and never returned. – my translation]

“*Era un señor alto, blanco, colorado, venia en un venado a escuchar decir misa los domingos y los guaguas de travesura le soltaron el venado, hasta que se perdió, se molesto y no regreso mas.*”

[He was a tall man, white, red, he came on a deer to hear mass on Sundays and the babies of mischief released the deer, and it was lost, and he was upset and never returned. – my translation]
In this version of the legend, we have a direct connection made between María Mayancela and the most dominant feature of the landscape, Mount Chimborazo. As noted above, the connections between mountains and water are strong in the Andes (Sherbondy 1992:58), and the personification of mountain spirits a common phenomenon (Gose 2008:297-298). The manifestation of Chimborazo as being tall (“alto”), white (“blanco”), and mounted on the back of an animal matches with the observations of Gose and of Lyons (1999:40). That Chimborazo was mounted on a deer (“venadito”/“venado”) is a variation of the legend for which I could find no other reference. Gose (2008:298) does make a connection to vicuña, a wild species of camelid similar to alpacas, though in reference to vicuña wool poncho rather than as a mount. The appearance of the Virgen de Chuquipogyo on the back of a white horse during an 1899 battle is an intriguing manifestation (Costales Samaniego and Costales Peñaherrera 2001:104-105), as it combines the mythology of Chimborazo and the Virgen de Chuquipogyo with the observations of Gose and Lyons and pre-conquest Spanish legends (Hall 2004:25). This provides a further element of interconnection that makes the association between María Mayancela, mountain deities, and the Virgen de Chuquipogyo more intertwined.

I could find no references elsewhere to the “babies/children of mischief” (“travesura de los niños”/“guaguas de travesura”) who stole the deer Chimborazo rode in on, causing him to leave and never return (“le robaron el venadito y el se enojo y no volvió mas”). The first quotation above indicates that not only was Chimborazo white, so were his children (“El es blanco decían, chimbito por eso es que así son los hijos así”). While it is never stated outright, it is my contention that the children of Chimborazo are the same mischievous children that stole his deer and that the deer itself represents a
control over nature and wildlife. Further, the implication is that these children came from the union of María Mayancela and Chimborazo.

Of note in these interview quotations is that Chimborazo came to town every Sunday to hear Mass ("Que venia Maria Mayancela con el Chimborazo, el es un personaje, un personaje grande, entonces venia todos los domingos a la misa"/")Era un señor alto, blanco, colorado, venia en un venado a escuchar decir misa los domingos"). Taking what Gose (2008:294-307) has established, along with the evidence from Costales Samaniego and Costales Peñaherrera (2001:104-105), this appears to be very solid evidence for the Christianization of a mountain spirit.

The combined associations between: a Christianized mountain spirit (Chimborazo); a spring dedicated to the Virgin Mary (the Virgen de Chuquipogyo); water for agriculture (the Chuquipogyo spring and the Acequia María Mayancela); and a benevolent donation by a hacendado (by Don Francisco Mayancela, his sister [María] Luisa, or an unidentified niece or nephew) are too great to ignored as simple coincidence.

5.4 Discussion: Who Was María Mayancela?

The connections between the spring at Chuquipogyo and the town of San Andrés are deep and go beyond the economic practicalities of irrigating fields to increase crop yields. While there is no direct evidence at this point for this spring being a holy site prior to the Spanish conquest, the importance of the spring to the town combined with the recognized pan-Andean veneration for water sources indicates that this was likely the case (Bauer 1996; Bunker 2006; Gose 1993). The date of 1555 for the appearance of the Virgen de Chuquipogyo pre-dates the Second Council of Lima (1567), which mandated the destruction of indigenous religious sites and rededication of them with
crosses or chapels (Gose 2008:296; MacCormack 1994:85). A chapel dedicated to the
*Virgen de Chuquipogyo* was constructed in the *hacienda* manor house, but not until
much later in 1683 (Ortíz Arellano 1998:31). That said, the water that supplied the town
came from the spring (*Chuquipogyo*) next to the *hacienda* manor house making the
*hacienda* very much in control of how that water was used.

