

Peru

http://www.lonelyplanet.com/destinations/south_america/peru/history.htm

Full country name: Republic of Peru

Area: 1.28 million sq km

Population: 28 million

People: 54% Indian, 32% Mestizo (mixed European and Indian descent), 12% Spanish descent, 2% Black, Asian minority

Language: Aymara, Quechua, Spanish; Castilian

Religion: Over 90% Roman Catholic, small Protestant population

Government: constitutional republic

Head of State: President Alejandro Toledo

Head of Government: Prime Minister Dr Luis Solari

GDP: US\$56,900000000

GDP per capita: US\$2,060

Inflation: 2%

Major Industries: Pulp, paper, coca leaves, fishmeal, steel, chemicals, oil, minerals, cement, auto assembly, steel, shipbuilding.

Major Trading Partners: USA, Japan, UK, China, Germany, Columbia.

History

The first inhabitants of Peru were nomadic hunter-gatherers who lived in caves in Peru's coastal regions. The oldest site, Pikimachay cave, dates from 12,000 BC. Crops such as cotton, beans, squash and pepper chillis were planted around 4000 BC; later, advanced cultures such as the Chavín introduced weaving, agriculture and religion to the country. Around 300 BC, the Chavín inexplicably disappeared, but over the centuries several other cultures - including the Salinar, Nazca, Paracas Necropolis and Wari (Huari) - became locally important. By the early 15th century, the Inca empire had control of much of the area, even extending its influence into Colombia and Chile.

Between 1526-28, the Spanish conquistador Francisco Pizarro explored Peru's coastal regions and, drawn by the riches of the Inca empire, returned to Spain to raise money and recruit men for another expedition to the country. Return he did, marching into Cajamarca, in northern Peru, before capturing, ransoming and executing the Inca emperor Atahualpa in 1533. Pizarro subsequently founded the city of Lima in 1535 but was assassinated six years later. The rebellion of the last Inca leader, Manco Inca, ended ingloriously with his beheading in 1572.

The next 200 years proved peaceful, with Lima becoming the major political, social and commercial center of the Andean nations. However, the exploitation of Indians by their colonial masters led to an uprising in 1780 under the self-styled Inca Tupac Amaru II. The rebellion was shortlived and most of the leaders were rounded up and executed. Peru continued to remain loyal to Spain until 1824, when the country was liberated by two 'outsiders': the Venezuelan Simón Bolívar and the Argentinian José de San Martín. In 1866, Peru won a brief war with Spain but was humiliated by Chile in the War of the Pacific (1879-83), which resulted in the loss of lucrative nitrate fields in the northern Atacama Desert.

Peru again went to war, this time with Ecuador over a border dispute, in 1941. The 1942 treaty of Rio de Janeiro ceded the area north of the Río Marañón to Peru but the decision was fiercely contested by Ecuador.

Cuban-inspired guerrilla uprisings in 1965 led by the National Liberation Army were unsuccessful, but a series of nationwide strikes coupled with a violent insurgency by the Maoist Shining Path (Sendero Luminoso) guerrillas caused political instability in the 1980s. Another guerilla group - the

Tupac Amaru Revolutionary Movement (MRTA) - also gained in strength during this time. However, the 1990 presidential election victory of Alberto Fujimori (erroneously known as El Chino because of his Japanese parentage) over Peruvian novelist Mario Vargas Llosa, and the capture in 1992 of inspirational MRTA and Sendero Luminoso leaders buoyed hopes for a sustained period of peace.

The main threat to domestic stability remains unemployment and poverty, despite Peru's fast-growing economy. Fujimori was re-elected in April 1995, comprehensively beating former UN secretary general Javier Perez de Cuellar. A treaty was signed with Ecuador in 1998, peacefully resolving a contentious 57-year-old border dispute, paving the way for increased foreign investment in both countries. In November 1999, Peru and Chile settled their last long-standing territorial dispute over the important trade bottleneck of Arica.

The world watched the April 2000 elections intently as Alejandro Toledo, an Andean Indian from a poor family who became a World Bank economist, gave two-time President Alberto Fujimori the election run of his life. One week before the country headed to the polls for a second time, Toledo filed a formal letter with the National Election Board to further call attention to election corruption, a move that bought a response from the Organization of American States (OAS). It announced that the National Election Office needed more time to correct 'deficiencies' in the voting process. Toledo instructed his followers to write 'No To Fraud' across their ballots and ultimately withdrew from the runoff.

Fujimori emerged victorious but resigned in November and fled to Japan following charges of human rights violations and corruption made against his intelligence adviser.

On March 20, 2002, a few days before a visit by US President Bush, a car bomb exploded near the US Embassy in Lima, killing ten people. It was thought to have been carried out by a local militant group.

Toledo won a tight race and in June 2001 became the country's first indigenous president. Since then, the path to bringing to Fujimori to justice has been torturous, revealing in the process that some 69,000 Peruvians died over decades in fighting between rebel and government forces. Toledo's own performance has been something of a disappointment. Although on the surface economic figures are good, his presidency has been distinguished mostly by scandal and his appetite for Lima's nightlife. In May 2003, the government declared a state of emergency when teachers, farmers and government workers went on strike for a month. The reemergence of the Shining Path rebels and of cocaine manufacturing activities are equally troubling.

Culture

Art prior to Spanish colonization concentrated almost entirely upon the production of fine pottery, metalwork, stonework and textiles. The Spanish subsequently introduced their version of urban planning, with cities laid out in checkerboard fashion, and constructed mansions, churches and monasteries which slavishly mimicked Spanish renaissance or the rather phlegmatic Spanish early baroque. Over time, these European styles increasingly showed signs of a native Indian influence, leading to a style known as *mestizo*. (The best examples of mestizo architecture can be found in the churches around Puno and Arequipa.) Painting too mimicked European influences but as local artists grew more confident, a new and distinctive Cuzco style developed, in which artists turned their attention away from the visible world, and concentrated instead on fairytale and fable. The influence of these works on artist Paul Gauguin, who spent his childhood in Lima, is noticeable.

Peruvian music is almost entirely folk music, while its literature encompasses everything from independence-inspired polemic to the anarchic individualism of its many poets and the boyhood reveries of the internationally renowned author Mario Vargas Llosa.

The main religion is Roman Catholicism, though the Indians, while outwardly Catholic, often blend Catholicism with traditional beliefs. Spanish is the main language. In the highlands, most Indians are bilingual, but speak Quechua as their mother tongue. There are about 70 other languages, and in remote parts of the Amazon, Spanish is rarely spoken. English is understood in major hotels and airline offices.

Typical Peruvian dishes are tasty and vary regionally. Seafood is, understandably, best on the coast, while the Inca delicacy - roast guinea pig - can be sampled in the highlands. Other dishes include: *lomo saltado* (chopped steak fried with onions); *cebiche de corvina* (white sea bass marinated in lemon, chilli and onions, often served cold with a boiled potato or yam); and *sopa a la criolla* (a lightly spiced noodle soup with beef, egg, milk and vegetables).

Environment

Peru is in western South America and shares borders with Chile (to the south), Bolivia (southeast), Brazil (northeast), Colombia (north) and Ecuador (northwest). It has three major regions: a narrow coastal belt, the wide Andean mountains and the Amazon Basin. The coastal strip is predominantly desert, but contains Peru's major cities and its best highway, the Carratera Panamericana. The Andes comprise two principal ranges - Cordillera Occidental and Oriental - and includes Huascarán (6770m/22,200ft), Peru's highest mountain. To the east is the Amazon Basin, a region of tropical lowland, which is drained by the Marañon and Ucayali rivers.

Peru's flora contains a number of hardy and unique plants, including patches of *Polylepis* woodland found at extreme heights.

Bird and marine life is abundant along Peru's desert coast, with colonies of sea lion, the Humboldt penguin, Chilean flamingo, Peruvian pelican, Inca tern and the brown booby endemic to the region. Common highland birds include the Andean condor, puna ibis and a variety of hummingbird. The highlands are also home to cameloids such as the llama, alpaca, guanaco and vicuña, while the eastern slopes of the Andes are the haunts of jaguars, spectacled bears and tapirs. The vast wealth of wildlife is protected in a system of national parks and reserves with almost 30 areas covering nearly 7% of the country.

Peru's climate can be divided into two seasons - wet and dry - though this varies, depending on the geographical region. The coast and western Andean slopes are generally dry, with the summer falling between December and April; during the rest of the year, the *garúa* (coastal fog) moves in and the sun is rarely seen. In the Andes, the dry season is from May to September, while the wet season takes up the remainder of the year. On the eastern slopes of the Andes, the drier months are similar to the highlands, though the wet season (January to April) is more pronounced.

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Lima

http://www.lonelyplanet.com/destinations/south_america/lima/index.htm#orientation

A vast polluted metropolis situated in the middle of Peru's desert coastline, Lima is a magnet for struggling highland villagers. But it also has plenty to offer the adventurous traveller - interesting museums, a vibrant cafe scene, striking architecture and genuinely friendly people.

Area: 1,010 sq km
Population: 8 million
Country: Peru

Time Zone: GMT/UTC -5
Telephone Area Code: 01

Orientation



Downtown Lima is distinctly Spanish with a colonial feel. The streets follow a checkerboard pattern surrounding the Plaza de Armas, flanked by the Palacio de Gobierno, the cathedral and other important buildings. Street names can be confusing here due to a mixture of old and new names. The pedestrian thoroughfare Jiron de la Union contains many shops and is a good place to wander. There are some parks and gardens towards the southern end of downtown surrounding Plaza Grau. The most pleasant downtown places are those around the major plazas (Plaza de Arms, Plaza San Martín, Parque Universitario and Parque Italiano). These places have striking buildings and are quite safe during business hours due to a large police presence.

Budget and mid-range hotels can be found south of downtown at the Santa Beatriz and Jesus Maria districts. Miraflores, 8km (5mi) south of downtown, is

home to many upmarket hotels, restaurants and shops and is also an elegant residential neighbourhood. The airport is about 12km (7mi) south-west of downtown while the shipping port is found at Callao. Some of Lima's best museums are located in the suburbs of Pueblo Libre, San Borja and Monterrico.

Lima

History

Evidence of settlement in Peru dates back thousands of years but, other than some scattered ruins, little was left by its early peoples. In about 1250BC, groups such as the Chavín, Chimú, Nazca, and Tiahuanaco migrated into the region from the north. Lima began life way back in 1535 thanks to Francisco Pizarro, who founded the city on 6 January, the same day as the Catholic Day of the Kings. That's why you will quite often hear Lima referred to as the City of Kings. Subsequently, disputes over jurisdictional powers broke out among the Spanish *conquistadors*, or conquerors, and in 1541 a member of one of the conflicting Spanish factions assassinated Pizarro in Lima. In 1569 the Spanish colonial administrator Francisco de Toledo arrived in Peru. During the ensuing 14 years he established a highly effective, although harshly repressive, system of government. Toledo's method of administration consisted of a government of Spanish officials ruling through lower-level indigenous officials who dealt directly with the indigenous population. This system lasted for almost 200 years.

Lima continued to grow in importance and in 1551 the University of San Marcos, the first in the New World, was founded there. To this day it remains autonomous, and outside all government influence. In 1567 the Jesuits arrived. They immediately set about founding schools and colleges and introduced the printing press. Owing to its convenient harbour at Callao, 15km (9mi) away, the town of Lima developed rapidly and was the centre of the Spanish trade monopoly, which lasted until the Treaty of Utrecht in 1713.

General Jose de San Martin proclaimed the independence of Peru in Lima on 28 July 1821. It was later, during the government of Mariscal Ramon Castilla, that Lima took a crucial step over other cities of the American continent by building a railway between the cities of Lima and Callao, the first railway in South America. During this time gaslight and the telegraph were installed and black slavery was abolished.

Lima was attacked in 1881 during a war with Chile. The national library was turned into a barrack, and many valuable books and manuscripts were destroyed or sold as waste paper. Works of art were carried off or broken by the victorious Chileans, who occupied the town for nearly three years. After the attack Lima suffered from the political rivalries of Cáceres and Iglesias, and there was civil unrest until Nicolas de Piérola became president in 1895.

Life was more or less rosy until about 1920, when Lima started experiencing a sudden population growth. The growth spurt was attributable to the city's rapid urbanisation and industrialisation, which generated a wealth that was simply not trickling down to the rural areas. Rural Peruvians began to flock into Lima, putting enormous strains on the city infrastructure. The urban population in 1919 stood at 173,000; within 20 years, it had trebled.

Lima's growth - and growing pains - have continued at an astonishing pace. It has become too big to support itself. The city has a few wealthy and middle class suburbs but the majority of people live in poverty with inadequate housing and a lack of food, and unemployment is rife. Sadly, there doesn't seem to be a short-term solution and, with the population continuing to expand, it seems Lima will continue to swell beyond bursting point.

Attractions

La Catedral

When this cathedral was originally constructed in 1555, it was considered too small and had to be rebuilt. It was badly damaged in the 1687 earthquakes and was almost totally destroyed by them in

1746. The church has interesting woodcarvings in the choir stalls and the altars are finely covered with silver.

You can appreciate the original Spanish mosaics on the walls with the inscriptions of Lima's founder, Francisco Pizarro, and the city's coat of arms. Of great interest are the coffin and remains of Pizarro in the mosaic-covered chapel to the right. There is a small, but informative Museo de Arte Religioso (Religious Museum) at the back.

Museo de Oro del Peru

The Museo de Oro del Peru is actually two museums rolled into one. Its massive Gold Museum has thousands of gold pieces, each uniquely sculptured into something different, from ear plugs to clothing decorations. The Arms Museum at the top of the building is one of the world's best, with thousands of ancient firearms from all over the world.

Plaza de Armas

One of the best things about travelling around Peru is to experience daily Peruvian life, which revolves around its plazas (squares). Lima's plazas are no exception. They are the social hub of town, and each town or city has a Plaza de Armas, or main square. Lima's Plaza de Armas (also called Plaza Mayor) was the old heart of Lima and its foundation place. The only original parts of it are the central old bronze fountain built in 1650 and the building (Casa del Oidor) in the corner of the Government Palace and the Archbishop's Palace. Be sure to catch the changing of the presidential guard here at daily. At the east is the Archbishop's Palace, built early last century with a superb balcony, with the cathedral to the right. Nearby is the Municipal Palace, with an arcade corridor in the ground floor and two cannons, recently found in the square, now pointing proudly skyward from the balcony.

San Francisco Church

The San Francisco church and monastery is known for its stunning baroque architecture and catacombs. Built in the 17th century, this church has cloisters with the famous Sevillian tiles, a good library containing thousands of antique texts, José de Rivera paintings, a museum of religious art and the well-visited catacombs, which are said to contain the remains of 70,000 to 90,000 people. The church itself is one of the best preserved in Lima. The building has survived numerous earthquakes, most recently in 1970, which caused considerable damage. But be warned: with their bone-filled crypts, the catacombs are no place for the squeamish.

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San Martin´s home page



Short history of the liberator of Argentina, Chile and Peru.

<http://pachami.com/English/ressanmE.htm>

Summary:

San Martin was born in Yapeyu, in the Argentine province of Corrientes, beside the mighty Uruguay river, on February 25th 1778.



His father, Don Juan de San Martin, was the governor of the department; her mother, Doña Gregoria Matorras, was the niece of a conqueror of the Chaco's wild forests



In 1786 he is transferred to Spain with his family, where he studies in the Noble Seminary of Madrid and, in 1789, he initiates his military career in the regiment of Murcia. he serves in the army of Spain during the wars against the French and in 1808 he fights in the battle of Baylen against Napoleon's army that had invaded the Peninsula.

In the city of Cadiz he knows other South American officers and he joins the lodges that promoted the independence. In 1811 he resigns his military career in Spain and embarks in the sail ship George Canning from England to Buenos Aires, where he arrives the 9 of March of 1812 accompanied by other friends.

The independent government of Buenos Aires accepts the services of San Martin, recognizes his degree of lieutenant colonel and orders him to create a cavalry corps that soon would be the glorious regiment of Mounted Grenadiers. In that same year he married Maria Remedies de Escalada, that belonged to a distinguished family of the country. He creates the Lautaro lodge,

whose objective was to liberate South America of the Spanish yoke. In October of 1812, the members of the lodge head a movement that intends to remove some members of the First Triunvirato (the government). Pacifically, the Town Hall names a Segundo Triunvirato, who, soon after, calls to an Assembly of Delegates of the Provinces with the purpose of dictating a Constitution.



On February 3rd, 1813, the Mounted Grenadiers fought and won their first combat, near the ravines of San Lorenzo, against the Spanish disembarkation army that arrived with several ships from the port of Montevideo.

In January of 1814, San Martin takes control of the North Army, from the hands of its former general, Belgrano, that had returned defeated from the Alto Peru -today the republic of Bolivia-, and since then, they establish a long friendship.

Soon after being San Martin in Tucuman, he realized that it was impossible to conquer Lima city, the capital of Peru, that was the center of the Spanish power, by the terrestrial way of the highs of the Andes. He conceived the idea of crossing the mountain range to Chile and to attack the city of Lima by sea way.

A disease forces him to request license and obtains from the government the nomination of Governor of the Cuyo province. He leaves Tucuman for Mendoza, capital of Cuyo, a city that stands at the foot of the mountain range of the Andes. There he recovers and begins to prepare an army to cross the Andes.

In the year 1816 he sends, representing the province of Cuyo, a delegation to the congress that met in Tucuman, with express orders to insist on the declaration of independence. Because of his insistence, the declaration of the independence from the rule of Spain of the Provincias Unidas del Rio de la Plata -that was the primitive name of what now is the Argentine Republic- was acclaimed in that congress the 9 of July of that year.

From Mendoza he prepares with little means an army. All the people contributes with their work and goods to make the dangerous expedition. He insists before the government of Buenos Aires to permit to his army the crossing of the Andes to Chile.



In January of 1817 the crossing of the army begins. They were around 4000 men of infantry, cavalry and artillery and carried provisions for a month. They crossed divided into two columns by the passage of Los Patos and the one of Uspallata, and the two columns met in Santa Rosa of the Andes.

On February 12, 1817 few days after the passage of the Andes, the army, that was given the name "Army of the Andes", wins the battle of Chacabuco and some days after, the Liberator enters the city of Santiago de Chile. The Town hall met the day 18th and designated San Martin Supreme Director, but he resigned that honor and then general Bernardo OHiggins was elect for the position.

In the first days of 1818, a disembarked realistic army from Peru, advanced on the capital of Chile. The 19 of March, in a night attack, the Spanish army defeats the independents in the battle of Cancharrayada and general OHiggins was wounded.



The United Argentine-Chilean army recovers and on April 5th they defeat completely the Spanish army in the battle of Maipo. That battle ended the Spanish efforts to dominate Chile.

The way to Lima by sea was then opened, but it was necessary to create a fleet that did not exist. With some boats captured to the enemy and others bought to the United States and England, the Chilean navy was created. The first admiral was Blanco Encalada and then took command the English admiral, Lord Cochrane.



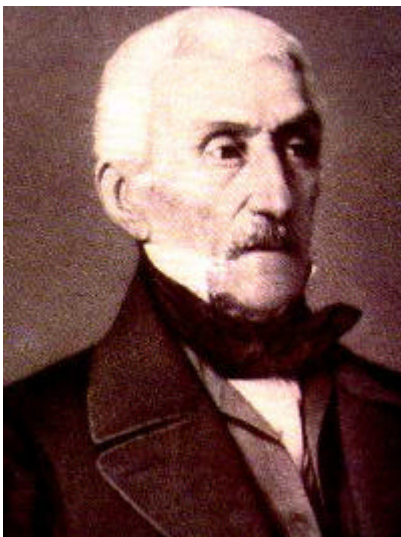
On August 20, 1820 the expeditionary Argentine-Chilean army sails from the port of Valparaiso to Peru.

In the month of July, 1821, San Martin enters triumphant to the city of Lima, proclaims independence, is designated Protector of Peru and exerts the government.



