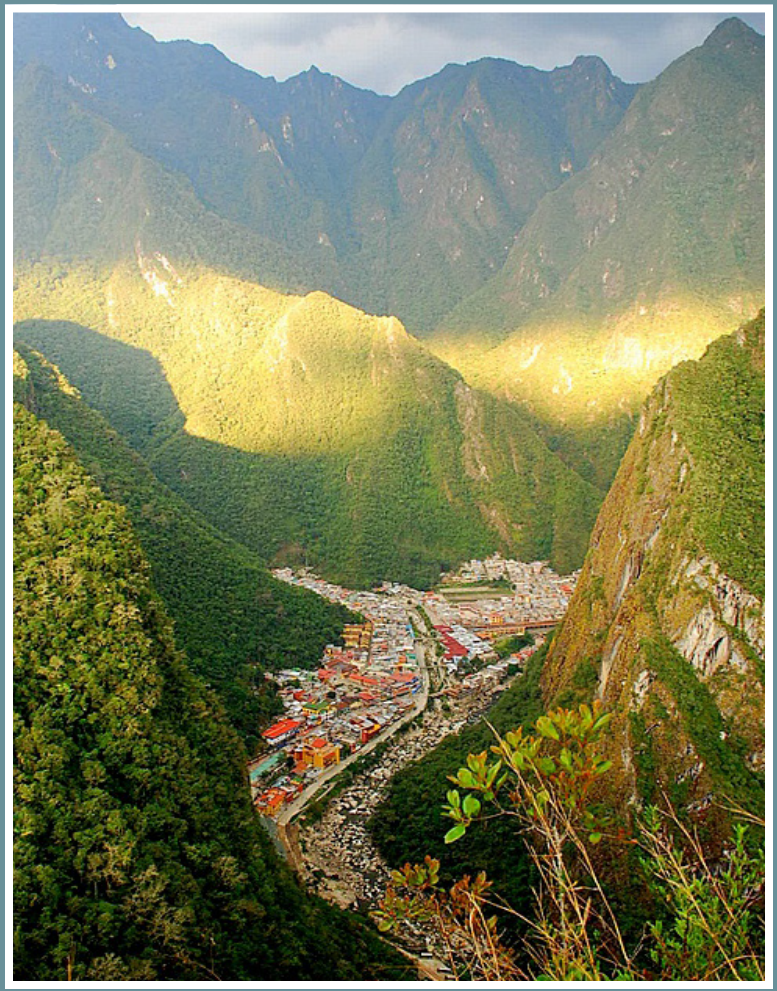

Aguas Calientes

an urban redevelopment scheme

Dedication

I would like to dedicate this book to my family; you know you mean the world and more to me and not only would I not have made it without you, I wouldn't want to even try.

Mommy and Daddy, I don't know what I ever did to deserve parents like you but I know that my only real goal in life is to make you proud. You are such an amazing example of all the things I hope to be in life, I hope to live up to all of them. I cannot even begin to thank you for the limitless love and support that you have provided me not only throughout my college career, but throughout my entire life. I love you both so much!!!!!!

Emmers, you are my life partner and I love you more than words. Someone really wise once said "I'm smiling because your my sister, I'm laughing because there is nothing you can do about it." So there it is, you're stuck with me and I love it. :)

Granny, thank you for all of the phone conversations and visits that brightened my day. I love knowing that a conversation with my Granny is the one thing I can always look forward to for some good old advice and cheery thoughts. I love you!!!

The University of Florida
College of Design, Construction and Planning

Aguas Calientes: An Urban Redevelopment Scheme

An Undergraduate Thesis in
Landscape Architecture
By
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Faculty Advisor:
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Jocelyn Widmer

2010

Submitted in partial fulfillment of the degree Bachelor in Landscape Architecture
and has been reviewed and accepted by the faculty as an Honors Thesis

Acknowledgment & Thanks

This project would not have been possible without the assistance of several people:

The first of those is my advisor, Jocelyn Widmer, who has patiently helped me throughout this process from beginning to end. The amount of thanks I owe her I cannot adequately put into words.

A big thank you to my faculty advisor Kevin Thompson who answered so many questions meeting after meeting.

To all of the landscape kids, you know who you are, I don't know how fate managed to bring us all together for some of the best years ever, but I'm so grateful to have had you all be apart of my life!!

To my fellow international explorer, Sarah, I feel like we definitely figured this thing out together. Thank you for taking this crazy journey with me.

To my roomies, Yenlys and Nicole, thank you for not calling me crazy, at least to my face. I do sincerely apologize for the numerous food addictions I may be responsible for.

Katie, you know you are seriously the person that keeps me sane...I love any and every conversation we've ever had mostly due to the fact that you make me laugh so much...I love you to pieces and I am so incredibly lucky to have a friend like you in my life.

And finally, to my landscape soul mate, Allison, you know I may have actually died if it wasn't for our intense work days and Panera dates. You have been my sanity for everything in this major and out, and on top of it all an amazing friend. I owe you my life.

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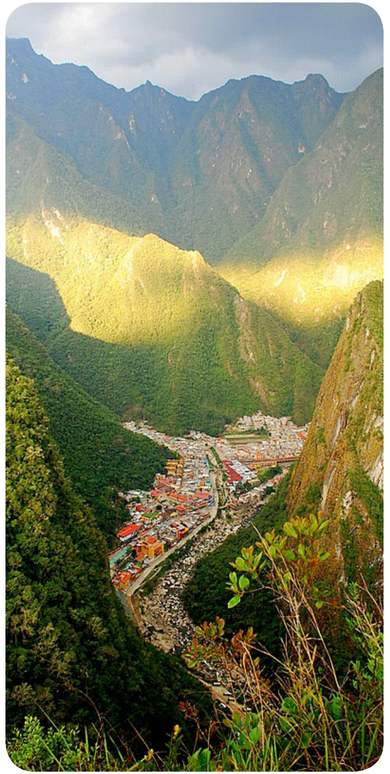
Abstract



Aguas Calientes is a small town nestled among mountains in a somewhat remote area of Peru. The town is squeezed into a river valley among mountain peaks that soar 1,000 feet above the site just beyond its borders. The terrain surrounding the town is so treacherous that there are no roads that lead here, the only way to arrive is by way of the Inca trail or train. The town sits on the Urubamba River, which is the life-blood of the surrounding sacred valley and has another river, the Aguas Calientes River, which cuts through the center of the town.

The distinction that sets this small, remote town apart from the thousands of similar towns in Peru is its relation to the world famous site of Machu Picchu. Aguas Calientes is located 3.4 miles from the site and is the only access point to the historic ruins. It is this proximity that has caused the town to grow at such an explosive rate that many of the buildings are left unfinished and there is a clear lack of amenities for users, both residents and visitors alike. With a population of just over 4,000 people and approximately 1,000 additional visitors daily, Aguas Calientes is in need of a stronger overall organization which lends itself to the various user groups.

The purpose of this project is to transform Aguas Calientes from a gateway town for the Machu Picchu ruins toward establishing it as a destination in its own right. This project aims to achieve this by understanding the fundamental opportunities and constrains of the site, which were discovered through extensive research and an in-depth inventory and analysis phase, with design strategies intending to fix them. Through a design process that carefully balances the many needs of the town, the master plan provides an open space network throughout the site.

With natural hot baths, an abundance of river front property, and a pedestrian-oriented environment, Aguas Calientes boasts elements that could become a successful urban environment through the use of innovative design solutions. However, the incredible terrain that this town is surrounded by also presents the threat of landslides and flooding to the town and its inhabitants and visitors. The design solutions proposed on the following pages embrace both the opportunities and constraints present on the site to create a cohesive community for all users.

Regional Context

Regional Context Map

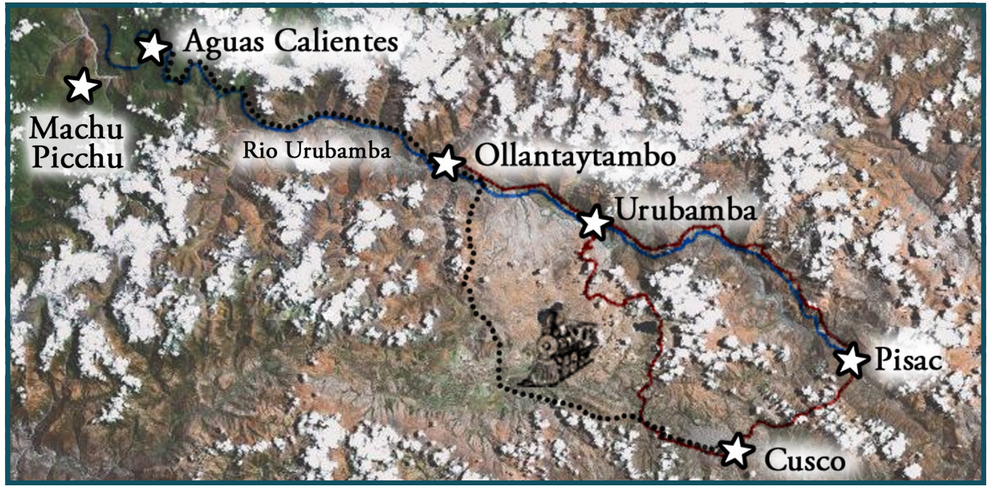
- Aguas Calientes is located in the South American country of Peru, approximately 700 miles southeast of the capital city, Lima
- The town is located within the Cusco region, of which the city of Cusco is the capital
- The town of Aguas Calientes is located just north of the area that is commonly referred to as "The Sacred Valley" and includes towns such as Ollantaytambo, Urubamba, and Pisac
- The town is located in what is referred to as the Urubamba River Valley

- Aguas Calientes is located approximately 3.4 miles from Machu by road, translating to approximately a 20 minute bus ride
- The town of Aguas Calientes is fronted by the Urubamba river on the southwest site and the Aguas Calientes river runs through the center of the site from east to west into the Urubamba river
- Aguas Calientes is only accessible by the train, which can be boarded at Ollantaytambo, which is 35 miles away, or Cusco, which is 70 miles away. The travel time to these locations are 1.5 and 3 hours respectively.

Aguas Calientes In Relation to Machu Picchu

introduction

Sacred Valley Overview



Cusco

This town with a population of around 350,000 people is the capital city of the Cusco region. Being that the airport is located here, the city acts as the entrance point to the Sacred Valley area. Most visitors arrive here on a flight from the capital city of Lima. This city acted as the historical capital of the Inca Empire and was declared a World Heritage site in 1983. There are numerous attractions within the city of Cusco, including historical churches and Inca temples as well as numerous Inca ruins located just outside the city center.


Cusco's Main Plaza

Ollantaytambo

This town within the Sacred Valley sits at an altitude of 9,000 feet and has a population of approximately 3,000 people. The main attraction is the fortress ruins, which are located within the main city center. One very unique aspect of the town of Ollantaytambo is the fact that the old section of the city still maintains the original Inca layout. The neighborhood blocks, called *canchas,* are connected housing units forming a square centered around a common courtyard area.


View of the "Old City" with Inca layout


View of fortress ruins at the edge of the town

Urubamba

The largest town in the Sacred Valley, with a population of 8,000 people, Urubamba is a popular spot for people to stay and use as their base point for exploring the sacred valley. There are a few Inca ruins within the town, but nothing that compares to ruins found throughout the rest of the Sacred Valley. There is a small market in town but it is mainly for the local population, providing food items.


View of the town of Urubamba

Pisac

As the smallest tourist stop within the sacred valley with a population of approximately 2,000 people, Pisac is the location for the most well-known market in this area. While the main market is held on Sunday, smaller vendors set up on Tuesdays and Thursdays. Pisac also boasts Inca ruins, although they are removed from the town. The ruins are a complex series of multiple clusters of structures and towers.


Pisac Market

Site History

Hiram Bingham: Discoverer of Machu Picchu

Aguas Calientes was first founded as Camp Maquinachayoq, a farm settlement consisting of only a few families in 1901. Ten years later, in 1911, the American explorer Hiram Bingham discovered Machu Picchu on his hunt for the lost city of Vilcabamba, which was the rumored last capital of the Inca empire. Following this discovery the settlement quickly grew in size and plans were made for the existing rail line to extend to the settlement, now known as Aguas Calientes. During the 1920s and 1930s the rail line was extended and Aguas Calientes served as the base camp for workers of the rail line.

In the decades that have followed, the growth in the popularity of Machu Picchu has been exponential and with it the growth of the town of Aguas Calientes. From the years of 1993 to 2005 the population of Aguas Calientes increased 264%. It is this rate of growth that has caused concern from various Peruvian and international agencies, most notably UNESCO.

The town has a history of landslides due to the extreme terrain surrounding the town. There have been several incidents of landslides at the site including in 1995, 2005, and 2008. The most recent event was on January 24, 2010, when the site was hit hard by landslides brought on by heavy rain in the area. These rains also caused severe flooding of the two rivers present at the site and was the cause of the loss of several buildings. Train access to the site was severed, with only limited access available as of April 1, 2010. The impact on the economy of Aguas Calientes has been significant, with many of the residents of the town leaving entirely due to a lack of work.

Relationship to Machu Picchu

Ruins of Machu Picchu

Currently, the only way to reach Machu Picchu, besides hiking the Inca trail, is to catch the train into Aguas Calientes and then take a bus from the town into the sanctuary. Being that there are a limited number of trains that arrive at the site daily and a limited amount of seats on those trains, there is a fixed *maximum* number of visitors who can reach Aguas Calientes daily. It is in this way that the town of Aguas Calientes acts as a control point for the ruins, protecting it from being overrun by tourism.

Conversely, Machu Picchu is the attraction that brings visitors to Aguas Calientes on a constant basis. This flow of visitors guaranteed by the ruins are what allows the town to survive in its current physical state. Without this flow of visitors, the town would not be able to sustain the many shops, restaurants, and hotels that currently exist in Aguas Calientes.