As mentioned earlier, *Hacienda Chuquipogyo* had a chapel dedicated to the
*Virgen de Chuquipogyo* attached to the main manor house, right next to the spring. It is
highly likely that the house is located where it is precisely *because* of its proximity to the
spring, with existing oral history that places the *hacienda* house on a pre-existing Inka
site (Ross Jamieson, personal communication 2010). The appearance of the Virgin
Mary and the subsequent rededication of the spring and construction of a chapel at the
site are not simple coincidences. The indigenous associations between mountains and
water in their religion made the locale a likely pre-conquest sacred site. The appearance
of the Virgin Mary here after the Spanish conquest is part of a well documented
phenomenon in Latin America in which sacred spaces are partially converted, at least in

Within the context of the *hacienda* in Ecuador, the oral and documentary
histories of the *Acequia María Mayancela* fit exceedingly well. The donation of *hacienda*
water rights to an indigenous town in the highlands during the middle decades of the
nineteenth century coincides with Urvina’s 1856 indigenous water rights law (Williams
2003:697). While it is not explicitly stated in Don Francisco Mayancela’s will that this
was done out of any political expediency, the granting of half of his estate to the
indigenous people was likely an act driven by the particular culture of indigenous rights
at the time. What was probably the case was that Don Francisco Mayancela, as an
indigenous leader with no heirs, felt compelled to give back to the community he had served and had served him throughout his life, a motivation fitting of the times.

While I could find no specific mention of the canal or the disbursement of water in Don Francisco Mayancela’s will, the granting of half of his estate, which included the canal and its source within the Hacienda Chuquipogyo, to the indigenous peoples is fairly strong evidence that this is the origin for the attachment of the Mayancela name to the canal. The final legal recognition that the water from the spring belonged solely to the town of San Andrés likely was the result of the will of Don Francisco Mayancela, though as previous sections have established, in practice, the use of the canal water by the town had been in effect since pre-conquest days and through the colonial period.

However, the canal was more than simply a conduit for water used to maintain production. The religious connections to agriculture and authority are highlighted by the intertwining of mountain spirits, hacendados, Catholic Mass, and the Virgin Mary in the oral history of the canal. Following Lyons (1999, 2006) and Sallnow (1983), the hacienda system dealt as much with religion as it did with economics, and as Gose (2008:204-397) notes, these elements of life were practically inseparable in the Andes. In San Andrés, the Acequia María Mayancela exemplifies this through the veneration of the mountain (Chimborazo/Mamashimbu) that supplies the water for the spring (Chuquipogyo), which is dedicated to the Virgin Mary (the Virgen de Chuquipogyo), and provides the water for irrigation through the canal (Acequia María Mayancela) to the town of San Andrés.

The yearly procession that brings the physical representation of the Virgen de Chuquipogyo from Chuquipogyo to the church in San Andrés has been an ongoing event since early in the colonial era and exemplifies a ritual reminiscent of Sallnow’s “liturgy of pilgrimage” (1983:51) which emphasized the religious connections to the
hacienda through obligatory ritual observation at the hacienda place of worship. It is this yearly procession, or pilgrimage, that binds all of the elements being discussed here together: the Virgin Mary, the spring, the mountain, the Catholic Church, the hacienda, the town and the canal. This would appear to imply that the connections between the Virgen de Chuquipogyo and María Mayancela are much deeper than it might appear at first glance. From this we can understand María Mayancela as more than a hacienda owner with extra water but as an alternate manifestation of The Virgen de Chuquipogyo. The blending of indigenous and Spanish religious expression is clear here as is the meshing of this blended religion with the intertwined modes of economic production. This highlights the creation of new trajectories in the Andes that combines Spanish and indigenous traditions, blending them so they are inseparable from one another and become something that is neither Spanish nor indigenous yet retains elements of both.

