TEXTILES IN RURAL BOLIVIA:
WHERE DOES THE ART OF TRADITIONAL TEXTILE
MAKING FIT INTO TODAY’S WORLD?

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TEXTILES IN RURAL BOLIVIA:
WHERE DOES THE ART OF TRADITIONAL TEXTILE
MAKING FIT INTO TODAY’S WORLD?

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ABSTRACT

This thesis investigated the role of traditional textiles within the Bolivian culture in the early twenty-first century. Creating traditional textiles is an important aspect of Bolivian life. Women are able to spin, dye, and weave to create a textile. These textiles can be sold and have been an assurance that women would always be able to make money. An ethnographic study was conducted in Independencia, Bolivia, in order to observe and research the steps in the making of a textile within the context of the culture. The steps included shearing the sheep, cleaning the fleece, spinning the fleece on a drop spindle, dyeing the yarn with natural dyes, weaving the yarn, and sewing the woven fabric into an end product. These labor-intensive steps were learned by initially observing and then actively participating.

Since February, 2010, there have been quite a few changes due to outside influences. These changes mean that textile traditions are not being passed down. Today the mothers are not teaching their daughters these steps because the daughters are away at school. Within the community, the traditional dynamic has been altered. Men are forced to travel for work; the children are away at school; and the women are in the home juggling many roles, including maintaining the home, taking care of the animals, and weaving in order to acquire physical money to pay for school supplies.
ACKNOWLEDGEMENTS

There have been so many people that have supported me in this venture. Foremost to thank is Dr. Teena Jennings. She has opened every door possible for me and supported me every step of the way. Single-handedly, she has helped me find my path and helped me to travel to my hearts content. She has become a teacher, mentor, and most importantly, a friend.

Teena was also the one to introduce me to Dorinda Dutcher. Simply by living her life Dorinda has inspired me. Dorinda has allowed me into her world and has motivated me to continue my research. She is a spectacular woman working selflessly to improve the lives of others. The women in Bolivia have touched me in so many ways. They let me sit and observe them and taught me Andean weaving. None of this would have been possible without them. Master weaver, Doña Máxima, whose talent is immense, has taught me Andean weaving and welcomed me to Bolivia.

I was also lucky to be taught by Dr. Virginia Gunn and Dr. Sandra Buckland during my undergraduate and graduate years. They set the tone for my life and brought me into the world of fashion, historic costume, and textiles.

A special thanks to my husband Jay for always listening to me. To all of my friends and family who have supported me, especially Justin for being my partner in crime.
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CHAPTER I

INTRODUCTION

Arriving in Independencia, Bolivia, in February of 2010, it was clear that change was in the air. Technology was being incorporated into the culture by way of cellular phones and computers; mass-produced food was becoming available, as was manufactured clothing. As a profound image, a mother and her daughters stood next to each other; the mother and one of the daughters in indigenous dress, the other daughter in Western clothing. The mother spun on a drop spindle and stopped to answer her cellular phone. Changes in traditional practices were happening rapidly.

These changes continued to impress me over three separate trips to Independencia, Bolivia: February 3, 2010 to March 3, 2010, March 14, 2011 to April 6, 2011, October 29, 2013 to November 18, 2013. The culminating trip included a study trip to Cusco, Peru, to attend the Tinkuy: A Gathering of Weavers. Here I was able to observe these changes on a larger scale. Indigenous weavers from all over the world came together to discuss their weaving, their goals for the future, and strategies for maintaining an active weaving culture within their communities.

Field observations of daily life served as the focus for understanding the strategies that the Bolivians have in place to preserve their culture while they adopt new technologies, recognizing that these too have the potential for positively affecting their
lives. Stories from women in their fifties and older were recorded as they spoke about weaving and natural dyeing. Sitting in on pre-teen conversations regarding their thoughts on weaving also formed a crucial element of the conclusions that were drawn. All of this contact provided information at both extremes of the age continuum within village life.

Talking with the women about their weaving is a challenge itself. The majority of the women speak Quechua and a little Spanish. The daughters are bi-lingual and speak to each other in Spanish with the occasional Quechua. The mothers and daughters talk to each other in Quechua. These conditions set up a natural barrier, however, more crucial to understanding the challenges is knowing that one must gain the village trust. Dialogue is immediately received with suspicion and is considered to be intrusive. Hence, conversations are short winded.

This ethnographically based study intended to satisfy one overarching objective: to document the current process, from beginning to end, used to construct traditional textiles in Independencia, Bolivia, by its Quechuan citizens. As a corollary to this objective, it became clear very early on in this study, that it was difficult to separate the act of creating textiles from the cultural motivation and connectedness to this activity. Studying the entire package became particularly relevant during these times of flux and change.

Due to the language barrier, there was a strong reliance on observations and translations by Dorinda Dutcher, an American living in Independencia, who is fluent in Spanish. The girls I observed in their homes related their personal observations and aspirations for their futures in Spanish, which was understood by Dorinda. Quechua is spoken at home. The stories from women that are fifty and above were provided in
Quechuan. Master weaver, Doña Máxima, translated from Quechua to Spanish. Dorinda did the Spanish translation into English. All of this occurred in Independencia, a village in rural Bolivia. Independencia, Bolivia, was the town chosen for this study. It was selected for the following reasons:

- It is located in a valley of the Andes. It is difficult to travel there and thus far it has remained fairly isolated with only a limited number of tourists and outside influences.
- This isolation is about to change due to plans for highway construction.
- The village members, for this reason, have become introspective, thinking clearly about what they want their village or way of life to become including their plans and wishes for their children.
- Dorinda Dutcher lives in Independencia and she has Peace Corp and tourism experience.

**The Ethnographic Method**

This research study set out to document the textile-making process, as it exists in an isolated community where the weaving tradition is paramount for the older generation of women, and where the younger generations are struggling with changes. Julian M. Murchison notes, “Ethnography is a research strategy that allows researchers to explore and examine the cultures and societies that are a fundamental part of the human experience.”¹ The researcher, remaining objective and observing a community and various settings, conducts ethnographic studies. The ethnographer becomes part of the research because s/he becomes the tool for recording information. S/he watches social

interactions without altering them by her or his presence. S/he listens to stories and records them. One of the largest obstacles in conducting an ethnographic study is attaining and assuring accuracy. The researcher cannot input her/his preconceived notions into the record of information. S/he must understand what s/he is seeing in the terms of the cultural context. It is important for the researcher to understand an action by any person in the community within the realm of that individual.²

An informative example of an ethnographic study is *The Hutterites in North America* by John Hostetler and Gertrude Huntington. Huntington, her husband, and their children, and matriarchal grandmother completely immersed themselves into a Hutterite community in Canada. In conducting their study, they went to great lengths to be inoffensive and to fit into the Hutterites’ lifestyle by adopting traditional dress and occupations. She reported, “Among the Hutterites one’s dress is extremely important as an emblem of classification. First, it signifies that one is a Hutterite; secondly, it proclaims the wearer’s sex; thirdly, it indicates the type of activity the wearer will be engaged in; and finally, for women it signifies her acceptance of her position as subservient to men.”³

The importance of these visual cues was understood more clearly in the study once the researchers were asked to adopt the Hutterite style of dress. Up until that point, they were observers. Once they became part of the community, they were able to hear ideas and customs to which no outside person would have been party. If they had used a different type of research method, these findings would not have come to light.

2 Margaret Diane LeCompte and Jean J. Schensul, *Designing and Conducting Ethnographic Research* (Lanham, MD: AltMira Press, 2010), 2.
There is another, yet distinct, reason for studying a cultural group ethnographically. Ethnography research permits a close examination of the creative process, the tools that are being used, and how the tools are used. Carol Ann Bartusiak Link, in her dissertation “Japanese Cabinetmaking: A Dynamic System of Decisions and Interactions in a Technical Context,” sums this up by saying that “knowledge of materials operates in two ways in technical behavior because materials are both the input and the primary output of technical processes.”

In Independencia, a specific final product is dependent upon the initial fiber source and the processes along the way. Each step is significant. The processes being studied are done by hand, with local ingredients, without the luxury of modern tools and/or input from elsewhere.

Tools do not exist in a vacuum. One can gaze at a tool but until it is seen in motion or in use it is not fully understood. The placement of the hand holding the tool and the direction it is used speak volumes. How the person is sitting will also affect how the tool is used. The llama bone, which will be discussed later in greater detail, is an important tool in weaving. Visually, it is a llama bone. To a novice weaver, unfamiliar with indigenous weaving, out of context, it could look like it is used for a shuttle. The size and shape suggests that it could be used for wrapping yarn around to be passed in the shed and used as a shuttle. In fact, its use is quite different.

The act of observing tools in use gives a better understanding of a culture. Link noted, “It is through this genuine understanding of the other person, of his other lived experiences and motives, as if an actor engaging in technical behavior, that an investigator is able to understand the technical processes and systems that have made

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human life within that culture what it is today.”

Cultural products are made by individuals and the more that the methods are understood and observed, the more can be learned about the objects they create. The less we know of the physical methodology, the more room for misinformation. This is the very essence when studying material culture.

All of these physical aspects of a culture help to define its members’ behaviors and perceptions. Material culture is relevant to study in order to better understand a culture, because it focuses on the material objects being used and items around them. The observer is able to study how the implements and tools are used, the body movements, and the relationship of these acts to the community. In addition, one needs to look at the context of the relationship between the creation of textiles and the people who are the creators and users of the objects.

Link uses the term “cultural products.” She writes, “Cultural products can be defined as culturally acceptable (in terms of form, aesthetics, use, function and symbolic value), corporeal, intentional, end-products which were produced by technical processes.” She goes on to explain the need for the observer to view the products being constructed within their cultural context. It helps one to form a better understanding of not only the creation but also the intention and culture behind it. For example, when looking at a hand-made ceramic bowl on a shelf in an individual’s home, one may find recorded on the bottom information about who made it, where it was made, and the year. The owner may have a general idea of how it was made but the ability to have viewed this mug in the setting where it was created could also reveal exactly what materials were available, how the shape was achieved, and how the product was finished.

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5 Ibid. 63.
6 Link, 19.
Similar cultural observations are possible relative to the weaving culture in Bolivia. Only by immersing oneself within the culture can one see that there are changes happening, ascertain what these changes are, and begin to understand the community’s response and its significance to the different generations. The older generations have knowledge that is not being dispersed to their children due to numerous factors. Children are not living at home in order to go to school. They lack interest in traditional textiles, which are considered a country/poor activity. Also there is no longer the need to create textiles with cheaper, manufactured textiles readily available.

Such changes make it important to understand both the perspectives on textile production of the non-weaving teenage girls as well as the perspectives of older weaving generations within this study. In fact, it becomes impossible to separate the act of making from the rational for making. There are many reasons that a study like this in Bolivia is relevant and they include the following:

- The textile tradition of Bolivia has a long and complex history, clearly dating to before the Colombian era.  
  
- The textile techniques are as important to the indigenous people as any other traditions, including language.
  
- The push to learn these textile techniques is declining for a variety of reasons.

- Textiles deteriorate, which is removing tangible evidence for the potential weaving culture of the future.

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9 Adelson and Takami, 5.
• There is evidence of the need to support the continuation of weaving from the perspective of the well-being of the community.\textsuperscript{10}

Three separate trips to Independencia occurred over the course of this research. The first trip in 2010 was undertaken specifically to study who was currently weaving and to participate in natural dye workshops. The second trip in 2011 accomplished interviewing and observing the younger generation. The third trip in 2013 allowed for observation of textile making practices and also recent changes in the weaver’s lives and the Tinkuy: A Gathering of Weavers. The following chapter will identify the village of Independencia and analyze the relevance of textile traditions in Bolivia.

\textsuperscript{10} Franquemont, 36.
CHAPTER II

INDEPENDENCIA AND ITS WEAVING TRADITION

This chapter examines the village of Independencia and the relevance of woven cloth in Bolivia from both a prehistoric and current perspective. It explains the difficulties in retaining textile traditions both from the perspective of a culturally changing society and due to the loss of the textiles through degradation and infestation. Finally, it incorporates evidence from another community as to the relevance in maintaining traditional textile methods, a prototype for similar projects in Independencia.

Independencia

Independencia, Bolivia, is located in the valley of the Andes where access is difficult, thus limiting tourists and outside influences. Dorinda Dutcher, who lives there, best describes the location:

As the condor flies it is on a straight line between the cities of Cochabamba and La Paz, Bolivia. The town of Independencia lies in the isolated Palca River Valley and access is an eight hour (if uneventful) bus ride from Cochabamba winding up, down, over, and around in the Eastern Range of the Andes. The smaller surrounding rural communities are west of Independencia and accessed by contracting a vehicle or hitching a ride in the back of a cargo truck.¹

There is one Internet-accessible location in the town but the connection is spotty and the kiosk is rarely open. The level of isolation makes it a desirable place to conduct

research because it remains as close to its traditional nature as possible. Cochabamba and La Paz are larger cities where there is a strong divide between those who have always lived in the city and those who originally lived in the country. It is inevitable that at some point, the community of Independencia will be affected by the outside world. Today, however, it remains somewhat preserved and protected because the road there is long and rough. The trip can always be extended by outside forces, which can take the form of strikes, mudslides in the rainy season, and landslides in the dry season.

Independencia is unique in that there is an American, Dorinda Dutcher, living there and she is helping the women to promote their textile traditions. She is helping to revive natural dye recipes and techniques. She served in the Peace Corps in that particular region, but saw that, beyond her service, there was a need that she could help fulfill. While work with the Peace Corp has ended, she remains. One of her largest contributions has been to help demonstrate to the local weavers the relevancy of their weavings. Dorinda has created Club de Chicas. It is loosely based on the idea of Girl Scouts. Young Quechuan girls get together after school and learn a variety of skills. They are able to use a computer without Internet access, a library, and a sewing machine, and are learning how to bake and weave. They are at the perfect age to talk about their thoughts and feelings regarding textile traditions. Their future life plans are an indication of the potential future tone to the community.

The young girls live in a complicated world. There are very few jobs available to them in Independencia. Today, women are discriminated against and it is a challenge for women to find work. The lack of education has prevented them from having the same opportunities as men. Ideas of going to school are becoming prevalent with the
expectation that advanced schooling will bring new opportunities. From 1990 to 2003, women’s contribution to the workforce in the Andes has grown by 70 percent. This has been attributed to more education, legal reform, and changes in public policies.2

Around the world, educating future generations is a challenge. Paola Gianturco and Toby Tuttle note in their book supporting women’s co-operatives around the world that “United Nations statistics tell us that in developing countries all over the world, women’s income buys food and education for children.”3 Women from indigenous communities understand how educating a child can improve not only their lives but also the world around them. In providing a future for their children, mothers take on as many jobs as necessary and create craft objects on the side in order to pay for school supplies, transportation costs, and uniforms.4 They understand that this sacrifice can improve their children’s outcomes significantly.

Prehistoric Weaving

Weaving is often perceived as a “craft” rather than as “art” because woven textiles are considered to be utilitarian and domestic items and often available in local markets.5 Recently, there have been examples of high profile museum and art gallery exhibitions that feature the various forms of art/craft of the Andean region and in each case they point to the fact that textiles played a critical role as forms of aesthetic expression and cultural identifiers. Also noteworthy is the fact that motifs on textiles are the same as those found on ceramics, metals, rock and bone. This design continuity

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4 Ibid., 6.
amongst different materials reflects how integral and relevant textiles are within a society and how important they are when making connections between prehistoric and contemporary expression.