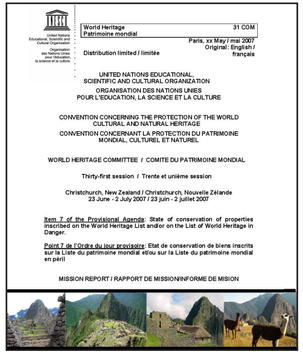
This symbiotic relationship between the town of Aguas Calientes and the ruins of Machu Picchu can strike a balance by way of sustaining the integrity of the Machu Picchu ruins while also sustaining the livelihoods of the local people of Aguas Calientes. For this balance to occur, Aguas Calientes needs to acquire its independence from Machu Picchu by way of drawing on its potential as a tourist destination rather than a gateway.

introduction

Agency Interaction

Considering that the town of Aguas Calientes is in such close proximity to a site as widely recognized as Machu Picchu, it comes as little surprise that many agencies from the local to the international level have a vested interest in this town. This town acts as the control point to the Historical Sanctuary of Mach Picchu and limits the number of people who can access the site daily, meaning that any changes to the access to this town could have far-reaching implications for the ruins. In addition, any increase in the carrying capacity of the town could translate to more visitors to Machu Picchu. Agencies including UNESCO, United Nations Educational, Scientific and Cultural Organization, INRENA, the National Institute of Natural Resources, INC, the National Institute of Culture, and MINCETUR, the Ministry of Foreign Trade and Tourism all currently play a major role in the governing of the guidelines that affect not only Machu Picchu but Aguas Calientes.

UNESCO has the strongest involvement with the both the Historic Sanctuary of Machu Picchu and with the town of Aguas Calientes. This agency has made numerous trips to the site to evaluate the many problems and threats that the town faces and offer recommendations to solve these problems. UNESCO most recently made an expedition to Aguas Calientes in 2007 and noted that many of the recommendations that it had made in the past for the site are not being adhered to. It also voiced concern over the impending threat of natural disasters that could cause damage to not only the physical structure of the town, but its human inhabitants. These concerns along with additional recommendations were published in a report which acted as an integral resource when researching the current conditions of this site. However, as research progressed, it was concluded that not all of the recommendations in this report were the best options for Aguas Calientes. With this in mind, this information was used as a source, but not as a road map.



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Patrimoine mondial
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UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION
ORGANISATION DES NATIONS UNIES POUR L'ÉDUCATION, LA SCIENCE ET LA CULTURE

CONVENTION CONCERNING THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE
CONVENTION CONCERNANT LA PROTECTION DU PATRIMOINE MONDIAL, CULTUREL ET NATUREL

WORLD HERITAGE COMMITTEE / COMITE DU PATRIMOINE MONDIAL

Thirty-first session / Trente et unième session

Christchurch, New Zealand / Christchurch, Nouvelle Zélande
23 June - 2 July 2007 / 23 juin - 2 juillet 2007

Item 7 of the Provisional Agenda: State of conservation of properties inscribed on the World Heritage List and/or on the List of World Heritage in Danger
Point 7 de l'Ordre du jour provisoire: Etat de conservation de biens inscrits sur la Liste du patrimoine mondial et/ou sur la Liste du patrimoine mondial en péril

MISSION REPORT / RAPPORT DE MISSIONINFORME DE MISION

Project Value

Aguas Calientes on the Urubamba River

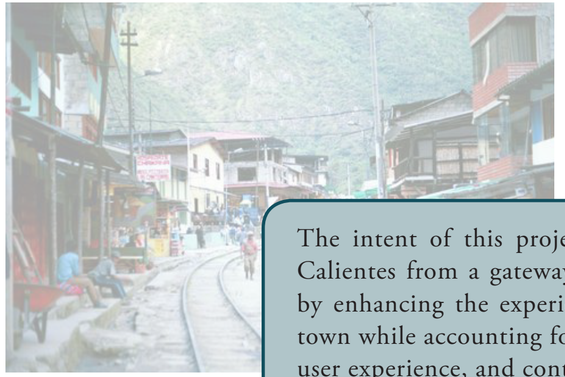
Although Aguas Calientes is a small town in a remote area of Peru, its proximity to one of the world's most well known historical sites gives it a unique position of responsibility. Located within the Historical Sanctuary of Machu Picchu, this town exists amidst a delicate habitat that is in danger of being threatened by the effects of the hundreds of thousands of visitors that come to this area each year. Aguas Calientes has the ability to educate visitors not only about the history of the Machu Picchu ruins, but the significant environment surrounding, and the various threats it faces.

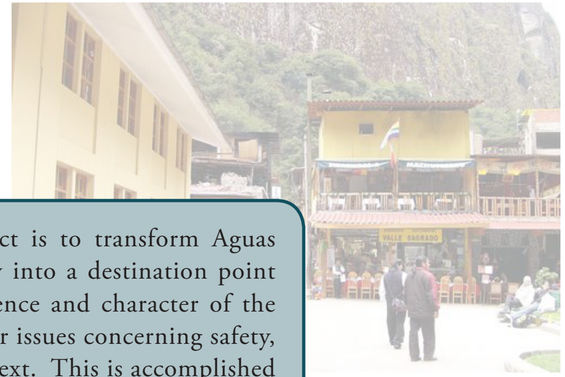
Aguas Calientes faces many potential threats that are both natural and man-made in nature. The ever present push for vehicular access to the site is one that, if ever executed, would have severe effects. The town also faces the reality that informal building construction methods are no longer adequate, and must come up with a growth management plan to make sure that the growth of the town does not continue at such an uncontrolled rate without regulation. Landslides have been a historical threat to the site and the most recent incident occurred on January 24, 2010 in which hundreds of landslides occurred in the region, most notably cutting off train access. The same rains that caused these landslides also caused the Urubamba river to swell to very high levels, causing many river-front properties in Aguas Calientes to succumb to the floods. This recent incident reinforces the urgency to address this ever-present threat.

Aguas Calientes also holds the unique position of acting as a control point to the historical sanctuary of Machu Picchu. This relationship between the town and the ruins prevents the site from being completely overwhelmed by visitors on a daily basis. Without Aguas Calientes unique ability to serve as a control point for Machu Picchu, there is a strong likelihood that visitor rates to Machu Picchu would continue to grow at an exponential rate.

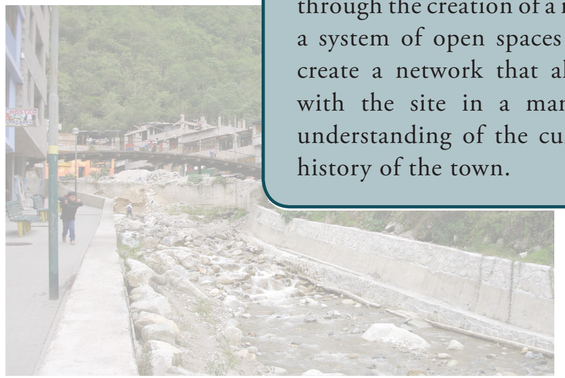
introduction

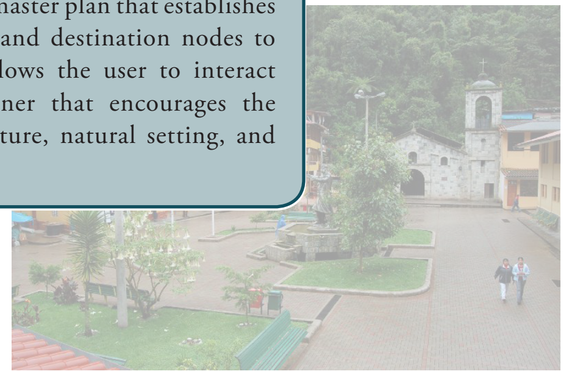
Statement of Intent





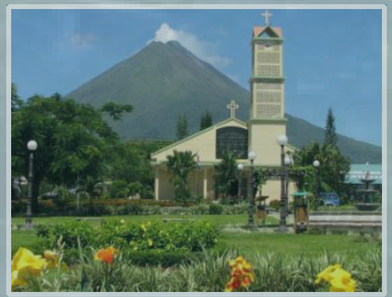
The intent of this project is to transform Aguas Calientes from a gateway into a destination point by enhancing the experience and character of the town while accounting for issues concerning safety, user experience, and context. This is accomplished through the creation of a master plan that establishes a system of open spaces and destination nodes to create a network that allows the user to interact with the site in a manner that encourages the understanding of the culture, natural setting, and history of the town.





Goals and Objectives

1. Transform from gateway to destination
   a. Design in a way that allows the natural character of the site to be apparent to visitors while being sensitive to the natural systems
   b. Provide unique elements such as hot baths and educational centers that will draw visitors to further explore the town
   c. Enhance existing opportunities present in Aguas Calientes in order to provide numerous point of interest
   d. Evaluate the current threats present on the site and design in a way that aims to remedy these threats
2. Natural sensitivity
   a. Respect the character and ecology of the region
   b. Integrate the natural setting of the town into the Urban setting by bringing in local elements such as native plant material
   c. Embrace the character of the rivers that border the site by encouraging users to interact with these rivers and designing in a way that allows users to experience these elements throughout the site
3. Take advantage of the numerous existing natural opportunities present in the town and its surroundings
   a. Redesign the hot baths at the west end of the site to be able to accommodate the many visitors that come through Aguas Calientes
   b. Allow visitors to be able to interact with the AC river by lowering the bridges traversing it and providing a river walk area with overlook areas
   c. Allow visitors to enjoy the incredible beauty surrounding the site by providing views through strategic design and providing places for observation
   d. Create a hiking network that will allow visitors to fully enjoy the natural surroundings of the site and gain views of Machu Picchu
   e. Realize the incredibly unique opportunity of having one entrance point to the city in the form of the train station and transform this element and its surroundings into a gateway element signifying a sense of place upon arrival
4. Design in a way that is functional, safe, and enjoyable to both residents and visitors
   a. Create open spaces that provide elements for all users including elements such as abundant seating, community gardens, and community centers focusing on visitor information, cultural information, and natural information
   b. Integrate vegetation indigenous to the area into both open spaces and linear parks providing shade in the town which is currently lacking vegetation
   c. Include design elements that speak about the culture of both the historical Incas which built Machu Picchu and the current Peruvian inhabitants
   d. Evaluate current agency recommendations for the town of Aguas Calientes and apply applicable recommendations to the design of the site
   e. Remove buildings that are currently located within the Urubamba river bed
   f. Restore the natural riparian zone along the Urubamba riverfront
5. Create a system of open spaces and linear connections which will provide the necessary connections between elements of the site
   a. Create a linear park along the Aguas Calientes River that will strengthen the connection between the park and plaza near the train station to the park and hot baths at the western end of the site.
   b. Redesign the town's main plaza to integrate traditional Spanish colonial design, frequently found in South America, which will create a sense of place for the city center
   c. Institute a park across the river from the hot baths to further anchor this element and provide a recreation area
   d. Redesign the area surrounding the train station to simultaneously provide for visitors arriving via the train and serve the needs of the local residents through elements such as a visitor center, historical center, natural center, and cultural center
   e. Have transitional nodes at areas where key elements intersect, allowing these various elements to interact in a harmonious way



Chapter 2:

Case Studies

Highly Relevant Case Studies

	Relationship to Attraction	Key Features
La Fortuna, Costa Rica	• The closest town to the Arenal Volcano	• Widely recognized for its variety of hot springs
El Remate, Guatemala	• The half-way point between the Town of Flores and the ruins of Tikal • Located 20 miles from Tikal (30 min bus ride)	• Located within the Biotopo Cerro Cahuí Reserve • Waterfront town
Banos, Ecuador	• Considered the base for launching into tours of the Amazon Region	• Hot Baths • Located in picturesque valley • Scenic Waterfalls

When choosing case studies that would be relevant to my site, there were a couple main considerations. The first feature that I looked for in a potential case study site was that the site be in close proximity to a tourist feature. This element of proximity to a feature that provided a flow of tourists to the area created a strong parallel to my site and provided examples of the different ways that this relationship was treated.

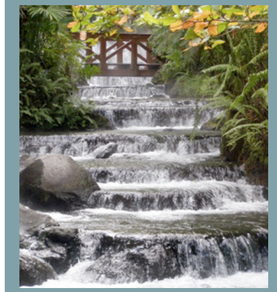
The second feature that was evaluated was the site's proximity and relationship to strong natural features such as water frontage, topography, or hot springs. Being that Aguas Calientes' proximity to both the Urubamba and Aguas Calientes Rivers, along with its definition by the surrounding topography strongly shaped the way in which the town formed, sites with similar interactions with their setting would likely provide alternate approaches to the way these features could be addressed.

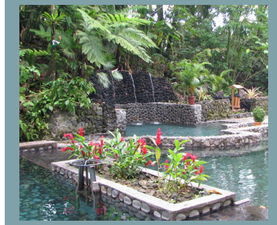
Once these two main factors were evaluated there were also other slightly less significant features that I did consider. Among the features considered were outdoor recreation opportunities, presence of markets, and historical features. In all cases, the size and population played a big factor in determining whether the site was able to accurately relate to mine. However, all sites that were not of similar scale were not completely ruled out because many of them had valuable information about other aspects of the town that were not strongly related to size.

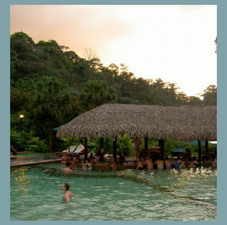
La Fortuna, Costa Rica

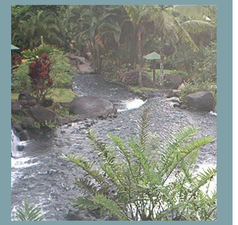
La Fortuna, Costa Rica is a town located in the northern region of Costa Rica approximately 87 miles from the capital city of San Jose. This town is located only 10 kilometers from the Arenal Volcano just outside of the Arenal Volcano National Park, a 29,672 acre park, which has four hiking trails. The Arenal volcano, the most active volcano in Costa Rica and one of the ten most active in the world, draws thousands of tourists each year.

La Fortuna and Arenal Volcano









Images of Hot Baths in La Fortuna

The town also offers numerous hot spring options thanks to its proximity to the volcano. It was the style and character of these hot baths that served as the inspiration for the redesign of the Aguas Calientes hot baths.

These baths emphasize the tropical surroundings that they are apart of, integrating luscious plantings throughout the hot bath areas. The baths also make use of stone native to the surrounding area as separators between the multiple pool levels. The baths are designed to have a very natural feel, as though they were naturally situated.