On July 26, 1822 San Martín interviews with Simón Bolívar in the city of Guayaquil, Ecuador. There they meet both liberators of South America, the one of the north and the one of the south. They talk privately by more than four hours. San Martín returns to Lima the night of the 26.

On September 20 of that year meets in Lima the first Congress of Peru and there the Protector resigns to his office. The same day he embarked for Chile and months later crosses the Andes to Mendoza.



On August 3, 1823 his wife dies in Buenos Aires. The 10 of February of 1824, displeased by the civil wars in the Provincias Unidas del Río de la Plata, he embarked for France with his little daughter, Mercedes. There he lived until his death, on August 17, 1850.

DEFENSE OF THE PERUVIAN DENOMINATION OF ORIGIN “PISCO”

What is Pisco?



This is the Map of Diego Méndez, the first map of Peru (1574) referring to “Pisco” as a port located in southern Lima”

(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

Pisco is the Peruvian grape “aguardiente” obtained from the distillation of recently fermented musts exclusively grapes (grape juice), according to traditional practices established in production areas duly recognized and declared as such by Peruvian legislation. The only production areas of Pisco are located on the coast of the Departments of Lima, Ica, Arequipa, Moquegua and the Locumba, Sama and Caplina valleys in the Department of Tacna, Peru.

Several chroniclers such as Guaman Poma de Ayala, Pedro Sarmiento de Gamboa, Fray Martín de Murúa, Bernabé Cobo and Pedro Cieza de León state that this geographical reference exists from the beginning of the Colonial period, pointing out to grape crops and preparation of wine and “aguardiente” in this area. In addition, Miguel Cabello de Balboa mentions in his “Misceláneas Antárticas”, written in 1586, the Ica, Yumay and Pisco valleys when describing the southern coast of Peru.

In the 17th century, as stated by different chroniclers and other historical sources, there was an interaction of a propitious land for the cultivation of grape with a technological culture developed in the southern valleys of Peru, where Pisco had its birthplace. The history of **Pisco** is, therefore, the history of a mixed race group that enriches our culture, which we all recognize as part of our national identity within and beyond the boundaries of Peru.

Located in the Peruvian coast we find a valley, a river, a port and a city named **Pisco**, since the Colonial period. The relationship between **Pisco** and the Peruvian geography and toponymy is thus indisputable. The “aguardiente” **Pisco**, traditional beverage of Peru and “distinguishing product” provides its quality of long lasting lineage and own roots all around the world.

The Name

The origin of the name **Pisco** is undoubtedly Peruvian as proved by a research carried out by lexicographers, chroniclers and historians. The word comes from the pre-Hispanic Quechua word meaning “bird” “(Juan de Arona, pseudonym of Pedro Paz Soldán y Unánue. *Diccionario de Peruanismos*, Tomo II, Ediciones Peisa, Lima 1975, page 323).



Chroniclers insist on the variety of sea birds living in the Pisco region, which in Quechua means bird precisely. (Taken from Chronicles and Historical References related to the origins and virtues of Pisco, traditional beverage and cultural heritage of Peru. Banco Latino 1990, 1st Edition, Lima)

Precisely, captivated by the large quantity and diversity of “birds”, which could be seen along this coastal region (located 200 km south of Lima), the Incas used the Quechua word “**Pisko**” to name this valley, where the famous Paracas culture flourished.



The “Botijas” (clay pitchers) also called “Piscos” or “Pisquillos” were used for storing, transport and shipping of pure pisco. Nowadays, the famous aguardiente, the clay pitcher containing it and its exporting port are named as such.

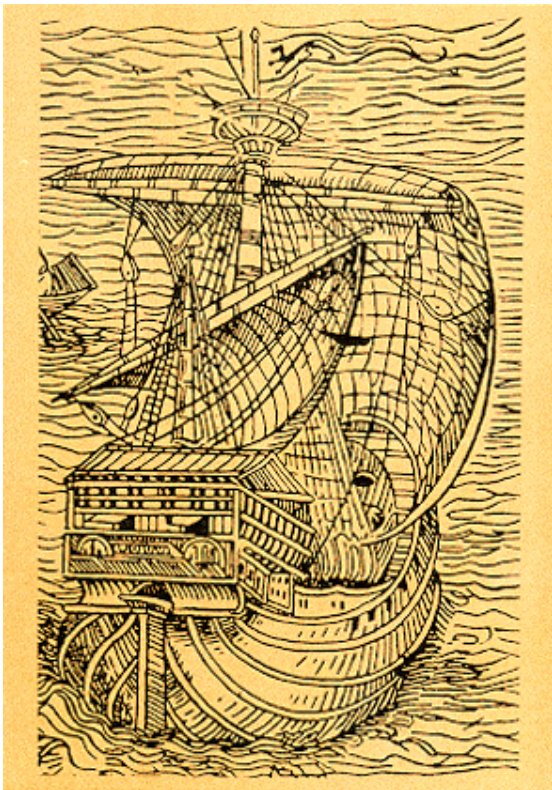
(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

However, this is not the only meaning. Long ago, a community of Indians called “**Piskos**” inhabited this area. They were excellent ceramists who prepared, among other products, “**clay pitchers**” (botijas de arcilla) with an inside lining of beeswax, used to store alcoholic beverages and “chichas”. Later, when the Spaniards brought grape to the region, the popular “aguardiente” was also stored in the clay pitchers and, as time went by, this “aguardiente” was identified with the name of the recipient that contained it.

In addition, it should be pointed out that the word **Pisco** is part of a large number of Peruvian towns, regions and counties, such as **Piscohuasi** (Bird house) in Ancash; **Piscotuna** (Bird fruit) in Ayacucho, **Piscopampa** (Bird pampas) in Arequipa; **Piscobamba** (Bird plains) in Apurimac, among others. Thus, the Quechua word **Pisco** is present in typical Peruvian last names such as **Pisconte**, **Piscoya**, **Piscocolla**, etc.

The origin

Grapes first arrived in Peru from the Canary Islands during the 16th century brought by the Marquis Francisco de Caravantes. Chroniclers from this era pointed out that the first viniculture process that ever occurred in South America took place in the Marcahuasi Farm, in Cuzco. However, it was in the valleys of Ica where these crops largely expanded thanks to adequate weather conditions. Therefore, the wine industry developed strongly in this area.



The first grape arrived in Peru from the Canary Islands in ships such as this one.

Taken from chronicles and historical references related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

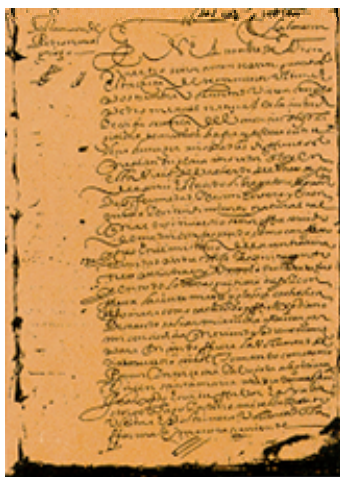
As from the mid 16th century (1574), the Spaniards started to use the name **Pisco** to designate the name of a river, a town and a port, which was used as one of the most important transport means for regional trade. It was the shipping port for guano, and for silver shipping to Spain.

The grape crop process in Peruvian soil was so successful that wine was exported from the Viceroyalty of Peru to Spain. Iberian producers were so concerned about this that they requested Felipe II to ban this trade in order to

avoid a threatening competence, which was enforced in 1641. Consequently, coastal landowner monks increased the production of “aguardiente” made of Peruvian grape and it soon became a popular beverage for its typical characteristics, especially among travelers of the region.

The earliest historical reference about the preparation of this grape “aguardiente” in Peru date back to the beginnings of the 17th century. The well-known Peruvian historian Lorenzo Huertas states that: “We have found a document from 1613 which refers to the preparation of “aguardiente” (from grape) in Ica. This date may be one of the earliest references to the preparation of Pisco not only in Peru but also in America. The document referred to by Huertas is the will of Pedro Manuel, the Greek, a citizen

from Ica, who by the end of his life declared to have among its properties, apart from a Creole woman, “thirty large earthen jars containing aguardiente plus a cask full of aguardiente containing thirty little jars of such aguardiente. In addition, a big boiler made of copper used to extract the aguardiente, with its tap cover. Two “pultayas” one made to allow the passing of the tap and another little one in better conditions. This is the oldest evidence about aguardiente found in Peru related to the production of aguardiente. It is important to keep in mind –according to Huertas – that although the will was signed in 1613, these production tools existed long before that. (Research study carried out by Dr. Lorenzo Huertas Vallejos, Production of Wines and Derivatives in Ica, 16th and 17th centuries, Lima, 1988.



The will of a Greek in the city of Ica already refers, back in 1613, to the first “falca” (still) and to the first grape “aguardiente”. The original was found by Researcher Lorenzo Huertas in the National Archives, Lima; Notarial Protocols of Ica, Pr. No. 99 of Francisco Nieto, Notary, April 1913.

(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

It is also important to point out that “El diario del Peru” (The Journal of Peru) of Hugh S. Salvin refers to the city of **Pisco** located about a mile away from the beach. As any other city in Peru, it is built as follows: a big square in the middle and streets that go from each side of the plaza at right angles ... This district is famous for the manufacturing of a strong beverage named after the city. It is distilled from grapes growing in the fields on the way to the highlands, five or six leagues away”. Moreover, in his study “Testimony of Peru” (1838-1842), Johan Takob Von Tschudi states, “...in the small city of **Pisco**, half a league away, there is a secure bay with good anchorage. It is famous for its noteworthy aguardiente exports. The grapes have an excellent quality, very juicy and sweet. Most of them are used to distill aguardiente, an exquisite brandy for sure. This brandy of the Ica valley is supplied throughout Peru and most of Chile. The common aguardiente is called Aguardiente of **Pisco** because it is loaded in this port”. (Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima, page 35.)

The Peruvian grape-based brandy, **Pisco**, soon gained prestige throughout the world and its exports increased considerably as it is registered in the news of maritime trade with Peru in the 17th and 18th centuries, along with statements and reports from different travelers of the 19th century. These statements refer to the typical conditions of the Ica and Moquegua valleys and the techniques developed by Peruvian ceramists, who obtained a product of high quality that today has become a symbol of pride and tradition.

As historians have proved it, export of Peruvian grape brandy was made by sea to different parts of the Colony departing from the port of **Pisco**. However, a fact that must be taken into consideration, i.e. the Peruvian aguardiente was stored in the old famous “**clay pitchers**” made in this region and coincidentally called “**Piskos**”. These two main facts prove the way this product and its name were stamped forever since.

The Peruvian origin of the denomination of Pisco has been recognized all over the world. For example, we can quote the Dictionary of the Royal Spanish Language Academy, which in its last edition defines Pisco as an “aguardiente originally manufactured in **Pisco**, a Peruvian location”. Thus, the Encyclopedia Britannica defines the word Pisco as “a city, Ica, located in southeastern Peru.... recognized by its brandy made of muscatel grapes.”

Summary of Lexicographical References.

- Dictionary of the Royal Spanish Academy Language: “an aguardiente originally manufactured in Pisco, a Peruvian location
- Encyclopedia Britannica: “a city, Ica, located in southeastern Peru.... recognized by its brandy made of muscatel grapes.”
- “Diccionario Etimológico de Voces Chilenas”, 1905 (from the German philologist Rodolfo Lenz): “good grape aguardiente, , the current Pisco was formerly called Aguardiente of Pisco because it came from this location, also from Ica”.
- Diccionario de Chilenismos (Dr. Manuel Antonio Román): Pisco m. Highly valued aguardiente made in Peru... already recognized all around the world. The Port of Pisco was undoubtedly its birthplace, thus the reason of its name.
- Chilenismos (1928, Dr. José Toribio Medina) “from the town of Pisco in Peru. Aguardiente made from muscatel grapes”.

Nature



This picture shows the diversity of the “Quebranta” grape originated in the valley of Pisco in the southern coast of Peru.

(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

Pisco is derived from Quebranta brand grapes, which is a variety resulting from the genetic mutation of the black grape brought by the Spaniards, adjusted to the environmental conditions of a stony soil, and dry weather conditions in the province of **Pisco**, which extends to the valleys of Lima, Ica, Arequipa, Moquegua and some valleys in Tacna where similar conditions exist. The “Quebranta” brand is a **non-aromatic** variety of a particular taste that gives a distinct taste to the grape-based **Pisco**. Later, other types of Pisco were

prepared with aromatic grape varieties such as Italy, Muscatel of Alexandria, Torontel or Albilla.

According to researcher Fernando Rovira, the Quebranta grape brand has a round shape, a hard and thin peel. Even though its size and color depend on several factors related to its cultivation process, it is normally large. Its pulp is fleshy and sweet, but with a rough taste. It can be considered a typical Peruvian variety because it is different from any other varieties existing in the world. Its rusticity, a result of the acclimatization of the grape to the soil of viniculture valleys in the southern coast of Peru, has made it resistant to the “phylloxera” insect. Nodules and even that insect have been found in the roots of the Quebranta grape, but they have not affected its production absolutely. This feature allows the Quebranta stocks to be used as a graft bearer. (Fernando Rovira, The Industry of Pisco in Peru

(La Industria del Pisco en el Peru), National Institute of Industrial Promotion, Banco Industrial, Lima, 1966)

According to scientific studies carried out by the National Agrarian University (Universidad Nacional Agraria), the following compounds have been found in 100 grams of Quebranta grape fruit.

Major Components:

Water..... .. 81.4 grs.
Protein..... .. 0.5 grs.
Ether extracts 0.1 grs.
Carbohydrates sugars, fibers and other.... 17.7 grs.
Ashes 0.3 grs.

Mineral:

Calcium.. 14.0 mg.
Phosphorus..... 11.0 mg.
Iron 0.4 mg.

Vitamins:

Tiamine 0.05 mg.
Riboflavin 0.07 mg.
Niacin 0.11 mg.
Ascorbic acid 0.70 mg.
Calories..... 66 cal.
Sugar contents in the must.... 269grs./Lt.
Tartaric acid contents in the must. 4.22 grs/lit.

Technology



The Mast Press (prensa de palo), typically Peruvian and from the coast is made of the “Guarango wood type”, with an unmistakable profile.

(Taken form Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

With the acclimatization of the Spanish grape in our territory, a new drinking culture was born in the country: the Pisco.

Pisco is obtained from the distillation of recently fermented grape juice or musts, providing a distinctive taste, emphasizing the fact of being an *"eau de vie"* pure from its very beginnings. The distillation process of **Pisco**, created by our ancestors and transmitted from generation to generation, is also typical and unique.



Still "Falca" under the traditional branches of Ica. The three traditional steps that result in Pisco are Quebranta, press and still.

(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

Types of Pisco

The list below contains recognized types of Pisco developed thanks to the ability and creativeness of Peruvian "pisqueros", which nowadays are recognized worldwide.

- **Pure:** from Quebranta grapes. Other non-aromatic varieties such as the Mollar or Black can also be used.
- **Aromatic:** from aromatic grapes derived from the family of muscatels.
- **Green Must:** originated from the distillation of grape musts in fermentation process (this refers to the musts in which sugar has not been transformed into alcohol)
- **Acholado:** results from the distillation of musts of different grape varieties.

Pisco is an exclusive Peruvian denomination

Apart from being a typical traditional beverage since the Colonial period, and a symbol of national pride, it is also known in terms of international trade as **denomination of origin**.

In accordance with the Lisbon Convention related to the protection of denominations of origin and its registry, and according to the definition established by the World Intellectual Property Organization (WIPO), a "denomination of origin" is the name of a country, region or place used to designate a product native of the country, which quality or features belong exclusively to the same geographical area, including its natural factors (geography, weather, raw materials, etc.) and human factors (labor, art, creativeness, tradition, etc.)

Furthermore, the International Organization of Vine and Wine (OIV) regards that besides these elements, a denomination should have a "notoriety" or "reputation" factor. Thus, the meaning for the viniculture sector as it represents an important contributing legal factor for the economy to develop. Therefore, its main goal is the "collective promotion" guaranteeing quality, origin and, in many cases, tradition and history arisen from the intimate link between human groups and their soil of origin.

Furthermore, denominations of origin represent a means to protect consumers, promote free and fair competition, as stated in the Agreement on Trade Related Intellectual Property Rights (TRIPS) of the

World Trade Organization (WTO). It states in Section III (referred to Geographical Indications), Article 22 that "countries shall provide the legal means for interested parties to prevent the use of any means in the designation or presentation of a good that indicates or suggests that the good in questions originates in a geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of the good; or any use which constitutes an act of unfair competition within the meaning of the Paris Convention (1967)".

As it can be concluded, one of the key elements for the recognition of a Denomination of Origin and/or Geographical Indication is the pre-existence of a geographical reference that gives rise precisely to a denomination of origin coming from the same territory. In this context, the countries establish a proper legal framework to avoid the use of a designation or presentation that may suggest that a product comes from a geographical region other than its true place of origin.



Map from the very beginnings of the 18th century showing the road of Pisco and pointing out the valley of Pisco.

(Taken from *Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru*. Banco Latino 1990, First Edition, Lima)

Within the scope of these definitions, the word "Pisco" is undoubtedly a denomination of origin exclusively from Peru.

Firstly, because it refers to a geographical place named as such corresponding to a valley, a river, a port and a province in the southern coast of Peru, which have existed from the very beginnings of the Colonial period. In addition, it is worth mentioning that according to the legal-political division of Peru, the District of Pisco exists as such since Peru became an independent republic in 1821, and it was raised to the category of Province by the Law of Congress on October 13, 1900, published in the Official Gazette "El Peruano" on October 30, 1900.

Secondly, the extraction, harvest, and later manufacturing process of this brandy are made through a traditionally Peruvian production process developed and spread all around production regions.

Furthermore, grapes used for its manufacture result from a mild weather and from the tectonic formation of the soil features in the province of Pisco, extending to the valleys of Lima, Ica, Arequipa, Moquegua and some valleys of Tacna with similar conditions. On the other side, the prestige of **Pisco** has a genuine Peruvian origin, dating back to the 17th century to date.

Among the several examples that may be quoted, there is a transcription of a statement collected by the American historian, Herbert Asbury, who studied, among other aspects, the popularity of Pisco in the western coast of the United States of America.

*"The Bank Exchange was famous for the Pisco Punch", created by Duncan Nichol, one of the well-known bartenders of the region...During the 1870's, it was by far the most popular drink in San Francisco, in spite of the fact that each glass was sold for 25 cents, a high price in those days. The descriptions of San Francisco at this time had plenty of lyrical references related to its flavor and strength, such as "la crème de la crème" of beverages. The base was **Pisco** brandy, distilled from the grape known as "Italia" or "La*



Rosa del Peru, so called after the Peruvian port (...) With regard to the brandy or aguardiente itself, (...) an expert who tried it in 1872 stated: "It is perfectly colorless, quite fragrant, extremely strong and with a flavor that somehow recalls Scotch whisky, but more delicate and with a marked fruity taste. It comes in **earthen jars**, broad at the top and tapering down to a point, holding about five gallons each."

Ancient Engraving, " Drinking Pisco in a bar located in San Francisco, United States of America)

(Taken from "The Barbary Coast: An informal history of the San Francisco underworld" Herbert Asbury, New York, 1933)

Another outstanding example with explicit reference to the origin and prestige of Pisco appears in the "Bulletin of the Pacific War", published in 1980 by Andres Bello publishing house in Santiago. In this Bulletin, Chilean soldiers who took part in the occupation of Peruvian locations of Ica and Pisco literally state the following:

*"... their houses are used as wine cellars to store **cancos** (earthen jars) of the famous brandy named after the port. (...) The city of Ica is a small town that gathers a population of 7-8 thousand inhabitants; it is surrounded by farms exclusively devoted to grape crops, which produce the popular Pisco. (...) Occupation troops are fed in a marvelous way: good vegetables, plenty of meat, fresh bred, a glass of Pisco at lunch, and specially and in abundance, excellent watermelons which is the favorite dish of our soldiers." (Report of the Colonel Jose Domingo Arrunátegui. "Bulletin of the Pacific War" (Boletín del Pacífico), Santiago de Chile, Publishing House Andrés Bello, 1980) "...*

In accordance with Peruvian law, **denominations of origin** are property of the State, which approves its use. It should be emphasized that the denomination of origin **Pisco** has not been registered by any country in the world to date – within the scope of the Lisbon Convention. Within the multilateral framework of the WTO, countries are negotiating the establishment of a "Multilateral System of Notification and Registry of Geographical References for Wine and Spirit Drinks". Peru is participating in this process actively. However, some countries have registered the word **Pisco** as a trademark, which contradicts the international regulations in force clearly establishing that a denomination of origin cannot be registered as a trademark, in any case.