Wari textiles tell a great deal about their culture. It is believed that there was no written form of the Wari alphabet. Language and communication were accomplished in the form of motifs, often on textiles. Textiles can show their relevance at their simplest in the form of the *kipu*, a recording device that consists of knotted strings in a variety of colors. The device is believed to have been for bureaucratic recording purposes as well as communication.6

Textiles ranked high within Andean culture, not only for aesthetics but also for the knowledge that went into their execution. Bergh confirms this when she writes that:

Their intricacy derives from the physical structure of the cloth – for the initiated, a fascinating world into which the ancients poured intellectual energy – along with more visible systems of artistic composition, including flamboyant color, intricate format, fanciful imagery, and an arcane, cerebral convention for distorting imagery that culminates in a geometric abstraction admired today for its “modern-ness.”7

In most Wari weavings the imagery is balanced and leads the eye around the piece, in what would be considered a level of artistic sophistication.

Various life events were represented in motifs. A common motif is called the face-fret motif. It is a profile of a face and a stepped fret. Face-fret figures are often shown with their arms held up to the sky with various objects around them. The upward

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stretching of the arms is comparable to that of a staff deity. A staff deity is a figure that is holding a staff or other implement that emits strength and power. The staff, during this time period, symbolized “human and divine sovereignty.” When carried, staffs represented objects of power. They can be perceived as weapons, much like axes.

Features in the face of the motif are lacking. This restricts interpretation of the face itself because it is simply a “vertically divided eye, and the N-shaped canines that it often bares, all generic traits of the superhuman in Wari art.”

The more grotesque motifs found in Andean art are called the “sacrificers.” They are usually shown as a weapon with a human victim. In counterbalance, the winged attendant is present in these scenes. A winged attendant is in profile stance with wings protruding out the back. The most common depiction has an animal head and large wings behind the profiled stance. The animal motif is prevalent in many examples of Andean tapestry. The heads to human bodies can be condor, raptors, camelids, or felines. These animals are important in Andean life and at times portray power.

Closer inspection of the motifs within pre-historic Andean weaving, acknowledging that usually all we have left are remnants, reveals that these textile fragments were once part of a tunic and were most likely worn by high-ranking lords. With few exceptions, these tunics were found in tombs, and, combined with the facts that they are of the highest quality and contain similar storylines, support the theory that those of highest authority wore them. The tunics are quite often proximally situated close to

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8 Bergh, 161.
9 Ibid., 163.
10 Ibid., 169.
four-cornered headgear pieces. These headpieces do not depict figures but rather shapes such as diamonds, squares, and triangles. Intricate in their execution, they have a crown-like quality to them and the shapes seem to represent jewels. Some of the design motifs seen in prehistoric textiles persist.

**Textile Relevance in Today’s Bolivia**

In many areas of the world, textiles are visual representations of the culture and tell an important part of their history. Anthropologists use textile material, looking at fiber content, textile design, and manner of dress, to identify unique aspects of a given culture. Ed Franquemont states that “Fiber is the quintessential labor-intensive medium, and as a result, the cultural imprint upon a textile is extremely strong.”

Bolivia is a land-locked country within the Andean region; a region that extends from the top of South America in Columbia to Chile in the south and is defined by the Andes Mountains. It is important to consider that, when going back to the Pre-Columbian era, borders were meaningless. Incan rulers controlled this region and with it, the people that lived there, just prior to European exploration. During this time and to a certain extent currently, textiles would have been a cohesive element within the community while simultaneously segregating cultural groups. In an attempt to identify enemies and conquered groups, the Incans forced these people to continue wearing their traditional dress. From this need for separation, distinct costumes were preserved. Costume can to this day denote demographic, ethnicity, social status, and/or class.

Textiles have played an integral role throughout Andean history for at least the

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11 Bergh, 161.
13 Ibid. 31.
past three thousand years. They give important ethnographic information about the ancient cultures that created them and are both beautiful and intricate. In Andean life, textiles encompass and convey information about their world non-verbally. Creation of Andean weavings requires abstract thought processes that relate to the world around them. The rest of the world has had a tough time understanding these concepts and they are still breaking through the layers for a better understanding. In many ways, an Andean weaver is programmed like a computer. For a master weaver, all of her symbols are saved in her memory. She functions like a computer and must use different algorithms to make all of the symbols fit within a weaving. Each warp facing yarn can be represented by a pixel on a screen. The weaver is aware of this and must plan each yarn accordingly.

Weaving for Bolivian women is the most significant way individuals can be creative and thus is a form of self-expression. Finished weaving is so important because it is usually one individual, or family, who has control over every stage in the process of its creation. It is not a single skill that creates an end product, but rather many steps along the way, each requiring a variety of skills. The process starts with raising animals from birth, shearing their fleece, and providing for their general well-being. This is a foreign concept to many Americans, as our mass-market culture makes available nearly everything without laboring over its procurement. As a culture, we rarely see

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16 Franquemont, 33.
18 Adelson and Takami, 5.
anything but an end product.\textsuperscript{19} For the weavers who maintain the tradition in Bolivia, the process becomes part of who they are and from where they come.

Dyes grown locally give a local color and identification to the weavings. These weavings are worn and become part of their everyday lives. How they are worn provides a visual story about the weaver and the wearer. The textiles are everything: they keep people warm, carry their babies, enable them to haul their goods with them, identify marriage celebrations and other festivals, and wrap the dead. Before burial, any material that would hold the wearer’s scent is washed clean to allow the soul to leave the body. If there is no body to bury, clothes are laid out in place. At times weavings are used as currency. The most pristinely woven fabrics are used as offerings. The weavers of these pieces are given the highest respect. Women who are chosen to weave and spin the ritual fabric for the community are called in Quechan \textit{akllakuna}.\textsuperscript{20} These are highly skilled weavers who are chosen to weave for the most prestigious individuals. Their lives are spent weaving the finest weavings for the most important occasions.

Textiles ranked high on the Incan list of importance; humans first, then the camelid, followed by textiles. The camelid group consists of alpacas, guanacos, vicunas, and llamas.\textsuperscript{21} These animals were used for food and clothing. Their fiber played an integral part in the creation of textiles, particularly in pre-Columbian times. This changed when the Spanish invaded in 1532. They introduced new technologies, including the spinning wheel, carders, and the treadle loom. They also brought new fibers,

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\textsuperscript{20} Lynn A. Meisch, \textit{Traditional Textiles of the Andes} (San Francisco, CA: Thames and Hudson, 1997), 8.
\textsuperscript{21} Ibid.
\end{flushright}
wool, and silk, introducing both sheep and the Bombyx mori moth for silk cultivation.\(^{22}\)

Bolivia is culturally rich and filled with talented weavers. Throughout Bolivia there remain unique and differentiated communities. While overall there are two main groups, Aymara and Quechua, languages and dialects vary from region to region. The style of dress varies as well, which elicits important meaning about the article of clothing and the individual wearing it. These meanings include marital status, class, and geographic provenance.

**Cloth as it is Woven in Bolivia**

Today, cloth continues to be used at specific and important events that happen throughout an individual’s life. These events span the spectrum from birth, puberty, marriage, to death.\(^{23}\) The first event in a child’s life is the first haircutting when she or he receives her or his first set of clothes.\(^{24}\) Each are important rites of passage and have textiles that go along with them. There is an attempt to preserve these textiles by passing them down from one generation to the next, thus creating a connection between generations. Because funerals are of great religious significance, when people pass they are buried with their textiles. In the religious context, textiles are even sacrificed to a deity called *Aksu-mama*. *Aksu-mama* is the deity for the sun. In some areas today precious textiles are burned annually.\(^{25}\)

While it takes a great deal of hard work and energy to create one garment, it is difficult to gauge exactly how long it takes for one garment to be created. Fiber is often spun while doing other activities. The fibers spun for cloth have to be put down when

\(^{22}\) Adelson and Takami, 9.

\(^{23}\) Ibid.

\(^{24}\) Ibid., 38.

\(^{25}\) Ibid., 9.
taking care of the home, family, and chores.\textsuperscript{26} As long as their hands are not doing anything else the women will be spinning.\textsuperscript{27} Edward and Christine Franquemont studied textile production in Peru. They looked at the time spent creating a poncho and a sack. They found that “Spinning, skeining, and plying took seventy to seventy-five percent of the total time (90 hours each for the sacks, 288 hours for the poncho).” This illustrates the time consuming nature of making cloth and also shows the prominent position that spinning takes within this process.\textsuperscript{28}

Symbols

It is difficult to prove what each symbol in a weaving represents. Clearly, some of the design motifs resemble prehistoric textiles. By looking you are able to see an emphasis on continuous patterns.\textsuperscript{29} The concept of reciprocity is visually depicted in Bolivian weavings. There has been much speculation regarding meanings but there are no concrete answers. One may get a different answer from each weaver talking about the same symbol. It is logical to believe that the weavers look at the world around them and choose to depict what they see. If they feel that a figure is strong and protecting, they incorporate it into their weavings. One of the beautiful symbols is the \textit{chaska}, which is Quechuan and means star. It is the visual representation of the planet Venus when seen in the sky and represents rainfall, which in turn helps with the crops. \textit{Inti}, or the sun is

\begin{thebibliography}{9}
\bibitem{27} Ibid., 25.
\bibitem{28} Ibid.
\end{thebibliography}
equally important because of its role in food production. These deities are constant but animals vary from place to place.

It is interesting to notice the placement of symbols within a weaving. Weavers in the Potolo region use a more free form placement. They can be facing any direction and vary in size. In Independencia their symbols are confined to the band section, but at times the symbols are facing different directions. Even letters are considered symbols.

Dress

Lynn A. Meisch and Ann Pollard Rowe said “For those familiar with the meaning of clothing within a given culture, it is often possible to determine the gender, age, marital status, degree of wealth, social rank, religion, and occupation, as well as the geographic or cultural affiliation of a person, by observing their clothes. Special clothing also may be worn for specific types of events such as weddings or other celebrations or rituals, or for mourning.” Costume consists of different elements of adornment. It includes the way hair is worn, hats, jewelry, and clothing of a specific time and place. Hats are especially important markers in this region. In Independencia, the women wear painted straw hats or bowler hats. The straw hat, usually pastel in color, is decorated with ribbons and flowers. Bowlers are seen often on market days when women walk in from an out of town village. Woven textiles play a more significant role in protection from the elements. They are also used for religious purposes.

32 Ibid., 39.
Dress is very important in preserving a culture. Independencia, because of its location, has been isolated from the influence of other cultures. Regardless, preserving traditional dress in South America has had its challenges. During the sixteenth century, the Spanish arrived with their impositions and influences, including the arrival of sheep. The Spanish dress became desirable but certain items were not allowed to be worn by the native peoples. This rule was imposed to create a divide between the Indigenous and the Spaniards. Then an uprising occurred and the Spanish decided that in order to prevent any more incidents they needed to create more cohesiveness. The people then were forced to wear the Spanish style of dress and rid themselves of any traditional garb.  

This resulted in many areas losing their traditional costumes. Those in remote areas were able to continue wearing their traditional dress. This pattern continues today and has created a divide between the people living in the cities and the people living in remote country communities. It becomes easy for an indígenas not only to identify outsiders but other indígenas as well. Human plumage is what the wearer chooses to wear and how; often, however, this is culturally and/or societally determined. It is a non-verbal way of expressing who people are and how they fit into the world.  

In order to remain current with the times, younger generations need to constantly evolve and adapt to new technologies. Bolivia is being opened up to outside influences with the emergence of Internet cafes and Internet towers in villages and cities. There is the dichotomy of a young girl dressed in full indigenous cholita costume while talking on the cellular phone. Her friends are dressed either in similar clothes or Western clothing.

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33 Adelson and Takami, 12.
35 Franquemont, 33.
When asked about their choice in clothing, the girls do not give a straight answer. *Cholita* dress is expensive. It is worn for years and pieces are added. Western clothing is cheap and accessible. It makes sense for younger generations to absorb Western items because they do not have the stock of indigenous clothing that their mothers have. Western items are easier to clean and when they wear out people can buy more rather than having to mend. Traditional costume is used for display, wear, ceremony, collecting, and rituals. Making it is extremely labor intensive. In *Llamas, Weavings, and Bolivian Chocolate*, Kevin Healy discusses the time it takes to make an *axsu*, a traditional overskirt worn in the valleys of Chuquisaca, Bolivia. The woman he talks about takes two months to make one.\(^\text{36}\)

The Quechuan traditional costume items are as follows, bearing in mind that from the campo (country) to the city (Cochabamba) there is varied fashion:

**Men’s Clothing:**

*Llakuta* – rectangular garment, depending on gender what it is for.

Pantalones – pants

*Almillia* or *Camisa* – shirt

*Chaleco* – vest

*Chaqueta* – jacket

*Chalina* – sash

Men’s items indigenously woven:

*Chumpi* – woven belt

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Ch’uspa – woven bag for coca leaves

Wichi-Wichi – pompoms on the ch’uspa

Poncho – cape

Chullo or Lluchu - knitted ear-flapped hat

Ojotas – shoes worn by men and women. They were originally made of llama leather and are currently made of old tires.

Women:

Mantle – a rectangular garment worn over the shoulders.

Tupu – this pin holds shut the mantle

Aksu – a rectangular cloth worn as an overskirt but in Independencia as a bag. It goes over one shoulder and under the other and ties in the front.

Lliclla – a square cloth used to transport babies and other objects.

Rebozo – a commercially made shawl, often these are made of polyester fleece and are used for warmth and sometimes to sit on.

Tulma – narrow bands and hair ties

Pollera – a skirt made of commercial cloth.

Incuña or inkuña/unkuña – a small woven cloth. When the women eat lunch together on dyeing days these are filled with an assortment of food from potatoes to rice to beans.

Ch’uspas – a bag used to carry coca leaves. This perhaps is the piece with the most longevity and culture significance.\[37\]

Clothing communicates important aspects of an individual’s life without having to say anything. It denotes class, geography, and occupation. As Schevill, Berlo, and Dwyer point out, “the study of cloth, clothing, and the creation of cloth can be an important index for understanding human culture and history.”  

**Decline in Textile Making Activity**

Preservation of these traditions is relevant to many of the women in Bolivia if for no other reasons than it encompasses the culture and plays a role in day-to-day life. Textiles are a visual representation of their culture. The creation of a weaving is done while women are living their daily lives. In order to keep a tradition alive it must be passed down from one generation to the next. Currently in rural areas, mothers are not teaching their daughters how to spin, weave, or dye fibers with natural dyes as much as earlier generations did. There are many outside forces at play that affect the transmission of knowledge. The main reasons are economically and socially based.

Weaving started as the most basic need: the need for clothing and protection from the elements. It progressed from there, becoming a large component of the culture. More recently, with the introduction of cheap and accessible machine-made clothes, there has been less need and/or desire to produce their own clothes. There are many other tasks that take precedence over weaving: taking care of children, farming, household chores, and tending to animals. If there is time left, it is dedicated to weaving.  

Weaving, however, is still an important aspect of the lives of rural Bolivian women, if only for celebrations alone. Textiles are considered to be a cultural necessity.

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38 Ibid., 5.
39 Adelson and Takami, 5.
for proper ceremonial interactions at marriages, for example.\textsuperscript{40} Women are able to plan ahead for these events and weave when they are finished with all of their other chores. Celebrations aid in the preservation of the culture by focusing on past traditions. They help to keep the past vital and relevant. Those participating learn dances and how to dress in traditional costume.