It was these characteristics that I aimed to carry into the design for the hot baths at Aguas Calientes in order to gain a natural feel that allows the user to appreciate his/her surroundings.

El Remate, Guatemala

El Remate, Guatemala is a tiny town located on the road to the Mayan Ruins known as Tikal. Located on Lake Petén Itzá, this town serves as a base location for travelers wanting to visit the ruins that do not want to stay 40 miles away in Flores. The town does not have any significant points of interest within the town, but relates to Aguas Calientes due to the small size of the town. This town has not aimed to change its character to mirror the nearby town of Flores, which had a more developed feel, but has embraced its rural character.

Images of Lake Petén Itzá at El Remate

The main feature that connects Tikal to the site of Aguas Calientes is it's proximity and strong reliance on the nearby ruins of Tikal. Like Machu Picchu, Tikal is a World Heritage Site and attracts thousands of visitors each year to the site. This town relies heavily on its location on the water as a feature that attracts visitors to the area. Through the use of docks, boat rentals, and beach areas the town encourages visitor interaction and appreciation of the lake feature. This is the type of user interaction that I would like to translate into the site at Aguas Calientes.

Aerial View of El Remate

Banos, Ecuador

Banos, Ecuador is a town of 9,500 people located 109 miles south of the capital city of Quito. The town is located at the base of Ecuador's largest volcano,Tungurahua. The town has numerous attractions both within the town as well as just outside. This town is often used as a jump off point for tours into the Amazon region.

Among the attractions that draw people to visit the town of Banos are the hot baths, hiking, the surrounding scenery, and its proximity to the Sangay National Park and the Amazon Region. The main feature that exemplified Banos as a case study for Aguas Calientes was this town's success in establishing itself as a tourist destination through effective exploitation of points of interest within the town and its proximity to tourist destinations outside the town.

The towns success can be attributed to an tourism campaign that portrays Banos as a natural paradise, advertising the beautiful scenery of Banos in conjunction with the numerous activities to do while there including hiking and the hot baths. Aguas Calientes has many of the features found in this town and could therefore consider a similar campaign to brand itself as a town that has everything a potential visitor could ask for.

case studies

	Relationship to Attraction	Key Features
Guayaquil, Ecuador	• Considered a jump-off point for the Galapagos Islands • Located 700 miles from the Islands	• Cerro Santa Anna • Malecon 2000 • Public Parks • Museums
Chillan, Chile	• Located 50 miles from resort Termas de Chillan • Located 10 miles from Las Trancas	• Feria de Chillan Market • Location prone to natural disasters - earthquakes
Urubamba, Peru	• Most populated town in the sacred valley	• Riverfront town • Small Market
Deadwood, South Dakota	• Located in close proximity to two ski areas	• Widely recognized for their hot springs

Guayaquil, Ecuador

Formerly known only as the city to catch a flight to the Galapagos from, Guayaquil decided to capitalize on the tourists traveling through the city by taking advantage elements in the city such as its waterfront location. With the creation of the Malecon 2000, a riverwalk feature that is over 1.5 miles in length, the city began its effort to transform this port city into a destination for tourists. The creation of the riverwalk was soon followed by revitalization efforts throughout the city and has led to increased safety within the city.

Secondary Case Studies

Chillan, Chile

The city of Chillan, Chile knows plenty about natural disasters. Located in an area prone to earthquakes, this town has experienced many, the most recent occurring on February 27, 2010. The methods that this city has employed in the clean up following this natural disaster should act as an example to the town of Aguas Calientes. This city, like Aguas Calientes, acts as a gateway town to the Termas de Chillan resort and therefore has a sense of urgency to get back to a functional level in order to welcome tourists back to the City.

Urubamba, Peru

Urubamba shares a close proximity to Aguas Calientes along with a riverfront location of the Urubamba River in the Sacred Valley. This town has no Inca ruins or other distinct features, but the reason for its success in the region is the variety of lodging options that it offers visitors to the Sacred Valley. The fact that visitors are willing to stay in Urubamba and then travel to the remainder of the Valley's attractions acts to emphasize the need for Aguas Calientes to improve its lodging options in an effort to attract more over-night visitors.

Deadwood, South Dakota

The small town of Deadwood, with a population of 2000 residents closely parallels the size of Aguas Calientes. This town also finds itself reliant on a local attraction, the nearby ski resorts, as a source for its visitors. However, when the ski resort is out of season, this town has found another reason to encourage tourists to pay a visit; the incredible hiking among the surrounding scenery. This activity is one which the town of Aguas Calientes could take advantage of with its location among breathtaking scenery and use to provide activities for tourists, encouraging them to stay beyond their visit to Machu Picchu.

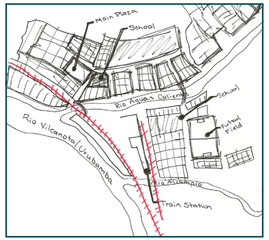
case studies

Chapter 3:

Analysis

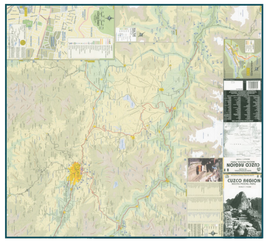
Orientation

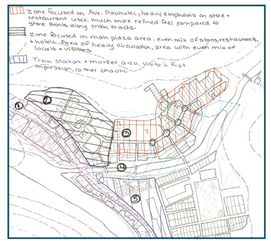
Site Analysis

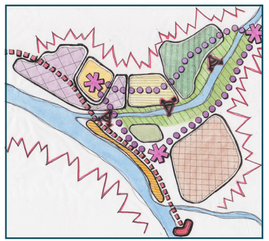


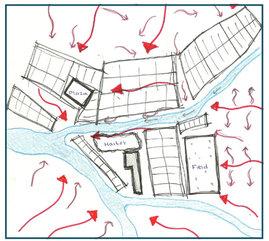
In order to gain a clear understanding of both the opportunities and constraints present on the site, an extensive inventory and analysis was completed. This process started with the direct inventory of site conditions including topography, building locations, building use and existing vegetation. After this base information was gathered it was then analyzed both individually and as a system to see what conclusions could be drawn from this information.

Through a site synthesis this inventory and analysis information was then synthesized to understand the opportunities and constraints present on the site. These deductions translated into a form of design guidelines which then began to dictate the way in which the site needed to be designed and organized for maximum effectiveness. This process was imperative to understanding what factors would become the main focus of a new design strategy for the site.

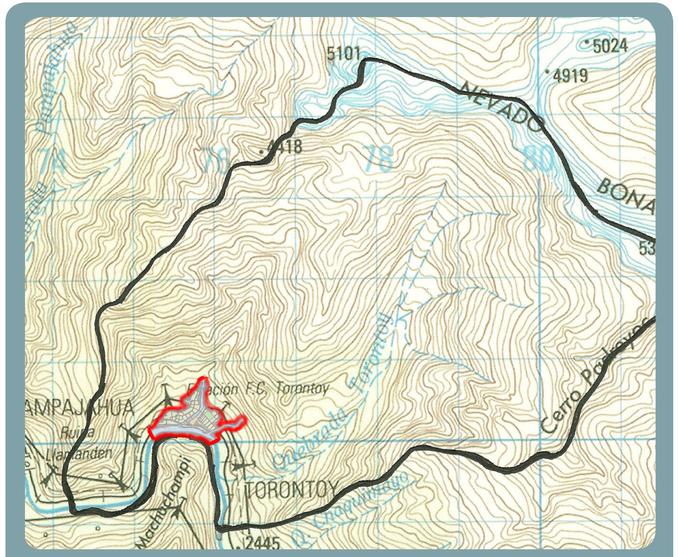








Hydrology

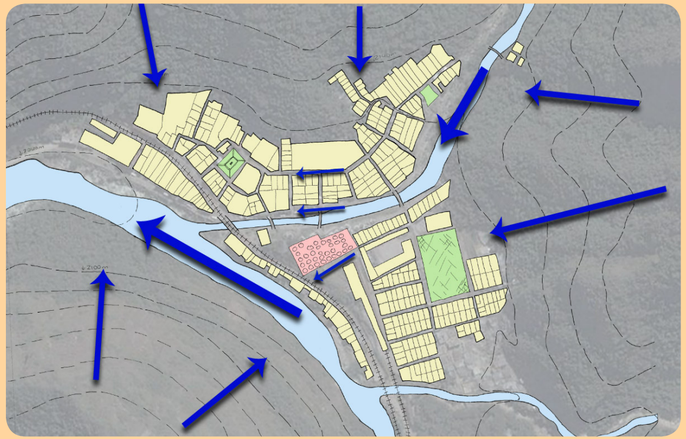


Town of Aguas Calientes Within Its Watershed

Because this site is located at the spot where the Aguas Calientes river joins with the Urubamba river, it can be concluded that the hydrology of this site has played a major factor in its overall layout and function. Add this to the fact that the site is located at the bottom of a valley and the influence of the site hydrology is even more apparent. Due to the heavily mountainous terrain in the region, there are many small watersheds forming individual valleys.

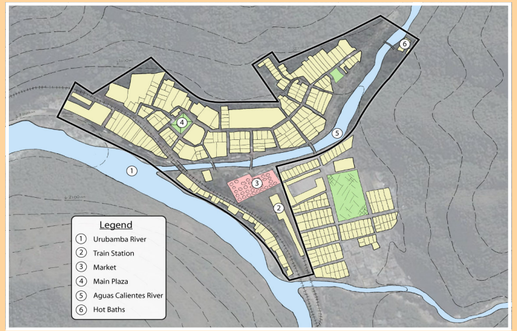
Located at the base of one of these such watersheds, Aguas Calientes is a point at which much of the water from its watershed converges. It is this positioning that makes this site especially prone to natural disasters such as mudslides and flooding. When there is a rain event, a large amount of the water falling in this watershed has to at some point travel through the site in order to get to its final destination of the Urubamba river. This sudden increase in the amount of water rushing into the river often causes a dramatic rise in the level of the Urubamba river, as was evidenced by the rain event that caused flooding and landslides on January 24, 2010. With these considerations in mind, one of the main conclusions drawn from this information was the need for a more extensive flood plain throughout the site. At the south end of the site there are several buildings that are located within the actual river bed and it was at this location that the rising river levels actually caused several buildings to collapse into the river. With a greater setback the river would be able to cycle through its natural rising and lowering of levels without the damage to property that has been seen in past storm events.

Topography


Direction and Level of Water Flows in Aguas Calientes

As is clearly demonstrated by the photograph on the right, Aguas Calientes is surrounded by rather extreme topography. While the town has a steady slope from west to east, beyond the limits of the town the slope increases to an average slope of 60%. It is this terrain that allows the town at an elevation of 6,693 feet to be more than a thousand feet lower in elevation than Machu Picchu, a mere 3.6 miles away. It is also this terrain that has kept the town from being connected with a road to the more developed areas of the Sacred Valley. This terrain also has a strong impact on the way that water flows into and through the site. Being that the site has a strong slope from east to west down to the Urubamba river, the capacity for this amount of rainwater is absolutely necessary. Any design elements that may impede this flow of rainwater may cause significant drainage problems. The integration of vegetation areas in the site in place of the impervious surfaces currently in place will increase percolation throughout the site and reduce run off.

Organizational Elements



Key Organizing Elements of Aguas Calientes

Key Buildings in Aguas Calientes

When interpreting the organization of the town of Aguas Calientes, one of the most indicative factors was the location of key elements throughout the town. For example, the location of the train station provided the selected location for the entrance into the town. In this way the location of municipal elements such as the police station, school, and church helped to indicate a city center, which was located around the main plaza area. The location of the market was outside of the city center, but still along one of the main pedestrian circulation paths.

Other elements were not as integrated into the site but provided unique opportunities if properly planned into the overall design. For example, the hot baths, which are removed from the town center, are a feature unique to this town in the Sacred Valley, and if properly integrated into the site would help to give the town a unique character.

Likewise, the element of the Aguas Calientes River poses a unique opportunity to the site as both an organizational and aesthetic element. While the river is currently treated as more of an obstruction that an opportunity, by increasing user interaction this feature could become the backbone of the site as well as a very strong east-west connection throughout the site. As is seen by the inventory, there is a lack of key elements located along the riverwalk area, supporting the interpretation that this area acts as secondary to the town center area.

Building Use

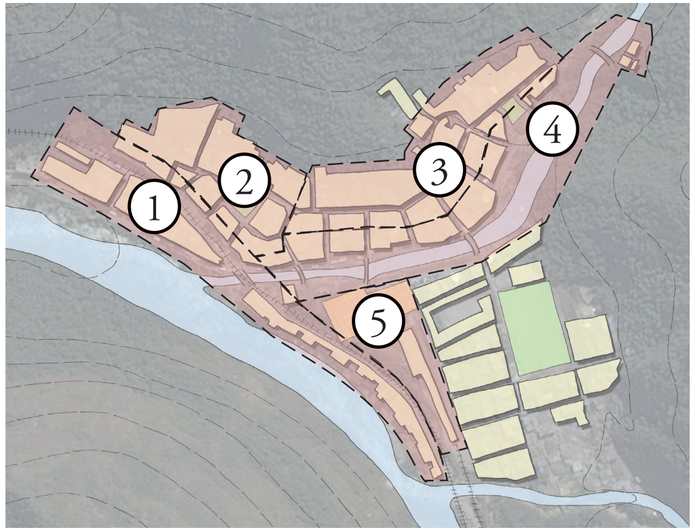
In order to get a good idea of the uses present throughout the site, a building use inventory was conducted for the site. The possible classifications include restaurant, hotel/hostel, souvenir store, and municipal. These categories, while very general, are all that is needed to see the pattern of building use throughout the site to determine zones of use. There is no residential category because the site excludes the residential areas of Aguas Calientes is evidenced by the inventory below, there was an apparent pattern of zones throughout the site, organized around main elements such as Avenue Pachacutec, the main plaza, and the train tracks.