Differences between Pisco and other grape *aguardientes* made outside Peru.

There are five main features distinguishing true **Piscos** from grape *aguardientes* made outside Peru. These differences are not intended at prejudging the quality of these *aguardientes*, but pointing out objectively the existing differences.

The grape variety used as raw material: One of the most important differences between the genuine **Pisco** and foreign *aguardientes* is that the grape used for its preparation –artisan and industrial- is not limited to the aromatic grape “Moscatel”. Actually, the emphasis is put on the flavor or in the aroma. This is why the most common grape types are “Quebranta” (a typically Peruvian mutation) and, in less percentage, the Normal Black and the Mollar, which are non-aromatic varieties.

Non-rectification of steams: The distillation process used for preparing Pisco is carried out in distilleries or small stills of non-continuous operation, not in continuous distilleries. Thus, the constituting elements of the genuine Pisco will not be removed at the time of rectifying steams produced at its distillation.

- **Time between fermentation of musts and distillation process:** According to the definition of **Pisco**, this beverage is obtained from the distillation of recently fermented “fresh” musts. This type of process avoids recently fermented musts to remain stagnant for several months before being distilled or used for mature wines. Nowadays, distilleries for preparing Pisco should meet the requirements required by the Committee of Supervision of Technical Regulations, Metrology, Quality Control and Tariff restrictions of the National Institute for the Protection of Intellectual Property and Free Competition (INDECOPI).
- **No aggregate is included:** In Peru, the distillation process is not suspended until obtaining the alcoholic Pisco at levels of 42° - 43° degrees Gay-Lusac. No distilled or treated water is added with the purpose of changing its consistency, color and other features that make it a distinctive product.
- **Process to obtain the established alcoholic content:** When distillation of fresh musts starts, the alcoholic contents of the distilled product is high, reaching 75° degrees Gay-Lusac approximately. As the process continues, the alcoholic content decreases, thus, allowing other constituting elements of **Pisco** to make up the brandy. According to the skills and tradition of the Peruvian “pisquero”, this process lasts until the alcoholic content decreases to about 42° or 43°, sometimes decreasing to 38° degrees Gay-Lusac.

Preparation of Pisco



Modern bottling plant of Pisco, Vista Alegre farm.

(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

- **Pisco** is obtained after many working steps, from agricultural processing to manufacturing (preparation) of the product by artisan or industrial methods or both.

- From the agricultural aspects (field preparation, crop selection, etc.), we are interested in those related to the grapevine crop, starting with impale and ending with removal, which we will describe in short before discussing the manufacturing process of **Pisco**.
- Impale starts in July when the grapevines are tied with wet cattail to logs of “huarangos”, “espinos”, or “sinamomo”, forming “galeas” or “barbacoas” to make it grow horizontally. These logs have been previously cut and moved to the site, representing one of the most demanding parts of cultivation, according to farmers.
- Pruning starts during at the beginning of August. A large group of farm workers go through the galleys with tools and start cutting vine shoots, getting rid of superfluous branches and buds that can prevent the plant to mature.
- Grapes are taken from vineyards to “lagares” (wine press house), a kind of small pond, before being crushed or treaded to obtain juice or squash. This task is performed the day of arrival because if it is done the next day it could get acidified.
- Then, the must is placed in large earthen jars or clay pitchers (also called “pisqueras”), which are taken to another place of the boulder or solar.
- The pitchers are pitched in the inside and, depending on the degree of glucose and on the action of sun’s rays, fermentation (the transformation of must into alcohol) takes place in a quick or slow way. In general, this process lasts 14 days, but it could take longer –after the fourth or fifth day, we can verify that it has changed into “cachina”.
- Fermentation takes place outdoors taking advantage of sun rays. The best period to carry it out is February to April, when the sun “hits” strongly. On the contrary, modern products carry out the fermentation of must in wine cellars, protecting from sun rays with huge concrete tanks of different content. They are washed after each operation.
- Once the operation is finished, distillation takes place. The content of the pitchers are poured in proper containers such as small stills or distilleries
- The pitchers must be handled carefully because the breaking of one of them means not only losing the product, but also the container which is unrecoverable since these pitchers (which can be still found) were made by old artisans.
- Distillation consists in evaporating a substance and condensing it back to liquid by very low temperatures. The fermented must is put in a “paila” (large pan) or container that is placed in an oven or boiler to make it boil. Alcoholic steams pass through a cooling coil, and then it condenses into drops and starts dripping already transformed in **Pisco**.
- By modern techniques, huge boilers are used. As we know, combustion is generated with petroleum or gas. The current traditional methods existing in artisan cellars still use “huarango” firewood that provides more heat. When working with firewood, it is said that even though the combustion time is longer, there is no sudden change of temperature, therefore the flavor of Pisco will be more palatable. The same occurs with meals prepared with firewood, which is more palatable.
- Fernando Lecaros states that small stills for distillation of aguardientes are as important as old-fashioned containers where the authentic Scotch whisky is prepared.
- According to Lecaros and as previously mentioned, genuine *aguardientes* are obtained from distillation of musts when they are still hot, mixing the distilling heads (the first litres obtained from a lower boiling point) with the result of the distillation process and putting aside lees or “puchos” (dregs).
- In addition, Lecaros states that this form of distillation generates the aroma, bouquet and fragrance features of the genuine *aguardiente*: This form of distillation provides the aguardiente with high alcoholic degrees with a high percentage of impurities, which gives it a special feature. Depending on the distillation process choose, smoothness (characteristic of

aguardientes) can be changed. So true is this fact that *aguardientes* called “choleros” (Pisco prepared by artisan producers in colonial distilleries), have the best quality due to the excess of impurities which in most cases are over 400 per thousand. They give rise to the aroma, bouquet and fragrance of this aguardiente, provides a pleasant palatable sensation because it completely hides the caustic action of alcohol”. Finally, **Pisco** is obtained and passed from a barrel to a container for conservation. (“Celebration of Pisco” of Cesar Franco. Cedep - Center of Development and Participation Studies, Lima, 1991.



Coils immersed in condensation vats as part of still batteries in the Vista Alegre farm.



Pailas (large containers) with the must

(Taken from Chronicles and Historical References related to the origins and virtues of Pisco, a traditional beverage and cultural heritage of Peru. Banco Latino 1990, First Edition, Lima)

Evolution of laws and regulations recognizing the denomination of origin for Pisco.

- **Supreme Resolution N° 52**, dated April 1932. It restricts the use of the designation grape-based brandy and stipulates the registry of labels and aguardientes in the Technical Area of Wines and Alcoholic Beverages.
- **Supreme Decree** dated September 26, 1931. It stipulates that it is compulsory to serve Peruvian wines and liquors in official acts held in the Government House.
- **Ministerial Resolution** dated May 20, 1940. It prohibits the admission of cane brandy to the viticulture area of Pisco.
- **Supreme Resolution N° 151** dated April 03, 1941. It stipulates the restricted use of grape brandy and cognac.
- **Supreme Resolution N° 1207** dated December 20, 1946. It defines the designations of **Pisco**, Grape-based Aguardiente, Cognac, etc
- **Ministerial Resolution** dated August 12, 1947. It ratifies the prohibitions regarding the use of sugar in manufacturing molasses, spirits, brandy, wine.

- **Director's Resolution N° 13** dated March 04, 1950. It points out the date and terms for distillation of musts, watery wines and for washing spirits in the preparation process of grape based brandy.
- **Supreme Decree** dated June 10, 1963, called Sanitary Code of Foods in which **PISCO** is defined as the product obtained from the distillation of grape fermented musts.
- **Law N° 14729** dated November 25, 1963. This Law establishes a 4% tax rate upon the gross trade value of alcoholic beverages in Peru, exempting **Pisco**. This measure was taken as a means of fostering its preparation. This Law stipulates that this tax affects cane brandys, wine, spirits, beers and any kind of alcoholic beverage and similar, exempting Peruvian grape-based Pisco and Wine.
- **Supreme Resolution N° 519-H** dated August 26, 1964. It establishes the use of visible signs that make it easy payment of taxes on the sale of alcoholic beverages.
- **Resolution No. 179** dated April 07, 1988 issued by the National Institute of Culture where the word **PISCO** is declared National Cultural Heritage.
- **Supreme Decree N° 023-90** dated July 24, 1990. It stipulates that denominations of origin should be recognized by ITINTEC, thus including the above-mentioned principle in the Law of Peru.
- **Director's Resolution N° 072087-DIPI** issued by the Industrial Property Bureau on December 12, 1990. It states that the designation of **PISCO** has a Peruvian origin and refers to products resulting from the distillation of wines derived from the fermentation of fresh grapes in the coastline of Lima, Ica, Arequipa, Moquegua and the valleys of Locumba, Sama and Caplina in the department of Tacna.
- **Supreme Decree N° 001-91-ICTI/IND** dated January 16, 1991. **Pisco** was officially recognized as a denomination of Peruvian origin for products obtained by distillation of wine derived from the fermentation of fresh grapes in the coastline of Lima, Ica, Arequipa, Moquegua and the valleys of Locumba, Sama and Caplina in the department of Tacna.
- **Law N° 26426** dated January 03, 1995 which rules the production and commercialization of national alcoholic beverages.
- **Supreme Resolution N° 247-2001-Itinci**, dated November 17, 2001 which establishes the Multisectorial Committee in charge of preparing a regulatory proposal corresponding to the creation of Ruling Councils and the Ruling Council of the Denomination of Origin Pisco.

International Recognition of the Denomination of the Peruvian Origin of Pisco.

"Pisco" is a Peruvian designation recognized as such by several countries of the international community such as:

- **Bolivia:** Resolution N° OPIB/D.O/01/98 from the Intellectual Property Bureau of Bolivia dated January 5, 1998.
- **Ecuador:** Resolution N° 0962384 of the Industrial Property National Bureau, published in January 15, 1998.
- **Colombia:** Resolution No. 01529 of the Superintendence of Industry and Commerce of Colombia dated February 1, 1999.

- **Venezuela:** Resolution N° 0345 of the Autonomous Service of Intellectual Property published in the Bulletin of Industrial Property of Venezuela dated May 8, 1998.
- **Panama:** Decree N° 1628 of the General Bureau of Registry of Intellectual Property of the Ministry of Commerce and Industry by which Resolution No. 8871 No. 8871 dated July 27, 1999 is issued.
- **Guatemala:** Final Resolutions of files 2801-97 and 2802-97 of the Registry of Intellectual Property dated June 12, 1998.
- **Nicaragua:** Resolution No. 2911435 of the Ministry of Promotion, Industry and Commerce dated September 1, 1999.
- **Costa Rica:** Registry No 114662 of the Registry of Intellectual Property of the Ministry of Justice and Grace dated July 2. 1999.
- **Cuba:** Agreement entered between the Government of the Republic of Peru and the Republic of Cuba regarding the mutual recognition of protection of their denominations of origin dated October 10, 2000.

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The Paracas Culture

http://www.tampere.fi/tamu/peru/1024/paracas_en.htm

The Paracas culture reigned on the south coast of Peru in the years 600-175 B.C. The most important Paracas findings come from the smallish area of Paracas peninsula that has given the name to the culture. Thousands of gorgeous textiles found in ancient cemeteries are especially significant.

A Paracas deceased was equipped for the tomb by lowering him into a basket on the bottom of which there were a number of textiles. The basket and the deceased were wrapped in a shroud, on top of which were piled new textiles and vegetable products, animals, trophy heads, combs, pottery, jewels, tools and so forth. Then the whole pile was covered with a new shroud, and the more noble the deceased was, the more sacrificial, textile and shroud layers he was wrapped in. Dead people were not mummified, but the hot dryness of the desert has preserved them and their funeral goods almost intact.

Besides textiles, ceramics is a significant art form of the Paracas culture. In the early ceramics of the area one can detect powerful influence of the Chavin culture, but relatively soon themes such as from the surrounding maritime nature were established as the ornamental motifs. The Paracas ceramics has a black ground colour. The vessels were decorated only after the baking with the help of resin-based colours. Also the so-called light Topará ceramics have been found in the Paracas tombs, but it is presumably imported.



This pumpkin-shaped vessel represents Topará style ceramics sometimes found in Paracas graves. © Museo Nacional de Arqueología, Antropología e Historia del Perú - Instituto Nacional de Cultura del Perú, Lima, Peru (Cat. 29)

The Paracas Textile Art

The Paracas textiles have largely astonished and charmed scholars of textile art. Tens of metres of fabric may have been used in the Paracas textiles, and since they have been decorated almost without exception by embroidery, even tens of thousands of working hours have been counted into creating the most splendid works of art.

The bulk of the Paracas textiles can be divided into two styles of embroidery: linear and Block Colour style. In linear textiles, only four colours have been used and they have been decorated on top of a weaved basic fabric by embroidered straight lines and by embroidered sashes that go round the edges of the fabric. Among others, felids, birds, serpents and the so-called big-eyed Eye god figure are typical motifs of embroidery. They are often hard to make out from their background and identify as separate entities.

The textiles representing Block Colour style differ from those of the linear style notably. The decorative motifs of the linear textiles have been copied almost unchanged from one weaving generation to another, while in many of the textiles of the Block Colour style there is a completely unique decorative motif. Also a rich use of colour and a checked composition of well-curved pictorial motifs outlined by borders are characteristic of the Block Colour textiles.



This magnificent mantle represents the linear decorating style of the Paracas textile art, characterized by narrow decorative belts which run across the fabric. The wider borders of these belts and the fabric have been decorated with a smiling anthropomorphic figure with a tall tail. © Museo Nacional de Arqueología, Antropología e Historia del Perú - Instituto Nacional de Cultura del Perú, Lima, Peru (Cat. 34)

Nazca and Chauchilla Culture

Nazca – Ica

http://www.americasol.net/peru/chauchilla/index_english.html



The Nazca culture flourished in Peru from about 200 AD to 800 AD.

One of the common aspects of the pre-Inca and the Inca culture is that they created civilizations in very inhospitable places, like inaccessible high Andes Mountains or living in the middle of the desert.

The forgotten Culture of Nasca was discovered in the sands of the Nasca Desert, and it was brought to evidence both by grave robbers and by archeologists.

In the amazing Chauchilla Cemetery, bodies from the ancient Nasca people were preserved by natural mummification in the arid climate.

Through their habit of burying their people, this Culture left to us mummies, ceramics, colorful textiles, skull and devices, practically untouched.

Chauchilla is about 30 km from Nasca city and it impresses by the quantity of mummies still available for visiting. Unfortunately, it was a known location by thieves or tombs robbers, mainly in the last part of the XX century. They used to invade the tombs, picked the treasures and the mantles, and just left the mummies and some belongs of less importance exposed on the desert.

The poor population took advantage of this tombs. Some belongs, specially clothes, were sold in the market hicking almost U\$ 20.000,00 (and now you guess the purpose of so much robbery).

Note that specially european and north american collectors have act as receptors, incentivig robbers to keep theirs robbings.

Peruvian law are more severe now, and it is considered a serious crime to take out of the country such a cultural richness.

Until 1997, visitors just found entire skeletons, bones, ceramics and some artefacts simply leaved in the sun.

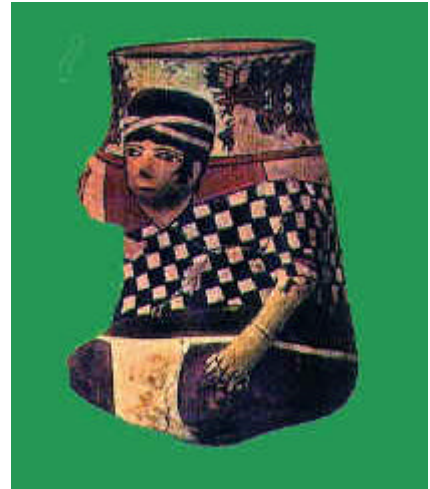
Because of those vandal acts, due to the poverty of the population, today the cemetery has enormous quantities of "eyes", which means, holes left as scars in the sand.

Happilly, this situation has changed. Scientists by Ica State and the local touristic industry organized themselves and reconstructed the burial sites in the way they were found and protected the area for visitation, which is now an official archeological zone.

Nazca

<http://www.mnsu.edu/emuseum/prehistory/latinamerica/south/cultures/nazca.html>

In general, Nazca culture is considered to consist of three stages; Early, Middle, and Late stages, and also the Classic Nazca (approximately A.D. 250-750). One of the most famous and distinctive features of the Nazca culture is the polychrome pottery which has attracted attention because of its technological refinement and the exciting symbolism of its motifs. This pottery culture spreads in the area of the valleys of Chincha, Pisco, Ica, Nazca and Acari. In the Early stage, these wares did not have much color, but Middle and Late Nazca polychromes are buff or red and are painted in three to eight colors. The most popular choices of color were red, black, white, brown, yellow, gray and violet with an outline in black. Bowls and beakers were common forms, but double-spout and head-and-spout jars are also found. Birds, fish or fruits were commonly drawn on the pottery, and Nazca's religious or mythological features were also used in its design.



Needless to say, the Nazca lines are the most attractive feature in this culture. These large "geoglyphs", drawings on the earth's surface, make no sense on the ground. We can recognize the features only from the air. There are several kinds of figures, such as fish, birds, monkeys, a whale, spiders and plants. These lines spread on the ground more than 800 miles (1,300 km), some of which extend 12 miles (20 km) long. Since these lines are on a flat surface and its climate is extremely dry, nearly all geoglyphs remain completely intact. These geoglyphs are not only featured in the Nazca, but also in other coastal areas (Zana, Santa, Sechin Valleys, Pampa Canto Grande, and Sihuas Valleys), and the northern Chile.

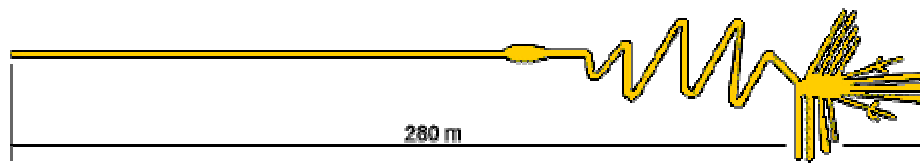
The purpose of the drawings is uncertain, but it is believed to be connected to their beliefs and economical systems. According to anthropologist Johan Reinhard, the Nazca people believed that mountain gods protected humans and controlled the weather. These gods also affected water sources and land fertility since they are associated with lakes, rivers and the sea. Each figure might have a different meaning for the Nazca people depending on their social class.



The straight lines, as sacred paths, from Nazca to Andean highlands are still used to bring water. Today, these lines are maintained for the religious merit of the people. The triangles and trapezoids are made for the flow of water and are placed near the river. People often have ceremonies beside the water flow. The figure of spirals depicts seashells and the ocean, and the figure of zigzags illustrates lightning and river. The bird figures, representing a heron, pelican or condor, are believed to be signs of faithfulness to the mountain gods. Other sea birds are associated with the ocean. Monkeys and lizards represent

the hope for water. Shark or killer whale motifs show the success of fishing. Spiders, millipedes and plants are associated with the rain. Even though the Nazca River was located near this cultural area, river water was not enough to support their agricultural needs.

Some questions are still debated among specialists. Why were so many lines necessary? How and why did people draw such large figures on the ground without any aerial vision or aerial equipment? We may never understand the true meaning of the Nazca Lines, but we can decipher pieces of the traditional Andean people's belief system from these great geoglyphs.