There are different standards for the ethnic clothing worn every day and the ethnic clothing worn for celebrations. Clothing worn for celebrations is of the highest quality and is preserved to wear for years to come. It takes many years to acquire a full fiesta costume. People usually become interested in traditional costume when they start looking at the opposite sex. Young girls will learn to weave integral parts of their costume.\textsuperscript{41}

In \textit{Weaving Generations Together: Evolving Creativity in the Maya of Chiapas}, Patricia Marks Greenfield presents an ideal representation of the process of learning to weave and the effects of outside influences over time. Her first visit to Mexico was in 1969 and subsequent visits continued well into 2003. Her study is helpful because she observes the cultural changes over an extended period and identifies, compares, and contrasts new ideas versus old. During her first exposure to Mexican weavers, she watched mothers sit diligently over their daughters while they wove. Every mistake was immediately fixed and the daughters learned how to problem solve. This way of learning changed over time because of the outside demands that the mothers had. Teaching weaving became less important. It was soon not the mother teaching but rather friends or

\textsuperscript{40} Schevill, Berlo, and Dwyer, 263.
\textsuperscript{41} Ibid., 267.
siblings. The mother to daughter bond is not as strong as it once was in this area of Mexico.  

This evolution is evident in Bolivia as well and textile traditions are being altered. Reasons for the decline are not immediately clear. Certainly, one confounding factor is the lack of a single language for Bolivians. The language varies regionally, but that is only part of the complexity. The older generations speak Quechua, while the younger generations speak Quechua at home but are fluent in Spanish as well. At the same time many are illiterate and pass on traditions orally. Throughout Bolivia the illiteracy rate for women is 19.35 percent and for men 6.94 percent. That number is higher in rural areas with women at 37.91 percent and men at 14.42 percent.

Language is an important part of any culture. It is how traditions are passed down from generation to generation. The challenge in the Andes is that there are many spoken languages. The prominent ones are Quechua, Aymara, and Spanish. Within these three, there are regional variations. The Spanish in Spain is spoken differently from the Spanish in North and South America. The same is true of Quechua, where the challenge lies in the lack of documentation. There are very few Quechan dictionaries and those that exist do not encompass every dialect. We know, for example, that there are many different words in the Quechan language that relate to the dyeing process. This illustrates the importance for consistency in dialogue, especially when it relates to historical accuracy and continuity.

Documentation of the weaving process is a challenge because Andean weavers

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find it difficult to verbally explain their work. Their learning process is accomplished by
doing, not by reading or listening. The meaning of each weaving is not explained;
therefore, it is not recorded. The history of the ancient Andes was written in the
weavings.\textsuperscript{44}

The tradition of using naturally gathered materials has also been declining.
Natural dyeing typically does not elicit the bright shades desired by the younger
generations. Synthetic dyes and synthetic yarns, when they first appeared, were seen as
prestigious because it showed that you were able to purchase expensive things. Using
synthetic dyes yielded quicker and more predictable results. It also was a time saver.\textsuperscript{45}

External influences have also caused drastic change in the lifestyle. Technology,
including computers and cellular phones, has reached even the most remote areas of the
Andes. While beneficial in many ways, these have brought the outside world in at an
exponential rate. While the computer opens new doors, the images and ideas may not be
fully conceptualized.\textsuperscript{46} Images are confusing and the outside world becomes enticing.
These technologies, particularly cellular phones, enhance the likelihood of younger
generations moving away from home while maintenance of family contact remains
possible.

The largest contributing factors to change seem to be education and work. These
two factors are in fact one and the same because the desired end result is to make a
living. It is not uncommon for men and boys to have to travel far for work. This has
caused men’s clothing to change more rapidly than women’s. They are expected to dress

\begin{footnotesize}
\begin{enumerate}
\item Franquemont, 33.
\item Adelson and Takami, 13.
\item Morales, 10.
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in non-indigenous garments and adopt the familiar t-shirts and jeans. The women stay home and take care of the family and are not as motivated to adopt a new style of dress. Young girls are in the middle of all of this confusion.

It is also normal for a girl to be sent into the city to become a domestic servant if her family cannot afford to take care of her. In that role, she lives in a home and takes care of the house and children with little hope of schooling or upward mobility. It is an isolated life because her family is not with her. Everyone she works for speaks Spanish, not Quechua. She adopts a new style of dress, which tends to be t-shirts and sweatpants. Traditions are lost with the reduced connection to home.

This detachment from the family can start at a very young age. Children are often sent to live with family members that are closer to the schools that they attend. It makes sense because otherwise they would not have the opportunity to attend school or they would have to walk for hours, just to attain an education. This not only creates a disconnected family structure; in addition the daily life of the parents is not being lived by the next generation, thus enhancing the disconnect.

The changing family structure has played a big part in the changing relationship with weaving. While the husband is traveling to find work, the woman remains at home to do jobs that her husband would normally do. The woman must balance all of these tasks, which leaves even fewer hours for weaving. The woman must multitask: weaving, chores, and childcare simultaneously. Textile weaving usually shifts to the lowest priority, which typically means that this is not accomplished.

Women’s health is also a factor in passing on traditions. If a mother is not healthy she is not able to take care of her children, teach her children, or weave.
Children’s health is also important in this picture. Bolivia has one of the highest mortality rates in the world. From an ENDSA (*Encuesta Nacional de Demografía y Salud*) study in 1998, 390 infants died per 100,000 live-born infants. In rural areas that number more than doubles to 887 infant deaths per 100,000 live-born infants. The majority of these risks are preventable with proper health care. Additionally, if a mother dies during an infant’s first 28 days of life, that child has a 50 percent survival rate.\(^47\)

Franquemont writes that, “The industrial, transportation, and information revolutions have arrived in the Andes almost simultaneously, bringing cheap goods, foreign people and ideas, and new images conveyed through new media.”\(^48\) The influence of the outside world is visually depicted in the type of dress not originally worn in rural Bolivia. A great deal of machine-made clothing has replaced handmade not only by men but also some of the younger women. Even the traditional costumes are being affected. Pieces that were once handmade from start to finish are now being purchased as finished goods. Commercially made cloth is replacing naturally made material.\(^49\) There is less incentive to produce homemade cloth because it is cheaper, faster, and easier to buy manufactured.

**Textile Deterioration**

With the women of the household today not weaving as much they traditionally did, knowledge of older techniques might still have been retained in textiles produced in earlier times. This typically does not happen in Bolivia, as textile preservation is a challenge. Weavings have degraded and disappeared due to the damage caused by moths,


\(^{48}\) Franquemont, 35.

\(^{49}\) Adelson, 18.
water damage, and general wear and tear. This is another reason to record current practices before they change more or disappear.

There are numerous factors at work in the destruction of a textile. Most historic textiles are made of natural fibers. This is particularly true in Bolivia. Environmental exposure can be the most detrimental. Light in any form can shorten the life of textiles. Temperature and humidity, when too high or low, can affect textiles. When the humidity is low it makes the yarns brittle. When the humidity is high textiles can be stained from mold.\textsuperscript{50} Also, there are a variety of pests that can damage a textile. In Bolivia, clothes moths that feed on wool are the most intrusive. There are also small rodents that can cause damage if the textiles are stored incorrectly. Proper handling and storage of textiles can prevent these issues. Textiles should be in a non-fluctuating temperature and free of pests.\textsuperscript{51} This of course is highly unlikely within the home setting of the typical Bolivian indigenous family. Lastly, historic textiles are often traded for newer items like beads or fleece blankets. In combination with a lack of written documentation and a decline in the number of people that know the patterns and recipes, textile traditions are being lost and new weavings are not being created.

**Evidence for Supporting the Continuation of Weaving**

To add relevance to this study, evidence clearly points to the success that villagers can attain by revitalizing their textile traditions. One such case study is ASUR. ASUR stands for *Antropólogos del Sur Andino* or The Foundation for Anthropological Research and Ethno-development, Anthropologists of the Southern Andes. The foundation’s focus


\textsuperscript{51} Ibid.
is on sustainable development that is intended to preserve and revive cultural traditions. Geographically it works with the Jalq’a and Tarabuco indigenous communities located northwest of Sucre, Bolivia.

A couple named Gabriel Martínez and Verónica Cereceda created ASUR. They appreciated the beauty in Andean textiles and saw the traditions that were being lost. They visited many communities around Chuquisaca where the people call themselves Jalq’a. There they consistently found many impoverished people.\(^5^2\) It was clear the direction they needed to take.

ASUR understands the importance of exhibitions of textiles to put them in a higher realm. The displaying of textiles educates and also places a value on them that would otherwise go unnoticed. The couple created The Museum of Indigenous Art for this purpose in 1986. It has become a great success and stands alone financially. It has local weavers demonstrate weaving techniques within the museum for tourists to get a better understanding of techniques.

The museum strikes a balance between the modern and antique, the urban and indigenous, and between utilitarian and art. Weavers are able to view different exhibitions for inspiration. This gives to them aspirations and relevance. Earlier there had been a strong demand for their textiles. They sold new and historic textiles and, when that demand was gone, weavers were left without their historic weavings. They were unable to look anywhere for reference of the symbols and, therefore, their weavings suffered. The weavers became complacent and uninspired.

\(^{5^2}\) Healy, 271.
The answer was for the couple, Martínez and Cereceda, to create a database featuring pictures of Andean textiles that were in various places around the world. They asked as many people as possible to send them photos. This created around three hundred pictures of inspiration. Not only did these photos inspire, they also motivated the women of various generations to weave. The photos were blown up and placed prominently for the weavers to study. The point of success was when the images were no longer needed for daily inspiration.

Once the weaving tradition was revived the next step was an exhibition. In 1989 the exhibition was put up in an available gallery that was located in a former church in Sucre. Over 10,000 people were able to view the best local weavings over a three-week time span. The juxtaposition of indigenous art in a museum setting resulted in attendees giving the weavings a new appreciation. That same year the exhibition went on to be displayed at the Museo Nacional de Arte (National Museum of Art) in La Paz. The first exhibition of this kind at the museum was a success and catapulted the confidence of the weavers to new levels, particularly as they had become used to being ridiculed because of their indigenous weavings and dress. This exhibition went on to be displayed in Paris, Geneva, Milan, and Washington D.C.

The formula for success was that ASUR inspired the Jalq'a to start weaving their traditional designs. ASUR created a museum and shop in Sucre where the weavers are able to sell their items. It also purchased many of the best weavings in order to create an inventory for teaching, preservation, and exhibition in a museum setting. This also

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53 Healy, 277.
created a market for the other weavings that were for sale. All this improved the quality of life for many families.

ASUR continues to face many challenges. It needs to be able to continue on for the sake of the culture and its traditions, and for the families and their communities.

Initial focus was on creating a standard for the weavings. This involved a grading system. The lower-quality weavings were only accepted if young new weavers created them. This created jealousy and animosity but was a necessity to make the store viable.

As ASUR continued, the number of weavers expanded to four hundred. Women pushed themselves to weave more because they received money for their work. In this way, their approach to weaving changed from how their ancestors wove. Originally, the earlier weavers would weave one *axsu* a year, two if they were feeling exceptionally ambitious. Today, younger generations are weaving, on average, around 4 per year, which adds to their already busy lives.

In the process, weaving was becoming a necessity for income, resulting in the weavings being commercialized. This takes away from the cultural aspect when weaving is a creative expression of a culture’s social structure. Under that premise, weavers are creating at their own pace and weaving is a lifestyle choice. ASUR, however, believes that the weavers’ lives have been elevated and they are now able to afford simple necessities. The weavings are becoming objects of pride within the community. They represent their history and hope for the future.

Perhaps what is most rewarding from the work that ASUR has done is the fact that it has altered the roles of men and women within the community. Prior to ASUR, the men were traveling for months at a time for work. This left the women at home taking on
the roles of both husband and wife. These roles were not limited to but included: childcare, agriculture, selling goods, and general home upkeep. The women did not have much say in the life they were leading. This limited their potential and led them down a path of conformity.

With the success of ASUR and the sales of their weavings, women’s economic situations have changed. At times, the men no longer have to travel for work and end up taking on the homemaker aspect of the relationship in order for the women to have time to weave. They end up assisting the women by spinning yarn for them to weave. The men have become supportive of their wives.

Single men have also been affected by the resurgence of weaving of the Jalq’a. Although they still must travel for work many are returning to settle down and help raise a family. They have prospects of a comfortable life in the community with their potential wives weaving and making an income. For the young women in these small communities it gives them another option. Typically they became domestics in Sucre. They had to leave their homes, which disrupted the community, and these labor intensive jobs did not even pay well. This new found and consistent income from weaving has also allowed for material improvements, such as beds and stoves.

The ripple effect of this change has resulted in the women socially adjusting. Fundamentally this is most important. A weaver from the ASUR program visited a community that was not part of the ASUR program. During a meeting of the sindicato, she was struck by the verbosity of the men and the silence of the women. “I saw,” she said, “that my village had once been the same. But after our workshops started, the men got behind us, telling us they were not the only ones with mouths. Now we have the
courage to talk about what bothers us, about our own obligations and the obligations of others. Whatever the topic, we find something to say. Yes, it seems we have learned to use our mouths for talking!54

Finding balance is one of ASUR’s missions. The revival of traditional textile weaving across Bolivia could cause the market to be flooded which can lower the prices of the weavings. To counteract this, ASUR has sought to expand into international markets. This must coincide with museum and gallery openings in order for the pieces to be given context and value.

One group that ASUR looks at as a success story is the Navajo of the southwestern United States. They strike the balance in value creation because they “maintain high aesthetic standards for textiles, promote the work through museum and gallery exhibitions, and market it through museum shops while sparking a locally based revival of indigenous culture.”55

The success of ASUR has created spin-off business enterprises. For example, the need for wool that has been spun and dyed with careful consideration, must meet the highest quality standards. After many failed attempts, the weavers have decided to commit to a semi-industrial system. They now purchase spun yarn from local businesses and entrepreneurs. Time that was originally spent spinning on a drop spindle can now be dedicated to weaving the most sought after and time consuming axsus. They have focused their efforts and are making their livelihood sustainable.

Since textile traditions are an important aspect to Bolivian life, there is a need to document them and the processes involved in their creation. The next chapter will focus

54 Healy, 282.
55 Ibid., 283.
on the first of various steps involved in the creation of a textile. It will examine shearing, cleaning the fiber, and spinning. Subsequent chapters will examine dyeing, and weaving methods thus documenting the textile making process in Independencia.
This chapter examines the demands of fiber production, ultimately providing the yarn for the weaving process. It covers the various levels of preparation necessary for spinning successful yarn. The fiber must be expertly sheared from the sheep, cleaned and handpicked, then made into a lofty roving for the spinner to spin.

Traditionally, in the Andean highlands, alpaca was the main fiber source. Alpaca is different from sheep’s wool because it is lofty, with good insulative properties, while having a very soft hand. Today, particularly in Peru, the alpaca remains relevant, especially as an agricultural product on a large scale. The soft fiber is sent from the alpaca farmers to processing plants from where it is shipped as yarn to countries around the world.