Along Avenue Pachacutec the main uses present are restaurants and hotels. In some cases both of these uses are housed within one building with the hotel located on the upper floors and the restaurant on the ground level. This pedestrian thoroughfare has more of a close, urban feel and therefore is conducive to the restaurant business. Many of the restaurants along this walkway have an open area that extends into the walkway, allowing them to integrate themselves into the activated walkway.

The municipal center is clearly centered around the main plaza area, indicating that this area functions as the town center. This allows this area to function with a mix of both visitor and residential building uses, providing an open space that will be used by all people in the town, both visitors and residents.

Building Uses Within Site

Zones of the Site



1. Zone defined by proximity to train tracks and Urubamba River
2. Zone centered around the Main Plaza area
3. Zone centered on Avenue Pachacutec, which acts as the main street
4. Zone of buildings and spaces located on the Aguas Calientes River
5. Zone that includes the train station and current market

When looking into the existing conditions of the site, it soon became obvious that the site was easily split into five distinct zones, each with a unique character. Each zone appears to be organized around a central element such as the train tracks (1), main plaza (2), pedestrian thoroughfare (3), river front (4), or train station (5). Through this zone analysis it became clear that each area required its own unique solution, and these solutions became much clearer after completing this zone analysis.

Each zone was analyzed for features such as pedestrian circulation, character, dominant features, and building use. This allowed me to arrive at a set of opportunities and constraints applicable for each zone. These conclusions were applied during the design process, allowing me to more adequately address the main concerns for each area. However, it is equally important to remember that while these zones were individually important, the overall goal is to create a feeling of connectivity throughout the site. Therefore, while the needs of each zone will be considered, any common features will be emphasized to help promote cohesiveness.

Zone 1 - Train and River Frontage

Defining Characteristics

- Includes all properties that have frontage on the train tracks
- Some of the buildings in this zone have frontage on the Urubamba River and have a severe flooding risk
- Heavy pedestrian circulation

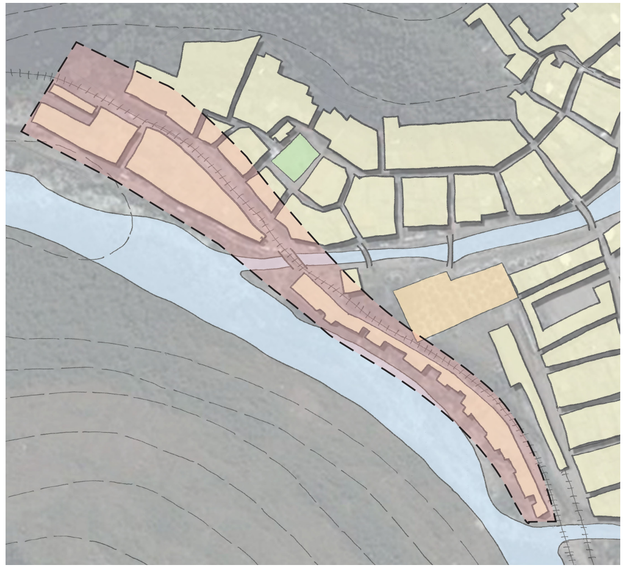
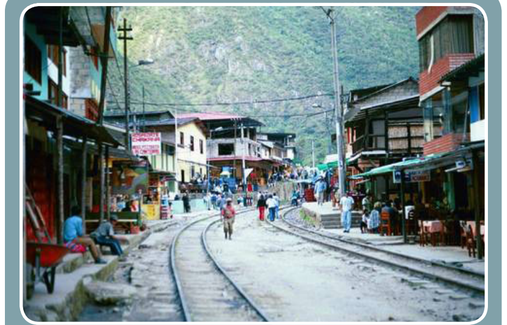


Image of buildings on the Urubamba River



Typical view of buildings along train tracks

Zone 2 - Main Plaza Area

Defining Characteristics

- Includes the main plaza which acts as the town center and main gathering area
- This area contains the majority of the town's municipal buildings
- This area has the highest level of circulation
- Population distributed evenly among residents and visitors

View of the Main Plaza

Typical View From Main Plaza

Zone 3 - Urban Street Frontage

Defining Characteristics

- Buildings that are on Avenue Pachacutec, the main pedestrian thoroughfare of Aguas Calientes
- Predominantly restaurants and stores
- Heavy pedestrian circulation
- This area has a very urban feel

View of Avenue Pachacutec

Typical Stairs Along Avenue Pachacutec

Zone 4 - River Front

Defining Characteristics

- The area bordering the Aguas Calientes River has very low levels of circulation
- Many of the buildings in this area are hotels
- The hot baths have a weak connection to the rest of the site and are under-used
- Aguas Calientes River is treated as more of an obstacle than an opportunity with raised bridges and concrete containment

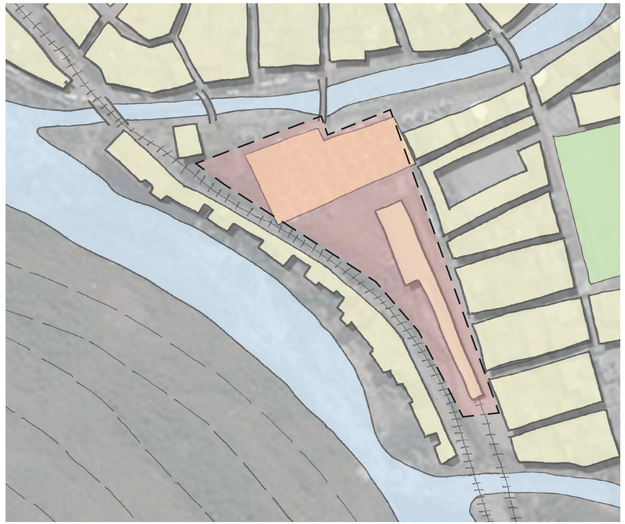
Looking Up the Aguas Calientes River

Hot Baths

Zone 5 - Train Station

Defining Characteristics

- This area acts as the 'welcome center' for visitors
- Currently, this area is very cluttered and chaotic
- There is immense potential in this area being that the only way to reach this site is through the train station



Train Station

Existing Market

Climate

The town of Aguas Calientes is located in the vegetation zone known as subtropical humid forest. This region gets an annual average rainfall of 76 inches per year. The average temperature range is from 59-64 degrees Fahrenheit.

Site Conditions

The site currently has an overall lack of vegetation despite being surrounded by heavy vegetation. Almost all surfaces within the site are impervious. There are two vegetation zones on the site which are upland, which encompasses the majority of the site, and wetland, which occurs along the banks of the Aguas Calientes and Urubamba Rivers.

Wetland Vegetation

The vegetation zone that Aguas Calientes is located in supports a few varieties of wetland vegetation that are found along river beds throughout the valley. The common specimen found include Alder, Willow, and the Phragmites Reed. This vegetation will be planted along both the Aguas Calientes and Urubamba Rivers, especially in the restored riparian areas along the Urubamba River. It will also be integrated into the river walk area in vegetated area along the length of the river. Willow will be used heavily in the extended river bed along the south side of the Aguas Calientes river in the riverwalk area.


Alder


Alder


Phragmites Reed


Phragmites Reed

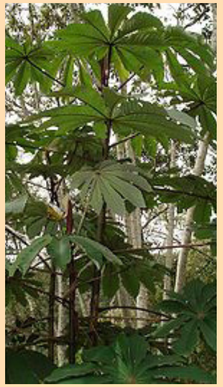

Willow


Willow

Upland Vegetation

The site is currently lacking vegetation although it is located in a region that is conducive to for several shade trees including Mahogany, Cedrela fissilis and Polyepis. These trees are both aesthetically pleasing and provide a cool microclimate for users. These trees will be integrated into the site in the train station park area as well as in the upland areas of the riverwalk. Other vegetation found in the area includes the Trumpet Tree and Cinchona. Both of these options are good for textural variation and will be used throughout all upland areas of the site. Through the introduction of vegetation throughout the site I expect to allow the site to have a more user friendly character as well as a variety of microclimates to make it more enjoyable at all times of the year. The vegetation will also reduce the amount of impervious surfaces in the site and lead to increased amounts of water being percolated into the soil instead of becoming runoff into the Urubamba and Aguas Calientes Rivers. This change will help to reduce the impact of heavy rains on the site.


Cedrela fissilis


Trumpet Tree


Mahogany


Mahogany


Trumpet Tree


Polylepis


Polylepis


Cinchona

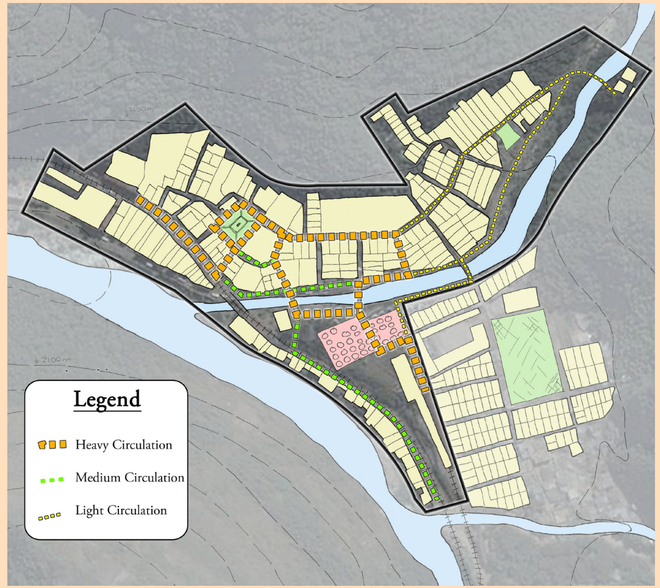
Circulation

Being that Aguas Calientes has no vehicular access, the town holds the unique position of only needing a pedestrian circulation system. This gives the town the opportunity of being able to make strong pedestrian connections throughout the town without the worry of divisions and breaks in this system due to automobile circulation. This also narrows down the type of user that the circulation system need to accommodate, being that all users will be traveling at walking (or at fastest) running speed.

As is shown by the circulation analysis, the strongest circulation on the site currently exists around the train station, main plaza, and on avenue Pachacutec. It is evident from this analysis that the walkway along the Aguas Calientes riverfront is highly under utilized, with an overall lack of traffic. Also noticeable is the lack of traffic that travels to the east side of the site to visit the town's hot baths.

From this analysis I came to the conclusion that redevelopment was needed along the riverfront corridor in order to strengthen this connection from west to east throughout the site. This strengthened connection would also encourage more users to travel to the baths at the eastern end of town.

Although pedestrian circulation is plentiful along the train tracks on the west side of the site, this area is not currently conducive to pedestrian circulation. There is a lack of distinction between the train tracks and pedestrian walkways and in many areas these two circulation systems exist on the same level.



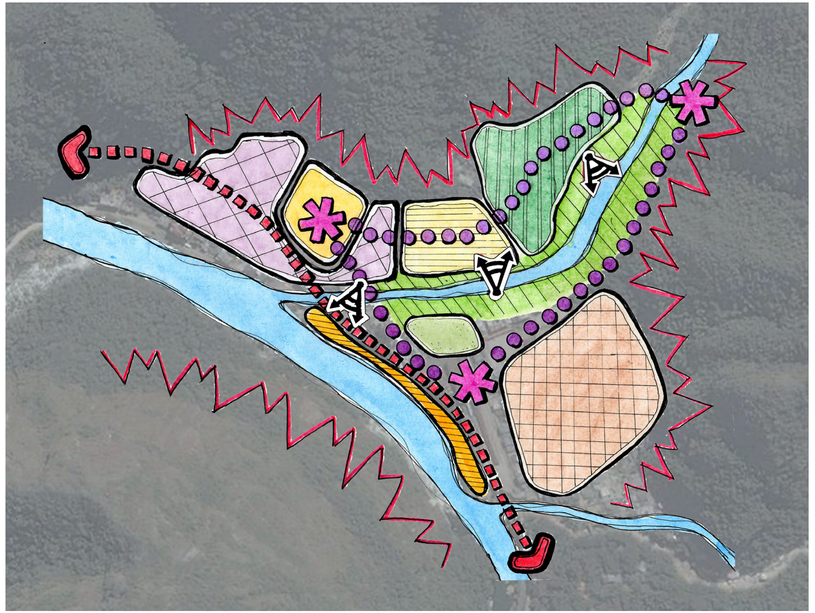
Pedestrian Circulation Within Site Area

Site Users

In the town of Aguas Calientes there are two clear user groups; residents and visitors. The residents of this town currently number around 4000 individuals. However, UNESCO estimates that of these individuals, around fifty percent of them are 'transient', meaning that Aguas Calientes is not their year-round home. Many Peruvians know that the tourism business provides the opportunity to make a large amount of money in a rather short tourism period and travel to locations that thrive on tourism during the tourism season. Aguas Calientes is one of the more extreme examples, and this has led to man problems in the town. The deficiency of full-time residents has led to a lack of residents that think of this town as their home, and therefore a lack of people willing to fight for the well-being of this town.

The visitors to the town of Aguas Calientes can nearly double the population on a busy day, numbering up to 3000 individuals in addition to the town's 4000 residents. These visitors are all here for the same reason: the ruins of Machu Picchu. Being that Machu Picchu is not one of the most accessible places to visit, it can be safely assumed that these visitors are rather determined and adventurous. In order to adequately design for both user groups, all factors need to be taken into consideration and applied in a way that allows the user groups to integrate throughout the site in various gathering areas and corridors.