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Nazca lines

<http://skepdic.com/nazca.htm>



The Nazca lines are [geoglyphs](#) and geometric line clearings in the Peruvian desert. They were made by the Nazca people, who flourished between 200 BCE and 600 CE along rivers and streams that flow from the Andes. The desert itself runs for over 1,400 miles along the Pacific Ocean. The area of the Nazca art is called the [Pampa Colorada](#) (Red Plain). It is 15 miles wide and runs some 37 miles parallel to the Andes and the sea. Dark red surface stones and soil have been cleared away, exposing the lighter-colored subsoil, creating the "lines". There is no sand in this desert. From the air, the "lines" include not only lines and geometric shapes, but also depictions of [animals and plants in stylized forms](#). Some of the forms, including images of humans, grace the steep hillsides at the

edge of the desert.

The Nazca lines are communal. Their creation took hundreds of years and required a large number of people working on the project. Their size and their purpose have led some to speculate that visitors from another planet either created or directed the project. [Erich von Däniken](#) thinks that the



Nazca lines formed an airfield for alien spacecraft*, an idea first proposed by James W. Moseley in the October 1955 issue of *Fate* and made popular in the early sixties by Louis Pauwels and Jacques Bergier in *The Morning of the Magicians*. If Nazca was an alien airfield, it must have been a very confusing airfield, consisting as it does of giant lizards, spiders, monkeys, llamas, dogs, hummingbirds, etc., not to mention the zigzagging and crisscrossing lines and geometric designs. It was very considerate of the aliens to depict plants and animals of interest to the locals, even though it must have

meant that navigation would be more difficult than a straight runway or a large clearing. Also, the airport must have been a very busy place, needing 37 miles of runway to handle all the traffic. However, it is unlikely spacecraft could have landed in the area without disturbing some of the artwork or the soil. There is no evidence of such disturbance.

The alien theory is proposed mainly because some people find it difficult to believe that a race of "primitive Indians" could have had the intelligence to conceive of such a project, much less the technology to bring the concept to fruition. The evidence points elsewhere, however. The Aztecs, the Toltecs, the [Inca](#), the Maya, etc., are proof enough that the Nazca did not need extraterrestrial help to create their art gallery in the desert.

In any case, one does not need a very sophisticated technology to create large figures, geometrical shapes, and straight lines, as has been shown by the creators of so-called [crop circles](#). The Nazca probably used [grids](#) for their giant geoglyphs, as their [weavers](#) did for their elaborate designs and patterns. The most difficult part of the project would have been moving all the stones and earth to reveal the lighter subsoil. There really is nothing mysterious about *how* the Nazca created their lines and figures.

Some think it is mysterious that the figures have remained intact for so many hundreds of years. However, the geology of the area solves that mystery.

Stones (not sand) comprise the desert surface. Rusted by humidity, their darkened color increases heat absorption. The resulting cushion of warm surface air acts as a buffer against the wind; while minerals in the soil help to solidify the stones. On the "desert pavement" thus created in this dry, rainless

environment, erosion is practically nil - making for remarkable preservation of the markings (http://www.travelvantage.com/per_nazc.html; this site is now defunct).

The mystery is *why*. Why did the Nazca engage in such a project involving so many people for so many years?

G. von Breunig thinks the lines were used for running footraces. He examined the curved pathways and determined that they were partially shaped by continuous running. Anthropologist Paul Kosok briefly maintained that the lines were part of an irrigation system, but soon rejected the notion as impossible. He then speculated that the lines formed a gigantic calendar. [Maria Reiche](#), a German immigrant and apprentice archaeologist to Julio Tello of the University of San Marcos, developed Kosok's theory and spent most of her life collecting data to show that the lines represent the Nazca's astronomical knowledge. Reiche identified many interesting astronomical alignments, which had they been known to the Nazca might have been useful in planning their planting and harvesting. However, there are so many lines going in so many different directions that *not* finding many with interesting astronomical alignments would have been miraculous.

modern anthropology and the lines

The Nazca lines became of interest to anthropologists after they were seen from the air in the 1930s. It is unlikely that a project of this magnitude was not religious in purpose. To involve the entire community for many centuries indicates the supreme significance of the site. Like pyramids, giant statues, and other monumental art, the Nazca art speaks of permanence. It says: we are here and we are not moving. These are not nomads, nor are they hunters and gatherers. This is an agricultural society. It is, of course, a pre-scientific agricultural society, that turned to magic and superstition (i.e., religion) to assist them with their crops. The Nazca had the knowledge to irrigate, plant, harvest, collect, distribute, etc. But the weather is fickle. Things might go smoothly for years, or even centuries, and then, in a single generation entire communities are forced to leave because of extended drought or because of floods or tidal waves, volcanic eruptions, earthquakes, fires, or whatever else Mother Nature might hurl their way.

Was this a site for worship? Was this the Mecca of the Nazca? a place of pilgrimage? Were the images part of rituals aimed at appeasing the gods or asking for help with the fertility of the people and the crops, or with the weather or with a good supply of [water](#)? That the figures could not be seen as those in the heavens might see them would not be that important for religious or magical purposes. In any case, similar figures to the giants at Nazca [decorate](#) the pottery found in nearby burial sites and it is apparent from their [cemeteries](#) that the Nazca were preoccupied with death. [Mummified remains](#) litter the desert, discarded by grave robbers. Was this a place for rituals aimed at bringing immortality to the dead? We don't know, but if this mystery is ever to be cleared up it will be by serious scientists, not by alienated pseudoscientific speculators molding the data to fit their extraterrestrial musings.



The High Mummies

Written By Liesl Clark

High Sacrifice

He has delicate fingers and hugs his knees, one foot over the other, as if to keep warm. His hair is plaited in more than 200 braids, and miniature idols and keepsakes accompany him in his frozen tomb. Dead for 500 years, this Inca sacrificial mummy found on Chile's El Plomo Peak has opened the door to further inquiry into the strange and mysterious ritual life of the Inca. There may be hundreds of Inca children, sacrificed in Inca times nearly 500 years ago, entombed in graves of ice atop the western hemisphere's highest peaks. To date, over 115 sacred Inca ceremonial sites have been excavated at an elevation over 15,000 feet on some



30 Andean peaks. These high mountain sanctuaries dot the Andes from central Chile to southern Peru. All of the sites are located in the region of the two southernmost Inca quarters, or "suyus," but only a few of these remote and icy summits have yielded finds of much archeological value. The discovery by Johan Reinhard of "Juanita," an Inca ice maiden found atop Mount Ampato in 1995, is the most recent -- and some say the most revealing -- addition to scientists' understanding of Inca life and culture.

Mountain Worship

The Incas worshipped the high peaks that pierce the South American skies. These rugged summits represented a means of approaching the Sun God, Inti, the center of their religion, and many sacrifices were made atop these cold and unpredictable pinnacles. Mountain deities were seen as lords of the forces of nature who presided over crops and livestock. In essence they were the protectors of the Inca people, the keepers of life who reached up toward the skies where the sacred condor soared.

Many theories exist about why the Incas performed ritual ceremonies, which sometimes included human sacrifices, at elevations approaching 23,000 feet. Most scholars agree that the purpose of the sacrifice, known as "capacocha," was to appease the mountain gods and to assure rain, abundant crops, protection, and order for the Inca people. Sacrifices often coincided with remarkable occasions: earthquakes, eclipses, droughts. On these occasions the Incas were required to offer valuables from the highest regions they could reach -- the ice-clad summits of Andean peaks. Truly auspicious events, such as the death of an emperor, prompted human sacrifices, perhaps to provide an escort for the emperor on his journey to the Other World.

The fact that many high elevation sacrificial sites are located near trans-mountain roads suggests that sacrifices were also made in conjunction with the expansion of the Inca civilization itself. The extensive roads in the southernmost regions were integral to the expansion of the empire southward. Especially important were the trans-mountain, or east-west, roads, which linked north-south running ranges and valleys over high-mountain passes. Near such routes, the Incas chose high peaks, climbed them, built their platforms, and made sacrifices, sometimes human, to assure safe continued passage and to bless the roads. The mummy of a young boy on Mount Aconcagua, discovered in 1985, could be one such sacrifice. His tomb is near one of the most important trans-mountain paths which today is virtually the same route as the major international highway linking Argentina and Chile.



The High Mummies

The First Discovery

The first frozen high mountain Inca human sacrifice was found atop a peak in Chile in 1954. "La Momia del Cerro El Plomo," the Mummy of El Plomo Peak became its name, and until Juanita, it was heralded as the

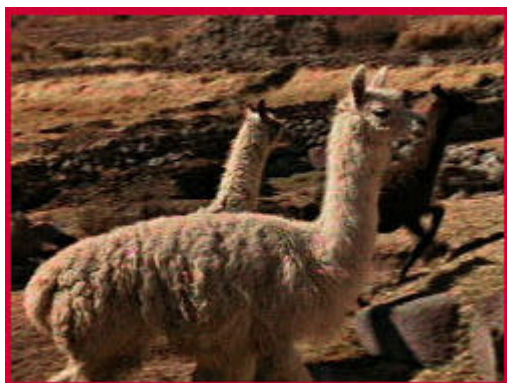
best preserved. Scientists were able to establish many of the El Plomo mummy's vital statistics: he was male, 8 or 9 years old, type O blood, and presumably from a wealthy family due to his portly physique.

The Discovery of Juanita

A unique set of circumstances made the discovery of Juanita possible. The eruption of a nearby volcano, Mt. Sabancaya, produced hot ash, which slowly melted away the 500 years of accumulated ice and snow encasing the mummy. A brightly-colored burial tapestry, or "aksu" was revealed, the fresh hues remarkably preserved. Since the heavy winter storms had not yet covered the body, Dr. Reinhard was able to recover the mummy.



The fact that ice preserved the body makes Juanita a substantial scientific find. All other high-altitude Inca mummies have been completely desiccated -- freeze-dried in a way -- much like mummies found elsewhere



in the world. Juanita, however, is almost entirely frozen, preserving her skin, internal organs, hair, blood, even the contents of her stomach. This offers scientists a rare glimpse into the life of these pre-Columbian people. DNA makeup can be studied, revealing where Juanita came from, perhaps even linking her to her living relatives. Stomach contents can be analyzed to reveal more about the Inca diet. Juanita is the closest sacrifice to Cuzco, the Inca capital. This, in addition to the fact that the clothing she was wearing resembles the finest textiles from that great city, suggests she may have come from a noble Cuzco family. The almost perfectly preserved clothing offer a storehouse of information, giving insight into sacred Inca textiles, as well as how the Inca nobility dressed.

It took incredible effort to hold sacrificial rituals in the thin air and life-threatening cold of the high Andes. At 20,000 feet, near the summit of Mt. Ampato where Juanita was found, Johan Reinhard discovered extensive camps or "rest stops" on the route to the ritual site at the summit. Evidence of Inca camp sites atop Ampato include remains of wooden posts for large, blanket-covered tents, stones used for tent platform floors, and an abundance of dried grass used for walkways and to insulate tent floors. These are heavy materials that must have been hauled many miles up the barren mountainside. The trek itself to the sacrificial site was a remarkable undertaking, involving whole entourages of priests and villagers, provisions, water, as well as symbolic items used in the ritual, all carried on the backs of hundreds of llamas and porters.

A Mummy Pair

A month after Reinhard's amazing discovery of Juanita, he returned to Ampato with a full archaeological team to explore Ampato further. This time, several thousand feet below the summit, they found two more mummy children, a girl and a boy. It is believed these may have been companion sacrifices to the more important sacrifice of Juanita on Ampato's summit. These children may have also been buried as a pair in a symbolic marriage. A Spanish soldier who witnessed such sacrifices wrote in 1551: "Many boys and girls were sacrificed in pairs, being buried alive and well dressed and adorned with items that a married Indian would possess." Buried with them were cloth-covered offering bundles, nearly 40 pieces of pottery, decorated wooden utensils, weaving tools, and even a pair of delicately woven sandals. At an elevation equal to that of Mount McKinley, the highest peak in North America, these sacrificial burial sites have preserved the Inca past more vividly than any other discovery, adding a deeper understanding of one of the world's great civilizations.

The Man behind the Mummy - Johan Reinhard

<http://www.mountain.org/reinhard/docs/academic/archres.htm>

By Mary Margaret Overbey

When the 500-year old Incan mummy known as the "Ampato Ice Maiden" or "Juanita" made her first voyage to the U.S. last May, American anthropologist Johan Reinhard, with his assistant Miguel Zarate, had discovered the mummy at 20,700 feet on Mount Ampato in Peru in September 1995. The first frozen Incan female sacrifice to be found, Juanita captured immediately the world's interest. Approximately 13 years old when she died and remarkably well preserved, she offered a glimpse into the life and beliefs of the Inca.

The discovery of Juanita was cited as one of the top 19 scientific discoveries of 1995 by *Time* (December 25, 1995/January 1, 1996, p 161) and one of the top 100 science stories of 1995 by *Discover* (January 1996, p 20). Juanita made the cover of *Newsweek* (Latin American issue), the *New York Times* and newspapers and magazines around the world. The find catapulted Reinhard to scientific stardom. From the first announcement in 1995, Reinhard was overwhelmed by media wanting to know more about the Inca and mountain sacrifices of young children. Reinhard was seen by many as cultural broker for a population that couldn't speak for itself, the Inca represented by their mountain sacrifices.

Story behind the Story

For many anthropologists, Reinhard is the story behind the story. Dedicated to "doing anthropology", Reinhard has combined his love of anthropology and mountain climbing to conduct high-altitude archaeology fieldwork in the Andes, where he has worked the last 17 years.

Raised in New Lenox, IL, Reinhard was first exposed to "culture" at age 16 and 17, when he worked for two summers on a railroad line crew throughout the Midwest. There, he experienced "a shock to find such a radically different culture" among the numerous southern workers. He discovered cultural anthropology at the U of Arizona and was "fascinated studying how other people see the world". Reinhard completed his Ph.D. at the U of Vienna, Austria.

Reinhard's original fieldwork focused on culture change in the midhill and jungle area of the Himalayas. He took up mountain climbing and began to examine some of the 20 hidden lands of Tibetan Buddhism, all protected by mountain deities. While visiting Chile in 1980, Reinhard read an article on Incan sites that had been found up to 22,000 feet in the Andes and decided to investigate. For him, the research combines theory and methods associated with cultural anthropology, archaeology, ecology and ethnohistory, to better understand the sites, Incan culture and contemporary Andean beliefs.

Resident scholar at the Mountain Institute in West Virginia and research associate at the Field Museum of Natural History, Chicago, Reinhard spends most of his time in the field. He has calculated that in one period of 17 years, he did not stay in one place for more than three months. Although his field research is supported in part by grants, he has never had a grant that gave him a salary. He received the Rolex Award in 1987 - a gift of \$35,000 given every three years to 5 outstanding people - and was able to live on this for three years. "I'm in anthropology because I enjoy 'doing anthropology', being in the field learning," he states. In January 1997, Reinhard began a 6-month stint as the National Geographic Society's Explorer in Residence, a job that will allow him to continue his research.

Reinhard's research is risky, requiring mountaineering skills, physical stamina and knowledge of weather changes. He has nearly lost his life on numerous occasions. Not surprisingly, there are few high-altitude archaeologists despite the many sites to explore.

Finding Juanita

Although he has recovered many mummies throughout his career, Juanita has been Reinhard's most outstanding discovery. The site was exposed after a nearby volcanic eruption caused the snowcap on Mount Ampato to melt. The ceremonial platform had collapsed, and Juanita and ceremonial offerings had fallen into the mountain's crater. Reinhard and Zarate spotted the colored feathers of Juanita's ceremonial statues on the summit ridge and climbed into the crater to retrieve her. The descent and return to Arequipa was arduous, with Reinhard and Zarate racing to get Juanita into a freezer at Catholic U in Arequipa before she thawed. Although her face was dried due to sun exposure, Juanita was almost perfectly frozen, as her ancestors intended her to remain.

Austrians who had studied the Bronze Age "Iceman" and other experts arrived in Peru to consult with Reinhard, Peruvian archaeologists and project codirector José Antonio Chavez, Peruvian researchers and government officials on research options. They recommended that 3-D stereolithographic computer topography (CT) scans be done. Johns Hopkins Medical Institution was one of the few places in the world to offer this type of CT scanning.

Maintaining a frozen mummy over time requires special freezers. Carrier Corporation of the US, offered to make two computerized freezer units for the project and donate them to Peru. Carrier, however, needed to work with the mummy and the freezer unit. Pressure was building to have the mummy visible for conservation specialists. Some Peruvians were especially interested in an exhibit of the mummy to draw worldwide attention to Peru, Arequipa and the Colca Canyon where Juanita was found. An exhibit would also help raise funds to maintain the mummy in Peru. A request was made through Peru's National Institute of Culture to allow Juanita to come to the US for research and Johns Hopkins, review by Carrier Corporation and exhibition by the National Geographic Society. The Peruvian national Institute of Culture sought the counsel of legal, medical, physical anthropological and archaeological commissions on the petition. All commissions approved the request, and Peruvian president Alberto Fujimori agreed to the trip.

NAGPRA Concerns

The proposed visit and exhibit raised initial concerns related to the US's Native American Graves Protection and Repatriation Act (NAGPRA), particularly with regards to the ethics of displaying publicly a deceased Native American. Cognizant of NAGPRA, legislation and sensitivity associated with such an exhibition, Reinhard and National Geographic's George Stuart contacted Native American representatives regarding Native American reaction to the exposition. While some acknowledged that they didn't like the idea, they would honor the wishes of the people in the area where Juanita was found.

Unlike Native Americans in the US, most indigenous Andeans regard the body as a material remain without spirit and do not object to public display of Juanita. People in the village of Cabanaconde closest to Juanita's burial site had already displayed a mummy in the local high school. Andean beliefs regarding the discovery of mountain artifacts also differ from those of US Native Americans. Among indigenous Andeans and ancestral Inca, the mountains are viewed as gods. Andean people revere and make offerings to the mountain god, who in turn give gifts to the people. Anything "found" on the mountain is perceived by many to be a gift from the mountain god to the discoverer.

Knowing that every culture has ways to deal with the dead, Reinhard saw the heart of NAGPRA as respecting the beliefs of the people most closely related to the deceased. To do otherwise would be "reverse cultural imperialism," in his view. Reinhard regarded what few complaints he heard as the voice of a microminority who did not know the facts of the case.

Juanita Goes to Washington

Media coverage of Juanita's visit to Washington, DC was comparable to that accorded a world-renowned, jet infrequent visitor like the Pope. No one felt the crush of the press more than Reinhard, who viewed it as "another anthropological experience" and an opportunity to explain mountain sacrifices and what they tell us about Incan culture. One day, Reinhard began to shave at 7:30 am and didn't finish until noon because of constant telephone interruptions by the press.

CT scans at Johns Hopkins revealed that Juanita died from a blow to the right temple. Other findings, reported by Reinhard (January 1997 *National Geographic*, pp. 36-43), revealed that her last meal of vegetables was eaten within 6-8 hours of death. Carbon-14 dates confirmed Juanita's age, 530±50 years. Research continues to determine Juanita's genetic relatedness through mitochondrial DNA taken from muscle tissue.

Nearly 100,000 people visited Juanita during the nearly month long exhibit at the National Geographic Society. First lady Hillary Rodham Clinton and Fujimori attended the exhibit opening, in addition to about a dozen people from Cabanaconde. No complaints about display of the Ice Maiden from those who visited her were received. "That speaks volumes," reports Reinhard.

What concerned and surprised Reinhard about the exhibit was the reaction of children to Juanita, "Children seemed fascinated. The number of children who saw her and felt a kinship to her was surprising. She really was an emissary through time." The Ice Maiden kindled children's curiosity in the past and Incan culture. Thousands of children and schools regularly visit Juanita on National Geographic Society's Web site: <http://www.nationalgeographic.com>.