While the alpaca is the most important fiber animal of South America, other camelids such as llama, vicuña, and guanaco remain significant fiber producers. Regardless, wool from sheep is also an important part of the story. The Spanish introduced sheep of the churro breed to the New World shortly after the Spanish conquest in the sixteenth century. Wool is a protein fiber that is strong, resilient, and dyes well with natural and synthetic dyes. It is sustainable to the environment because it does not require a great deal of chemicals for processing. Under a microscope a wool fiber looks
scaly. To the naked eye, it is also easy to see that the fibers are crimped, both of these characteristics aid in the fibers clinging together for spinning.\(^1\)

In Independencia, Bolivia, wool is the primary fiber. Sheep have fared well in Independencia because the churro breeds are able to adapt to various climates and conditions.\(^2\) They have been bred to be hardier and this in turn results in a tougher fleece that is also coarser than that of most other types of sheep.

Throughout most of the world, wool processing has been industrialized. Many large-scale machines have been developed that are able to execute various stages of processing. None of that pertains to fiber processing in Independencia. Here the focus is on small scale, individual processing.

**Shearing**

The first step in fiber processing is shearing. Methods for shearing vary around the world. In Independencia, the sheep is captured and laid on its side. The legs are tied together, leaving the sheep immobile. Using a knife is the most common and best method of shearing a sheep but, at times, a serrated can is used. The sheep is often cut with the jagged edges of the can causing blood to stain the fiber. The serrated can is not a safe method but it is free.

Different regions on the body of the sheep produce fiber with different attributes. Usually, wool from the shoulder area is the most desirable because it is protected from the dirt and debris that accumulates on the fiber situated on the body closer to the ground. The forelegs have the least desirable fiber tending to be short, irregular in length, and of

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poor quality. Fibers around and under the mouth and anal areas also present issues. In between these locations the properties continue to vary. Typically, therefore, most producers throughout the world, sort the fiber according to fiber type ensuring a more consistent and better yarn product. In Independencia, however, there is no sorting process. All fiber areas are treated equally. The fibers are all cleaned and spun together regardless from where on the body they come from. Once the fleece is shorn from the sheep unsalvageable areas that are laden with mud are removed.³ (See Figure 3.1).

**Washing and Scouring**

Cleaning the fiber is an important step in creating yarn. Dirt and foreign matter is removed at this time. If this is not done, the debris stays attached to the fibers and, when spinning, becomes imbedded in the yarn, thus changing the properties of the yarn. Also, when dyed later, any foreign particles will also take up dye, which is a waste of the dyestuff.

The cleaning step is called scouring. Conventionally this is done using a mild detergent with a large amount of hot water. Fibers are soaked and then air-dried. Using a detergent and hot water, however, causes the wool to lose its natural oils, which are ultimately beneficial to the final product.

Another way to clean fibers while keeping the natural oils intact is to soak the wool in cold water only and rinse. Suint, the natural part of the wool oil, is water-soluble and acts as a detergent while rinsing away the dirt. The remaining elements are: lanolin-based grease, oils, and waxes.

³ Davenport, 38.
Figure 3.1. Sorting through a fresh fleece. Taken by the author in Independencia, Bolivia.
These protect the fiber and give it water resistant qualities. Yarn made from fibers that have been cleaned this way is called “oiled” wool yarn.\(^4\)

In Independencia, there is no easy and reliable access to water, let alone hot water. Any available water is used, whether it is from a stream or rainwater in a bucket. The temperature is inconsistent, depending on the ambient temperatures. Often it is very cold as it comes from a stream that is running down the mountain. The use of soap or detergent is unnecessary. A typical scenario would include taking the fleece to the river and rinsing out as many impurities as possible. The locks are constantly manipulated to open them up and to rinse out the debris. The river works as a washing machine because the movement of the river aids in forcing out more impurities. The wool is draped to air dry on the ground or hung in trees to air dry.

**Carding**

The next step in the preparation process is carding. Carding is the process that continues to open up the locks, thus loosening the fibers. The desired result is a parallel and even collection of fibers.\(^4\) Carding can be done in various ways. For the smaller amounts of fiber, hand held carders are often used. The cards themselves are made of cloth or leather and filled with rows of bent steel teeth. There are two of these carders, one for each hand, and each is attached to a wooden handle and paddle. The fiber is brushed back and forth between the hand carders, creating a parallel fiber arrangement. This action further eliminates unwanted debris, which falls out because of this motion.

In Independencia, however, the locks are opened up without the use of tools of any kind. The spinner’s fingers are the tools. The fiber is pulled apart and unwanted

\(^4\) McCuin, 28.
matter is taken out by hand. This is time consuming, but can be done while walking and tending to a flock of sheep or minding children. Once the fiber is hand carded, the spinner creates a fluffy roving by pulling open the locks and adding air amongst the fibers. The roving becomes a light and airy tube-shaped collection of fibers, which is wrapped around the wrist to keep it clean and out of the way while spinning. Further processing is not done in Independencia. Whereas in other parts of the world, combing of the fibers might take place, carding alone is satisfactory in Independencia. It removes the short, weak fibers and the debris while aligning the fibers. This prepares the fiber for the next step in the process, spinning.

**Spinning**

Ellen G. Davenport describes spinning yarn, as “The twisting of the fibers while they are being drawn past one another is the basis of all spinning processes.”\(^5\) During this process the yarns are formed by either setting the fibers parallel to each other or jumbling them to create various types of yarn. These can be tightly or loosely spun, plied with other yarns, and/or given irregular texture. Regardless, the desired outcome is the creation of a continuous collection of fibers, that is to say, a yarn. Davenport further states that as “Whatever the design of the yarn may be, three processes are essential:

(a) Arranging the fibers.

(b) Drawing out the fibers.

(c) Twisting the fibers.”\(^6\)

Spinning yarn is imperative in the creation of a woven textile. Spinning requires a spindle. Some spindles are mounted on spinning wheels. Hand spindles do not require

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\(^5\) Davenport, 17.

\(^6\) Ibid.
a wheel and are made from the materials that are on hand. The most common material is wood. There are two distinctive types of hand spindles: supported spindle and drop spindles. The supported spindle requires a way to hold the spindle upright, whether it is on the ground or in a bowl. The other type, the drop spindle, relies on gravity and the thread it is spinning to spin.

In Independencia spinning is done on a drop spindle. A drop spindle consists of a shaft, a straight spike usually made of wood, and a whorl, or weight, which helps to maintain the spinning motion. The whorl can be a heavy ball of clay, fired for durability, with a hole in the center or a disc of wood or other material.

The whorl, which acts as a weight, prevents the thread from knotting. Its placement on the shaft is important. The placement on various parts of the shaft changes how the spinning is done. There are three different placements of whorls: high whorls, low whorls, and center whorls. The placement of the whorl affects the rotation.

Evidence indicates that the high whorl has been in use for spinning yarns for at least 40 centuries. The whorl is situated at the top of the shaft. When winding spun yarn onto the shaft, the spinner uses his or her thigh as a place to roll the yarn. It is a fast motion that allows for ease in winding. The disadvantage is that the yarn can become unbalanced in the process.

In comparison, the low whorl is placed at the bottom of the shaft. This placement allows for a slower and steadier spin. It results in a thicker yarn and the spinner is able to spin a great deal more before he/she has to stop and wind it onto the shaft. When finished yarn needs to be wound onto the shaft, it is the spinner’s fingers that do the

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majority of the work. Rather than rolling the shaft on the spinner’s thigh, the momentum is created by nimble fingers. The center whorl is not widely used and is certainly not employed in Independencia.  

Besides placement of the whorl, how the yarn is secured is also distinctive. Yarn is secured to create tension on the unspun fiber, which is necessary to twist the fiber into yarn when the spindle is turned. With a high whorl, a hook is placed at the top of the whorl. Hooking and unhooking of the yarn is a quick process. With the low whirl, securing of yarn has many options. The yarn can be wrapped around the top of the shaft, looped around the bottom and wrapped around the top, or there is often a hook at the top of the shaft around which to wrap the yarn. Each of these options presents a process that is more time consuming than high whorl spindles. (See Figure 3.2).

In Independencia, low whorl spindles without hooks are used. They have a simple design and style. Most women wrap the yarn twice around the top of the shaft to secure it. This is achieved in one fluid motion, readying the spindle for spinning the next length of yarn. In Bolivia, spinning is often done while tending animals. Women are able to spin while walking slowly or standing still, thus illustrating the reason why the low whorl spindles remains relevant in today’s Bolivia. When using a low whirl spindle, the movement is in the hands. It can be done while sitting or walking, with the added plus that changing position results in very little change in the quality of the yarn. To create a smooth and even yarn, it takes a great deal of concentration and practice. A woman in Bolivia is considered lazy if she is sitting without a drop spindle in her hand.

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Figure 3.2. Woman on the right with a drop spindle. Taken by the author 2010.
To begin spinning on a drop spindle, there are two possible ways of tying on. One method requires a length of yarn to be attached in a loop formation to the spindle. This length of yarn is called the leader. Unspun fiber is stretched and put through the loop. A twist is put in when the shaft is turned and this section is wrapped around the shaft to stabilize the yarn. This is essentially creating the beginning of the yarn. It is immediately wrapped around the base of the spindle.9

The other way is to start spinning without the use of a leader. This is the method used in Independencia. Fiber is stretched out until it is about twice the width of the desired yarn. The end is hand twisted and wrapped around the end of the shaft, the furthest from the whorl. The shaft is turned to set in the twist. Once there is a decent length of spun yarn it is pushed down towards the whorl and wrapped around the shaft.

Drafting or Drawing

Drafting is the process that is accomplished when the roving is pulled, lengthened, and eventually spun. There are three different styles of drafting. The most common is the vertical draft. The spinner is the most comfortable using this method while standing because it necessitates having the hand with the fiber wrapped around the wrist above the hand directing the spindle. It can be more taxing on the body than the other methods because the arms are required to be held out and above the spindle during the spinning process.

In Independencia, the most common method used is the horizontal draw. This allows for a greater range of movement and can be done while walking. The arms are lower, which makes it a more comfortable method. It is within a comfortable line of

9 Gibson-Roberts, 63.
vision so that the spinner does not have to look up while spinning. The fiber hand and spindle hand are at the same level. The hands can be close together or far apart depending on where the spinning is occurring, that is to say, where along in the spinning process and how long the spun yarn is before winding onto the shaft.

Another method used in Independencia is the angular draw. This method has characteristics of both the vertical and horizontal draw. The fiber hand is above the spindle hand across the body. This allows for a longer length of newly created yarn before it is wrapped around the spindle. It is also another method that works well when executing other tasks such as tending to a flock of sheep, watching the children, or just walking.

There are two ways to spin wool. One is the worsted draw, which is unrelated to the worsted preparation of fibers, and is sometimes called the short draw. The twist is contained and does not enter the drafting area until all the drafting is finished. This method is beneficial because the fingers are able to manipulate how much twist enters the yarn. The drawback of this method is that it can be difficult to have fluidity between the sections of the spun yarn.\(^\text{10}\)

The other way to spin wool is called the woolen method, or long draw, again unrelated to the woolen preparation of fibers. This method is the one used in Independencia. There are two ways to use this method. The one consists of spinning the desired thickness of yarn while drafting against the incoming twist. The second woolen method creates a twist into the roving while simultaneously letting the twist advance. This allows the twist to advance and become part of the drawing. The challenge of the

\(^{10}\) Gibson-Roberts, 76.
twist knotting up the fiber too early in the process before the spinner is prepared is the reality. The two methods look the same and pull the fibers away from the spindle in a similar fashion. In both cases, the hands work as conduits of spun yarn with the one hand becoming the controller of the twist, while the other is in charge of the unspun fiber.\textsuperscript{11}

Spinners in Independencia have created their own methods for spinning, which change depending on the task that they have ongoing while spinning. When walking or tending to a flock there is more focus on control. Their draw is shorter and they may switch to a vertical draw. Similarly, they will use this method when they are in small quarters. On the other hand, the most comfortable way of spinning is sitting higher than the drop spindle with room to move one’s arms. This is a luxury and they produce yarn very quickly when this opportunity presents itself. (See Figure 3.3).

Plying

Once the yarn is spun and the spindle is full, the process is repeated again on another spindle. The single yarn found on the spindle can be used by itself but, if it is twisted with one or more other single yarns, it becomes stronger. This twisting process is called plying. Plying single yarn helps create a more balanced, consistent, and stronger yarn. When plying, energy is released into more than one of the singles and they play off of each other, redistributing the energy. The more singles that are plied together the thicker the diameter of the final yarn, more than just the total of each of the singles, due to the pillowing that happens with the balancing of the energy.\textsuperscript{12}

\textsuperscript{11} Gibson-Roberts, 78.
\textsuperscript{12} McCuin, 109.
Figure 3.3. Spinning and drawing fleece. Taken by the author February 12, 2010.
The tighter the twist, the less the likelihood of fiber ends sticking out, which results in pilling. Pilling is when the fibers are rubbed to the point of forming into small balls.\textsuperscript{13}

There are different ways to ply around the world. Many of them involve transferring the yarn into balls and placing the balls on vertical or horizontal rods. These methods help give weight and tension to each spindle of yarn. Gravity takes over in the plying process. The hands are used to guide and twist the yarns together onto a larger spindle.\textsuperscript{14} This plied yarn is left on the spindle overnight to set the yarn.

The Peruvian hand-wrap plying technique involves continually wrapping the yarn around the middle finger and hand. This, too, is quite labor intensive. It necessitates removing the single yarns from the spindle and wrapping them into another form on the hand.\textsuperscript{15} This is not the method used in Independencia. They do not remove the single yarns from the spindle and the yarn is not under tension as it leaves the spindle. Rather, it is the hands of the spinner that create the tension. In the plying process, the yarn is pulled tightly from hand to hand. Usually the left hand guides the plied yarn onto the spindle while the right joins the yarns together. Plying in this manner alleviates the need for extra tools and saves time by not having to remove the yarn from the spindle to put it into another format.

The plied yarn is wrapped around a larger drop spindle to accommodate twice as much yarn. In Independencia, the finished yarn is usually two-ply. It is possible to create more than a two-ply yarn but due to the high torque of the yarn and the unavailability of multiple spindles, it tends to be two-ply. The single yarns are plied

\textsuperscript{13} Gibson-Roberts, 98.
\textsuperscript{14} Ibid. 105.
\textsuperscript{15} Ibid. 104.
together and given an extra spin once plied, giving the yarn a characteristic appearance and performance. (See Figure 3.3).

In Laurie Alderson’s book entitled *Weaving Traditions of Highland Bolivia*, she gives an apt description of how spinning is executed in Bolivia. She writes, that the yarns are spun into a crepe yarn, or over twisted yarn:

The wool process goes through three spinning processes: It is initially spun on a small spindle to obtain a single strand from the raw wool. Next, a larger spindle is used to make a two-ply yarn. After dyeing, the yarn is given a third spinning to produce a crepe twist, a spin so tight that the yarn, when not under tension, twists back on itself. This “over-spin” is an important feature of Bolivian yarns, giving it great strength, elasticity, and a hard, smooth surface. These qualities aid the weaver and the result is a fine, yet durable fabric.¹⁶

This extra step of spinning is an important one. It results in a unique textile profile. The yarn is more durable because of the high twist and the fact that it is plied.¹⁷

Weavers in Independencia need to weave durable textiles because these are used over and over again. They are often woven into bags, belts, blankets, and textiles to sit on, or to use as carrying implements for food. The overspun plied yarn creates a hardy structure for these tasks. On the other hand, the roughness of the weaving makes it undesirable to be worn in direct contact with the skin.