5.5 Conclusions

The history and mythology of the Acequia María Mayancela exemplify the multiple scales and discourses prevalent in the general historical trajectory of Andean peoples. In the telling of this story, it is impossible to avoid engaging in discussions of: what it means to be indigenous or not indigenous; the interplay between tradition and modernity; domination versus resistance; and internal/external knowledge systems. What we can conclude from engaging these topics is that the lines between each of these dichotomous divisions are blurred. While there are very clear discrepancies in power and the abilities of groups and individuals to negotiate agency within these power structures (Bourdieu 1977, 1990), it is also clear that such negotiations took place and led to the merging and blending of worldviews and the creation of hybrid ideas and practices (Giddens 1986).
While some historical evidence does exist that María Mayancela may have been a real person, she is more likely a mythologized merging of more than one historical character with a religious icon. With the evidence of an actual person named María Mayancela associated with this canal so tenuous, it seems far more probable that she has developed in the oral history of San Andrés from a blending of the all of the members of the Mayancela family associated with the canal (Francisco, Luisa, and/or some unnamed niece or nephew) and the Virgin Mary as represented by The Virgen de Chuquipogyo. She has become a hybrid manifestation of the multifarious elements present in Christian Andean beliefs about water, agriculture, authority and the landscape. María Mayancela is the bringer of water, and thus the bringer of life, to the community, and she is revered as such. She embodies the economic and spiritual vitality of San Andrés and without her, the town would be dry and lifeless.

A deeper understanding of the connections between the canal, The Virgen de Chuquipogyo, Hacienda Chuquipogyo, and San Andrés would be aided by an archaeological exploration of the canal and the hacienda. In particular, excavations at the Chuquipogyo spring in combination with a full survey of the hacienda manor house (now La Hostería La Andaluza) and the adjacent grounds would likely bring to light much useful information. Locating and excavating the original hacienda chapel could be particularly illuminating, helping to establish the material connections between The Virgen de Chuquipogyo and the hacienda as well as providing evidence of the possibility of Inka, or pre-Inka, uses of the site prior to the Spanish conquest. The important topics left unaddressed here are: the depth of time for the canal; the pre-Hispanic importance of the Chuquipogyo spring; and the use and alteration of the canal and source during the Spanish colonial and post-independence era. This would be addressed, respectively, through: carbon dating; the obtaining of ritual artifacts through excavations at and
around the spring; and survey and excavation of the former *hacienda* grounds to obtain data on the presence of pre-Hispanic use and direct artifactual evidence of Spanish incorporation of the site and continued use by indigenous people after the conquest.
At the beginning of this thesis, I stated my argument as: the concept of hybridity is the most appropriate framework for analyzing colonial spheres of interaction, in contradiction to the more common application of binary conceptualizations of opposition. The San Andrés canal system is an excellent case study for exploring hybridity due to its continued use since before the Spanish conquest up to the present. Throughout the preceding chapters I have provided physical, historical, and oral evidence of the multiple meanings and histories of the San Andrés canal system, providing examples of the dynamic nature of such aspects of the canal as its physical construction, legal interpretation, and religious connotations highlighting that no one aspect can be reduced to a simply binary or be discussed without reference to its other aspects and attributes. In short, I have shown that the San Andrés canal system, or Acequia María Mayancela, is a locus of hybridity and an example of the dynamic entanglement of ideas and actions which incorporated the local, regional, global, historical, and current forces that have shaped this canal into what it is and what it means today and will continue to shape these for so long as it continues to be used and remembered.

As was shown in Chapter 3, the canal system has been an identifying marker for the people of the town of San Andrés since at least the early Spanish colonial era and most likely much earlier. Chapter 4 showed us how this importance was retained, but shifted in focus, in the Spanish colonial era as rights of access to the canal became contested between the town and the countryside, of which both arguments were driven by the need for water to support the particular sides in a market economy dominated by woollen textiles. Chapter 5 highlighted the spiritual and religious connections to the
canal throughout its history, focusing particularly on the early post-independence era and its deep connections to the Spanish colonial era, pre-Hispanic religion, and current-day perceptions of the canal, noting how all of the functional, political, and legal manifestations of the canal were tied together and connected to its religious meaning to those who use, and have used, the canal. The historical and physical evidence, such as the use of water from the canal to wash clothes (Anónimo 1991 [1605]:59), which is no longer done, and the conversion of dirt- and stone-lined canal sections to cement, along with the rise in importance of water rights for fodder crops during the Spanish colonial era and the merging of religious traditions as seen through the stories of the Virgen de Chuquipogyo and María Mayancela, highlight the dynamic role this canal system has played throughout its history. What has emerged from this history, and will continue to change over time, is a canal that has multiple meanings to the town, be they purely functional (provides water for crops to grow), legal/political (defining of boundaries of use/claims to land), or religious (connections to the Virgin Mary as protector and nurturer).