Juanita's Future

Juanita returned to Peru after the exhibit in June 1996 and went on short-term exhibit in Peru where she has been visited by over 100,000 Peruvians.

Reinhard wants to ensure the long-term conservation and preservation of the Ice Maiden in Peru. This is in keeping with the future the Inca themselves had planned for her. To return her to Mount Ampato is not an option because plunder and destruction would be certain. Currently, dynamiting to expose Incan sites by looters is rampant in the Andes. "Whatever we do, we should err on the side of conservation and preservation. It's necessary to understand that it's impossible to guard these sites and only a matter of time before they will be looted. The idea of not touching sites or reinterring the mummies is to subject them to certain destruction. Once an artifact is destroyed, it is gone forever. That was not what the Incas wanted or Peruvians want," states Reinhard.

Reinhard continues to work on his finding and will begin writing a book. He will return to Peru to continue collaborative research and training of future high altitude archaeologists with Chavez. He views the experience with Juanita as worthwhile. "One of the things I've seen come out of this is the intense public interest, particularly among young people. This interest in the Ice Maiden has the potential to be used in a positive way to increase people's understanding of other cultures, anthropology and what being human is all about," says Reinhard.

Perhaps that was the intent of Mount Ampato's gift to Reinhard and the world: to enable a past culture to speak to the present.

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Santa Catalina Monastery - Arequipa, Peru

<http://gosouthamerica.about.com/od/arequipa/a/SantaCatalina.htm>

Walled city within a city

Enter the gates into the adobe brick walled community of the **Santa Catalina de Siena Monastery** in Arequipa, Peru and step back 400 years in time.

A must-see in the White City of Arequipa, Santa Catalina Monastery was begun in 1579/1580, forty years after the city was founded. The monastery was enlarged over the centuries until it became a city within the city, about 20000 sq./m. and covering a good sized city block. At one time, 450 nuns and their lay servants resided within the community, closed off from the city by high walls.

In 1970, when the civic authorities insisted the monastery install electricity and running water, the now poor community of nuns elected to open the greater portion of the monastery to the public in order to pay for the work. The few remaining nuns retreated to a corner of their community and the remainder became one of Arequipa's prime tourist attractions.

Built with sillar, the white volcanic rock that gives Arequipa the name of the White City, and *ashlar*, petrified volcanic ash from Volcan Chachani overlooking the city, the monastery was closed off to the city, but much of it is open to the intensely blue sky over the southern Peruvian desert.

As you tour the monastery, you'll walk down narrow streets named for Spanish locales, pass through arched colonnades surrounding [courtyards](#), some with fountains, [flowering plants](#) and trees.

You'll linger in churches and chapels and take a rest in one of the plazas. You'll see the interior, look into the private rooms, each with a small patio, common areas like the colonnades, and the utilitarian areas such as kitchen, laundry and outdoor drying area. Click on a circle on this map of the [layout](#) of the monastery for details.

Highlights

- Cloister of the Oranges – Claustro los Naranjos The three crosses set among the orange trees are the center of the Passion of the Christ ceremonies when the monastery is closed to visitors.
- Silence Yard - Nuns walked, said the rosary and read the Bible in silence
- Entrance Portico - Statue of St Catherine of Siena in sillar over arched doorway
- Main Cloister - Largest in monastery with confessionals and paintings depicting the life of Mary and the public life of Jesus
- Church - Rebuilt several times after earthquake damage according to original design. Silver worked altar dedicated to **Sor Ana de Los Angeles Monteagudo** (see next page). A metal grille separates the nun's area from the public.
- Cordova Street - Beautiful street reminiscent of Spain with hanging geraniums on one side. Newer architecture on opposite side houses new quarters for the nuns.
- Plaza Zocodover - Named for Arab word for barter or exchange, this was the area where nuns gathered on Sundays to exchange or barter their religious crafts.
- Sevilla Street - Originally led to first church of St Catherine which was later converted to the kitchens. Kitchen burned coal and wood, darkening the walls and ceilings. Original cooking utensils are on display.
- Burgos Street - Connected vegetable garden to Sevilla Street and the kitchen.
- Laundry Area - Big earthen storage vats served as wash tubs when canals provided Arequipa's water supply.

Everywhere you walk, you'll get a feel for what life must have been like for the women who lived here in seclusion, to spend their life in prayer and contemplation.

Or so you'd think.

History and Sor Ana de Los Angeles Monteagudo

The early town leaders wanted their own monastery of nuns. Viceroy Francisco Toledo approved their request and granted the license to found a private monastery for the nuns of the Order of Saint Catherine of

Siena. The city of Arequipa set aside four plots of land for the monastery. Before it was completed, a wealthy young **Doña María de Guzmán**, the widow of Diego Hernández de Mendoza, decided to retire from the world and became the first resident of the monastery. In October, 1580, the city fathers named her the prioress and acknowledged her as the founder. With her fortune now the monastery's, work continued and the monastery attracted a number of women as novices. Many of these women were *criollas* and daughters of *curacas*, Indian chieftains.

Other women entered the monastery to live as lay persons apart from the world.

Over time, the monastery grew and women of wealth and social standing entered the novitiate or as lay residents. Some of these new residents brought with them their servants and household goods, and lived within the walls of the monastery as they had lived before. While outwardly renouncing the world and embracing a life of poverty, they enjoyed their luxurious English carpets, silk curtains, porcelain plates, damask tablecloths, silver cutlery, and lace sheets. They employed musicians to come and play for their parties.

When Arequipa's frequent earthquakes damaged portions of the monastery, the nuns' relatives repaired the damage, and with one of the restorations, built individual cells for the nuns. Occupancy of the monastery had outgrown the common dormitories. During the two hundred years of the ViceRoyalty of Peru, the monastery continued to grow and flourish. Various parts of the complex display architectural styles of the time they were constructed or renovated.

By the mid 1800's, word that the monastery functioned more as a social club than a religious convent reached [Pope Pius IX](#) who sent Sister Josefa Cadena, a strict Dominican nun, to investigate. She arrived at the Monasterio Santa Catalina in 1871 and promptly began reforms. She sent the rich dowries back to the motherhouse in Europe, dis-employed the servants and slaves while giving them the chance to leave the monastery or stay on as nuns. She instituted internal reforms and life in the monastery became as other religious institutions.

In spite of this later reputation, the Monasterio was home to a remarkable woman, [Sor Ana de Los Angeles Monteagudo](#) (1595 - 1668), who first entered the walls as a three year old, spent most of her childhood there, refused marriage, and returned to enter the novitiate. She rose within the nun's community, was elected Mother Prioress and instituted a regime of austerity. She became known for her accurate predictions of death and disease. She is credited with healings, including the severely inflicted painter who painted the sole portrait of her. It is said that as soon as he completed the portrait, he was completely healed. In her later years, Sor Ana was blind and in ill-health and when she died in January of 1686, she was not embalmed because her body did not reek of death. She was buried under the floor of the Choir in the church.

When she was exhumed ten months later, her body had not deteriorated, but remained as fresh and flexible as the day she died. She is credited with healing others, even after death. The nuns wrote reports at the time of instances where the sick were healed after touching her possessions. Shortly after her death, petition to name her a saint was submitted to the Catholic church. In the way of the church, the process is slow. It wasn't until 1985 that Pope John Paul II visited this monastery for the beatification of Sor Ana.

With the wealth of the monastery no longer available, and the nuns apart from the world, the monastery remained much as it was in the 16th and 17th centuries. While the city of Arequipa modernized itself around the walled community, the nuns continued living as they had for centuries. It was only in the 1970's that civil codes required the nuns to install electricity and a water system. With no funds to comply, the nuns made the decision to open the majority of the monastery to public view. They retreated to a small complex, off-limits to visitors, and for the first time in centuries, the curious public entered the city within a city.

Colca Canyon

http://www.llamatravel.com/peru_colca_canyon.cfm

The Colca Canyon is a beautiful part of Peru offering stunning scenery and one of the best opportunities to see condors in the wild. Originally, the area was inhabited by the Collaguas and the Cabanas, and the Incas also occupied the area for a short time. The Collaguas were an industrious and prosperous people, and the terraces throughout the canyon indicate their agricultural and architectural skills. When the Spanish occupied the valley in 1540, Viceroy Toledo ordered that the population, which had been dispersed throughout the valley, be gathered into fourteen villages, which survive today. This made it easier to control and tax the inhabitants.

The Incas conquered the Colca region in the middle of the 15th century, and one of Inca Mayta Capac's generals married the ñusta Mama Yacchi. He established his base in Coporaque, where he built a copper palace. However, this was destroyed by Gonzalo Pizarro in 1548 to make harness parts for the Spanish cavalry. The rest of the copper was used to cast the bells for the village church, which still exist.

The Colca Canyon runs for over 100km, and the average distance from the peaks of the mountains to the river below is 3,400m. Until recently, it was thought that it was the deepest canyon in the world, although it is now generally accepted that the Cotahuasi Canyon, also in the department of Arequipa, is deeper. The depth of the canyon from the Cruz del Condor to the river is approximately 1,500m. The deepest point of the canyon is beyond Cabanaconde, close to the Valley of the Volcanoes.

In addition to the canyon, the area is one of the most volcanically active in Peru, and Sabancay, which erupted in the 1980s, can usually be seen smoking, as can Ubinas.

The Colca Canyon was largely inaccessible until the 1970s, when a road from Arequipa was built as part of the Majes irrigation project, which diverts water from the Colca River to the agricultural area of Majes. In fact, the valley was largely forgotten throughout the Republican period, and the inhabitants lived in almost total isolation. The villages, which have changed little since Toledo's decree, are now in regular contact with the rest of Peru, and the area is visited by many thousands of tourists every year.

Cruz del Condor, Colca Canyon

http://www.llamatravel.com/peru_colca_canyon_cruz_del_condor.cfm

The most visited part of the canyon is the Cruz del Condor, where the river is almost 1,500m below the lookout point, and 3,400m below the surrounding peaks. These mountains, normally covered in snow, form a spectacular backdrop for the condors, which glide by on the thermals rising from the canyon. It is for the condors that many tourists visit the canyon, and there can be few places in the world that offer the chance to see these birds at such close quarters.

The condor is a carrion eater and feeds on dead animals. It does not kill animals itself, and would be unable to lift off live animals, as its claws do not permit it to grasp prey. The condor nests in the steep cliff-faces around the Cruz del Condor, and lays one or two eggs a year, which are approximately 11cm long. Young condors have brown feathers, which change to black at around eight years of age. At this point the condor also develops a white collar and white markings on the wings. It is possible to distinguish the male bird by its fleshy crest. Condors have been known to live to 50 years old. The condor can weigh up to 12kg and its wingspan is often in excess of three metres.

Towns in the Colca Valley

http://www.llamatravel.com/peru_colca_canyon_towns.cfm

Chivay

Chivay, the main town in the Colca Canyon, is the capital of the Caylloma district. The town is rather small, and the Plaza de Armas has a certain charm. Chivay is the main tourist centre in the Colca Canyon, and there are plenty of hotels and restaurants, as well as a few other tourist facilities. Most travellers to the canyon spend a night in Chivay.

The main attraction in Chivay itself is the **Calera**, the hot baths. Most visitors to the Colca Canyon visit these thermal springs, and attractive new pools were built in 2001. It is very pleasant to swim in the hot waters looking at the wonderful mountains around. The baths get very full after lunch when most of the groups arriving from Arequipa visit. The baths are 3km from Chivay, and it is a very pleasant walk alongside the river. Otherwise, there are regular combis and colectivos leaving from near the market, or a taxi can be hired for the trip. There is a small museum near the baths. On a hill overlooking Chivay is a Collagua **chullpa**, a funerary tower. This has been largely rebuilt, but the hill affords good views of the town and the surrounding area.

Yanque

There are several towns between Chivay and the Cruz del Condor. **Yanque** was the main Franciscan missionary centre in the region, and the church reflects this importance. This was built in 1691-98 by stonemasons from Arequipa. The main portal represents St Francis of Assisi surrounded by other saints. The town is probably the most faithful to the original layout by Toledo. There are some **hot springs** near the **colonial bridge**.

The church in **Maca** is of interest, especially in the interior. Here, the complete set of golden altarpieces from the 18th century is preserved. Saints, mirrors and paintings of the Virgin can be seen in the woodcarvings.

There are several other towns in the Colca Canyon, mostly on the other side of the valley. A fine church can be found in **Tisco**, which combines the architectural styles of Arequipa and Cusco. The relief of the borders enclosing the portal are typical of Arequipa, and the oval window in the main facade, as well as the towers, are typical of Cusco. The church in **Coporaque** is one of the few surviving 16th century buildings in the valley. Its bells were cast from the copper used to build the palace for the wife of an Inca general. The **Chapel of San Sebastián** is particularly impressive, having one of the finest late renaissance facades in Peru. The church at **Lari** is one of the most impressive structures in the Colca Canyon, and it has the only raised cupola in the valley.

Colca Canyon, Peru

<http://gosouthamerica.about.com/cs/southamerica/a/PeruColca.htm>

Rio Colca and Cruz del Condor

The Colca river begins high in the Andes, at Condorama Crucero Alto, drops down to the Pacific in stages, changing its name to Majes and then Camana as it goes. Where it runs between the tiny mountain villages of Chivay to Cabanaconde is a deep canyon known as the Colca Canyon. (See [Map of Colca River Canyon Area.](#))



Chivay to Cabanaconde, with Volcan Ampato to the southwest.
Mirador Cruz del Condor, Condor lookout, is to the west
of Pinchollo.

This canyon is reportedly the deepest in the world, thought to be twice as deep as the Grand Canyon in the USA. [\(It is now generally accepted that the Cotahuasi Canyon is deeper.\)](#) Unlike most of the Grand Canyon, portions of the Colca canyon are habitable, with pre-Colombian terraced fields still supporting agriculture and human life. Click on this photo from [Peru - Colca Canyon - Condor Pass, Part 2](#), Andrys Basten's Trip to Peru, for a very large photo which shows in wonderful detail how every bit of land is put to use.

Then click to Part I and read her full account of her trip with more photos.

What brings increasingly more visitors each year, in addition to the awesome sights, are the Andean condors. The condor population of South America is unfortunately dwindling, but here in Colca Canyon, visitors can see them at fairly close range as they float on the rising thermals and scan for carrion far below them, as these [photos of condors in flight](#) demonstrate.

The river and valley were well-known to the Incas and their predecessors, and the Spaniards laid out townships along the valley, no doubt planning to use Rio Colca valley as the route to Cuzco and other Andean locations. They built churches along the way, notably the one at Coporaque, but for some reason, the towns never grew and the route faded from outside memory.

It wasn't until the early 1930's that the Colca valley was explored again, this time for the American Geographical Society. [Adventure and Nature in the Colca Valley](#) tells us "Colca Valley has been known by different names: The Lost Valley of the Incas, The Valley of Wonders, The Valley of Fire and The Territory of the Condor. It has even been called one of the Seven Natural Wonders of the World."

In the 1980's, with the [Majes Hydroelectric Project](#), roads opened the Colca to the outside. One of the attractions to visitors is a glimpse into a way of life that has endured in isolation for centuries.

Access now is usually from Arequipa, ([photos on route to Chivay](#)), the second largest city in Peru and often called the *Ciudad Blanca* (White City) for the white volcanic ashlar stone used for building. Arequipa is about three hours by bus or van (See [Map of Arequipa and Colca Canyon, Peru](#).) Tours can be arranged in Arequipa if you are not already with a tour group. [Arequipa and the Colca Canyon](#) is a description of a typical tour. Busses go to [Chivay and Cabanaconde](#) on either end of the canyon, and you can begin your visit from either location. Many visitors choose to travel to [Chivay](#) in the afternoon, spend the night there acclimatizing to the altitude, and then tour Colca Canyon the next day.

No matter what else you do, a highlight of the Colca Canyon is a stop at [Cruz del Condor](#), the pass where condors soar gracefully on the rising thermals occurring as the air warms. You'll want to be there early to see the [condors in flight](#). They hunt in the morning or late afternoon and watching them is an unforgettable experience. There are no railings, and the floor of the canyon is 3960 ft (1200m) below the viewing area, so please watch your step.

In addition to the Colca Canyon, it shows the location of the La Calera hot springs at [Chivay](#) a wonderful way to relax after a day's touring, and the Toro Muerto cemetery of the Wari Indians. The final resting place of these Indians, buried in a fetal position, is built in a 90° steep cliff face and seeing it, you wonder how the burial party managed.

If you plan to hike or trek in the canyon, be sure to read [Trekking in Colca Canyon](#), take time to get used to the altitude and take provisions with you. Take cash, as ATMs and traveler's checks are not used in the small towns of the area. Make sure you protect yourself from the sun at high altitude with a hat, sunscreen and sunglasses. Do not let yourself get dehydrated. Take your own water or water purification pills or equipment. You'll want a good camera and lots of film to take a [photo](#) of the great views.

Rafting on Rio Colca appeals to many travelers, who appreciate the thrills and the [super view](#) from the river up the canyon walls. Others like to bike along the canyon roads, perhaps with [Red Spokes Cycle Adventure Tours](#).

Colca Canyon can be visited any time of year, but it is most beautiful, and safer, after the rains cease. Live volcanos are nearby, and seismic activity can cause landslides or otherwise make the ground unstable. Volcan Sabancayo is more active than Ampato, which you may recall as the site where the now famous Ice Mummy was found.

Where is the Deepest Canyon in the World?

Arequipa, Peru

By [Allan Taylor](#)

<http://www.bootsnall.com/samericatravelguides/peru/aug02peru.shtml>

No, it's not the famous Grand Canyon in Arizona, USA, nor the Copper Canyon of northern Mexico. Come to southern Peru where high in the Andes exists the lesser known Colca Canyon, which for 100 kms averages 3400 meters deep (ca 2 miles). *(It is now generally accepted that the Cotahuasi Canyon is deeper.)*

Or so they say! I think the depth really depends on where you measure to the top. The Colca Canyon is certainly awe-inspiring and definately on the "must see" list of places to visit in South America.



Indians selling handicrafts, Chivay Valley

How to get there?

First head for Arequipa, the second largest and most beautiful city in Peru, which is tucked away on the altiplano at an altitude of 2325 metres. You can fly in from Lima or Cuzco, or take it more leisurely, as I did, by bussing the 1000 kms south from Lima along the Pan American Highway and Pacific Coast, stopping off at Pisco, Ica and Nazca on the way.

Arequipa was founded by the Spaniards in 1540. It really has style, together with a magnificent backdrop of snowy volcanoes, the cone of El Misti and the Nevada Chachani, both being about 6000 metres altitude. The superb Plaza de Armas with its imposing palm trees is surrounded on three sides by double storied arched colonial buildings and on the north side is the huge cathedral, its twin towers now enshrouded in scaffolding due to their collapse in the 2001 earthquake.



Plaza de Armas, Arequipa

What a great place to rest up awhile! You need four days at least, preferably a week, because your trip to see the Colca Canyon will take two days or even more, while shopping and sight-seeing in the city will leave you exhausted.

Where to Stay and What to Do

Along the main tourist shopping streets extending north from the Plaza, namely Santa Catalina and San Francisco, are many economical hostels and hotels. Budget travellers head for Hostel Santa Catalina or hospedaje El Caminante which provide central accommodation for US\$5 per person.

To get a feel of the history, stroll along Calle Santa Catalina. For a whole block a metres thick, stone wall hides the secluded [Convent of Santa Catalina](#), once home to 400 nuns. Now only 20 are in residence, but for 400 years they led a cloistered life cut off from the ravages of the outside world. Tourists can get a guided tour, or you can wander around by yourself, delving into the rustic beauty of a convent founded in 1580 and which has survived many earthquakes since then.

Next block towards the Plaza is the astounding [Museo Santuarios Andinos](#) where you will see the famous "Juanita, La Niña de los Hielos", the 550 year old Inca girl sacrifice found in 1995 by mountaineers in the ice on the summit of nearby Volcan Ampato at 6318 metres altitude. An adjacent volcano had erupted and blown ash to melt the summit snow to reveal this sacrificial site. There she is, kept in a glass case at low temperature, in all her Inca finery, and the museum displays the historical and scientific data associated with the discovery.