Bolivian women do not spin outside of their comfort zone. They desire to produce uniform yarns and allow the design to evolve during the weaving process. If a yarn is textured it will result in adding a different design element to the weaving. Diane Varney states that “…in weaving: complicated patterns are more visible when worked in

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Figure 3.3. Over-twisted yarn. Taken by the author February 18, 2010.
smooth yarns.\textsuperscript{18} The uniform yarns showcase the color of the yarns and the design of the woven cloth.

The thickness of the yarn will dictate the thickness of the woven textile and balance is key. On a traditional floor loom the yarns are beaten with a beater bar into place. In Independencia the rating is slightly different because during the weaving process, after inserting the weft yarn, the weft yarns are beaten tightly with a llama bone. With the llama bone the weaver can pack the weft yarns more tightly, filling in the spaces between the warp yarns. This results in every weft yarn being covered by a warp yarn if woven correctly. The finest spinners have the finest weavings. Each step along the process from creating the yarn to the final textile will dictate whether or not the finished piece is of high or low quality.

**Skeining and Finishing**

The final step in the spinning process is to skein the yarn. The plied yarn rests on the spindle overnight and is ready the next day to be made into a skein. There are many ways of doing this. The yarn can be taken off of the spindle and wrapped around the elbow and hand or it can be wrapped around two sticks or any other available implements. Either way it results in having the yarn in a large circle, about a half of a yard around.

The finishing of the yarn is just as important as every other step in the process. The final step includes washing the skein in order to make the yarn stronger and more consistent. Regardless of the future dyeing process, the yarn is washed with detergent, and simmered, when available, in hot water. It is also necessary to have a container with cold water. The yarn is placed in the hot, soapy water and agitated. This can be done

\textsuperscript{18} Varney, 15.
with a plunger or any stick-like object at hand. The yarn is taken out and wrung out and shocked in the cold water. This is done multiple times and fills out the yarn. It acts as a light felting process that bonds the fibers in the yarn together. Once the water is cool and the skein is rinsed, the yarn is taken out of the water. All of the water is wrung out of the yarn with a towel.

When water, especially hot water, is not available, this step is overlooked in Independencia. Then the yarn that has been spun is very tight and does not have the light and lofty attributes that they expect of their yarns. In this case, it becomes necessary to “pop” the yarn. This means that it is cracked almost like a whip, thus straightening the yarn and removing the tangles. Both hands are placed inside the skein and the arms pull away from each other quickly and with force. This snaps the yarn and evens out each strand. If the yarn was able to be wet with water, the yarn is hung to dry. If it is not used in its natural color, it is ready to be dyed using natural or synthetic dyes. The skein of yarn is wound into a ball and ready to be used in the weaving process.

The proper execution of the steps in the creation of a textile is necessary for a quality end product. In Independencia the women make do with what they have access to. They shear the sheep, clean the fleece with available water, hand pick out unwanted matter, create a lofty roving, and hand spin it into yarn. They continue this process by using the natural dye materials around them.
CHAPTER IV
NATURAL DYES

This chapter examines the natural dye materials available for dyeing fleece or yarn in Independencia, obstacles in the natural dyeing process, the use of mordants, and the workshops that Dorinda Dutcher, a former Peace Corp worker now living in Independencia, has helped the women organize to coordinate their dyeing, which, in turn has improved color predictability. When William Henry Perkins accidentally discovered the synthetic dye in 1856, natural dyes became increasingly rare. Synthetic dyes were cheaper and easier to use. There was no need to collect local plants, grind them, and boil them in water for long hours, in which they were made. As a result, textiles the world over became less connected to the culture.

A natural dye can be described as a substance that can color fiber permanently and occurs in nature. Dyeing fiber with natural dyes has been an important part of Bolivian life. It requires a great deal of work but can be executed at virtually no monetary cost. Traditionally, dyeing is done in the home. Each step in the process affects the outcome of the final color.

Natural Dyes Currently Used in Independencia

The first step in dyeing with natural dyes is finding the right plants to dye with. Presently the most widely used in Independencia are: *sumakaya*, eucalyptus, *chilka*, *cochineal*, *macha macha*, *suyku*, and *misiq’o*. *Sumakaya* is a tree with bark and wood that yields a bright orange color. *Sumakaya* is not a sustainable dye material because the tree needs to be chopped down. (See Figure 4.1).

Eucalyptus elicits different colors from yellow to green depending on the maturity of the leaves. Although eucalyptus is not native to Bolivia, it has become part of their dyeing culture. Purist dyers will not use it because they do not believe it has the longevity of the other colors that Bolivians have been using for centuries. *Chilka* is a sticky, long, thin, green leaf that grows abundantly in the form of a bush. It is gathered in large quantities and results in various shades of green.

The most well-known and prized natural dye in Bolivia is *cochineal*. *Cochineal* is unique because it is not a plant, but rather an insect and produces has a vast array of colors from pinks, to reds, and purples. It is a tiny bug that feeds off the prickly pear cactus. *Cochineal* bugs, or *Dactylopius coccus*, are insects that feed on the cactus *opuntia*. The cactus *opuntia*, also called *nopal* or *Optunia cochenillifera*, grows well in South America. Adrosko states, “It takes 70,000 dried insects to produce one pound of *cochineal* and an acre planted with *Opuntia* yields 250 to 300 pounds of the insects.”\(^2\) These insects are brushed from the cactus and are killed using a heat source. This can be sun exposure, hot water, or an oven. The dried insects are ground, often using a mortar

Figure 4.1. Processing *sumakaya* for dyeing. Taken by author, 2010.
and pestle, into a powder as fine as flour. They can also be soaked for days without grinding. This method works for dyeing fiber but a large amount of the potential color is lost because not all is released when the insect remains intact. Then cream of tartar helps to stretch the amount of color released from the cochineal bugs when added to the dye pot.

*Macha macha* is rarely used. Although the berries result in a soft blue it lacks longevity and fades to gray over time. The yellow flower *misiq’o* or *bidens andicola* grows in the countryside at a higher elevation than Independencia and, once in the dye pot, produces an orange range of colors. *Suyku*, also producing shades of orange, is varied by the part of the plant being used in the dye pot.

**Obstacles to Dyeing With Natural Dyestuffs**

There are major obstacles in natural dyeing, beginning with the amount of dye plants needed. Natural dye plants have to be collected in large quantities to create a proper dye bath. Also the plants grow wild and often grow off the beaten path. Many plants look similar to the dye plant that is being gathered; therefore, it takes a trained eye to be able to tell the difference. The use of natural dyes throughout the year can also be challenging. The plants vary from season to season in the colors that they provide. A multitude of influences that can alter the final color, including the kind of growing season the plant has undergone and where the plants are found. Even the part of the plant that is used can affect the outcome.³

Once the plants or insects are collected, the next step is to process them into a dye format that works. They are often dried, such as the cochineal bug, but most work best

when they are fresh, such as *misiq’o*. If they are dried, they are usually ground into a powder. For the larger fresh leaves, they are ground with a mortar and pestle. Grinding of the material extracts the color. The ground matter is added to a pot of water and soaked overnight.

Dyeing requires a large amount of water, which might be difficult to source. Water is first brought to a high temperature and then lowered to a consistent temperature. This is easily done using a gas stove but, when one is not available, a fire is used. The pot is taken off of the direct flame and placed on the coals for a more consistent and lower temperature. When it is time for dyeing, the dye bath must be kept at a constant temperature, requiring that someone must be there to watch the pot. These three factors, lack of access to water, the need for a constant and consistent heat source, and time spent watching when there are other tasks to be done, make dyeing in the home a challenge.

**Dyeing Fleece or Yarn**

Sometimes Bolivians “dye in the wool” meaning that they use unspun fleece which has not been handled a great deal. The available sheep’s wool in Independencia is rough and full of unwanted debris. The fiber is handpicked and usually rinsed in water. This results in fiber still laden with lanolin, dirt, and foreign matter. When it is dyed, the color is therefore often inconsistent. Areas are filled with foreign matter, which absorbs some of the dyestuff. Also, when dyeing fleece, the challenge is often to prevent it from felting together. If, however, the dyer chooses to dye fleece, a cheesecloth bag is used to keep the fleece together thus allowing the fleece to move freely in the dye bath for better color consistency with reduced likelihood of felting.
Dyeing the spun yarn is more successful because, during the manipulation and cleaning that happens during the hand-spinning process, more of the particulate matter that resides in the fleece has been removed. For this reason the women are more likely to dye the fiber once it is in the yarn format.

**Mordants**

Mordants are used to broaden the array of natural dye colors available. Altering the mordant can change a dye plant’s color, thus expanding the color range for a dye plant. The word mordant comes from the Latin word *mordere*, which translates “to bite.” The translation is not farfetched when looking at the action that the mordant takes. In actuality, the mordant breaks the fiber structure down and new chemical links are created that allow for dyes to bond to the fiber.\(^4\) Fiber, which has been dyed with a mordant tends to be darker and more colorfast than fiber dyed without a mordant.

The most popular mordants used with natural dyes today are alum (potassium aluminum sulfate), chrome (potassium dichromate), copper (copper sulfate), tartaric acid (cream of tartar), iron (ferrous sulfate), and tin (stannous chloride). Most mordants are, however, expensive and unavailable to the women of Independencia. Also, many are too toxic to consider without adequate disposal solutions. If any mordant is used, it is usually alum, called *millu* by the women in Independencia. It is the most benign of all of the mordants and the cheapest.

Alum is a white mineral that can be found in rocks worldwide. One of the drawbacks of using alum is that it can leave a sticky residue on the yarn.\(^5\) Cream of tartar

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\(^5\) Weigle, 14.
pairs well with alum because it helps to reduce the stickiness. Cream of tartar is also white and is usually in powder form. It is created when wine is fermented and, historically, it was extracted by scraping the sides of the wine barrel.  

Within the dyeing process there are three opportunities to use mordants: before, during, or after the color is added to the dye pot. Using a pre-mordant is the most popular and is often used when the fibers are already assembled in yarn form. It establishes good colorfast properties. Pre-mordanting can be done at any time before dyeing. Often the skeins will hang a season or two before going into the dye pot. The mordant baths can be reused as long as the water is clean and more mordant is added.

It is more difficult to pre-mordant if the fiber is in unspun fleece form. Putting the fleece into the mordant bath tends to tangle the fleece, making it a challenge to spin. Unspun fleece is best mordanted in the dye bath. The fiber is already being handled during the dye process so this puts two steps into one. The resulting colors might be variable due to both the inconsistent concentrations of mordant and fibers that are still within the lock formation, thus interrupting dye absorption, an issue worth considering. Subsequent fiber manipulation, however, will mute the variability.

Using a post-mordant is done after the fiber, or yarn, has been dyed. Post mordanting allows for changing of the color if it was not satisfactorily achieved using the two prior methods. Typically, this method is most successful when using the kinds of mordants not used regularly in Independencia. It also adds an extra step in an already labor intensive process. For these reasons, post-mordanting is highly unusual in Independencia.

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6 Weigle, 14.
7 Stralen, 37.
Typically, dyeing is a solitary activity within the home, where family might come and go and would help with various tasks. As of late, the men often have to travel for work and are gone for months at a time. This leaves the women in charge of the home, children, and, if they have a farm, the farm and animals. Having time to dye is a luxury while at the same time a necessity.

Natural Dye Workshops in Independencia

In Independencia and sometimes in the surrounding villages, including Huancarani, Dorinda Dutcher has helped to designate dyeing workshops days. The women come together in a central location, bringing their supplies. Usually, the weavers do not take the time or have the mordant and/or space to pre-mordant their yarns. This works well for the women as Dorinda can arrange to have alum and tartaric acid available to them at the dye workshop. Using a mordant in the dye bath is the most common. The dyer starts with a low amount of mordant and increases the amount as she tries to adjust for the lack of consistency in the amount of fiber that she dyes at any one time. The inconsistency in the ratio of mordant to fiber also affects the outcome of the fiber color. If the dye bath is overflowing with fiber, certain areas will not receive as much dye. If there is not much fiber in the bath, the fiber will be saturated, often giving it a darker color than planned.

Traditionally, mordants are used as a proportion of the weight of the fiber. In Independencia, dye workshops rely on the amount of water available. It is not known in advance how much fiber will be dyed because the women are coming from different areas with varying amounts to dye. The bath is always re-used at dye workshops. In order to do this, about half the amount of mordant used in the first bath is added to the
second bath. For example, if there were ten grams of alum and five grams of cream of tartar in the first, then five grams of alum and two and a half of cream of tartar is used in the second bath.

Bringing the women together allows for the many dyeing steps to be accomplished simultaneously and with many helping hands. Small children are welcome and play together, giving the women an even better capability to work. It frees their hands and their minds while allowing them to share ideas. The women work together to execute a successful dye workshop and the process is as follows:

1. Gather the dye plants.
2. Change them into their appropriate format; grind into a powder or mash with a mortar and pestle.
3. Add to a pot of water. Some dye plants need to soak overnight and this is done prior to the dye workshop.
4. Add necessary ingredients: pre-mordants, cream of tartar depending on the dye plant.
5. Bring to a boil.
6. Add fiber, yarn, or textile.
7. Continue to boil.
8. Let cool, some may soak overnight.
9. Rinse the fiber with water and hang to dry.

On March 20, 2011 one such dye workshop was held. There were two sets of yarn, one that had been pre-mordanted with 12 percent alum and 6 percent cream of tartar.
The other had not been pre-mordanted. They used yarn from local sheep, which was hand-spun locally.

The natural dyes used were: *sumakaya, chilka, cochineal, macha macha, misiq’o, and suyku*. The bark of the *sumakaya* tree was stripped from three logs and put into a boiling pot of water for thirty minutes. Thirty grams of the mordant alum was used, followed by more *sumakaya*, and a final twenty grams of alum. This was then boiled for forty-five minutes and left to cool. For this specific dye workshop, two kilos of yarn were dyed. The final color elicited a mustard yellow yarn, or yellow on the chart. There was not much difference between the yarn that was pre-mordanted and the one that was not.

The next dye plant in the workshop was *chilka*. The leaves were ground with a mortar and pestle and added to a forty-liter pot of water. This boiled for an hour and then ten grams of *millu*/alum were added. The plants were boiled down so more were added. Eighteen grams of *millu*/alum were added following with two kilos of yarn. This boiled for forty-five minutes and was cooled down. (See Figure 4.2). The final color was drab for the pre-mordanted yarn and dark slate for the yarn without a mordant.

*Cochineal, or makhnu,* is one of the most desirable dyes in the natural dye world. A small amount can be exploited to make a vast array of colors. The majority of natural dyes are in the range of browns, yellows, and greens, while cochineal can illicit light pinks, bright reds, deep purples, maroons, and corals. It also dyes well with other natural dyes to create an even broader range of colors.
Figure 4.2. Chilka leaves in a dye pot. Taken by the author in Independencia, Bolivia, February 13, 2010.
The cochineal used on this particular dye day was not gathered nearby. Most likely, it was grown on a cochineal farm. Wild cochineal bugs do not yield as much dye as the domesticated variety.\textsuperscript{8} The cochineal bugs were ground into a powder and soaked overnight. For this dye workshop 300 grams of cochineal were used. In the initial dye bath, fifty grams of alum and thirty grams of cream of tartar were used. This elicited a dark red or scarlet yarn without a pre-mordant and a dark pink or beet’s root, for the yarn that was fixed with a pre-mordant. The second cochineal bath used the remnants of the prior bath. Fifty grams of cream of tartar were added. The yarn without the pre-mordant became darker than the yarn with the pre-mordant, but it was lighter than the first bath. The pre-mordanted yarn was the lightest of the four yarns and would be considered a pink on the chart. Since cochineal is usually bought and can be expensive, multiple baths of the same dye were used. They elicited various shades of pinks, reds, and purples depending on whether alum was used and the number of baths that were used.