It would be very easy to take any one of these aspects of the canal during its history and reduce it to an oppositional binary. For example, the conversion of the canal to cement can be readily discussed within a developmental context where tradition, or ancient practice (i.e., dirt or stone lining), is superseded by modernity (i.e., cement lining). Many authors have taken this approach in discussing other developmental water projects in the Andes (Boelens 2008; Dewulf et al 2005; Gade 1971; Shepherd 2004), and it has its merits, such as pointing out the power differentials between the forces of modernity (nation-states, non-governmental organizations [NGOs], the World Bank) and peasant farmers. This holds true for other dichotomous conceptualizations like domination/resistance and internal/external knowledge. Each of these binaries are
applicable to any of the topics discussed in this thesis, but the problem with them is that, on their own, they do not and cannot address the shifting states of use and meaning represented by the canal, they can only capture particular points in time. The ultimate failing of the binary approach to assessing the dynamic forces of history is that they freeze certain ideas in place and project them onto the past and future, essentializing the groups involved. If one were to apply a conceptualization of domination/resistance to the canal one could very easily interpret it as a battleground between traditional indigenous farmers and the various outside forces (i.e., Inka, Spanish, Ecuadorian nation-state, etc.) throughout the history of its existence. However, this would be more than just an oversimplification, it would be incorrect as I have shown in the preceding chapters by identifying the entanglement of these forces throughout their ongoing interaction.

In contrast to the reductive discourse of dichotomy, hybridity incorporates the interplay, exchanges, disputes, resistances, coercions, adaptations, entanglements, and negotiations that occur on an everyday basis. In terms of the San Andrés canal system, it allows one to view the whole of the system and all of its interconnected aspects from the how the religious background of the users affects the interpretation of the meaning of the water, which in turn affects the legal and political underpinnings to rights to the water and, thus, the physical construction and make-up of the canal itself. No one aspect of the canal is in isolation from another so viewing it in terms of oppositional binaries ultimately ignores salient aspects that could otherwise be incorporated into the larger picture of the canal. Viewing the canal as a locus for hybridity, however, gives us the opportunity to make the connections between what may appear to be discrete aspects and to view the various meanings of water, land, landscape, identity, and power in a holistic way that understands that each of these is connected and affects the other.
The physical construction, legal and economic situation, and religious significance of the San Andrés canal system over its history have all been marked by complex interactions, negotiations, and entanglements of ideas and practices in which the supposedly separate and discrete cultural identities of ‘Spanish’ and ‘indigenous’ have been altered and changed in relation to, and reaction to, one another (Gose 2008; Martindale 2009; Silliman 2009). This has resulted in the creation of multiple hybrid identities over time (García Canclini 1995; Giddens 1986). These identities are not so much cultural markers or divisions but points in time on a constantly shifting and changing scale on which what it means to be Spanish (or of Spanish descent) and what it means to be indigenous (or of indigenous descent) can be radically different in different times and different places.

Attempting to identify the originating culture for the construction of the canal system is important solely in defining the depth of time for the use of the canal. This depth of time, however deep it may go, is not indicative of cultural continuity or an essential aspect of local identity rooted in the ancient past, but merely a means of situating the changes, adaptations, and exchanges that have taken place along this canal over its history on a physical and temporal scale. Obtaining dates for construction is a starting point for a deeper discussion of the entanglements and resulting hybridities that occurred here as local people traded with, fought with, and exchanged ideas with peoples from other regions (García Canclini 1995; Giddens 1986; Gose 2008; Silliman 2009). Each of these aspects of the hybrid past of the region could be better illuminated through a full archaeological investigation along the canal.

Assessing the intertwining legal, economic, and religious trajectories of the various cultures that came into contact in San Andrés within the context of water and irrigation allows for a nuanced discussion of the processes of hybridization in particular
case studies. The Mancheno legal case (Chapter 4) provides insight into the colonial
world of domination and resistance and the recognition of the deep entanglements of
Spanish and Andean ideas of rights to water and land at this particular point in time and
place (García Canclini 1995; Gose 2008; Martindale 2009). The connections between
the hacienda, religion, and water for irrigation (Chapter 5) follow this same theme, but
address different topics – this time the incorporation and alteration of religious practices
within an overall structure of coercion and adaptation (Lyons 2006; Sallnow 1991;
Sherbondy 1992; Williams 2003). Combined, these examples give us two distinct views
of the ways in which the colonial and post-independence worlds created differentiated
but contiguous hybrid societies that shifted and manoeuvred in response to one another
and in collaboration with one another (García Canclini 1995; Giddens 1986; Gose 2008).