Immediately you set foot into the Plaza you are besieged by friendly entrepreneurs enticing you to snack and drink at their balcony restaurants. A pleasant spot it is to watch the comings and goings of Arequipa. Down below is an Internet Cafe, forever memorable for me, as this is where one morning I watched on computer the awful unfolding of the September 11th terrorist attacks.

Along Calle Santa Catalina craft shops and tour agencies abound. I bought some alpaca winter woollies. Regular sweaters cost about US\$10 and the finest baby alpaca ones nearer \$50, with hand-knits dearer still. Main problem is to find large men sizes for Europeans with long arms.

Off to the Canyon

Wasi Tours, at Santa Catalina 207 seemed on the ball and well recommended. I booked a Colca Canyon Tour by minibus, taking two days with an overnight stay at the village of Chivay, located in the Colca Valley at 3633 metres altitude. A good test for my new woollies, I thought!

We headed north past El Misti volcano climbing all the time to get on top of the mountains, reaching the highest point at 4800 metres. We stopped to admire the distant volcanoes amidst an area strewn with little stone cairns built by the Indians. The road zigzags down to the village of Chivay, the biggest of about 14 villages in the Colca Valley established by the Viceroy Toledo in the 16th century, who insisted that the rural converted Indians live close together.

Each town has a beautiful stone church and central plaza with a rectangular street plan of adobe houses sited on a natural river terrace. These major terraces have been further terraced for agriculture, producing maize and potatoes dating back to pre-Inca times. In fact the area has been inhabited by man for over 7000 years.

Los Animales

Llamas, alpacas and sheep are everywhere, happily grazing on flat and often boggy terrain of the altiplano and always watched over by shepherds, who also watch out for tour buses. These Indians, usually women with children, are dressed in fancy traditional costumes and readily pose for photographs, thus deriving a useful cash income.

I learnt that [llamas](#) are the larger white or brown woolly animals, having a longish nose and without wool on the face or lower legs, whilst the [alpaca](#) is smaller and has wool on the face and legs. The vicuña is a wild and protected species similar to the alpaca but with a distinctive white hairy main in front. The brown or white sheep were almost as big as the alpacas, but being from Australia I was not confused! They are very tame. At one lunch stop a llama tried to board our bus to continue eating a sandwich shared with a girl!



Llamas, alpacas and sheep on the altiplano

At Chivay I got to stay at the Hostal Municipal on the Plaza. Some of us braved the chilly night air to explore the central business district, finally settling in a busy restaurant having live music. I enjoyed the grilled rainbow trout from a local trout farm but gagged on some Peruvian port wine, the only available. Next morning we set off to see the Canyon.

The principle viewpoint or *mirador* for the canyon is the spot "Cruz del Condor", located about 60 kms down the Colca Valley from Chivay. About a dozen buses can park adjacent to Indian market stalls that sell handicrafts. Here you can peer over the edge and see the river over a kilometre below, while cliffs tower above to merge into snowy peaks. Half a dozen condors obligingly cruise past just waiting for an audience it seems.

On Condors

The [Andean condor](#) at close quarters is an ugly bird but in flight so graceful. It is a huge vulture with a wing span over 3 metres, colored a sinister black, some white under the wings with a white collar like a clergyman. By living on carrion it does a useful job cleaning up the environment. It inhabits the Andean mountain chain from Venezuela to Tierra del Fuego. They say the quickest way to see a condor is to lie down on the ground and pretend you are dead, they will find you!

At last a condor perched itself on a jutting rock only 20 metres away. Maybe a 100 camera-toting tourists clicked away with telephoto lenses. Eventually the poor bird threw itself off the rock into the abyss below to get airborne and found a thermal to rise again. Our driver explained that the condor can not take off from ground level and so lives in the cliffs of the canyon.

Not quite correct! The condor can readily take off from flat ground near sea level as you may have observed in Patagonia at [Paine National Park](#). However at high altitudes of over 3000 metres where the air is thinner its cliff habitat makes for an easier life!

The condor knows that the top of the Andes is a pretty special place. The scenery is out of this world, it resembles the moon and Mars. The snowy peaks and volcanoes border the high plains, or altiplano, which stretch for hundreds of kilometres, treeless and barren, or grassy and boggy, or sandy desert with salt pans. The Indians call it home and few of them have ever seen the sea or could imagine surf breaking on a beach! How fortunate we are to visit their unique world!

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Puno and Titicaca lake

<http://www.peru-explorer.com/titicaca.htm>

Altitude 3,827 meters (12,500 feet) a.s.l.
Population 91,877 inhabitants in the city



Puno, on the banks of Lake Titicaca - the world highest navigable lake - displays the reminiscences of its origin through cave paintings and spearheads, testimony of our highland ancestor's life.

The Collao Plateau is the geographical space, where ancient and important cultures like Pucara and, later, Tiahuanaco, appeared. This is the region where, according to the legend, Manco Capac and Mama Oclo emerged from the sacred Lake Titicaca to found the Inca Empire.

During colonial times, the Spaniards established in Puno attracted by its mineral richness, bringing new cultural, social and economic patterns along. The city of San Carlos de Puno was founded in 1668 and the priests, eager to convert the natives, motivated them to build beautiful churches.

LAKE TITICACA



Lake Titicaca is the world's highest navigable lake and the center of a region where thousands of subsistence farmers eke out a living fishing in its icy waters, growing potatoes in the rocky land at its edge or herding llama and alpaca at altitudes that leave Europeans and North Americans

gasping for air. It is also where traces of the rich Indian past still stubbornly cling, resisting in past centuries the Spanish conquistadors' aggressive campaign to erase Inca and pre-Inca cultures and, in recent times, the lure of modernization.

When Peruvians talk of turquoise blue Titicaca, they proudly note that it is so large it has waves. This, the most sacred body of water in the Inca empire and now the natural separation between Peru and Bolivia, has a surface area exceeding 8,000 square kilometers (3,100 square miles), not counting its more than 30 islands.

At 3,856 meters (12,725 feet) above sea level it has two climates: chilly and rainy or chilly and dry. In the evenings it becomes quite cold, dropping below freezing from June through August. In the day, the sun is intense and sunburn is common.



According to legend, this lake gave birth to the Inca civilization. Before the Incas, the lake and its islands were holy for the Aymará Indians, whose civilization was centered at the Tiahuanaco, now a complex of ruins on the Bolivian side of Titicaca but once a revered temple site with notably advanced irrigation techniques.

Geologically, Titicaca's origins are disputed, although it was likely a glacial lake. Maverick scientists claim it had a volcanic start; a century ago, Titicaca was popularly believed to be an immense mountaintop crater. A few diehards today stick to the notion that the lake was part of a massive river system from the Pacific Ocean.

Indian legend says the sun god had his children, Manco Capac and his sister-consort Mama Ocllo, spring from the frigid waters of the lake to found Cuzco and the beginning of the Inca dynasty. Later, during the Spanish Conquest, the lake allegedly became a secret depository for the empire's gold. Among the items supposedly buried on the lake's bottom is Inca Huascar's gold chain weighing 2,000 kilos (4,400 lbs.) and stored in Koricancha - the Temple of the Sun in Cuzco - until loyal Indians threw it into the lake to prevent it from falling into Spanish hands.

Oceanographer Jacques Yves Cousteau spent eight weeks using mini submarines to explore the depths of the lake but found no gold. (What he did discover, to the amazement of the scientific world, was a 60-centimeter (24-in) long, tri-colored frog that apparently never surfaces!)

Urban base:

On the Peruvian side of the lake is Puno, an unattractive commercial center settled as a Spanish community in 1668 by the Count of Lemos. Although today Puno seems unappealing, during the Spanish period it was one of the continent's richest cities because of its proximity to the Laykakota silver mines discovered by brothers Gaspar and Jose Salcedo in 1657. The mining boom drew 10,000 people to an area not far from what is now Puno. It also brought a bloody rivalry that ended only when the ironhanded count traveled to Puno, ordered Jose Salcedo executed and transferred Laykakota's residents to Puno.

At an altitude of 3,827 meters (12,628 feet), Puno is still the capital Peru's altiplano - the harsh highland region much better suited to roaming vicuñas and alpacas than to people. It is also Peru's folklore center with a rich array of handicrafts, costumes, holidays, legends and, most importantly, more than 300 ethnic dances.

Among the latter, the most famous is Devil dance performed during the feast of the Virgin of Candelaria during the first two weeks in February. Dancers fiercely compete to outdo one another in this Diablada, notable for its profusion of costly and grotesque masks. The origins of the dance have become confused over the centuries but it is believed to have started with pre-Inca Indian

cultures, surviving through the Inca conquest and the Spanish takeover of the country, with the costumes being modified each time.

Dance and wild costumes:

As numerous as the dances themselves are the lavish and colorful outfits the dancers wear. They range from multi-hued polleras (layered skirts) donned by barefoot female dancers to the short skirts, fringed shawls and bowler hats used in the highland version of the marinera dance. For centuries the Indians in the altiplano were accustomed to working hard, then celebrating their special days with gusto. In fact, many of the dances incorporate features of the most repressive times for the Indians with dancers dressed as mine overseers or cruel landowners characters that are mocked during the festivities. It is difficult to find a month in Puno without at least one elaborate festival, which is always accompanied by music and dance.



Within Puno, there remain a handful of buildings worth seeing. The cathedral is a magnificent stone structure dating back to 1757 with a weather-beaten baroque-style exterior and a surprisingly spartan interior- except for its center altar of carved marble, which is plated in silver.

Over a side-altar to the right side of the church is the icon of The Lord of Agony, commonly known as El Señor de la Bala. Beside the cathedral is the famous Balcony of the Count of Lemos found on an old house on the corners of Deustua and Conde de Lemos streets. It is said that Peru's Viceroy Don Pedro Antonio Fernandez de Castro Andrade y Portugal - the count -stayed here when he first arrived in the city he later named "San Carlos de Puno."

On the Plaza de Armas is the library and the municipal pinacoteca, or art gallery and half a block off the plaza is the Museo Carlos Dreyer, a collection of Nazca, Tiahuanaco, Paracas, Chimú and Inca artifacts bequeathed to the city upon the death of their owner, for whom the museum is named.

One of the museum's most valuable pieces is an Aymará arybalo, the delicate pointed-bottomed pottery whose wide belly curves up to a narrow neck. Throughout the South American continent, the arybalo stands as a symbol of the Andean culture.

Views of the Sierra:

Three blocks uphill from the plaza is Huajsapata Park, actually a hill that figures in the lyrics of local songs and an excellent spot for a panoramic view of Puno. Huajsapata is topped by a huge white statue of Manco Capac gazing down at the lake from which he sprang.

Another lookout point is found beside Parque Pino at the city's north side in the plaza four blocks up Calle Lima from the Plaza de Armas. Also called Parque San Juan, it boasts the Arco Deustua, a monument honoring the patriots killed in the battles of Junin and Ayacucho, the decisive battles in the Independence War with Spain.

The "San Juan" moniker for the park comes from the San Juan Bautista Church within its limits; at its main altar is a statue of the patron saint of Puno, the Virgin of Candelaria. Also in the park is the Colegio Nacional de San Carlos, a grade school founded by a decree signed by Venezuelan liberation leader Simon Bolivar in 1825. It was later converted into a university, then subsequently used as a military barracks.

Two blocks down F. Arbulu Street from Parque Pino is the city market, a colorful collection of people, goods and food. Tourists should keep their eyes on their money and cameras while here, but it is worth a stop to see the wide collection of products - especially the amazing variety of potatoes, ranging from the hard, freeze-dried papa seca that looks like gravel to the purple potatoes and yellow and orange speckled olluco tubers.

Woolen goods, colorful blankets and ponchos are on sale here, along with miniature reed boats like those that ply Lake Titicaca. Among the more intriguing trinkets are the Ekekos, the ceramic statues of stout jolly men laden with a indefinite number of good luck charms, ranging from fake money to little bags

of coca leaves. Believers say the Ekekos smoke and they are often found with lit cigarettes hanging from their mouths. Those who really believe in the power of these jolly statues claim that they only bring luck if they are received as gifts - not purchased.

Exploring the Lake:

Puno is the stepping-off point for exploring Titicaca with its amazing array of islands, Indian inhabitants and colorful traditions. Small motorboats can be hired for lake trips or for catching the 13kg (30lb) lake trout that make it one of Peru's best-known fishing destinations.

Most of the transportation is either by motorized launches or the totora reed boats that Norwegian Thor Heyerdahl studied in preparing for his legendary 4,300-nautical mile (7,970-km) journey from Peru to Polynesia in the reed boat Kon-Tiki in the 1940s.

Floating islands:

The best-known of the islands dotting Titicaca's surface are the Uros, floating islands of reed named after the Indians who inhabited them. Legend has it the Uro Indians had black blood that helped them survive the frigid nights on the water and safeguarded them from drowning.

The last full-blooded Uro was a woman who died in 1959. Other Uros had left the group of islands in earlier years owing to a drought that worsened their poverty - and intermarried with Aymará and Quechua-speaking Indians. But the Indians who now inhabit this island - a mix of Uro, Aymara and Inca descendants - follow the Uro ways.



The Uros' poverty has prompted more and more of them to move to Puno. That same poverty has caused those who remain to take a hard-sell approach to tourists and, besides pressing visitors to buy their handicrafts, they frequently demand "tips" for having their photographs taken.

Some tourists suggest that bartering with fresh fruit is better than money exchanges. However, there is continued criticism that tourism has not only opened the Uros Islands to the stares of insensitive tourists but has destroyed much of the culture as the Indians modified their handicrafts to appeal to outsiders or abandoned traditional practices to dedicate more time to the influx of outsiders.

The Uros islanders fish, hunt birds and live off lake plants, with ... 7 --- the - important element in their life being elake reeds they use for their houses, boats and even as the base of their five islands - the largest of which are Toranipata, Huaca Huacani and Santa María. The bottoms of the reed islands decay in the water and are replaced from the top with new layers, making a spongy surface that is a bit difficult to walk on.

Even the walls of the schools on the bigger islands are made of totora. The soft roots of the reed are eaten, making it a pretty handy thing to have around.

Another island that lures tourists is Taquile, the home of skilled weavers and a spot where travelers can buy wellmade woolen and alpaca goods as well as colorful garments whose patterns and designs bear hidden messages about the wearer's social standing or marital status. The residents of this island run their own tourism operations in the hope that visits of outsiders will not destroy their delicate culture. There are no hotels on Taquile but the islanders generously open their homes to tourists interested in an overnight stay.

Handicrafts also play an important role in life on Amantani, a lovely and peaceful island even further away from Puno than Taquile. Amantani was once part of the Inca empire, as attested to by local ruins, before the Spanish invaded and slaughtered the islanders. The Spaniard who was granted a concession to the island used the Indians in forced labor and his descendants were still in control after Peru's independence from Spain. But eventually an island fiesta turned violent and the Indians attacked their landlord with hoes and consequently split up the island into communally-held fields.

Amantani has opened its doors to outsiders who are willing to live for a few days as the Aymará-speaking islanders do -and that means sleeping on beds made of long hard reeds and eating potatoes for every meal. There is no running water or electricity and nighttime temperatures drop to freezing even in the summer. But those happy to rough it catch a glimpse of an Andean agricultural community that has maintained the same traditions for centuries. Some Amantaní residents live and die without ever leaving the island.

Journeys to Amantaní begin at the Puno docks aboard sputtering wooden motorboats operated by the islanders. At the end of the four-hour trip, visitors are registered as guests and assigned to a host family. The family, usually led by a shy patriarch, shows the way to its mud-brick home set around an open courtyard decorated with white pebbles spelling out the family's name.

Prepared visitors usually bring gifts of fruit -a rarity on the isolated island and the socializing begins when a family member who speaks English offers a guided walk around the island, from where the views are something spectacular. Women wearing traditional black and white lace dresses pass by with Islingshots in their hands to kill scavenging birds.

Another island, Esteves is connected to Puno by a bridge and is best known for Turistas Isla Esteves This luxury hotel is a far cry from what used to be the main construction on the island - a prison that accommodated the patriots captured by the Spanish during Peru's war for independence.

James Orton, a naturalist and explorer who died crossing Titicaca on a steamship in 1877, is buried on Isla Esteves; his memorial sits beside one honoring the liberation fighters who perished in the war with Spain. Orton, a natural history professor from Vassar University, was on his third expedition to explore the Beni river in the Amazon area. The Beni's link to the Mamore river both crucial conduits during the jungle's rubber boom - was named the Orton river in his honor.



Mysterious burial chambers:

Some 35 km (21 miles) from Puno is **Sillustani**, with its circular burial towers or chullpas overlooking Lake Umayo. The age of the funeral towers, which are up to 12 meters (40 feet) high, remains a puzzle. A Spanish chronicle-keeper described them as "recently finished" in 1549, although some still appear as if they were never completed and the Indians that built them were conquered by the Incas about a century earlier.

The chullpas apparently were used as burial chambers for nobles of the Colla civilization; these were Indians who spoke Aymara, had architecture considered more complicated than that of the Incas and who buried their nobility with their entire family.

Not far away is Chucuito, a village that sits upon what was once an Inca settlement and which boasts an Inca sundial. Stop by the Santo Domingo Church with its small museum in this altiplano village; also worth visiting is La Asuncion Church.

Juli, once the capital of the lake area, has four beautiful colonial churches under reconstruction. Although it now appears a little odd to see so many large churches so close together, at the time the Spanish ordered them built they hoped to convert huge masses of Indians to Roman Catholicism.

In addition, the Spanish were accustomed to having one church for the Europeans, one for the mixed-raced Christians and yet another for the Indians. The largest of Juli's churches is San Juan Bautista with its colonial paintings tracing the life of its patron, Saint John the Baptist.

From the courtyard of La Asuncion Church visitors have a captivating view of the lake. The other churches in the city are San Pedro, once the city's principal place of worship and the church in which a choir of 400 Indians used to sing each Sunday, and Santa Cruz, which is just beside the city's old cemetery. Santa Cruz was originally a Jesuit church upon the front of which Indian stonemasons carved a huge sun - the Inca god - along with more traditional Christian symbols.

It is from Juli that the Transturin catamarans leave across the lake for Copacabana, Bolivia. (Information is available from the Transturin office in Puno, Av. Girón Tacna 201. Tel: 737).

Pilgrimage site:

Copacabana can also be reached by taking a minibus ride around the side of the lake, passing the reeds waving in the wind, shy but curious children at the bends in the road and always the brilliant blue of Titicaca or the roadway that ends the lake.

This pleasant trip involves a short ferry trip at the Strait of Tiquina and the destination is a pleasant one. Copacabana is a friendly little town accustomed to tourists and has a number of modest but clean restaurants and hotels. It is most famous for its cathedral containing a 16th-century carved wood figure of the Virgin of Copacabana, the Christian guardian of the lake.

The statue, finished in 1853, was the work of Indian sculptor Francisco Tito Yupanqui, nephew of Inca Huayna Capac. Except for during Mass, the statue stands with its back to the congregation - but facing the lake so it can keep an eye out for any approaching storms and earthquakes.

One of the loveliest outings in Copacabana is a dawn or dusk walk along the waterfront, watching the sky explode into color with sunrise or slip into the blue black of night at sunset.

It is also possible to reach Bolivia by crossing around the other side of the lake via Desaguadero, but this border town is one of the continent's filthiest and there is no acceptable lodging there in the event buses on the Bolivian side are not running (a common eventuality owing to holidays, strikes or sometimes lack of demand).

From Copacabana, launches can be hired to visit the Bolivian islands which are also on Lake Titicaca - the Island of the Sun and the Island of the Moon. **The Island of the Sun** (also accessible via a public ferry) has a sacred Inca rock at one end and the ruins of Pilko Caima with a portal dedicated to the sun god at the other. The Island of the Moon, which is also sometimes called Coati, has ruins of an Inca temple and a cloister for Chosen Women.