On the other end of the spectrum is macha macha. This is not widely used because it lacks longevity. For this dye workshop, seventy-six grams of macha macha was heated for thirty minutes. The fiber was added and boiled for forty-five minutes. This was left to sit overnight and cool. The initial dyed yarn was a bright blue on the same plateau of indigo. This vibrant color quickly faded into a grayish blue within weeks even when not subjected to light or other intrusive variables.

However, macha macha does provide the much-desired blue, while indigo, the usual source for blue is not available. The macha macha berry provides an alternative source of blue. Macha macha looks like a small, round blueberry and has the additional

\textsuperscript{8} Adrosko, 24.
feature of dyeing fiber. It grows on a bush that is found throughout the Andes at altitudes higher than Independencia. Many of the people avoid it not only because it fades, but also because there are two kinds of bushes: one whose berries dye wool and another that makes sheep ill if they ingest it.

*Misq’o* leaves the yarn an orange color. For this workshop, 247 grams were soaked in water for two days. This was then brought to a boil for ten minutes. Ten grams of alum were added, along with eighty-one grams of fiber. This boiled for thirty minutes and cooled. During a different dye workshop, twice as much *misq’o* and alum was used. The resulting color was darker and more saturated.

*Suyku* results in a wide range of color, from mustard yellow, burnt orange, to olive green. The leaves result in the more yellow-green spectrum while the flowers produce in the orange-green spectrum. The flower part of the plant is an orange/yellow color. For the first bath, 926 grams of the *suyku* leaves soaked for two days. This was brought to a boil for thirty minutes and fifty-four grams of salt was added. Then 340 grams of fiber were added to the bath and boiled for forty-five minutes. The resulting colors were green with a pre-mordant and a brown olive without the use of a pre-mordant. Using the same bath, twenty grams of alum were added along with one hundred and thirty grams of fiber. The resulting color of the yarn without a pre-mordant was a drab sage. The result with a pre-mordant was more of a sage color.

*Suyku* flowers, although orange/yellow, resulted in an olive green. For this workshop 1,044 grams of flowers soaked for two days. On the day of the workshop, more water was added and then boiled for forty-five minutes. Twenty grams of alum were added along with twenty grams of fiber. This boiled for thirty minutes.
These dye workshops allowed the women to express their creativity. Contrary to working alone on each labor-intensive step within the dyeing process, while tending to daily activities, here, they are able to share the burdens. At home, whatever color the yarn turned was how it stayed. At the workshop, they were now able to over dye yarn that had been dyed at an earlier workshop to get the results they wanted in the colors they needed. This sort of experimentation expands the colors from which to choose. It increases the complexity of their weaving and also increases their enjoyment and pride.

When the dye workshops first started, there was a lot of trial and error. Often the pots were overloaded with fiber. Because the fiber was not able to move in the bath, the colors were inconsistent. Mordants also presented a challenge. It has evolved over the years and now the women work together at the workshops. Doña Máxima, one of the weavers, has stepped into a leadership role and is comfortable measuring the dye and instructing others. She always has her hands in the pot and loves to see new colors.

Two dyestuffs, marigold and madder, were not mentioned above because they were not available on the relevant dyeing days. Yet they form a crucial part of the color wheel available to the women. Yellow is a mainstay when naturally dyeing. There are many yellow plant sources from which to pick, but marigold is a very easy plant to use. It is readily available, hardy, and sustainable. If a flower is picked, more grow in its place. The marigold dye offers a broad range of colors from yellow, orange, to brown. The flowers are easily stored and they can be used when they are fresh or when they are dried.

Reds are always a desired color in natural dyeing. They break up the monochromatic color range of most natural dyes. Cochineal is the best-known red
dyestuff but madder, *Rubia tinctorum*, is a close second. Madder dye is in the root of the madder plant. It is ground into a paste or soaked overnight in the root form.

The palette for natural dyers in Independencia is robust and satisfying. Although it takes a great deal of work, vibrant natural dyes are right there at their fingertips and are inexpensive to use. Once the yarn is dyed, it is ready to be woven into cloth. The following chapter will discuss the making of the cloth.
Weaving, regardless of where in the world it is being done, follows the same basic premise. The warp yarns are the primary vertical parallel yarns on the loom and are set under tension. Between the warp yarns, perpendicular weft yarns are horizontally inserted above or below each warp yarn. The choice to insert above or below the warp yarns creates patterns. With all weaving based on this premise, it becomes useful to examine weaving specific to the Andean region and, more importantly, to Independencia.

Weaving in Bolivia began more than three thousand years ago. There are not many things that have changed since then, although the process has had a few adjustments from region to region. Different types of looms exist worldwide. In Bolivia there are two main types of looms: the frame loom and the backstrap loom. In the Independencia and Cochabamba areas, backstrap looms are not used a great deal. They are used more in Peru and the area of Bolivia closest to Peru.

Regardless of the kind of loom, Andean weavers all produce cloth that is enclosed on all four edges. Using a continuous warp and continuous weft ensures that this happens. The method used to warp the loom creates the continuous warp. This involves wrapping yarn around two stakes, which creates a fixed tension, and when colors need to be changed, they are simply tied onto the previous color.
The oblique loom, a type of frame loom, is primarily the loom used in Independencia. An oblique loom consists of two wooden poles made of small tree trunks that are about ten to twelve inches in circumference. These make up the sides of the loom and lean against a wall. An interesting characteristic is that the length of the warp yarn is the length of the end product. Every inch is woven and used. When analysis is done of the warp ends of a finished textile you are able to see that it is wrapped around a piece of yarn or a group of weft yarns. It is called a heading cord and is held in place by yarn being wrapped around the heading cord and loom bars. This helps in identifying where the warp started on the loom because there are no symbols woven in the area closest to the heading cord. Warp yarns, in other parts of the world, are usually wrapped around the loom bars or loom beams. If this is done there is a lot of wasted yarn at the beginning and end of the weaving.

In the case of the oblique loom, to create the warp, the loom is laid horizontally on the ground. Warp yarns are wound in a figure eight around the top and bottom warp beam. The colors are chosen at this point and the warped loom is put against the wall and the weaving begins. The weft yarns are passed through multiple times to make sure the weaving is balanced before starting to add symbols. (See Figure 5.1).

Andean weavings have their own identifiable characteristics, including symbols representing the world around them, a multitude of bright colors, but most evident is the tightly spun yarn. Once dyed and dried, the yarn is then given one more twist, before it is woven into cloth. At this point in the process the yarn is considered a crepe twist. This extra twist gives the yarn a higher torque and gives the cloth a special look. The yarn is spun so tightly that it collapses in on itself if it is not held taunt.
Figure 5.1. Weaving on an oblique loom. Taken by the author on February 21, 2010.
Within the woven cloth, this twist also prevents it from pilling because the individual fibers are so tightly spun that they cannot be pulled out. The yarns fall into each other to create a stronger finished textile, with a slight three-dimensional collapsed appearance.

The women weave complementary-warp weaves which can be identified by two warp yarns paired together that alternate front and back depending on the design. This creates a two-sided design that can be the same on both sides if the same colors are used, or opposite if two different colors are used. The balance in design also represents the idea of reciprocity in Andean culture. In weaving it is important to find balance because if the weaving is not balanced it will not be a successfully finished textile. There is a constant desire to find balance in life as in weaving. A mother will teach her daughter to weave and in return the daughter will help with weaving for the family. There is also a strong emphasis on packing a tight weft in order to accomplish this.

Bolivian weavings tend to be warp-faced, which means that the warp yarns are closer together than the weft yarns. This makes the warp yarns prominent and they dictate the pattern of the weaving. In a warp-faced plain weave there are more warp strands than weft strands and they are packed in tightly. The weft will become part of the structure not the design. It does not matter what color yarn is used in the weft because if it is seen it is not a successful weaving. In the areas of the weaving that do not have symbols it is considered a warp faced plain weave. In the areas of the weaving with symbols there is more variation.

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A traditional weaving pattern is over one, under one. When the creation of a symbol is desired, this recipe is not followed. In some cases the warp strands float, which refers to any portion of a warp or weft element that extends, unbound over two or more units of the opposite set on either face of a fabric. Floating on one side will be the same on both faces but in different colors. This is commonly referred to as reversible or counterchanged. The more apt description is reciprocal reversal of color, which is to say that both sides can be considered the front. Once again, this idea of reciprocity remains a current theme in Bolivian culture.

The colors of the designs in the weavings are put into place when the warp is created. There is little variation that can be made once the warp is set. Extra care must be taken when planning a warp by making sure it is balanced in reference to color. A striping sequence is often created when warping. Cutting the current warping yarn and starting a new one changes the colors in the warp, a skill exploited by Andean weavers called scaffolding. There are some design changes made during the weaving process. For example, the weaver could put two different colored yarns into one heddle. The weaver is able to decide which one will be picked up for the front leaving the alternating color on the back. This technique is unique to Andean weavers.

A key element in looking at the quality of a finished weaving is whether or not weft yarns are visible. If they are hidden it is a successful piece because these are warp-faced textiles. These mistakes happen if the yarns are not firm enough, or too loose of yarns, and if the weft is not beat well enough into position. Another issue can be that the weaver does not pick up the correct warp yarns to create a successful symbol.
The design motifs in Bolivia tend to be figures or animals, sometimes symbols, and are made to interlink warp-wise in a continuous fashion. Most notable, visually, in Bolivian weavings are the vertical stripes. The more advanced weavings have narrower stripes, with designs contained within some of these narrow stripes. This is a common and favored attribute of warp-faced weavings. (See Figure 5.2).

An often over-looked piece of weaving is the Bolivian tubular edging, often called a *ribete*. It usually forms the trim of the textile and can be woven in during the weaving process. If it is not created during the weaving process, the *ribete* can be constructed on its own, and sewn onto the edge after the weaving is complete. It becomes the “glue” that holds an item together. There are a variety of ways that it can be an element in construction but the main goal is to prevent fraying and hold seams together.³ When it is not used at the seams, it is used for decorative purposes such as hanging from the bottom of a bag with tassels. It can also be used as a tying element.

Bolivian tubular edging is warp-faced, as is the body of the woven object. It is constructed using yarn, sticks, and llama bones. The weaver uses her fingers to manipulate the yarn and create symbols as design elements. A piece that is nearing perfection does not show any weft. The weft is packed tightly in between each warp yarn until the weft is completely covered. The number of warp ends per inch is greater than the number of picks per inch making this process somewhat easier.

Figure 5.2. Finished Textile. Taken by the author March 2014.
Design symbols within a weaving, whether within the body of the textile or the tubular edge, are created by derived float weaves.\(^4\) These are finger manipulated by intentionally skipping a yarn in a plain weave. A plain weave is a structure that moves a weft yarn over one warp then under the next warp. By skipping and leaving a yarn up, the color (if it is an alternating color on the back) shows through and will have a color seen twice in a row. By skipping one interlacement it results in three warps showing in a sequence, thus creating the design. This is the same on both sides of the fabric, only with the opposite colors.\(^5\) These skips are called floats. Floats “are associated with floats of the opposite set of elements on the opposite face of the fabric.”\(^6\) The repetition of floats can create different patterns such as a twill weave. Alternating float patterns can exhibit continuous patterns. The more series of floats without repetition, the more detailed the pattern or symbol. This, therefore, is the basis of all design in Andean weaving.

There is extra emphasis placed on finishing the final selvedge of the weaving because the entire aesthetic quality of it is based on the skill level of the weaver and the most apparent detail is the final weft shot. Also, if it is not done correctly the entire piece will come apart and be lopsided. At times the last few wefts are put in place using a needle to ensure stability.

The benefit to using an oblique loom is that the weaver is not restricted to one particular position because it leans up against the wall. When they are manipulating yarns to create symbols, an oblique loom allows them freedom of movement. (See Figure 5.2).

\(^4\) Rowe, 53.
\(^5\) Rowe, 53.
Figure 5.2. Finger manipulating the yarn. Taken by the author February 18th 2010.
They can sit or stand, but the majority of the time they are squatting to attain the best angle to beat in the weft and manipulate the warp. They also have more control over how wide the weaving will be. A major drawback is that it is more time consuming to do because it relies on the more detailed handwork, particularly the care required at the selvedge edge.⁷

In Independencia, all of these techniques are familiar. While the underlying premise of weaving might be the same, there are certain elements that are altered from region to region. In Peru, they use the more mobile backstrap loom. They are able to weave amongst small groups of women and it is considered to be a social activity. In Bolivia, it is more of the mother to daughter connection. The rather large oblique loom is set vertically against the wall. Once the loom is warped it has to stay in one place. This lack of mobility and the looms size means that once the warp is on the loom it must be finished as soon as possible. There is very limited space in the homes; usually it is just one or two shared rooms. A loom would take up an entire corner. This shines a light on how important weaving is in family life.

This also indicates that those who encounter the loom are mostly family members. Additionally, since most of the men married to the women in this study worked the land, it is apparent that the people who come into major contact with the loom are typically the mother and children. They are isolated in the countryside while the husband is working all day outdoors on their land or has travelled away for work. If a daughter does not receive an education, and therefore is exposed to the loom and weaving every day, she will most likely learn how to weave.

It is not unusual that weaving is a part of daily life in small communities. Weavers in Miramar, Mexico, for example, traditionally wove together as a group. The children grew up herding the sheep and watched as the sheep were sheared and the processing of the fiber began. They observed every step. The daughters learned to weave on the same backstrap looms that their mothers and aunts used.\(^8\)

Weaving gives women their community and support. It also gives them a platform on which to value their work. They all understand the amount of time and energy that goes into the creation of a textile. The income from their textiles allows them to pay for necessities, like medicine, when their husbands are away or have passed on.\(^9\)

In order to understand the context of weaving, it is important to look at the relationship between the weaver and the cloth. In any art form we have a broader understanding of the finished product when we view the relationship between the artist and the object.\(^10\) At times the process was done differently using an array of implements. The process is as significant as the product. The artist has control of weaving at every single stage of production. If weaving is a large part of their daily activities, it becomes part of their cultural expression.\(^11\) The weaver has a strong awareness of the yarns that she uses. Andean cloth is dual sided. The weaver decides if both sides are the same color, alternating colors, or a little of both. The weaver knows which yarns are facing upwards, those that are on the underside, and what is happening on the inside of the cloth.

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\(^8\) Lockhart-Radtke, 15.
\(^9\) Ibid. 33.
It is such a tactile process that a weaver is not happy just looking at a textile. She wants to touch and feel it. Franquemont eloquently sums this up:

> Just as musicians can translate sounds into the motions of playing their instruments, weavers are able to translate visual information directly into kinetic activity without passing it through the filter of words in their minds. Even the very best of weavers are rarely able to express themselves well in words about their work, which has inhibited the anthropological study of weavers and textiles for many decades.\(^{12}\)

Regardless, examining the elements of textile creation is the platform for understanding what the current climate is. Ethnographic research helps to preserve these traditional processes as well as records the current grassroots operations happening in Bolivia. The following chapter will discuss various organizations that are interested in uncovering methods for achieving cultural sustainably as evidence through viable traditional art/craft production and also how their work is benefitting the women and their communities.