Dichotomous conceptualizations such as indigenous/non-indigenous (Dussel
2000, 2002; Quijano 2000), tradition/modernity (Gade 1971, 1992; Shanklin 1981; Stern
1987), domination/resistance (Andrien 2001; Gelles 2000; Lyons 2005), and
internal/external knowledge (Boelens 2008; Shepherd 2005; Silliman 2009) within this
framework are useful only in identifying particular modes of interaction amongst the
groups in question. Once they are seen within the overarching theme of entanglement
and hybridity (García Canclini 1995; Giddens 1986; Gose 2008; Martindale 2009;
Silliman 2009), any attempt to define the Andean world according to one of these is
shown to be overly simplistic and of little utility. Instead, while these dichotomies can be
used as tools for teasing out particular aspects of the colonial and post-independence
experience, they need to be taken as part of a whole in which one cannot operate
without another (Comaroff and Comaroff 2003; García Canclini 1995). To quote Edward
Said (2003:xvii), “every domain is linked to every other one, and … nothing that goes on
in our world has ever been isolated and pure of any outside influence.” In short, these
dichotomies need to be deconstructed and dissected, moving beyond the essentialism inherent in them, to address them in a way that identifies the dynamic nature of cultural interaction in colonial and post-independence worlds marked by differences in power and the abilities of groups and individuals to act within these power structures to create worlds that are liveable for them (Gose 2008; Silliman 2009).

The histories provided here in regards to the *Acequia María Mayancela* are examples of the multiple scales of interaction that occur in the colonial, and post-independence, realms of power structures and hybridity. The geographical location must be discussed with reference to the economic and political situations that are temporally located and distinct through time and space. The local, micro view is one small part of the larger, macro view, and neither can exist without the other. It is necessary to see the *Acequia María Mayancela* as a localized theatre for the improvised acting out of a larger narrative where the story told in this one place contains the elements of the larger structure of a grander tale, but one that also guides the path of that grander tale in necessarily unexpected ways. The history of this canal system is an important example of hybridity in a particular locale: a hybridity inextricably entangled in the multitude of internal and external forces that affect and are affected by the canal’s historical trajectory. By looking at particular aspects of the canal at particular times I have drawn on a selection of the multifarious and dynamic aspects of the canal system in order to assess their connections to one another and to the various histories of the groups that have interacted with one another on this stage. The hybridity that has resulted here is a strong example of the dynamics of colonial interaction and is an important case study in the creation of hybrid worlds through the colonial enterprise.
APPENDIX

Interview details and informed consent

In the interview portion of my research I spoke to a total of nineteen individuals with conversations ranging in duration from two minutes to two hours. Ten of the individuals I interviewed were males within an approximated age range of 30 to 60, with one additional male elder of approximately 80 years also interviewed. The remaining eight individuals interviewed were female, three of whom fell into the 30 to 60 approximate age group and the other five ranging in age from 60 to 80. No children were interviewed. I interviewed people all along the length of the canal, but with the majority of the individuals interviewed (thirteen of nineteen) living within the town of San Andrés itself. Only the staff from the Hostería la Andaluza (formerly the manor house of the Hacienda Chuquipogyo), the local priest, and the regional water administrator did not identify themselves as a local farmer.

I conducted a total of fourteen interview sessions, eleven of which were one-on-one conversations. The remaining three interview sessions were held with three or more individuals. The three group interview sessions were each arranged, facilitated, and participated in by Father Pedro Torres, the local Catholic priest. This included interviews with the male elder and with the group of five female elders from the community. The third group interview was with Father Torres and Carlos Avalos, the regional water administrator. I also interviewed Father Torres individually on a separate occasion.

The identities of all individuals interviewed will remain confidential, with the exception of the two local public figures of Father Torres and Carlos Avalos. Each
individual interviewed was advised in Spanish of the reason for my presence in the community and for the project itself. Every participant in the interviews was informed that they may decline to participate in this project at the time of the interview and could choose to withdraw from the project at any point. Each was given a business card with contact information for the Simon Fraser University Ethics Board and myself should they have any future questions or complaints about the interview process or the use of the information they provided.