Cuzco and Surrounding Area

Pages from <http://www.cusco-peru.org/>

CUSCO ATTRACTIONS

During daytime or night time, Cusco is a city full of charms and attractions.

The mornings are ideal to walk by the streets, to know the churches, to pass by the legendary artisan neighborhood San Blas or to visit the towns and the archaeological remains in the surroundings. At night, when the city covers with lights, the discotheques, pubs and restaurants are the greatest attractions. Nightlife in Cusco offers a great variety of fun choices satisfying the most demanding tastes.

If you visit Cusco, it is compulsory to know the following places: the Koricancha (The Sun Temple), the Ajlla Wasi, the Churches and Convents, the Archaeological Remains, mainly Machu Picchu, Sacsayhuamán and Ollantaytambo.

CUSCO MAIN SQUARE

During the time of the Incas it was called Huacaypata or Square of the Warrior. It was the setting of various crucial events throughout the history of Cusco. Every year, people celebrated in this place the Inti Raymi or Sun Festivity; and this was also the place in where Francisco Pizarro proclaimed the conquest of Cusco. With the Spaniards arrival, the square was surrounded by stone arches that even today embellish it. (Centre of the city).

Cradle of legendary feats, the Main Square of Cusco was called "HuacaYpata" or "Square of the Warrior" during the time of the Incas. It reminds us of times when it was a significant ceremonial place where, every year, they carried out the spectacular celebration of Inti Raymi or "Sun Festivity". It was the place where Francisco Pizarro, together with his Spanish entourage, proclaimed the conquest of Cusco, or the setting in where the Indigenous caudillo Tupac Amaru was executed.

The square was transformed with the Spaniards arrival. The stone arches, as well as the constructions that even today surround the square, were built during that period. It is surrounded by a beautiful arcade that was constructed during the conquest. In this place are also located the churches of the Cathedral and the Society of Jesus, which make up a real tourist temptation.

THE HISTORY OF CUSCO

Cusco is supported by more than 3000 years of age to be considered as The Oldest Existing City of America. Cusco, and its cultural and geographical diversity, has suffered and enjoyed different events through the years that have turned it into a historical study centre and the most important tourist core of the country.

There are different opinions with regard to the first inhabitants of the city. Some persons state that the Marcavalle town or the Sawasiras, Antasayas and Wallas tribes initially inhabited the valley. Others base their theories on the Inca mythology, according to which Manko Qhapaq and Pachakuteq founded the city. None of this theories has been proved, but there is a great amount of pre-ceramic samples that support the antiquity title assigned to the city.

These pre-ceramics correspond to the Men of Yauri and Chumbivilcas, with an approximate age of 5 thousand years B.C., to the shepherds of Canas in Chawaytiri and to the Men of Qorqa, engaged in farming.

During the Formative period, the city started to be inhabited as of the Watanay Valley or Cusco Valley. During the sedentary period, 1000 years B.C., Marcavalle was the selected place for the establishment. This city was located at the eastern side of the city, and it had a population made up by farmers and shepherds who were precariously organized.

On 800 B.C., the Chapanata culture was developed, and on 600 A.C. the Qotakalli culture was created. This culture was the first region of the established system of Regional States. Afterwards, as a consequence of the Wari invasion, the Killki regional state was created on 800 A.C., and the Lucro state towards 1000 A.C.

The beginning of the Inca civilization took place on 1200 A.C. and its expansive phase occurred during 1400 A.C.

The subsequent part of the history is known. On November 15th 1533, the Spaniards arrived together with the Empire fall and a rough cultural irruption that moved the capital to Lima.

However, the fighting spirits did not travel to the new capital; on the contrary, they stayed in Cusco. One of the main events was the raise of Mako Inka, which lasted from 1536 to 1572, year when the last member of the Inca dynasty, Tupac Amaru I, was defeated and executed.

Nevertheless, we cannot forget the biggest precursor of the Peruvian independence, Tupac Amaru II or José Gabriel Tupac Amaru Inga, who in 1780, started a new rebellion that, indubitably, set the most significant precedent against the Spanish Regime in America. Unfortunately, a betrayal caused his defeat and execution together with his family in the Main Square of the same city that witnessed his birth.

Said precedent did not go unnoticed, and was followed by Mateo Pumacahua, and the Angulo Brothers, who initiated another rebellion between 1814 and 1815.

Finally, in 1821, as a result of the infinite fights and the integral Southamerican support, Peru obtained its independency from Spain. And by 1933, Cusco was declared the "Archaeological Capital of South America" during the Americanists Congress carried out in Argentina.

But, not only did the rebellions shake the city, but also the nature power with a 7°-earthquake in 1950 that only left the fourth part of its original buildings standing.

However, due to its great cultural and historical significance, Cusco received innumerable demonstrations of worldwide acknowledgement, as that from 1978 during the 7th Convention of Majors from Great Worldwide Cities, carried out in Milan, Italy, where Cusco was declared as the "Cultural Heritage of the World". In 1983, UNESCO granted it the title of "Cultural Heritage of the Humanity".

Peru did not stay behind and, on December 22nd 1983, it acknowledged the portent of its Andean internal areas through a law that declared the city of Cusco as the "Tourist Capital of Peru" and "Cultural Heritage of the Nation".

THE CATHEDRAL OF CUSCO CITY

<http://www.cusco-peru.org/cultural-cusco-churches-cusco-cathedral-church.shtml>

"The whole structure is magnificent and it can be said that the Cusco Cathedral is one of the most beautiful and significant monuments of America. Its proportions have unique amplitude. Its towers are separated by a distance that exceeds the permitted limits in any Western example, so as to grant this first Spanish temple in the Incas capital a greater front and settling."

(Héctor Velarde, Arquitectura Peruana, 1946)

The Cathedral

The first Cusco Cathedral was built in 1539 at the Suntur Wasi, current Iglesia del Triunfo, but in 1560 there was an order to build a new cathedral on the Kiswir Kancha lot, palace of Inca Wiracocha. The actual Cathedral was declared built in 1664, more than a century after.

The design is constituted by a latin-cross base, the façade has a Renaissance style, very ornamental, and it contains the best manifestations of colonial goldsmith and wood carving, as well as a valuable collection of canvases from the Escuela Cusqueña (Academy of Cusco). There are two auxiliary chapels on its both sides: Capilla del Triunfo and Jesus, Maria y Jose.

The building process had two stages. First, they constructed the Capilla del Triunfo over the old Suntur Wasi (House of God) temple.

Afterwards, they erect the cathedral over the Palace of Inca Wiracocha. The Renaissance style is predominant in the façade and the inside the building, the inner decoration is rich in cedar and alder carvings. The choir and the pulpit stand out due to their beauty. It keeps an important collection of the Academy of Cusco and repoussé-silver objects.

History

The main Cusco church, arisen after the conquest and Spanish foundation of the city, had two emplacements before being erected on its current location. In October 1534, the first council meeting assigned it the site nowadays occupied by the Iglesia del Triunfo, in the old Sunturhuasi. Due to its small size, in 1541 it was decided to grant it a wider space in the Cusipata area, in front of the market and the Mercedarians Convent. This closeness resulted inconvenient, and in 1522 they acquired the plots of Quishuarcancha or the Palace of Huiracocha, next to the primitive temple.

The architects

In 1559, the first stone was put and the architect Juan Miguel Veramendi, residing in Chiquisaca, was convoked to conduct the works. Then, Juan Correa continued the works until 1564, when they were interrupted due to the lack of funds. In 1585, the Estremadura master Francisco Becerra, author of the Cathedral of Lima, probably carried out the definite design. After that, Bartolomé Carrión and Miguel Gutiérrez Sencio took part as main masters. The construction advanced very slowly until 1644, when the Bishop Juan Alonso de Ocón gave it a great impulse. Even though it was not concluded in 1650, the earthquake of that year did not affect the structure's solidity and it could be totally finished in 1669.

Style and design

Due to the crucial period when it was constructed, the Cusco Cathedral inherits the Gothic-Renaissance hybridism of the great Spanish Cathedrals of the XVI century, adding to that the irruption of the patent baroque style in its enormous front-altarpiece and its monumental towers.

Just as in Lima, its storey-lounge is composed by three aisles with two sections of side chapels and a plane front wall. Its ribbed vaults, taken from the late Gothic, lay over the cross-shaped columns of Renaissance style. Here everything is made of stone and it gives the sense of great solidity, which constitutes the main difference with the characteristic lightness of the Lima Cathedral.

Many of its stone blocks have an Incan origin and were brought from the neighboring fortress of Sacsayhuamán.

Richness of Altars and Chapels

The main altar, made of silver, is one of the latest works of the whole structure. It has the shape of a baldachin and it represents the introduction of the neoclassic style to the city. It was constructed in the 1792-1803 period by the architect Villegas and the silversmith Pinelo, under the sponsorship of the Bishop Bartolomé María de Las Heras.

In spite of the sobriety of its columns, many of its decorative elements seem to stick to the baroque traditions so established in the city. All the lateral chapels are enclosed by amazing golden railings and crowns with carvings allusive to the titular invocation. It's worth it to mention the altars of the venerated Señor de los Temblores (Lord of the Tremors) located at the Epistle side (right), which are rich in gold and silver offerings, as well as the altar of the Virgen de los Remedios (Virgin of the Remedies), Valencian devotion introduced by the Spaniard Alonso de Monroy y Cortés. In this side we can also find the so-called "capilla de la Platería" ("Silversmith Chapel"), where we can appreciate an amazing demonstration of the Cathedral treasures. Its most precious jewel is the enormous silver small temple that is used as a processional portable platform for the Corpus Christi. It was a gift from the Bishop Friar Bernardo de Serrada in 1731.

On the other side or the Gospel side (left), we must highlight the chapels of Virgen Inmaculada (Immaculate Virgin), called La Linda (The Pretty), official patroness of the city since the XVI century; and the Capilla del Apóstol Santiago (Apostle Santiago Chapel). In the front wall, the altar of the Saint Trinity encompasses the famous Virgen del Halcón (Virgin of the Falcon) painting, a work of the Bernardo Bitti circle.

Pictorial Series

At the time of the Bishop Mollinedo, the Church received the greatest decorative contributions, regarding both altarpieces and paintings made by important indigenous masters. The Bishop's favorite was Basilio Santa Cruz, author of the large canvases that decorate both arms of the transept made between 1691 and 1693. Those are impressive baroque creations that develop theological allegories or the devotions promoted by the Counterreformation. Some of the most remarkable works are "La Imposición de la Casulla a San Ildefonso" ("Imposition of the Chasuble to Saint Ildefonso") and "El Milagro de San Isidro Labrador" ("The Miracle of San Isidro Labrador").

The famous Zodiac series corresponds to Diego Quispe Tito, rival of Santa Cruz, which was finished in 1681 and is currently kept in the Capilla de la Platería. It is a mature work that shows the enormous technical skill of the master and its adjustment to the Flemish constitutive models and coloring.

Some of the central columns exhibit the paintings of another indigenous artist, Antonio Sinchi Roca, a descendant of the Incan nobility originating from Maras. His paintings represent the Israelite evangelists, prophets and kings.

The main pictorial work of the XVIII century is constituted by the fifty canvases about the Lauretan Litanies executed by the master Marcos Zapata in 1755. These canvases decorate all the upper part of the Cathedral, covering the arcs both from the aisles and the sacristy. Their formal conventions as well as the predilection for red and blue characterize Zapata's style, which was a great influence for the region.

The choir

According to the layout of the main Spanish Cathedrals, the choir's ashlar is located in the main aisle facing the main altar. Its rich baroque carving, attributed to master Giménez de Villarreal, dates from the end of the XVII century and is one of the most magnificent works of the Cusco joining. In the retro choir there are some chapels, such as the one dedicated to Nuestra Señora de la Antigua (Our Lady of the Ancient), and the external sides are decorated with large paintings of Basilio de Santa Cruz about the Virgin of Belen and the Virgin of Almudena, with the Bishop Mollinedo and the Monarchs of Spain as donors.

The sacristy

One of the most luxuriously decorated precincts of the entire building is the sacristy that, from the entrance, displays a collection of allegoric paintings about the church executed by Marcos Zapata in the middle of the XVIII century. In the inside, the furniture, carvings and paintings create a baroque environment of great effect. One of the walls is covered by a huge altarpiece that frames a famous painting of the "Cristo de la Agonía" (Christ of the Agony), traditionally known as the Christ of Van Dyck, since its based on a model of this Flemish master. A complete gallery of portraits of the bishops that have governed the diocese, from Friar Vicente de Valverde, is also kept here.

Adjacent churches

At both sides of the Cathedral, but in a deeper level, there are two small churches that were constructed afterwards: "Jesús, María y José" church on the left side, and "El Triunfo" church on the right side. Their stone façades, with simple fronts and niches, perfectly harmonize with the main temple.

El Triunfo

This small temple reminds us of crucial events during the history of the conquest. Its name itself constitutes a reminder of the final victory of the Spaniards besieged by Manco Inca's troops in this place- the ancient Sunturhuasi- when, according to the tradition, they received the miraculous help of the Virgin and the Apostle Santiago. Here they constructed the primitive main church, erecting the building, which can be currently seen, during the 1729-1733 period. The promoter of this work is the bishop Friar Bernardo de Serrada, whose shield decorates one of the lateral fronts. Its main altar is made of a finely carved stone and the main niche encompasses the "Cruz de la Conquista" ("Cross of the Conquest"), in where the ashes of Inca Garcilaso de la Vega have been resting for several years.

Jesús, María y José

Even though the first stone of this temple was positioned in 1723, its definite construction could only take shape during the 1733-1735 period, after El Triunfo church was used for the first time. Just as El Triunfo church, its main façade has niches with images of the Sacred Family that, in this case, are flanked by small three-bell gables. Its cross setting is simple and harmonious, entirely made of freestone. This structure contrasts with the decorative profusion of altarpieces and paintings. Its main altar, baroque and golden, was concluded in 1737.

It has a rich front and other silver pieces donated by the Marquis of Valleumbroso in 1745. There are several canvases of Antonio Sinchi Roca and the portrait of the viceroy Gabriel de Arregui is placed on the high choir.

CHURCH OF THE COMPANIA DE JESUS

<http://www.cusco-peru.org/cultural-cusco-churches-cusco-compania-jesus-church.shtml>

"The temple (of the Society) is from Cusco in spite of its intense Spanishness (...) The imafrente, armed as if it had silver pieces, the original composition of the towers with their naked bases, just like all the bases in Cusco, and its central cupola covered by enameled bricks and surprising that monument".

Héctor Velarde, Arquitectura Peruana, 1946.

The original church was constructed in 1571 on the plots of the ancient Amarukancha, palace of Inca Wuayna Qhapaq. The earthquake of 1650 caused a terrible damage to the building and it had to be reconstructed about 1688. The original design and the façade are examples of the Andean baroque. The altarpiece-type front is decorated with medium-height towers and its stone walls had been carefully worked. The main altar of three sections and wreathed columns, the wooden pulpit and the numerous baroque, plateresque and churrigueresque altarpieces stand out in the entrance. Among the most important art pieces that are kept in the church "El Matrimonio de Martín García de Loyola con Beatriz Clara Coya" ("The Marriage of Martín García de Loyola with Beatriz Clara Coya") is remarkable.

The construction dates from 1576. It was started by the Jesuit order at Amarukancha or Palace of Inca Wuayna Qhapaq. Due to its architecture, the Compania de Jesus Church is considered one of the best examples of the colonial baroque in America. This is reflected in its spectacular façade entirely made of stone and a beautiful altar covered by gold leaf that has been constructed over an underground chapel. The church also has a collection of sculptures and paintings that are worth admiring. One of most significant works is about the marriage of Saint Ignatius of Loyola's nephew and a Ñusta of Incan lineage.

One of the most modern and largest palaces that surround the main square of the great Qosqo belonged to Wuayna Qhapaq. This palace, called Amarukancha, was granted to Hernando Pizarro after the Spanish invasion.

Later on, this property was purchased from the conqueror's inheritors by Diego de Silva and his wife Teresa Orgoñez, who donated it to the Jesuits after their arrival to this city in 1571; so they could be able to build a church. The founder of the "Compania de Jesus" or the Jesuit Order was Saint Ignatius of Loyola.

Together with other regular clergymen, he supported the accountant's reform that tended to strengthen the church and fight against the heretical and schismatic thesis. The Jesuits arrived in Peru in 1568 and consequently to this city. Just after their arrival, they started to build their first chapels for the "Indians", one of them is called "Nuestra Señora de Loreto" ("Our Lady of Loreto"). The main church was constructed then, but in 1650 it was destroyed by an earthquake. We don't know designed the current church, which was constructed during 17 years and was inaugurated in 1668. Jesuits became materialists and cruel persons, their main fortunes were acquired through malicious and dark ways. Due to this situation, in 1767 it was requested the eviction of King Carlos III and the confiscation of all its properties, art pieces and jewelry. The most valuable objects were sent to Spain.

Even though the Jesuits order was one of the last religious congregations that arrived in the city, they could get this privileged place in the main square thanks to the participation of viceroy Toledo himself. Their first church, destroyed by the earthquake of 1650, was erected on the Amarukancha or palace of Wayna Qhapaq. This allowed them to start, on the next year, a more ambitious construction. After its inauguration in 1668, this temple had a great influence on the development of the South-Andean baroque architecture.

Defying the Cathedral

The Jesuit temple significantly establishes a defying counterpoint regarding the Cathedral due to its accentuated verticality, which seems to rise up over the main temple. Despite of the council meeting's protests, the works continued according to the plans. It is said that a Flemish Jesuit, Juan Bautista Egidiano, was the author of the design. At all events, the façade works were conducted by Diego Martínez de Oviedo.

The front

The front-altarpiece skillfully integrates with the rest of the temple. Its towers are divided in two sections, being the lower one free of any decorations, whereas the upper part flaunts different "balconies" with projecting corbels. At the belfry's foot, a great projected cornice joins together the towers and the façade, bending trilobite over its finial. Finally, the upper section of the towers has a square ground plan, its "ox

eyes", the small octagonal cupola that (oración incompleta) and the surrounding pinnacles define the typical profile of Cusco belfries.

The inner part

The inner part of the church has a single aisle, set as a Latin cross, clearly privileging the transept area that is covered by an enormous cupola. Despite of its archaic groined vaults, the general concept of the building is completely baroque and the hewn stone work displayed on its walls is the finest in the entire city.

The main altar

Its magnificent main altarpiece, which is decorated with wreathed columns and is entirely golden, has significant paintings and carvings, such as an old image of the Virgin and a panel representing The Transfiguration, attributed to the Flemish Jesuit Diego de la Puente.

The decoration

We can appreciate a similar sumptuousness in the carved galleries and the remaining altarpieces, some of which belonged to the disappeared temple of Saint Augustine. The temple also exhibits important paintings of Marcos Zapata, such as the well-known marriage scenes between Incan ñustas and descendants of the houses of Loyola and Borja, which can be seen under the choir.

The church was mainly constructed with andesite and it has the most beautiful façade among the churches of the city. At the main entrance we can find the Immaculate Conception Virgin carved in marble and very close to this image there are two external chapels that lean against the main church. Towards the north, is located the Virgen de Loreto chapel (Virgin of Loreto) (since 1894 it is known as the Virgen de Lourdes chapel), which is still used for the worship and is the place where people almost always revere the Señor de Burgos (Lord of Burgos) (which was brought from the Saint Augustine church). To the south is located the Saint Ignatius of Loyola chapel, which was granted to the Qosqo Society of Craftsmen. Inside the church there is a wide aisle, and at one end we can find the High Altar that was carved in cedar with a hybrid style by Diego Martínez de Oviedo and was also totally covered with gold foils by Cristóbal Clemente in 1670. This altar is 21 meters (69 feet) high and 12 meters (39 feet) wide, in the centre there is a sphinx of the Immaculate Conception Virgin and in the upper part there is a canvas representing the Transfiguration of the Lord. Above this image there is a statue of the same Order of an unidentified personage. The main aisle has also a path that communicates the two lateral chapels; there are six altarpieces of divers' style and an entirely golden pulpit.