\(^{12}\) Franquemont, 32-33.
CHAPTER VI

REVIVING TEXTILE TRADITIONS

Documentation of textile traditions has not been a high priority in Independencia. Traditions have been orally taught and passed on from one generation to the next. It is through experience that this art form is learned and preserved. Up until now grandmothers and mothers taught their daughters to weave in the home and, in this way, textile information stayed relevant. The dye recipes, spinning, and weaving techniques became part of women’s lives and they continue to believe it will live on through their children. This chapter examines perspectives of weaving from Doña Máxima’s experience living in Independencia and as a village leader. It communicates the position of the teenagers, particularly as it relates to their roles within the family and their goals for the future. It then explains the organization of PAZA and the related dye workshops. Of equal importance is the impact that The Center for Traditional Textiles in Cusco, Peru, and its Tinkuy is having on the women in Independencia. Finally, it summarizes the women’s empowerment through Spinzilla, an event sponsored by The National Needle Arts Association.

Doña Máxima

Doña Maxima has taken a lead role in organizing and motivating the women in Independencia. At forty-two she is the youngest participating woman and is a master
weaver who has become a teacher/mentor for the weavers in the village. She assures quality standards and works at the store. The store is the central meeting place for women and it houses textiles that they have woven and are now for sale. It is also a meeting place for the women, where they take classes and work on projects together. As a leader, Doña Maxíma often helps the women choose their colors and warp their looms. Due to health reasons, she has not been able to weave as much as she would like. While growing up, weaving was a very significant aspect of her life. Weaving encompassed, even as an adolescent, her identity as a woman. Her self-esteem was entwined with her level of skill. Doña Maxima remembers growing up learning different weaving symbols. Her most memorable symbol is the *linku*.

When Doña Maxima was about eight years old, her mother showed her how to do the *linku* figure (curve). The following day she took the flock of sheep out to pasture and could not remember the figure. She hoped her mother had forgotten that she had taught her, but no such luck. She showed her mother the *huato*, a woven band about an inch wide, with no *linku* figure and was sorry she had let her mother down. Her mother showed her the figure again. The next day as soon as she found a place for the sheep to graze she sat down and wove the *huato* with the *linku* figure - never to forget it again, but to always think of her mother when she weaves it. Her older brother was impressed with her *huato* and bought it from her for a hatband - her first sale.¹

**Young Girls in Independencia**

The girls in the eleven to sixteen year-old-range, when asked about their plans for the future, tend to be consistent with their responses. Education is definitely a priority.

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¹ Dorinda Dutcher, e-mail message to author, September 9, 2014.
All of them plan on finishing high school and going away to college or trade school. Travel is on their minds as well. They want to see various places before settling down. Many have visited family in larger cities like Cochabamba in Bolivia, but others have not made that trip. The general consensus is that they will eventually return to Independencia to live. Their desired occupations range from veterinarians and nurses to actresses, while some remain undecided. Most of the occupations that they are considering would not be available in Independencia and therefore would require travel.

Learning to weave has been a recent experience for them. They grew up observing their mothers and grandmothers spinning and weaving in the home. Observing prior generations practicing their textile arts is a memory of their childhood. Their mothers continue to spin and weave in the home but, for the first time, this generation of daughters has not been taught these skills with the same rigor, due mainly to the fact that they are away much of the time while at school. They enjoy weaving but see it as more of a hobby than a source of income. The majority of the girls wear clothes that are purchased and do not have to weave and sew their own clothes.

Their mothers and grandmothers made all of their own clothes growing up. Currently, they still wear the traditional costume, consisting of a pollera (skirt) that is usually homemade or made by the local seamstress, and a blouse that is machine made. The traditional pollera is made of naturally dyed wool and is shaped with pleats, which require a great deal of fabric. This style has not changed today but often is made with synthetic material like polyester. The young girls who wear the pollera today choose bright shiny colors and Dorinda says “they shine like gems in the sun.” The young girls that dress in the Western style only wear the traditional garments for special school
events and festivals. In their daily life, they wear jeans, exercise pants, and t-shirts. Some of their older sisters dress in traditional dress. Of all of the older girls interviewed, only one has thought about wearing the traditional style in the future.

All the mothers have much the same goals for their daughters. Education remains at the forefront of their plans for their children. Their sons are expected to continue their education or find work, but education for girls has not always been a priority. Many of the women are illiterate because school was not available to them growing up. They want their daughters to have opportunities that they did not have. Continuing the textile traditions, however, is also important to them. They understand what is being given up when their daughters are not at home with them learning to dye, spin, and weave. Yet, on the other hand, while the women rely on their weaving for income, they do not want their daughters to have to do the same.

Life is full for the families of Independencia. This is true for the children early on in life. Children are given responsibilities at a young age and are active participants within the family. The older siblings care for the younger siblings and everyone helps out with the work. This sense of cooperation and family responsibility has become unbalanced, however, due to the availability of education. Families take education seriously, so much so that the family often separates while school is in session. The schools are in town, but many of the students are from the countryside. They either walk long distances to get to school or they live with friends or relatives, or their families end up moving into the village. These sacrifices allow the children to attend school longer.

This disconnect creates confusion for the younger generation who are finding their path in life. They are brought up working to support the family and helping with the
daily chores. When they are old enough to attend school, there is a lack of continuity while they are away. When the younger girls were asked questions about their future they struggled with the responses. They know they should receive as much education as possible but they also know that their families need their support. They are divided on the issue because, on one hand, their parents want them to be educated and have a better life. On the other hand, they know their family struggles with the financial demands of schooling.

Learning to weave adds to their confusion and frustration. It is something they should know but are not there to learn. When asked about weaving, their body language indicates that weaving should be naturally something that they can do. Textiles are their connection to their families when they are away. The yarn is made from the wool of their sheep, the colors are from the plants they pass while tending the sheep, and the symbols in the weavings are images they have grown up with. They leave for school when they are young and often have to fend for themselves. Weaving creates the family connection to the present, but also impacts what the future holds for them.

**Project Artesania Zona Andina (PAZA)**

Politics play a role in the preservation or destruction of textile traditions. The United States and Bolivia, which is now known as the Plurinational State of Bolivia, have had a strained relationship over recent years. Coca leaves have historically been a large part of Bolivian culture. They are used during rituals and chewed to help alleviate altitude sickness. With the rise of cocaine use in the 1970s and 1980s, cultivation and gathering of the coca leaf became controversial. Today coca leaf harvesting remains the fastest growing industry in Bolivia. The coca leaf is exported to Columbia with the end
product, cocaine, exported to the United States and Europe. In 2005, Evo Morales, a coca union leader, was elected president. By 2008, the relationship between Bolivia and the United States was at a breaking point. The U.S. Federal Drug Enforcement Agency (DEA) was kicked out of Bolivia in 2008.²

President George W. Bush responded to the expulsion of the DEA and his perceived failure to fight drug trafficking in Bolivia by suspending trade preferences. The Washington Post reported “This is the first time Bolivia has been excluded from the Andean Trade Preference Act, enacted in 1991, which affords some South American countries lower tariffs on certain exports to the United States.”³ The fallout has had an enormous effect on the export of Andean textiles. Since 1991, the United States had allowed Bolivia to export products duty-free to them. As of 2008, this is no longer true.

Bolivia's minister of the presidency, Juan Ramón Quintana, stated: “From the Bolivian perspective, this is an absurdity... Washington pretends they are going to confront the national government through this textiles sector. If Washington were aware of some basic facts, they would know this sector was always in opposition to the national government.”⁴ Because Bolivia was unable to export textiles, both hand and machine-made, many Bolivians lost their jobs and were forced to work in the coca fields to feed their families.

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⁴ Ibid.
During this time Dorinda Dutcher arrived in Independencia as a Peace Corp volunteer. She was asked to help market textiles and revive the natural dyeing techniques. Due to the political unrest, the Peace Corp left Bolivia in 2008. Dorinda decided to stay and continue her work on her own.

Several organizations over the years have supported rural communities. Their impact was first felt for the 1953 Agrarian Reform Act, which benefited the community by allowing for the education of girls. It also provided for the rationale to establish socio-political organizations at various governmental levels. The community level sits at the lowest rung and this is where these organizations settle community issues and petition for community projects. PAZA, Project Artesania Zona Andina, came into existence in 2007. In its infancy, PAZA worked within this structure. With permission and funding from the municipal government, natural dye workshops were held within five women’s rural community organizations. The intent remains that, during the natural dye workshops, women come together to collectively dye, contrasting sharply with the traditional manner of dyeing at home. Gas stoves were provided which negate the need for wood. At the workshops, water continues to be available. There are many eyes to watch the pot and hands can continue to be busy spinning yarn.

Women meet and exchange stories and ideas. Their children play together, giving the women a break. They are able to show their latest work and receive feedback. Instead of weaving and spinning in solitude, they are able to laugh and talk with other women. Fiber and yarn is dyed in large quantities and in pots that are dedicated solely to dyeing. When dyeing at home, they use pots that are also used to cook food, which is not the best solution from a safety perspective. (See Figure 6.1).
Figure 6.1. Weavers together in Huancarani, a neighboring village to Independencia.

Taken by the author March 18, 2011.
The women who have attended the dyeing workshops have solidified their commitment to traditional weaving. They have a great deal of pride in their work. In the past, the women were at home with their children, teaching them the textile traditions. With patterns of life changing, men moving away for work and children going to school, women became busier in the home and more disconnected from their community, resulting in a decrease in the normal transfer of ideas through conversation. The impulse to retain the tradition declined.

In 2009, the Municipal Organization that governs Independencia told Dorinda that she could no longer continue to work with her counterpart, Doña Maxima. She refused to abide by these terms. The Municipal Organization wanted complete control and believed that job placement was based on donation to the previous year’s election campaign rather than on skills or qualifications. Much to the dismay of the Municipal Organization, Dorinda continued to work with Doña Maxima, by paying her out of pocket, and asked that she be the PAZA trainer and work in sales.

By this time PAZA had a plaza kiosk store that was located in the center of Independencia, near the church. It was small but centrally located and usually a busy place on Sundays, which were market days. Soon after the disagreement with the municipal government, Dorinda found it best to move out of that location. PAZA moved to one of the rooms she rents as her domicile.

All was quiet for a few months and there was some discussion of once again creating a relationship between PAZA and the Municipal Organization. Dorinda and
Doña Máxima attended a Municipal Organization meeting and were verbally attacked. Many believed that PAZA was trying to sell their textiles and traditions.

The Club de Chicas (currently Artesanas) was created in 2010 out of the inability of PAZA to work in rural communities due to political reasons. The Club de Chicas is geared toward the younger generation, to spur interest and excitement in their textile traditions. The Chicas, as the participants are called, learn traditional weaving techniques, baking, and they have access to a computer and small library. They socialize with their peers and learn from the adults. Doña Máxima taught them to use a drop spindle and weave. The spinning created much enthusiasm. Four of the current members learned to weave and have sold some of their textiles. The adults are also offered new opportunities. They are able to exchange ideas and learn new techniques. Under this new structure, the dye workshops are also able to continue.

**The Center for Traditional Textiles of Cuzco**

The women of Independencia aspire to emulate changes occurring in the Cuzco, Peru, area, where Nilda Callañaupa has been successful at reviving weaving traditions. She has discovered techniques that were thought to be lost over five hundred years ago. She opened The Center for Traditional Textiles of Cuzco. Her focus is on preservation and education. In the gift shop, visitors can weave on backstrap looms. It is a unique place, which is educational for visitors and tourists, as well as a place for the community to interact. Nilda understands what weaving represents to her culture.\(^5\)

Nilda Callañaupa is from Chinchero, Peru, where she learned how to spin and weave starting at the age of five. These traditions were passed down to her from older

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generations, particularly her mother. She sees how this tradition is changing. Instead of spinning natural fibers today’s weavers are purchasing manufactured yarns with which to weave. Nilda has said, “Not only do I hope that young people will continue their traditions, but I would like to see Inca children today experiencing the joy, sense of identity and accomplishment that spinning and weaving can bring to their lives.”

Her latest publication *Faces of Tradition: Weaving Elders of the Andes* features the elders of the community including her mother. There is a description about the life of each woman. A constant theme throughout is the fact that the majority are widows and for the most part left to care for their families. Their children have grown up and moved away and are not interested in being taught the textile traditions.

The Cusco center was started in 1996 in an effort to discover which Andean weaving traditions was still being utilized today. First Nilda sought to educate people within her culture and outside of her culture about the importance of preserving textile traditions. Then her goal moved beyond preservation to helping those who were creating these textiles. In order for this venture to be viable it was necessary to create a market for the weavings. This effort has created a community of weavers that are self-sustaining. The majority of weavers come from an agricultural background. They also tend their flocks of sheep and grow vegetables.

Nilda has now gone beyond even that goal now. Her most recent contribution has been to organize the Tinkuy: A Gathering of Weavers. The premise was to bring indigenous weavers together from around the world and create a platform for cultural

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exchange. The first gathering was held November 5 to 8, 2010 and a second gathering took place in Cusco, Peru, from November 12 to 15, 2013.

**Tinkuy: A Gathering of Weavers**

The Center for Traditional Textiles of Cusco (CTTC) has hosted two events, called Tinkuy: A Gathering of Weavers. To invite participation at each Tinkuy, CTTC stated that:

> The purpose of the Tinkuy is to broaden horizons, deepen understandings, and forge connections among people who are passionate about textiles. Weavers from nine communities associated with CTTC, and weavers from several other countries of the Americas, will share traditions and techniques, and with all those who value the art and craft of weaving and spinning. In addition to presentations by the local and visiting weaving communities, there will be illustrated talks by specialists on themes of common interest: fibers, natural dyes, historic textiles, and international projects that support weavers.

Doña Máxima and Dorinda Dutcher attended this first gathering together. Doña Máxima was nervous and quiet for most of the gathering. She enjoyed observing the other weavers and seeing their looms that were new to her.

The second Tinkuy took place in Cusco, Peru, from November 12-16, 2013. For Dorinda Dutcher, Doña Máxima, Doña Antonia, and Lizeth there was much anticipation in the air. All of the experiences would be new. Each leg of the trip allowed the Bolivian women to acclimate to being out of their comfort zones. Doña Máxima was filled with confidence since this was her second Tinkuy. She was excited to learn backstrap weaving and to take a natural dye workshop with Nilda Callañaupa.

While shopping in Copacabana, Bolivia, she told everyone she met where she was headed. Disappointment came at the border when Lizeth, sixteen, was unable to cross.

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because her father was not present, even though she was with her mother. Doña Antonia, her mother, and Lizeth travelled back home while Doña Maxima and Dorinda continued on. Although Doña Antonia and Lizeth were unable to attend the Tinkuy, it was still a life-altering experience. In the future Lizeth may be willing to take more risks than girls who did not have this experience at travelling.