Site Synthesis



Steep Slopes, *Danger* of Landslides

Good View of Surrounding Scenery

Opportunity for Welcome Plaza Area

Urubamba and Aguas Calientes Rivers, Opportunity

Primary Circulation System

Primary Nodes

Existing Railway

Area Dominated By Local Housing

Area With Majority Municipal Use, Suitable for City Center

Area With Integrated Hotel, Store and Restaurant Uses

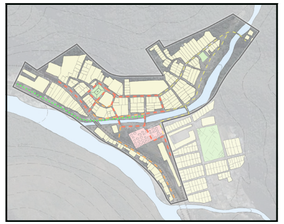
Area With Majority Hotel/ Hostel Building Use

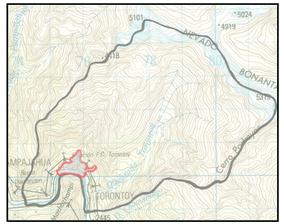
Area With Majority Restaurant and Store Building Use

Area suitable for River walk

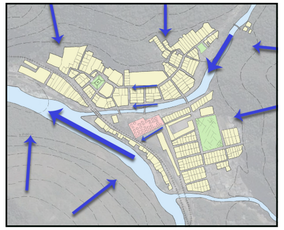
Area of Building Within Urubamba River Bed, *Danger* of Flooding

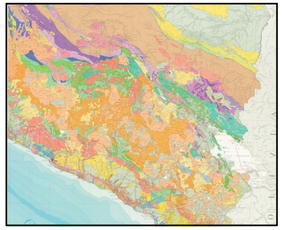
Site Synthesis

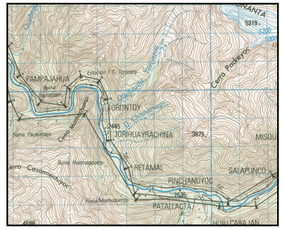




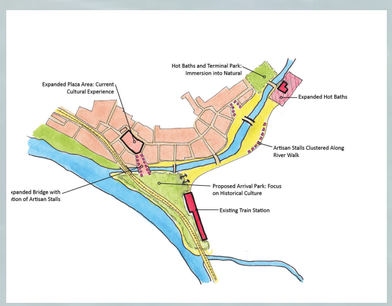
After completing the site inventory and analysis for the site the information was then synthesized to investigate the interaction between these systems. Through this combination of information, it was apparent which areas were most conducive to certain types of improvements and user activity. It was also possible to identify the potential conflicts and constraints of the site that need to be considered in order to design the site in a way that is pleasant and safe for all users. The conclusions realized from this synthesis were carried into the design phase and were integral to the creation of a safe, effective, and cohesive master plan for the site. The main opportunities found within the site were locations with existing elements which could be strengthened and improved such as the river area and the hot baths. This information also lended itself to the identification of several key points that could potentially act as nodes within the site, such as the hot baths, the main plaza, and the train station. The constraints found on the site were natural elements such as the steep terrain and the risk of flooding and landslides. These potential risks are potentially very serious threats and the final design takes these into account and designs to minimize potential impact.

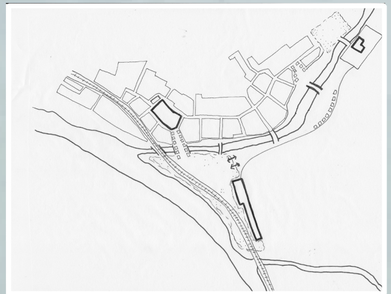






analysis

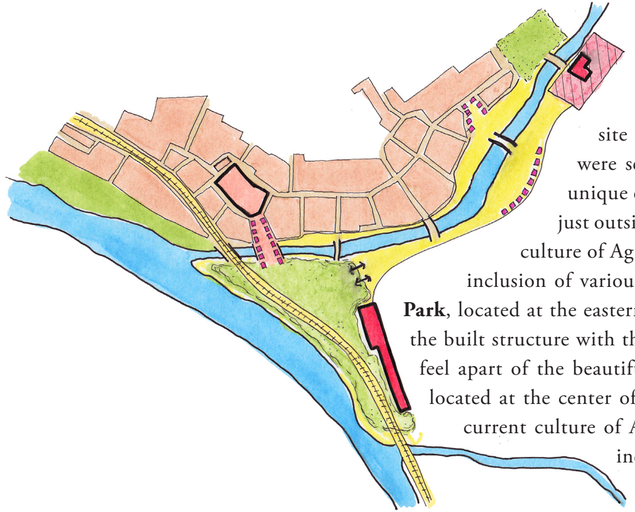




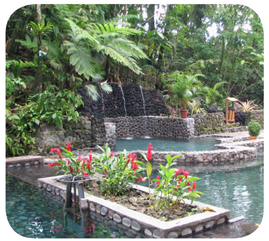
Chapter 4:

Concepts

Concept 1



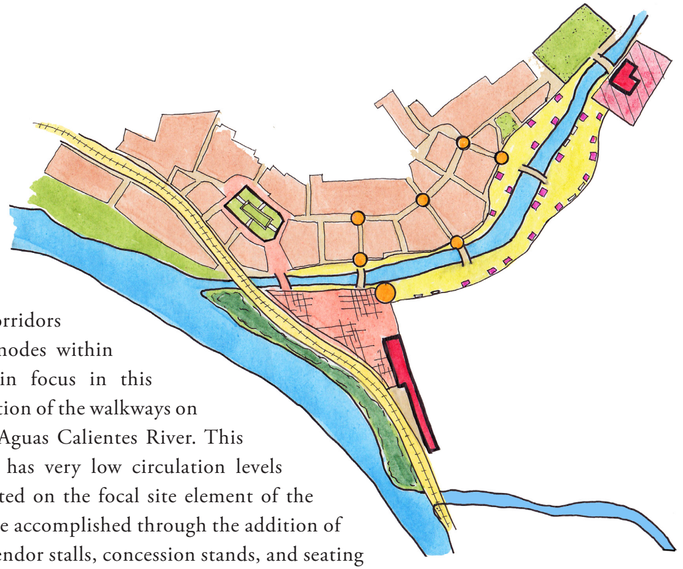
The first concept focuses on the design of experiential centers throughout the site. After a review of the site synthesis, three locations for these destination nodes were selected. These **three main nodes** were to each have a unique experience associated with it. The **Arrival Park**, located just outside the train station, would have a focus on the historical culture of Aguas Calientes. This would be accomplished through the inclusion of various educational elements. The **Hot Baths and Terminal Park**, located at the eastern end of the site would be designed in a way that fuses the built structure with the natural environment, allowing the user to be able to feel apart of the beautiful surroundings of Aguas Calientes. The **Main Plaza**, located at the center of the site, would be designed with an emphasis on the current culture of Aguas Calientes. This would be accomplished through including market elements as well as artisan stalls to educate the user.



Images Representing Proposed Elements of Concept 1

Concept 2

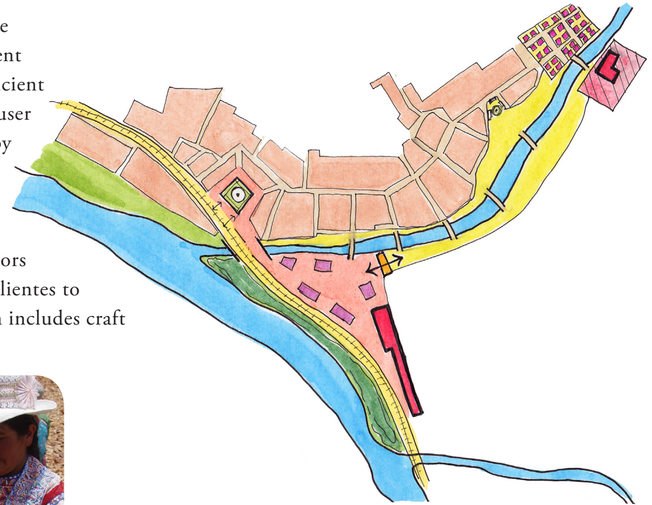
Images Representing Proposed Elements of Concept 2



The second concept focuses on the activation of the corridors that connect the nodes within the site. The main focus in this design is the activation of the walkways on either side of the Aguas Calientes River. This corridor currently has very low circulation levels although it is located on the focal site element of the river. This would be accomplished through the addition of elements such as vendor stalls, concession stands, and seating areas along the length of the river walk (reference images at middle and bottom left). In order to allow the user to interact with the river, the scale of the existing bridges crossing the river needs to be reduced (reference image at top left for proposed scale). Currently, the bridges cross the river at the height of the second story of adjacent buildings. Lowering these bridges to a more human scale and allowing the user to recognize the river as a pleasing aesthetic element will encourage strolling along this corridor.

Concept 3

The third concept places an emphasis on the integration of the cultural aspect of both the current residents of Aguas Calientes as well as that of the ancient Incas. In this concept there is a focus on allowing the user to experience the culture of the site and its people by combining all Aguas Calientes resident and tourist areas. This will encourage the interaction between these two user groups. This design specifically seeks to avoid the creation of any areas which might be used solely by visitors to the site. This method allows the visitors to Aguas Calientes to become immersed in the daily routine of the site, which includes craft production, cooking, land care, and tourism services.



Images Representing Cultural Elements to Be Expressed in Concept 3

Conceptual Synthesis

Upon completion of the conceptual design phase the proposals were presented to a jury which provided design feedback. From personal review of the concepts as well as through comments received from this jury, I was able to realize which elements of each conceptual design would be most beneficial to the overall design and would be able to form a cohesive plan. The following were the conclusions reached during this process:

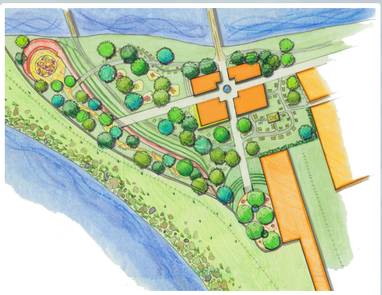
River Walk Feature: This element is crucial to establishing connectivity throughout the site. A walkway activating this space will allow users to view and interact with the Aguas Calientes River. Elements such as vendor stalls, seating areas, and food stands will help to activate this space and draw visitors to walk the length of the corridor, thus promoting connectivity to the hot baths located at the East end of the site. This pedestrian walkway coupled with an adjustment to the scale of the bridges that span the river will allow this corridor to be an easily traveled area.

Hot Baths: Currently, the hot baths are an element of the site that have a great amount of unrealized potential. This feature of the site is what distinguishes it from the other towns within the sacred valley area. In order to attract a larger range of visitors, the baths need to be redesigned to integrate a concession stand and increase capacity. The addition of the earlier discussed river walk feature will provide the level of connectivity necessary to encourage circulation to extend to the hot baths.

Buildings Along Train Tracks: In this area the walkway is only raised on one side of the train tracks, and even the raised side lacks a feeling of separation from the train tracks. Introducing a raised walkway to the other side as well as introducing an aesthetic feature such as a paving would help to distinguish the train tracks from the pedestrian walkway and provide a sense of connectivity throughout this area.

Connectivity Throughout the Site: Although this site has distinct zones within it, there is a lack of connectivity between these zones. This can be addressed through features such as a riverwalk and improved pedestrian amenities along walkways.

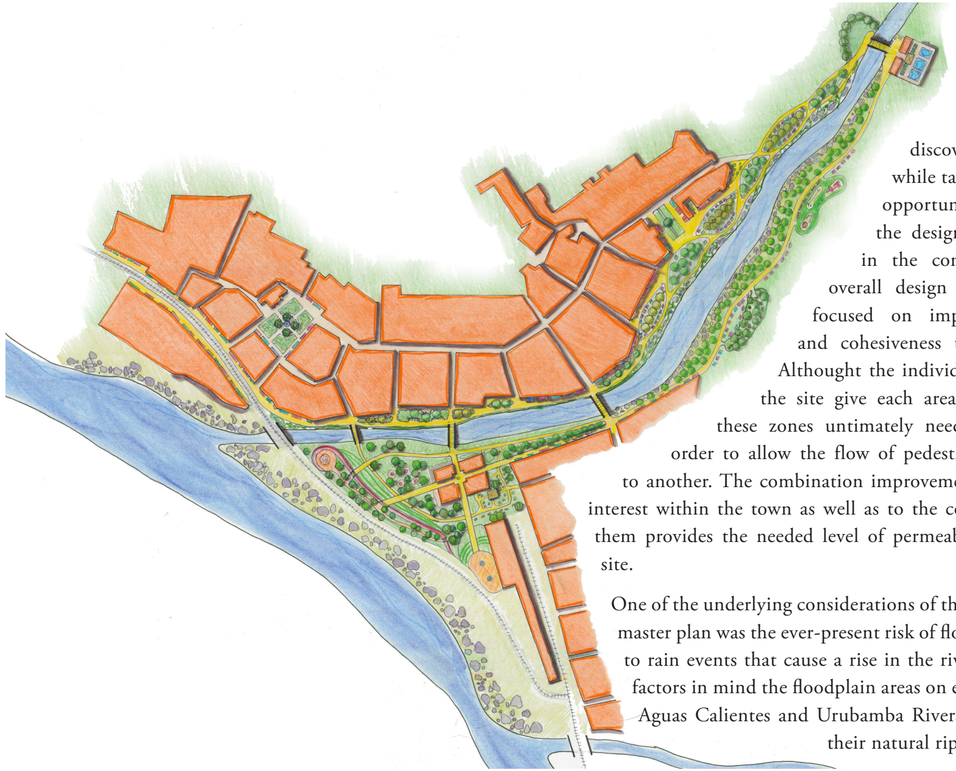
Main Plaza: Currently this area acts as a gathering area for both visitors and residents, but there is such a lack of seating that people often sit on the curbs. This area needs to integrate elements that provide aesthetic value as well as address the limited seating issue. An interactive element would be helpful in activating the space.