The themes explored in the interviews were: the age of the canal; the use of the canal today; the importance of the canal to the town and to the individual being interviewed; the origin of the name "Acequia María Mayancela"; the importance of the Virgen de Chuquipogyo to the town and her association with the canal; and how the canal has changed over time. While not every theme was explored with every individual, I tried to cover most, if not all, of these topics in each conversation. Only one individual of the nineteen refused to participate. The remainder of the interview participants appeared not only willing, but also eager to provide me with information. Some interviews were quite short (less than five minutes) due to the fact that most interviews were interruptions of their workdays. The longer interviews I had were the result of either prearranging a time or due to simple circumstances of the participant not having anything particularly urgent to do at that time.
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Abbreviations

AHR/CCE = Archivo Histórico de Riobamba - Casa de la Cultura Ecuatoriana
AHBCE = Archivo Histórico del Banco Central del Ecuador
ANEQ = Archivo Nacional del Ecuador, Quito

AHR/CCE

1730  *El segundo matrimonio de don Julián Mancheno y Ayala con doña Rosa Maldonado y Sotomayor*. Protocolo y Escrituras Públicas, 1730/07/15

1764  *Juan Moyano vesina de esta villa… mayordomo en la Hazienda de Luiza del Capitán Don Bentura Mancheno*. Protocolo y Juicios Civiles, 1764

1778  *Don Ventura Mancheno, y Don Visente Villavisiencio, Apoderados de Doña Maria Ana Mancheno, en los Ymbentarios quise estan astuando*. Protocolo, 1778/11/27

1850  *Testamento del ciudadano Francisco Xavier Mayancela Carrillo*. Protocolo y Escrituras Públicas, 1850/03/10

1863  *Compromiso entre los señores Miguel Salvador y Nicolás Orozco*. Protocolo y Escrituras Públicas folio 7, 1863/01/10

1864  *Ratificacion de compromiso entre los señores Miguel Salvador y Nicolás Orozco*. Protocolo y Escrituras Públicas folio 373, 1864/08/08

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1783  *Juicio, inventario y embargo de la Hacienda Columbe*. Generál. JJC.00633; 1 doc.; 20f., 9r. 1783/11/08 - 1791/04/13

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1716  *Autos sobre la petición de amparo por la posesión de unas tierras en el pueblo de San Andrés, son las llamadas Chuquipogyo, pertenecientes a don Fulgencio Cugi cacique principal del mencionado pueblo, pero que las disputa doña Josefa Romero*. Indígenas, 34.17. 1716/07/11
1773 Traslado de autos seguidos por el Administrador del Monasterio de las Monjas Conceptas de la villa de Riobamba, para que se le pague los réditos vencidos del principal de 2.000 pesos impuesto sobre la hacienda de "Macaxi", que fue del Colegio de la Compañía de Jesús, a favor de este Monasterio. Censos y Capellanías, 36.13. 1773/01/22

1784 Causa seguida por la Madre Josefa de Santa Margarita, del Monasterio de la Concepción de la villa de Riobamba, por el conro de la cantidad de 343 pesos con 3 reales, impuesta en la propiedad que heredó de su padre, en el pueblo de Sicalpa, jurisdicción de aquella villa, con 24 cameros y 24 mulas de papas. Censos y Capellanías, 50.3. 1784/12/18

1795 Apelación de don Ventura Mancheno, de la sentencia en el litigio de tierras que siguió con los indios de San Andrés y Calpi. Índigenas 139.4, 1795/01/03

1817 Litigio por una vertiente de agua, la que ha sido utilizada por Agustín Pilco, José Tumay y Miguel Custo, indios de San Andrés, pero que este momento la reclama un mestizo argumentando que está ubicada en sus tierras. Se presenten documentos desde 1747 para determinar la propiendad del "ojo de agua". Índigenas 168.8. 1817/12/16

1818 Reclamación de los indios del pueblo de San Andrés, por el despojo de aguas que han sufrido por parte de don Rafael Mancheno. Índigenas 168.19, 1818/03/30

1866 Tercera instancia de la causa que siguen los señores Rafael Chiriboga e Ignacio Holguín sobre apeo y deslinde de sus haciendas Atillo y Chuquipogyo. Se presenten documentos desde 1747 para determinar la propiendad del "ojo de agua". Haciendas 138.5, 1866/03/17
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