The Tinkuy began with a parade through Cusco, with many tourists taking pictures. The Tinkuy program consisted of speakers who discussed relevant issues in the textile world. This was then followed by an open market session where weavers could interact, shop, and demonstrate their weaving style. (See Figure 6.2). There were workshops to attend with opportunities to learn about subjects such as backstrap weaving, eye border technique, hat scallop knitting, Andean sling braiding, and ticlla. The CTTC website states that ticlla “is the process of scaffolding textiles. A process thought to be extinct, ticlla was rediscovered by the CTTC in this community and revitalized through the teaching of younger weavers.”9 The young weavers teaching the workshops were from the CTTC. In the evening weavers from various groups were able to go onstage and talk about where they were from and what they were doing. Topics ranged from Andean slings to the importance of preserving textile traditions. The evenings ended with spinning, singing, and dancing.

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Figure 6.2. Tinkuy weavers interacting. Taken by the author in Cusco, Peru, November 15, 2013.
These interactions contribute to the preservation of textile traditions through the process of diffusion. Different cultures began learning from each other, thus, building a structure of reciprocity. Through the various talks, one message rang clear: that Andean textile traditions need to be maintained but simultaneously need to evolve to meet the ever-changing market needs.

To give relevance to preserving textile traditions, there needs to be a benefit to the culture. The ability to sell products establishes this. Karen Gibbs lectured on “Marketing Strategies: Costs, Channels, Opportunities, Competition, and Customer Profile” and shed light on the obstacles to selling in a modern society. She discussed the challenges and how to surpass them. Her main advice was to develop good design, to establish sound pricing, to present quality, to create goods that function well in today’s society, and to present a compelling story to go along with it. The first four are applicable to all craftsmen’s challenges. The story is what makes products coming from a strong textile tradition unique. For success, there is a need to communicate history and culture through the textile format.

Máximo Laura stressed this point of view when he spoke at the 2013 Tinkuy.

Máximo is a tapestry weaver born in Ayacucho, Peru. His philosophy is:

Foreign visitors are concerned that changing traditional weaving techniques destroys the cultural value. Andean weavers want to eat and care for their families. My personal intent with each of my works where ancient traditions meet modern artistic expression is to undertake the work with humility and responsibility for the past but with the originality and creativity of an artist. I assume the millennium continuity as the essence of the design as opposed to nostalgia for the past. Art and creation come from the mystical contained in the heart and soul of the artist.  

His tapestries blur the line between modern and indigenous styles. Máximo Laura’s work shows the many influences that he feels, coming mainly from the works of art that were created by those who came before him. Andean symbolism forms part of that influence.\textsuperscript{11}

The various elements within the Tinkuy demonstrated how preservation needs to happen. The first step is education about how textiles are woven, what they represent, and why they need to be preserved. One needs to know how to teach and have the know-how and the implements to teach. Learning is the other half of this equation. Most of the indigenous weavers at the Tinkuy learned from their mothers or the elders in their community.

Judy Frater, a speaker at the 2013 Tinkuy, shared her success story of executing a program that motivates the preservation of textile traditions. She works in Kutch, India, where traditions were being lost because entrepreneurs were able to mass-produce textiles more cheaply and easily in large manufacturing buildings. She helped to establish a school, called the Design School for Local Artisans. It has become a positive force in the community. Interest in the school began because of the growth of industrially produced and professionally designed textiles. The school was founded in 2005 with the premise that students could make more money while, at the same time, they could preserve the artistic integrity of the local craft.\textsuperscript{12}


The school’s program is one year in length and consists of a series of two-week intensive courses. These are interactive courses and relate to the students’ desired mediums that are inspired by tradition. Students come at all ages. The requirements are only that the student is from Kutch and is a traditional artist. The student uses his/her skills and learns about design. There are multiple elements involved in the schooling. Field trips are taken to museums for inspiration. At the end of the year each student presents his or her own collection in a fashion show to which the public is invited. Their pieces are juried and feedback is taken very seriously.

The culminating fashion show of the program in Kutch depicts the interaction of artist, buyer, and public. It takes the creation process from conception through execution to production, and finally to the presentation stage. It provides a traditional artist with a work platform for creativity that would otherwise be unattainable. The tradition is preserved but the artists learn to adapt to a changing market. They are able to use their unique styles and execute them with feedback. The trajectory allows the artists to establish careers.

The final show at the Tinkuy gathering provided the most tangible evidence for the balance between modernity and tradition at this event. Spectators were able to see indigenous weaving applied in modern ways. There were examples of bright indigenous costumes for traditional ritual celebrations. There were also sleek modern garments. The symbolic nature and traditional designs were still evident; while, at the same time, they were transformed into unique pieces by pairing then with new materials and styles. At times weavings kept their original integrity but were assembled in novel ways.
The practical information that attendees gathered mixed in with the cultural exchange of weavers from around the world showing one another how they weave. People were able to ask each other questions and learn new symbols. This platform for discussions, which included current issues and ideas, gave everyone the opportunity to share and give each other advice on how to move forward. All this was possible because there were translators everywhere and headsets that translated to Quechuan. These ideas and inspiration were taken back to Bolivia and shared with local communities.

Nilda Callañuapa was a speaker throughout the Tinkuy. She believes that it is possible to have cultural value only if balance is maintained within the weaving tradition. From her experience, textiles are community identifiers and tend to be the most preserved in isolated communities.

Doña Maxima shone throughout the trip. When travelling to Tinkuy through various villages she spoke excitingly about the impending meeting to everyone she encountered. Doña Maxima also enjoyed learning new figures on the backstrap loom, remembering that she weaves on the oblique loom. The figures she learned on the backstrap loom are more difficult because the weaver passes the weft each time the warp is changed.

Ñawi is the Quechua word for eye and is usually found on the tubular border on the ch’uspa. The teacher who taught the ñawi class challenged Doña Maxima’s comfort level. She was very stern with her. She showed the symbol one time and expected the students to understand. The younger students were more understanding and attentive. It only took two times of being shown how to do the figures and Doña Máxima was able to execute them correctly. Learning ñawi was important for Doña Máxima because it was
something she did not know how to do but her sister did. Growing up, her mother did not know the figure but was able to have her sister, Doña Narciza, learn from the neighbor who was from Oruro and knew different figures. Her mother paid the neighbor in corn.

Doña Narciza was as strict as the teacher and would smack her if she made a mistake. This resulted in Doña Máxima not wanting to learn the symbol. In Independencia, the weavers have been interested in having a ñawi class with Doña Narciza, her sister, as the teacher. She has not been able to teach because she lives so far away.

Doña Máxima’s initial fears may have been exacerbated by the fact that there had been sisterly rivalry growing up. She brought up stories of her childhood with her sister, Doña Narciza. Doña Narciza is a master weaver like Doña Maxima. She lives in Huancarani with her husband and granddaughter. This is a typical living situation. She has five daughters that have since moved away. Her eldest is the mother of the granddaughter that Doña Narciza now cares for. Her eldest daughter met a man, became pregnant, and then left the child for her mother to raise. Her daughter still lives in Santa Cruz with her husband and other children.

There were a multitude of skill levels at this single gathering. Various groups were just starting out and learning how to preserve textile traditions. Groups that Nilda has worked with were the furthest along. She leads by example. She is educated, multilingual, and a weaver. With the culmination of speakers and weaving demonstrations, a constant theme rang out. Innovation is a necessity in order for textile traditions to be maintained. The world is changing even in the most remote areas. In order for women to

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be able to sell their items, they need to be desirable to outside markets. This, in turn, sheds light on the value of weaving.

The effects of the conference continue to ripple. Prior to leaving for the Tinkuy there was turmoil and disagreements within the group of weavers from Huancarani and Independencia. Having recently been established legally as their own organization, the ground beneath them was uncertain. Becoming an organization and taking ownership of the future of their weaving was uncharted territory. The President of their organization has not always been the most positive, and women in Bolivia are very passive. They tend not to push forward with their own opinions and ideas.

Doña Maxima returned from Tinkuy motivated and inspired. She was able to discuss issues with Dorinda more objectively. They had left Independencia with the weight of the world on their shoulders. The constant push and pull between the organization and the government was taking its toll. They knew attending the Tinkuy would give them new perspective and inspiration from successful weavers from around the world. Now that Doña Maxima was given her voice there is no telling where she will take it. She has stood by Dorinda through the various storms and will continue to do so.

**Spinzilla**

The Tinkuy has been a large part of expanding PAZA. It has given the weavers inspiration and direction. It is an event to which the women aspire to go in the future. Doña Máxima brought many new ideas back to the women from the Tinkuy, especially regarding the relevance of their weaving. They are now able to understand because one of their own experienced it.
Coming out of this newfound confidence and energy, Dorinda felt that it was the perfect time for the women to compete in Spinzilla, an event that is sponsored yearly by The National Needlearts Association (TNNA) and is designed to increase education and awareness of hand spinning. The women in Independencia are participating in Spinzilla for the first time starting October 6, 2014. The most appropriate description of Spinzilla comes from Dorinda’s blog:

“Our goals for 2014 are:
- To raise awareness about the joy of spinning yarn by hand, globally.
- To empower spinners to spin more.
- To support small business.
- To fund educational programs for the spinners and weavers of tomorrow.”

Spinners around the world spin as much yarn as possible in one week. At the end they send in their yardage along with a photograph. The winners receive gift certificates.”

The twenty-five spinners in Bolivia decided to name their team Warmis Phuskadoras. Several observations can be made relative to the activities surrounding Spinzilla in Independencia, again from Dorinda’s blog:

- “Spinzilla is attracting spinners who have not participated in PAZA activities in the past, especially elders
- rural Bolivians have been recipients of umpteen development projects, but as participants of Spinzilla their $10 fee is being given in their name to recipients of the Needlearts Mentoring program in the U.S.
- the youngest weaver selling through PAZA is 19 year-old Adviana who has a 7th grade education. She learned from her grandmother and Doña Máxima, but she does not hand spin. The Spinzilla contest offers the opportunity to raise awareness globally but also to someone like Adviana who did not understand the joy of hand spinning. She is exposed to the respect and honor awarded hand spinners.”14

The women were so surprised to learn that not only were they spinning with 1,400 spinners, some of them were also men. This has opened up a larger picture for them and

they were excited to hold their empty drop spindles on October 6, 2014. They did not win but participation in this worldwide event broadened their horizons and gave relevance to their skills.

It is imperative that the weavers feel that spinning and weaving are important. Thoughtful, nonintrusive exposure to other cultures and inclusive worldwide events in which they can participate at home are beneficial to reviving the culture. PAZA has been a helping hand by offering support and dye workshops. After becoming an official organization the weavers were able to take ownership of their futures and ready to help dictate what comes next.
CHAPTER VII
SUMMARY AND CONCLUSIONS

This ethnographic study was conducted over the course of three trips to Independencia, Bolivia, from 2010 to 2013, when observations of the production of textiles were documented. The weavers of Independencia have developed idiosyncratic methods of textile making that are culturally relevant to them. Watching and documenting the process of textile making forms the underpinning of this study as well as listening to stories from weavers and their children. Natural dye workshops brought together the communities and allowed the women to both dye a large amount of fiber and yarn as well as build a sense of fellowship. The culminating experience of these trips was the Tinkuy: A Gathering of Weavers in Cuzco, Peru. Tinkuy cemented the relevance for studying a community where textile traditions are, to themselves and to their children, being lost, particularly when some of the speakers, coming from as far away as India, were making the same claim. For the women of Independencia participating in Spinzilla demonstrated their commitment to textile making.

Prior to this research, there was not a great deal known about Independencia, Bolivia. It is isolated from the outside world, which has both benefitted and challenged the community. The isolation has preserved the culture but has also made it difficult for the people to adapt to outside influences. Introduction of the new world makes the older
generations wary, while the younger generations are readily accepting of these new ideas. The younger generations are forced to travel for work and school. Once they leave and see other parts of the world, it is difficult for them to settle back down in the small village.

Spinning, dyeing, and weaving were among the tasks that the mothers always did, and still do, for income. They tend to their sheep and shear them. The fleece is often cleaned in a stream or wherever water is available. They hand pick out the matter and spin the fleece into tightly spun yarn. Local plants are gathered and processed to dye the yarn. This yarn is woven into a striped warp-faced textile that includes symbols and motifs.

Formerly, the girls learned at a young age by observing their mothers. As they became older they started assisting their mothers, until finally they became a sort of apprentice and began weaving on their own. The mothers knew that this would be a valuable skill for their daughters to know. Regardless of the path that their daughters’ lives would take, they knew that selling weavings would always be an option.

Today, in order for the younger generations to attend school, they must travel to the larger centers. The more education a young girl receives the less likely she will learn to spin, dye, or weave. School is very important within the culture and the mothers see the benefit in sending their daughters to live with friends and family where they can attend the next school grade.

Executing this ethnographic study allowed the women to tell their story. They were able to demonstrate the textile making process while sharing their fears about the future of their textile traditions. The family dynamic is evolving in this community. Men
are often forced to travel for work and are away for long periods of time. This puts strain on the family because the domestic jobs that the men would normally do are now left to the wife and children. Also, because the men are away, the women need to weave just to get by financially. This research is significant because it sheds light on an important family structure that is being altered. This current generation has opportunities that the prior generation in this community did not have. They are able to further their education and attend higher education or trade schools.

The organization known as Antropólogos del Sur Andino or The Foundation for Anthropological Research (ASUR) is a Bolivian success story. Weavers were able to place the textiles in the realm of art by exhibiting them in museums. In Independencia, the recent presence of Dorinda Dutcher and the creation of Project Artesania Zona Andina or PAZA have helped to place a higher value on the weavings, both monetarily and psychologically. Prior to Dorinda being in Independencia, the amount of work in each piece was not balanced by the price tag. Also, the weavers are joining many in the global community in their efforts to preserve textile traditions.

The act of continuing to produce traditional textiles in the 21st Century can be beneficial to a community. It can bring in much needed resources while continuing a tradition. It helps build a sense of community for everyone within the village. It also helps support the family structure, which is currently being altered due to the need for family members to travel for work or school.

Textiles are physical representations of a community and attempts at preserving the making activity have yielded positive outcomes. Individuals have additional economic possibilities while feeling connectedness with the past and present. Families
remain intact and worry less because of the reduced need to leave the village to find work.

In the villages, the dyers and weavers build a communal environment. The children are ultimately better supported and feel the cultural unity. Finally, the society as a whole not only offers opportunities to their youth but helps establish pride in their history and identity.

CTTC is a success story. They currently work with nine communities in the Cusco, Peru region. Women are able to make their own income and teach their daughters how to weave. Prior to the creation of CTTC the weavers worked with only synthetic fibers. Now they exclusively use local, natural fibers that have created other industries and brought them back to their traditional methods. Specifically, attending the Tinkuy was a source of inspiration for the weavers. This feeling of empowerment, particularly as it relates to the women’s positive relationship with their textile making was visible as they embarked on their Spinzilla experience.

Finally, it must be stated that, although care was taken in the objective documenting of the evidence, there are limitations to this research. The first and foremost is the language barrier. If the researcher had understood Quechuan, there would have been more unfiltered documentation. The arduous process of translating from Quechuan to Spanish to English changes the dialogue. It also places more people into the conversation, which could lead to altering the response.

Culturally, there are also challenges. Direct questions are considered intrusive and invasive in Bolivian culture. The idea that the responses given are documented and used for research is not the norm and a difficult concept for them to understand. This further reiterates the necessity for observational research to coexist with interviews.
Regardless, this research has captured an important moment in time, a time of transition and cultural questioning as to the future for life in Independencia. It has documented important nuances in textile production that serve to illustrate that communities problem solve and create their own solutions with respect to textile production. Differences relate to the needs within their own environment. Despite these differences they are making textiles that are readily identified as being Bolivian.


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