Chapter 5:

Final Design

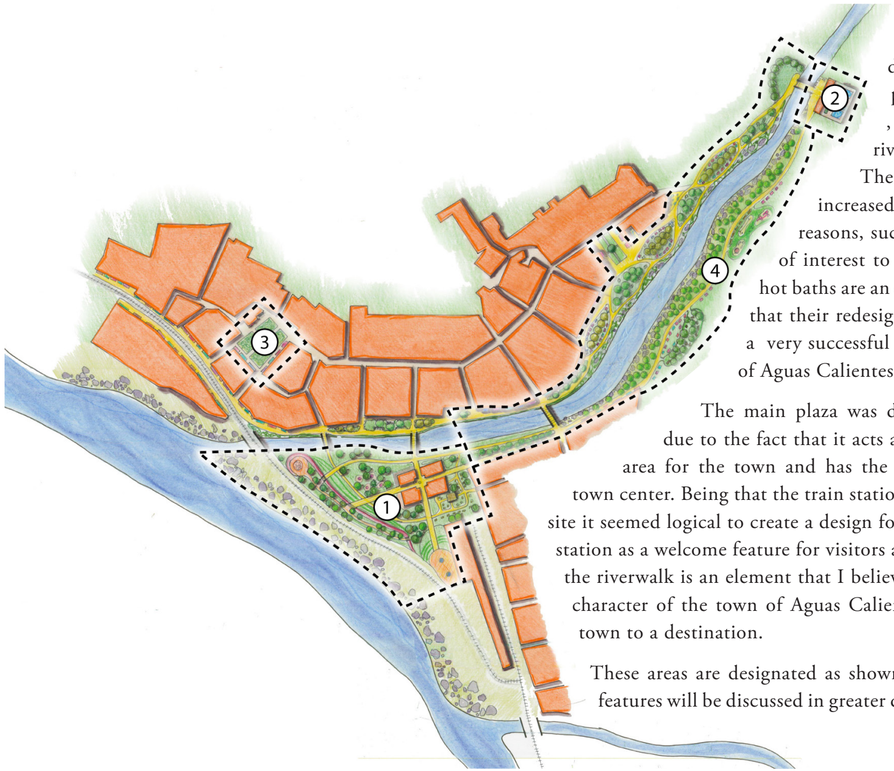
Overall Master Plan



The final master plan for the Town of Aguas Calientes aims to resolve the constraints discovered in the analysis while taking advantage of the opportunities while achieving the design features discovered in the conceptual phase. The overall design of the master plan focused on improving connectivity and cohesiveness throughout the site. Althought the individual zones present on the site give each area a unique character, these zones untimately need to tie together in order to allow the flow of pedestiran traffic from one to another. The combination improvement to both points of interest within the town as well as to the corridors that connect them provides the needed level of permeability throughout the site.

One of the underlying considerations of the site when creating a master plan was the ever-present risk of flooding in this site due to rain events that cause a rise in the river levels. With these factors in mind the floodplain areas on either side of both the Aguas Calientes and Urubamba Rivers were expanded and their natural riparian zones restored.

Detailed Design Areas



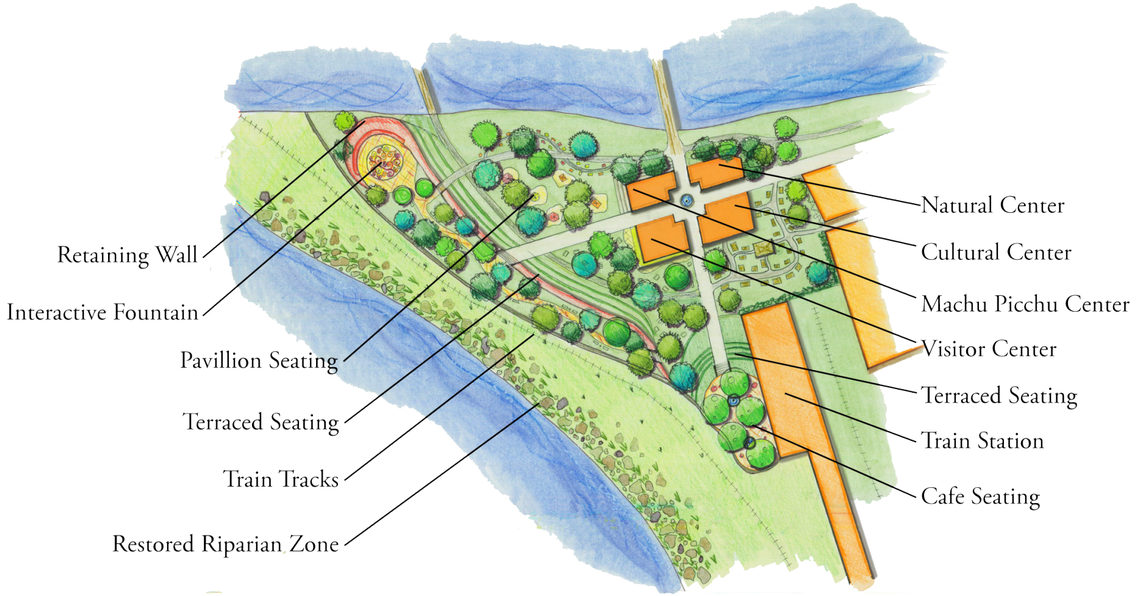
The areas that were designed at a greater level of detail were the train station plaza (1) , the hot baths (2) , the main plaza (3) , and the riverwalk area (4).

These areas were chosen for an increased focus because of various reasons, such as being an integral point of interest to the town. For example, the hot baths are an element so unique to the site that their redesign has the potential to create a very successful destination within the town of Aguas Calientes, leading to increased use.

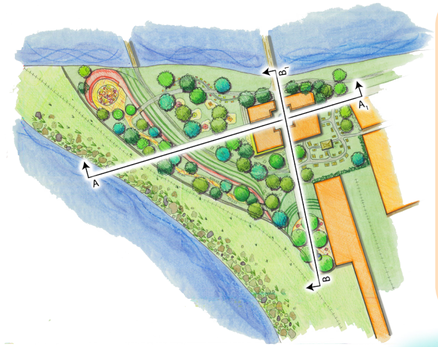
The main plaza was designated for greater detail due to the fact that it acts as such an integral gathering area for the town and has the potential to strengthen the town center. Being that the train station is the point of entry to the site it seemed logical to create a design for the area just outside of the station as a welcome feature for visitors arriving in the town. Finally, the riverwalk is an element that I believe will help to transform the character of the town of Aguas Calientes from that of a gateway town to a destination.

These areas are designated as shown on the plan at left. These features will be discussed in greater detail on the following pages.

Welcome Park and Plaza



Welcome Park and Plaza



The train station plaza is the area just outside of the train station, which is the point of arrival to visitors to Aguas Calientes, meaning that this area is the first impression that they have of the town. For this reason it was extremely important to keep the character of the town while placing an emphasis on the strongest elements of the site. The two major elements to be integrated throughout this plaza were seating and vegetation. There was also the addition of elevation changes throughout the site which allowed for the train tracks to be lowered below the line of site of the users of the park and also allowed for terraced seating in the park. The only buildings proposed for the site were in this location, in the form of four buildings, which act as a center of information for both residents and visitors to the site.

Section A - A_1

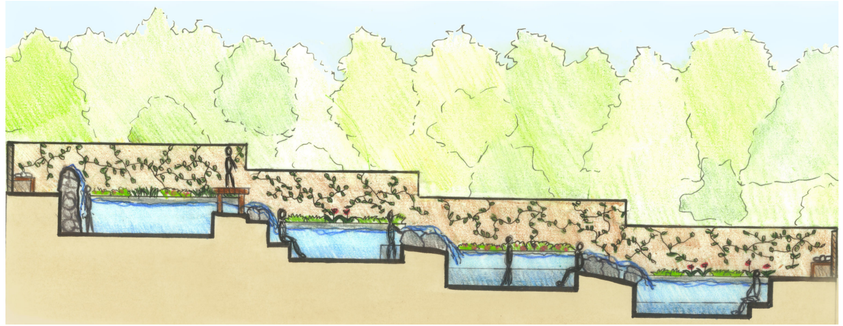
Section B - B_1

final design

Hot Baths: Aguas Calientes

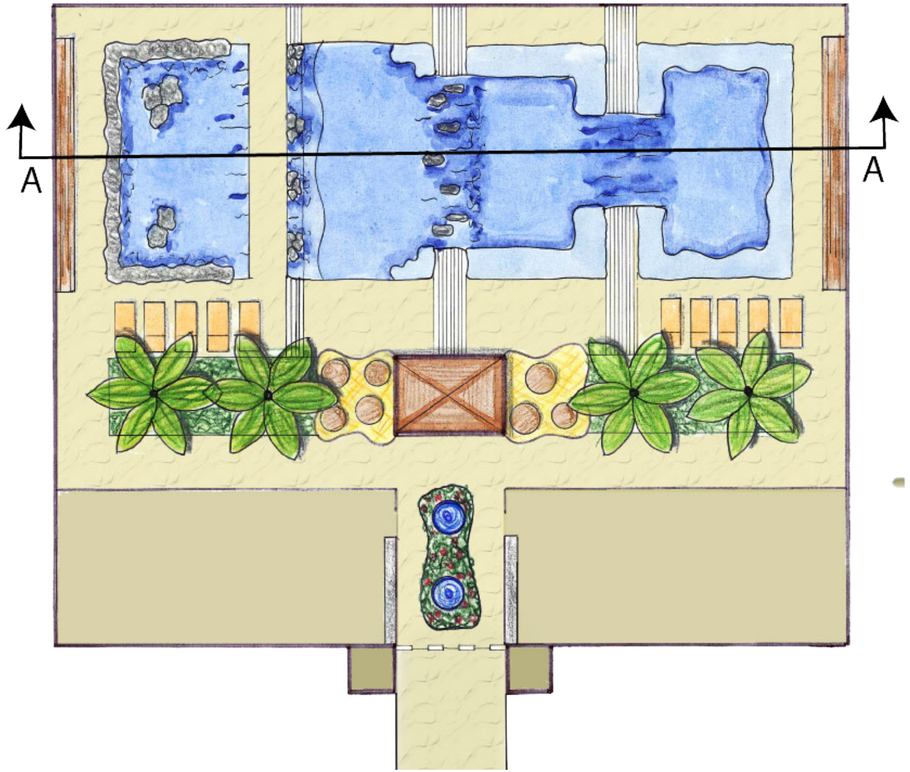
The hot baths in the town of Aguas Calientes are the element with the most potential to distinguish the town from the other Sacred Valley sites, an importance that is reflected in the name of the town, Aguas Calientes, which translates to hot water. However, the existing hot baths are known to be rather unkempt and have a very low capacity, leading to very crowded conditions during tourist season. For this reason many tour guides and guide books do not recommend visiting the baths, a large factor in the lack of visitors to this unique feature in the town.

The redesign of these baths increased capacity as well as making the baths more desirable to visitors and residents by providing various levels of water temperature that terrace throughout the baths. The design of the baths aims to allow the user to feel connected to the incredible scenery just outside the baths, a feeling that comes naturally to the baths being that they are removed from the bustle of the center of town. The new design also integrated user amenities such as concessions and a locker room which aim to improve the user experience while at the hot baths.



Section A - A_1

Hot Baths: Aguas Calientes

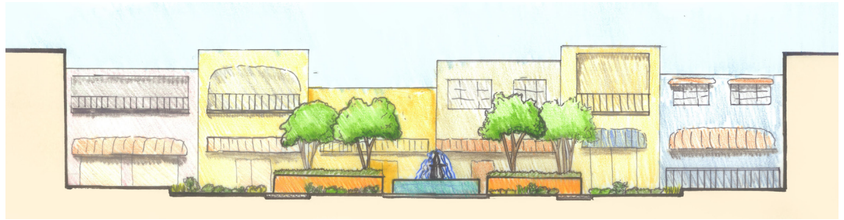


final design

Main Plaza

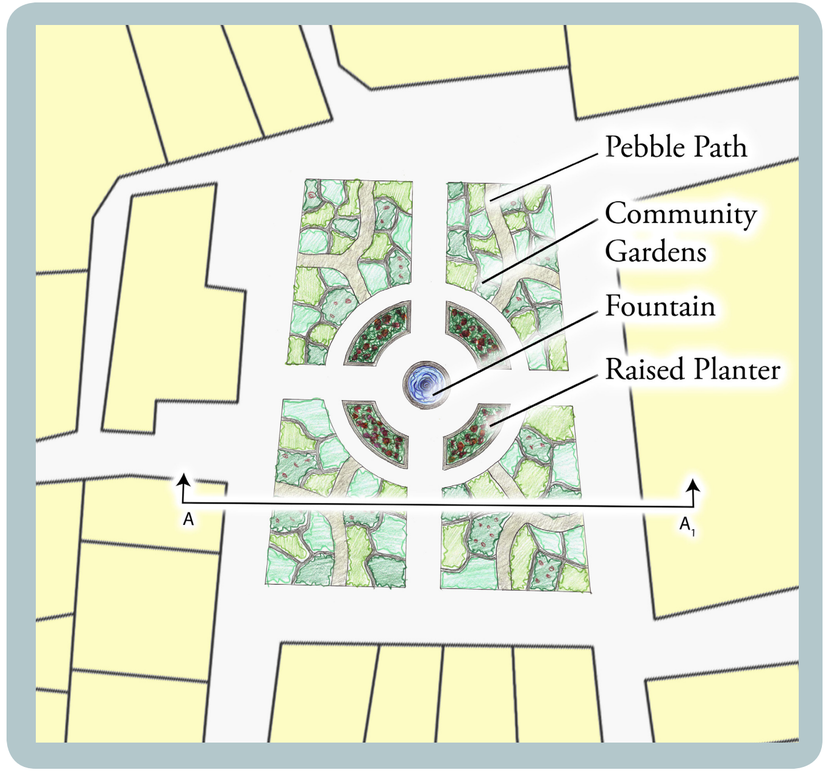
The main plaza is currently the heart of the town of Aguas Calientes, acting as a gathering place for both visitors and residents of the town. This location currently has an obvious lack of seating, with users sitting on curbing when benches are unavailable. Being that this space is one of the few locations where vegetation is integrated into the site, it does not adequately take advantage of this feature, lacking trees or any vegetation that provides shade.

The proposed design for the main plaza includes three main features; planters with seat walls, community gardens, and a central fountain. The design of the main plaza is distinctly Spanish, reflecting a common design style found in many plazas in the Sacred Valley area including Pisac, Cusco, and Ollantaytambo. The raised planters provide for the addition of trees to the main plaza, introducing shade to the space which will be appreciated in the summer months. The community gardens add an element of fun to the site while also increasing the amount of vegetation present. These community gardens will be available to all residents of the town, providing them with a plot of land to raise their own food, leading to a sense of ownership and loyalty to the space. The central fountain provides visual interest to the plaza, drawing users into the center, as well as provides white noise to provide an area of serenity within the busy site. Overall, the design for this area provides for increased user interaction as well as a unique open space in the dense center of the town of Aguas Calientes.



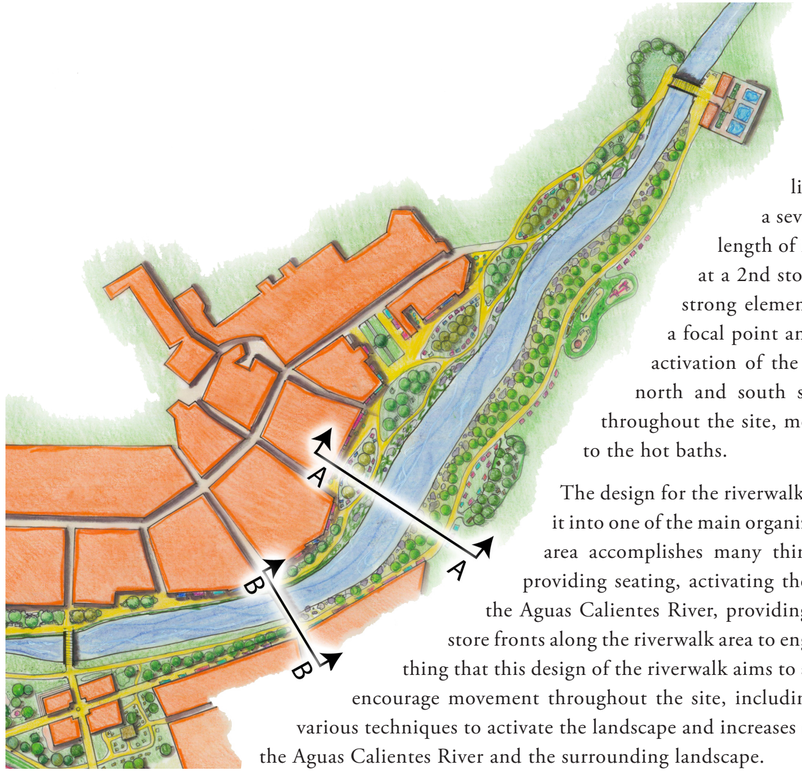
Section A - A_1

Main Plaza



final design

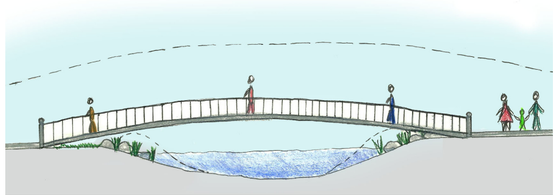
Riverwalk



The Aguas Calientes River is a main element of the site, cutting the site through the center from East to West. Currently the river is treated as more of an obstacle than an opportunity. There is very limited interaction with the river, with a severe concrete containment running the length of it as well as bridges that cross the river at a 2nd story level. Being that the river is such a strong element, it holds great potential to become a focal point and organizing element of the site. The activation of the corridor along the river on both the north and south side would increase the connectivity throughout the site, most importantly from the town center to the hot baths.

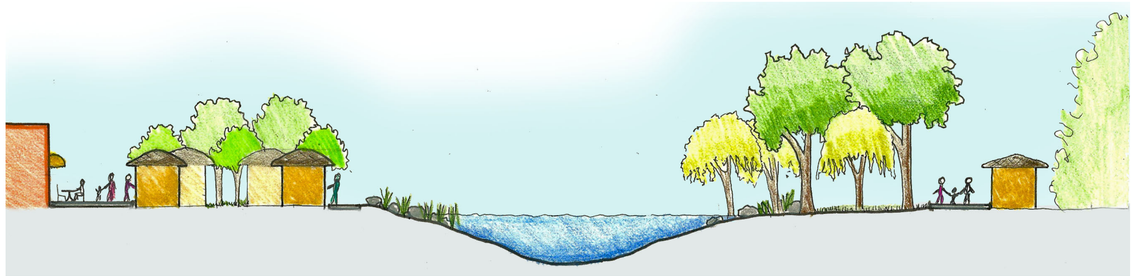
The design for the riverwalk area activates this corridor and makes it into one of the main organizing elements of the site. The riverwalk area accomplishes many things including integrating vegetation, providing seating, activating the space, expanding the flood plain of the Aguas Calientes River, providing space for vendors, and allowing the store fronts along the riverwalk area to engage the passing pedestrians. The main thing that this design of the riverwalk aims to achieve is to improve connectivity and encourage movement throughout the site, including to the hot baths. This design uses various techniques to activate the landscape and increases the level that the users have with both the Aguas Calientes River and the surrounding landscape.

Riverwalk



Section B - B_1

As is seen in the sections on this page, the redesign of the riverwalk acts to engage the user with the Aguas Calientes River as well as encourage movement along the riverwalk corridor. Section A - A_1 shows the integration of vendor and concession stands in order to activate the riverwalk area. These elements act to strengthen the interaction with pedestrians along with cafe seating at the numerous restaurants. Section B - B_1 illustrates the proposed bridge levels in relation to the existing conditions as well as the expansion of the river bed, which will act to reduce impacts of rain events of the level of the Aguas Calientes River.



Section A - A_1

Chapter 6:

Conclusion

Future Recommendations

Although I feel that this project has proposed many solutions to the majority of the problems facing Aguas Calientes today, there are still outstanding issues I feel need to be addressed:

- **Carrying Capacity** - The first of these is studies concerning the carrying capacity of Aguas Calientes. These studies need to address issues such as infrastructure and building density. With information giving insight into these conditions in the town, solutions to address these issues relating to carrying capacity can be found.



- **Design Guidelines** - Although much of the character of Aguas Calientes is due to the widelty varied design styles, there are aeveral properties that remain what looks to be unfinished. There are buildings that still consist only of concrete block with no finish. Design Guildelines need to be created for the town in order to provide a basic level of consistency between the zones of the site.



Project Conclusions



Overall, upon completion of this project I feel as though it has been an invaluable experience that has provided unique experiences. The ability to select a project outside of the United States allowed me to expose myself to a project with a unique cultural aspect. This design process has educated me on the whole of the process and has led me to understand how each element of the process contributes greatly to the finished whole.



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Report on the Reactive Monitoring Mission to the Historic Sanctuary of Machu Picchu. Rep. no. 31 COM. Vol. 31. Christchurch, New Zealand: UNESCO, 2007. Print.

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Images presented in this report were from the following locations:

- Introduction
  - www.parkswaatch.org
  - www.unesco.org
  - www.visitcusco.com
  - www.elcomercio.com.pe
  - www.viaperu.pe
- Chapter 1
  - www.parkswaatch.org
  - www.unesco.org
  - www.viaperu.pe
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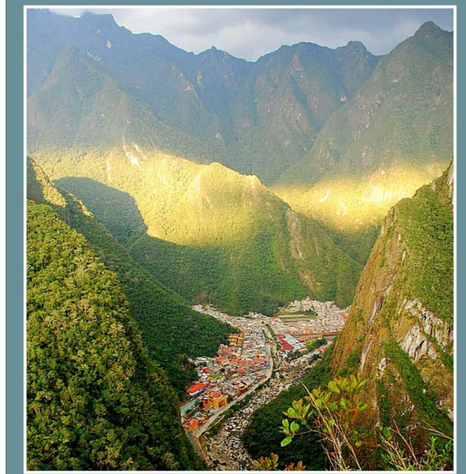
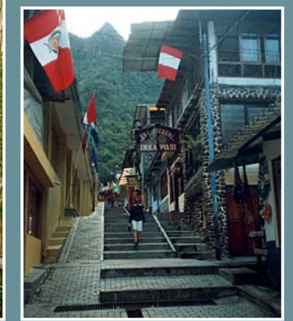
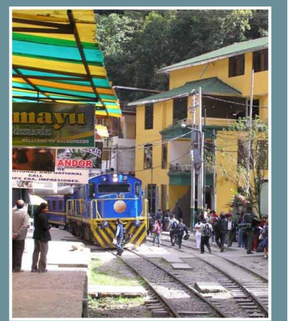
  - www.frommers.com



Aguas Calientes:

an urban redevelopment

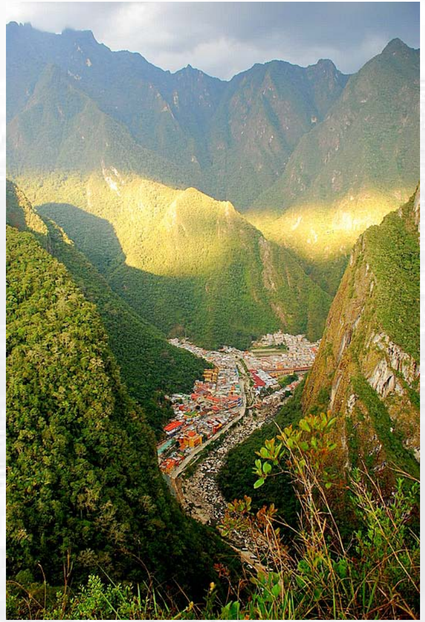




- 700 miles SE of Lima
- Located in the Sacred Valley
- Accessible Only By Train

INTRODUCTION | Project Location/Context

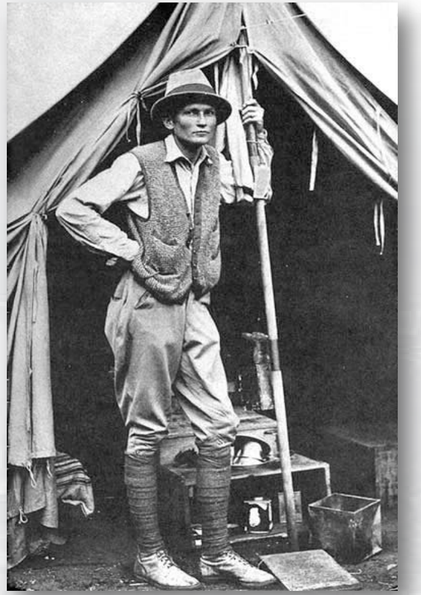
- 3.4 miles from Machu Picchu
  - 20 minutes by bus
- Sits on Urubamba River



INTRODUCTION | Project Location/Context

Final Presentation

conclusion



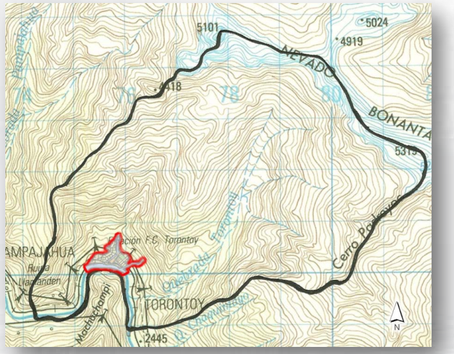
- Began as a farm settlement, Camp Maquinachayoq in 1901
- Machu Picchu discovered in 1911
- Railroad arrived in 1920's
- Population increased 264% from 1993 to 2005

INTRODUCTION | History

- **Relationship to Machu Picchu**
  - Gateway vs. Destination
- **Current Threats**
  - Natural Disasters
  - Uncontrolled Growth
- **Agency Interest**
  - UNESCO

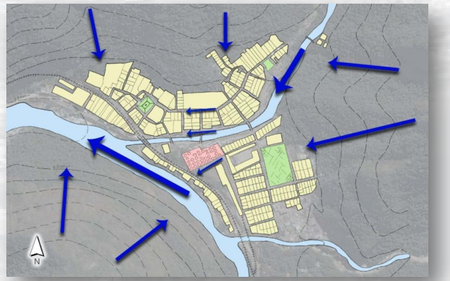
Final Presentation

conclusion



- Elevation 6,693 ft
- Slope of 60% Beyond Building Limits
- Located at Base of Watershed

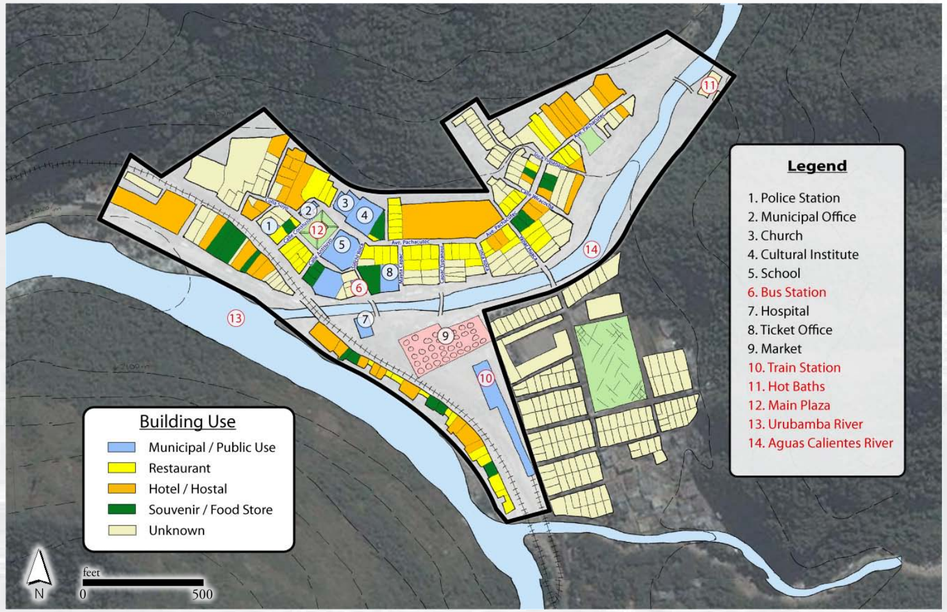
- Strong Slope from East to West (Toward Urubamba River)



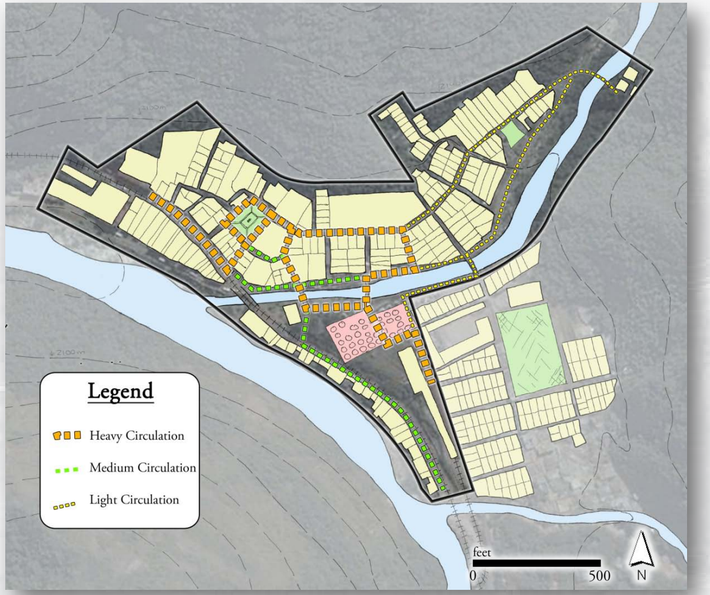
SITE ANALYSIS & SYNTHESIS | Topography & Hydrology

Final Presentation

conclusion



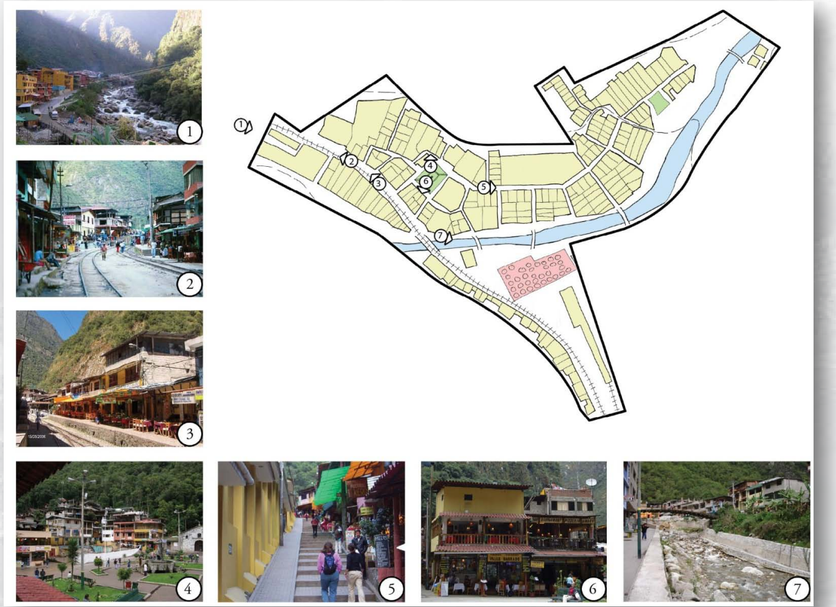
SITE ANALYSIS & SYNTHESIS | Key Elements / Building Use



SITE ANALYSIS & SYNTHESIS | Circulation

Final Presentation

conclusion

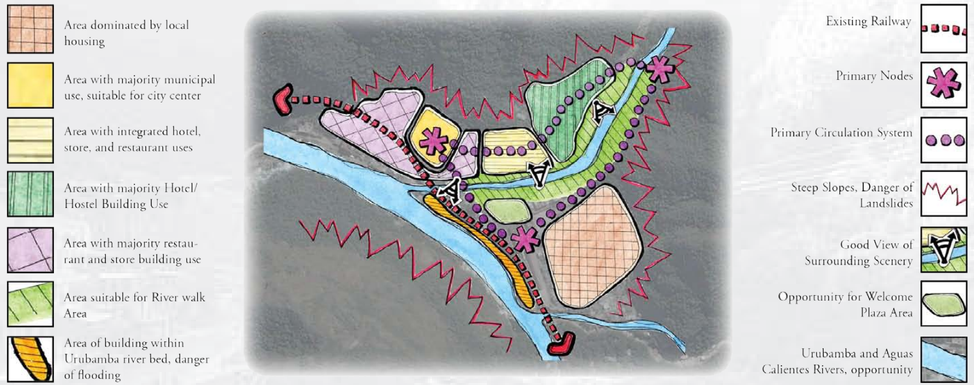


SITE ANALYSIS & SYNTHESIS | Existing Conditions

- 4000 Inhabitants
  - Half Transient
  - 3000 visitors daily
- “Residents” & Visitors
  - “Residents” - Turnover
  - Visitors – Special Interest

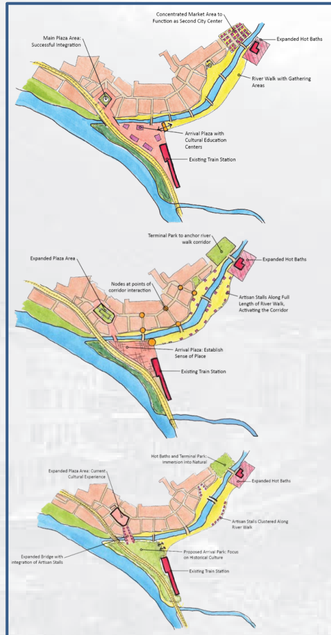
SITE ANALYSIS & SYNTHESIS

Users



SITE ANALYSIS & SYNTHESIS

Site Synthesis



- **Three Concepts with Individual Themes**
  - Experiential Nodes
  - Activated Corridors
  - Cultural Integration
- **Elements From all Concepts Successful**
- **Combination of Themes Necessary**
  - Corridors Activate Nodes

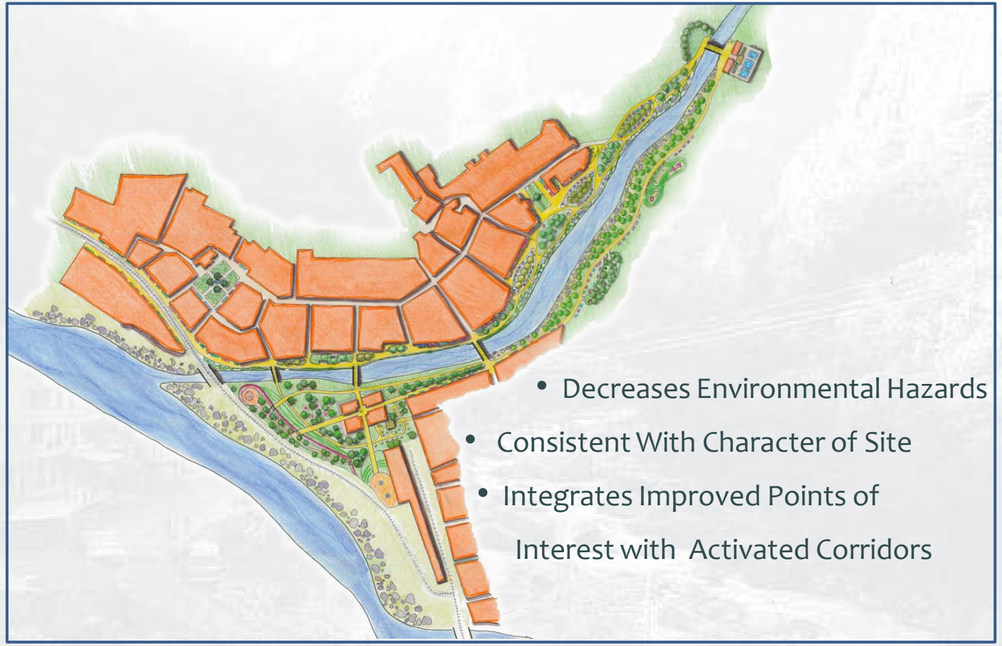
CONCEPTS | Conceptual Phase

- Inspiration from Inca and Spanish Design Styles
  - Inca – Vertical

Spanish - Horizontal

- Styles Co-exist

CONCEPTS | Design Inspiration



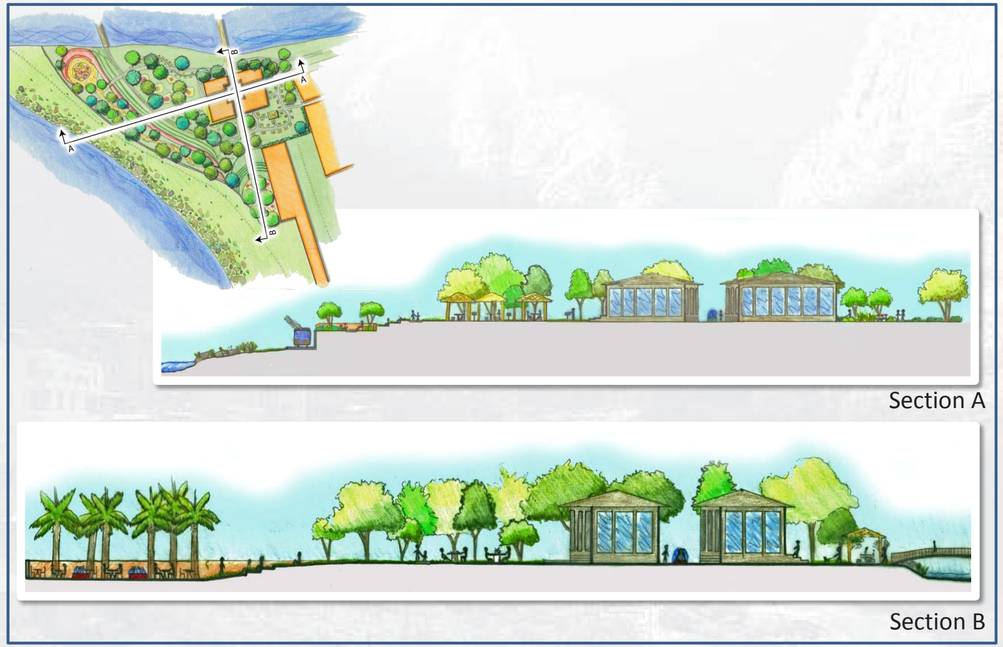
- Decreases Environmental Hazards
- Consistent With Character of Site
- Integrates Improved Points of Interest with Activated Corridors

FINAL DESIGN | Master Plan

Final Presentation

conclusion

FINAL DESIGN | Train Station Plaza



FINAL DESIGN

Welcome Park

Final Presentation

FINAL DESIGN

River Walk

conclusion

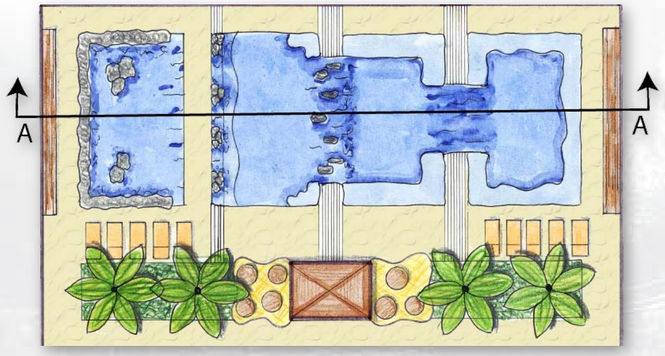
FINAL DESIGN

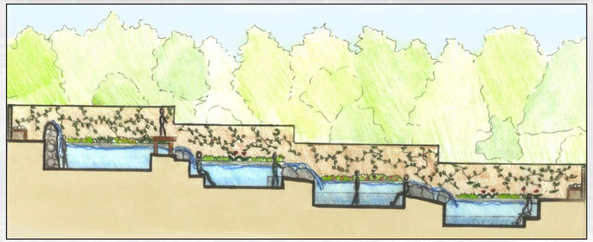
River Walk

- Integrates Natural Elements
- Increased Capacity

FINAL DESIGN

Hot Baths

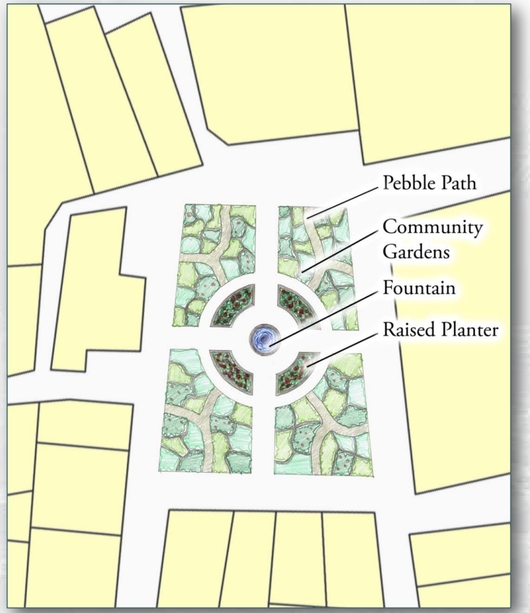




Section A

FINAL DESIGN

Hot Baths



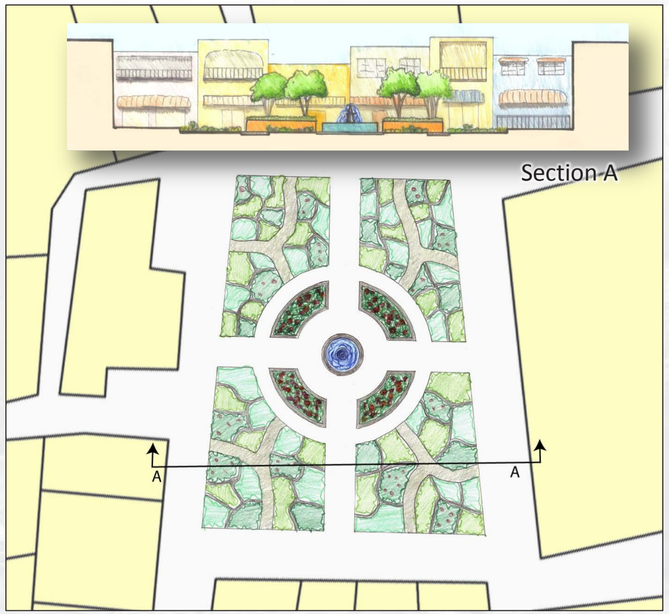
- Community Gardens

- Planter Seat Walls

- Fountain Focal Element

FINAL DESIGN

Main Plaza



FINAL DESIGN

Main Plaza

- Design Guidelines
  - Buildings
  - Pedestrian Connections

- Carrying Capacity
  - Enforce Build Limits
  - Density Limits

FINAL DESIGN

Future Recommendations

"Life is full of beauty. Notice it. Notice the bumble bee, the small child, and the smiling faces. Smell the rain, and feel the wind. Live your life to the fullest potential, and fight for your dreams."

Ashley Smith