At both sides of the High Altar there are 4 cedar altars, being three of them very rich. Once the restoration works were finished in 1986, they discovered a pretty interesting subsoil under the High Altar.

At the upper side, around the alabaster (Huamanga) windows there are canvases that represent the life of Saint Ignatius of Loyola, painted by Marcos Zapata and his assistant Cipriano Gutiérrez. Inside the building, at both sides of the main grating there are two canvases representing Saint Ignatius of Loyola. One of them shown him healing sick persons and in the other one he appears triumphant above the heretics and the schismatic persons that caused the religious reformation. Around them there are also two canvases that have an enormous historical value: the one that is located on the northern wall represents the wedding of the Spanish Captain Martín García Oñas de Loyola, who was nephew of Saint Ignatius of Loyola and captured the last Incas of Tupac Amaru, and Clara Beatriz Qoya, daughter of Sayri Tupac and consequently niece of Tupac Amaru. Clara Beatriz was the only inheritor of the Oropesa Marquisate. As a result of this marriage Lorenza Ñusta de Loyola was born, and afterwards she married to Juan Borgia, son of Saint Francis Borgia. This wedding is also represented in one of the canvases. At one side there is a painting of Tupac Amaru and Sayri Tupac, and a painting of Clara Beatriz with native clothes. Behind them there is a possession of native men called "achiwa", which is like an umbrella made of bird feathers of different colors and was only used by the Inca. The canvas placed on the southern wall represents the weddings of Beltrán García de Loyola with Teresa Idiaquez and Juan de Idiaquez with Magdalena de Loyola.

Saint Ignatius of Loyola Chapel

Next to the University we can still find the old chapel building that, since the end of the XIX century, housed the famous Craftsmen Society of Cusco. It is small and austere; it has a single aisle entirely made of stone with a front that is much more sober than that of the main temple. It is currently used as an exhibition room.

To the north is located the Saint Ignatius of Loyola chapel and the building of Universidad Nacional de San Antonio de Abad del Cusco (San Antonio de Abad University). This building was originally used by the Saint Ignatius of Loyola University that was part of the Transfiguration University, created by the Pope Gregory XV in 1621. After the Jesuits' expelling in 1767, the building turned into the quarters of the Army and this is where José Gabriel Tupac Amaru was imprisoned.

University Auditorium

Next to the church, the Jesuits constructed their own Saint Ignatius of Loyola University, which nowadays constitutes the premises of Universidad Nacional San Antonio de Abad.

Paradoxically, both institutions played the lead of an intense rivalry at the end of the XVII century. The stone façade dates of that time and it harmonizes with the temple's façade, but its treatment is much freer. Its constitution, like an altarpiece, is decorated with a profuse boss and with purely decorative blind windows in the second section and the crown. Its ample hall, crowned by a cupola, is unique in its kind in Cusco. The inner cloister, with an austere stone arcade, served as a model to other cloisters of the city. One of the building's attractions is the Natural Sciences Museum that is located there.

The Seminario Universidad San Antonio de Abad (San Antonio De Abad Seminary University) was founded in 1598 in a building located at Nazarenas street (nowadays the Monasterio Hotel). One century later, in 1692, the San Antonio de Abad University was created through a document granted by the Pope Innocent XII.

Chapel of Loreto

On the left side of its church, the Jesuits constructed this Indian chapel between 1651 and 1654. Just like the Saint Ignatius of Loyola Chapel, the Chapel of Loreto is located on a more remote plane and its sober decoration does not compete with the main building. Unfortunately, none of the original decoration has been kept inside of it.

SANTO DOMINGO CHURCH and CONVENT

<http://www.cusco-peru.org/cultural-cusco-churches-cusco-santo-domingo-convent-church.shtml>

Due to the significant participation of the Dominicans in the conquest of Peru, the Spaniards couldn't have chosen a better place to build the church of the order than over the base of the most important monument of the Tawantinsuyo: the Koricancha, which is the largest Indian temple to worship the Sun.

According to the chronicles, it was one of the most magnificent constructions of the Incan Cusco. In the inner part, the precincts' walls, made of finely polished stone, were entirely covered with gold and silver sheets, idols and the representation of the sun.

After receiving the old temple's plot during the lots distribution that took place in October 1534, Juan Pizarro, brother of the conqueror, ceded it to the Dominican congregation. The first prior of the convent was Friar Juan de Olías, who occupied this cloister together with a group of Mexican missionaries.

The construction of this community took several years, until its official consecration in 1633. However, the earthquake of 1650 affected so much the see of Santo Domingo that it was practically impossible to inhabit it, just as it was described by the chronicler Esquivel: "there was no church, cell or cloister left that could serve as a shelter". It wasn't until 1680 that the works to reconstruct the temple and convent, just as they are currently known, started.

The Church

The most amazing thing about this building is the perfect adjustment, achieved by the people in charge of the construction, to the primitive Incan temple, which is clearly reflected in the way that the vault arises taking advantage of the curve of the pre-Hispanic wall. A Spanish arcade, apparently used as an open chapel in some occasions, rises over it. In the rest of the temple, the stone walls' solidity intends to match with the prominence of this old sacred place.

The fronts and the belfry

This belfry was constructed during the 1729-1731 period and it constitutes one of the few significant constructions that date of the XVIII century.

They have a classic style, and it is possible that the two external fronts still keep, to a certain extent, the primitive design.

The purity of its lines does not impede the contrast with the strong unique tower, which reflects the maturity of the Cusco baroque. The wreathed columns, profusely carved, express an intense late baroque and they relate to the Jesús María front that may belong to the same author. With regard to its colonial period, it stands out due to its Renaissance style, the unique baroque tower meticulously carved and an excellent collection of Cusco paintings.

Inside the temple

The layout comprises three basilica-type aisles, being the central aisle pretty much higher than the other two aisles. The bare hewn stone of its walls is accentuated by the almost total lack of altarpieces, which had been replaced by simple niches in most of the lateral chapels. In these chapels we will be able to appreciate some images with a sculptural value, such as the Saint Dominic carved in 1698 by the Indigenous master Melchor Guamán Maita. In the main chapel, also stripped of its altar, it is possible to see a collection of paintings related to the Dominican order that surround the Virgen del Rosario (Virgin of the Rosary) of the Spaniards, main devotion of the temple. The pulpit is baroque, structured by wreathed columns and crowned by the image of Saint Vicente Ferrer.

The paintings that cover the space under the choir are also dedicated to this saint preacher. They are totally adjusted to the curves of the arcs or to the pillars' shape. All these canvases were painted by Marcos Zapata towards the middle of the XVIII century.

The porch

The convent's porch has some eye-catching wall paintings with "grotesque" motives that decorate the cloister vaults of the ceiling.

The astounding main cloister

When you enter to the main cloister you will be able to appreciate one of the largest and most beautiful Renaissance arcades in the entire city. In the middle of the yard, instead of the traditional fountain, there is a rectangular stone tank proceeding from the Incan temple. The main decoration of the convent is constituted by a cycle of paintings about the life of the order's founder, Saint Dominic de Guzmán, carried out by José Espinosa de los Monteros around 1675-79. Many of the characters appear with Spanish-style clothes, according to the prevailing fashion trends in the reign of Philip III.

The sacred temple of the sun

At two sides of the cloister, the colonial construction has been removed to expose the temples that surrounded the main Indian temple. They are magnificent hewn stone constructions, perforated by niches and trapezoidal openings, where people worshiped the moon, the lightning, the thunder and the rainbow.

The museum

It is worth going through the Koricancha esplanade, which has been recently restored, and finishing the visit in the site museum that presents the archaeological findings carried out during the last excavations in the zone.

Both in the sacristy and in the old chapter house they have installed exhibition rooms of the Dominican museum of religious art, which gathers furniture, silverware, paintings, images and liturgical ornaments treasured for many centuries by this convent.

The convent has a very valuable art gallery with canvases of the XVII and XVIII century. Likewise, there are remarkable images of saints such as Saint Juan Masías, Saint Martín de Porras, Saint Rosa de Lima, and the Virgin of the Rosary, among others.

SANTA CATALINA CHURCH and CONVENT

<http://www.cusco-peru.org/cultural-cusco-churches-cusco-santa-catalina-monastery-church.shtml>

Address: Calle Santa Catalina Angosta s/n

Admission time: At the time of Masses

They were built on the old Acllahuasi or "The house of the chosen girls" (the "aallas", women dedicated to special work for the Inca). Its structure shows an architecture style of the last stages of the Renacentist period. The arches in roman style were a classic feature of that period. We can still admire the remains of the original construction inside the building.

Lucia Isabel Rivera de Padilla founded the monastery of Santa Catalina in the city of Cusco in 1601. She has previously had a hard experience when the monastery she founded in Arequipa in 1559 was destroyed by the eruption of Waynaputina volcano. After that, she built the old church that along with the monastery were also destroyed because of the earthquake in 1650. The structure was started one year later and was finished after four short years. The "retablos" found in the church and the monastery were carved by the diverse local artisans in the middle of the XVII century. There are very important pictorial paintings of the Academy of Cusco performed by anonymous artists. Inside the church, there is a collection of Juan Espinoza de Monteros with paintings of Santa Catalina and the "Virgen de los remedios" (Virgin of the Remedies) in the Monastery foundation.

Lorenzo Sanchez Mefecit, another artist of Cusco, painted a big picture of the "Virgen de la Asuncion" (Virgin of the Elevation) and others of "Santa Catalina". The church has also an altar of gold cedar with mixed styles, and in the high central part we find the statute of the "Sagrado Corazón de Jesus" (Sacred Heart of Jesus Christ), Santa Catalina and Santo Domingo de Guzman. There is also a pulpit carved in cedar and other golden "retablos". Nowadays, this is a nice museum of colonial art and it is probably the most complete of the city. In the first room, there are different canvas representing the "Señor de los terremotos" (Lord of the Earthquakes), and some other different anonymous paintings. There is also a collection of paintings about the life and miracles of Santa Rosa de Lima, some others about the life of Santo Domingo de Guzman painted by Juan Espinoza de Monteros and a collection of nine chasubles richly embroidered with needles of precious metal.

History

The Monastery of Santa Catalina dates from its first foundation in 1599 in Arequipa. They established in Arequipa in some houses of Lucia de Padilla, wife of the mayor Jeronimo Pacheco and her daughter Isabel Rivera de Padilla. In 1600, after the earthquake and the eruption of the Omate volcano that destroyed the city, they decided to move to Cusco. At that time, the bishop Antonio de Raya offered them a privilege place in some lands that had belonged to the acllahuasi or the house of the Sun virgins.

Its construction

Twenty four nuns travelled from Arequipa in 1601 and established there. Its first building was finished in 1643 and in the same year, Martín de Torres finished the most joint retablo. But in the earthquake of 1650, the temple collapsed so they had to rebuild it completely, they even changed the display of its base. Many masons and native stonecutters participated in this work such as Mariano y Melchor Huaman. The temple and the internal decoration were finished in 1669 including the "retablos" and the paintings.

Its strict exterior has, as other Monastic churches, two identical renacentist facades and a bell gable as a sort of bell tower. All of this is in contrast to the rich inner decoration, distributed in its unique long nave of pearl-colored floor.

The visual history of Santa Catalina

Along its lateral walls, there is a wonderful series of canvas about the life of Santa Catalina de Siena, work of the half breed painter Juan Espinosa de los Monteros in 1669. Each of the scenes is surrounded by flowers, style that was then copied by some other painters of Cusco. At that time, we also find important canvas signed by Lorenzo Snachez de Medina representing the "Virgen del Rosario" (Virgin of the Rosary) with Dominic saints including Santa Rosa de Lima who was canonized in that time.

Its retablos

Most of the retablos are golden and are part of the best baroque of Cusco. The authors, Pedro de Oquendo and Pedro Galeano, followed the style of Martin de Torres. Its Corinthian columns have the typical decoration of fish scales or diamond extremities in the entire shaft. Among the lateral chapels, the altar of the Sacred Family and the "Virgen de los Remedios" (name of the temple) outstand due to their quality. The magnificent altar joint by Pedro Galeano in 1660 is a piece of work of transition, as it includes Salomonic columns in its second body. Galeano may have been the designer of the pulpit that is in perfect harmony with the retablos.

The choral grille

One of the most distinctive elements of the group is the monumental choral fence that is covering the whole upper part of the church, including the high and low choirs of the nuns. The turned banisters as well as the high tribune and the coronation, decorated with canvas of the Virgin with San Joaquin and Santa Ana, represent a real masterpiece of the joining art.

An art Museum

The interior of the monastery is spacious and has a diversity of rooms that were successively added making a peculiar display, though a little disordered, of the Peruvian monasteries. One important part of the old cloister has been open to the public and turned into a museum. Its room "De Profundis" shows murals recently restored and all the rooms exhibit part of the large Monastic pinacotheca in which the diverse painting of the "Señor de los Temblores " (Lord of the Tremors) are outstanding due to the favourite devotion of the nuns after the tragic earthquake in 1650

SAN ANTONIO ABAD SEMINARY

<http://www.cusco-peru.org/cultural-cusco-churches-cusco-san-antonio-seminary-church.shtml>

Even though today it is a luxurious hotel, the Seminary of Saint Antonio Abad and its church represents one of the most beautiful and best-preserved architectural and religious examples of our city. It dates towards 1598 when the Bishop Antonio de la Raya ordered the foundation of this study house that in 1692 turned into Universidad Regia y Pontificia under the protection of the Bishop Mollinedo.

Location

Exactly as we admire it today, the small church was built according to orders of Mollinedo between 1678 and 1699. Its sober stone façade was built on the quiet square of the Nazarenas as part of a real monumental urban group. Above the façade of disgusting classics there is an elliptic choral window protected by two elegant belfries of one wall. These are almost the same as the belfry of the next chapel in the old house for lay sisters of the Nazarenas in the famous "House of Snakes" for the numerous snakes that were decorating those walls of Inca origin.

A baroque jewel

Nowadays, the entrance of this church is the lateral door leading to the cloister. It has only one nave and a wood cover contrasting the exuberant inner decoration. Everything is in baroque style and golden: the altars, the pulpit, the paintings' frames and the choir tribunes going up to the middle of the nave with its usual carving in baroque style.

The main retablo

It has three bodies and streets. It was carved by Juan Estevan Alvarez in 1698 and the following year Agustín Torres joint one of the lateral altars. Alvarez is probably the author of the pulpit too. Supporter of the cathedral style, he is one of the last representants of this glorious time.

The life of San Antonio

Great canvases of the life of San Antonio Abad are holding over the lateral walls. These paintings as well as their rich frames fit the architectural shapes of the nave. According to Mesa-Gisbert, its construction dates from 1700-1720 and its anonymous author known as the "master San Antonio" should have inspired in some stamps of the famous French carver: Jacques Callot. Among the group, the scene of the temptations of San Antonio Abad is outstanding. There, we can admire the character surrounded by many devils that remind us of the fantastic art of Bosco y Brueghel.

The facade

The facade of the Seminary was carved after the foundation of the university in 1692 y rebuilt in 1736. It has only one body and the vaulted niche of the saint is in the center, at both sides we can see the royal coat of arms of Spain and the Bishop Mollinedo, both carved in stone.

The old room

After the entrance, on the right, we find the old room now turned into the reception lounge of a hotel. Here, there is an exhibition of selected paintings of the Academy of Cusco. Most of them were part of the collection of Orihuela as well as the colonial woodcarvings and furniture. The two cloisters of the Seminary and the adjoining rooms have been restored perfectly. Everywhere, we can find religious paintings and the portraits of seminaries or well-known teachers such as the writer and the sacred speaker Juan de Espinosa Medrano mostly known as the "Lunarejo" (person full of moles)

PISAC

<http://www.cusco-peru.org/cusco-surroundings-cusco-pisac.shtml>

Just like all the cities in Cusco, Pisac is an important archaeological center that encompasses the mystical Incan constructions, in contrast to the natural richness of the Urubamba Valley

Although it is very difficult to know the autochthonous names of Cusco's ancient cities, Pisac is one of the few examples of original names that are known. It derives from the Quechua word "pisaq" or "p'isaqa", which means partridge (a gallinacean type that abounds in this area). According to the traditional Incan architecture, the cities were built based on figurative designs of animals. Pisac was partridge-shaped, as we can tell from its name.

Location

Pisac is a district of the Calca province, located at 32 km to the northeast of Cusco. Its altitude comprises 2,950 m.a.s.l.

Mythology

Pisac does not escape from the famous Incan legends. The city presents a statue that has a very particular legend.

It is said that the cacique Huayllapuma had a daughter called Inquill; who had to get married with the man that could be able to build, just in one night, the bridge over the Vilacmayo River (a very significant bridge for the defense of the place). In spite of the hard work, Asto Rimac, a handsome prince, decided to take the challenge and ask for the hand of the princess. The authorities of the place arranged everything so Asto Rimac could start the work; meanwhile, the princess had to climb a hill without turning round; because, otherwise, she and her fiancé would turn into rock. Almost at dawn, the prince finished the work but Inquill could not stand any longer and turned round thus becoming a stone figure up to now.

PISAC Old Town

<http://www.cusco-peru.org/cusco-surroundings-cusco-pisac-old-town.shtml>

The Archaeological Pisac is one of the most beautiful monumental centers; since it combines the landscape with the impeccable finishing of its constructions.

It is located at the highest hill of the city, on a dry and rocky surface.

Together with Cusco and Piquillacta, Pisac closes a 33-km equilateral triangle, precisely planned to protect the city from possible attacks of the Antis (Anti derives from "Andes" or mountains), who were their worst enemies.

Just like it happened with other Incan constructions, some investigations state that it was not a fortress but a "royal hacienda", property of Inca Pachacutec. This hacienda was composed by cultivation terraces, household and ceremonial structures and aqueducts that provided the water for the agricultural development.

Some constructions, distributed along Pisac Old Town or the Archaeological Pisac are:

The wall

The wall does not have the conception that we currently know. Formerly, it corresponded to a continuous edification that was not necessary for the entire city. Some of its stones have amazing sizes.

It gathers five doors, located at the eastern part of the complex. The only door that has a lintel is called Amaru Punku, which means "Door of the Serpents".

The tunnels

There are two tunnels located at the Pisac hill. The first tunnel extends to the north and is 16-meter long; and the second one goes up the top and it has three meters and is much narrower.

The Incan bridge

The Pisac complex had more than one suspension bridge. One of them was located at Paccháyoc, where its bases still remain. The other bridge was located at the western side of the Intiwatana.

The stockrooms

They were constituted by six colcas with equal sizes that were arranged in lines. These structures must have been used as Incan stockrooms. They are located 200 meters away from the Intiwatana and it is necessary to pass through abysses so as to reach them. The path that connects these two colcas ends up in a 102-step grand staircase parallel to a water channel.

The sets of cultivation terraces

The agriculture was the main economical activity of Pisac. Therefore, there are 16 agricultural sectors that have complexes and advanced cultivation terraces. Five of these sectors are separated by walls.

Pisac is the place with the greatest stylistic variety of cultivation terraces. It has at least 14 different shapes of cultivation terraces that had been constructed from 2,995 to 3,450 m.a.s.l.

The Incan cemetery

It is located in front of the archaeological complex, only separated by the Quitamayu stream. It is an astonishing place located in a slope, belonging to the Linliy Mountain, which is almost one hundred meters high and has several kilometers of extension.

This cemetery is known as "Tankanamarka" (tankay= to push, marka = place; it can be translated as "launching place"), and must have contained 10,000 graves approximately.

The Incas believed in reincarnation, that is why they kept their mummies with all their properties and the necessary food (provisions) for their new life. When the Spaniards found out about this tradition, they did not hesitate to violate the graves and plunder the jewels, metals and precious stones. Nowadays, we can see small holes as a result from the profanations.

The "city" of the towers

Pisac is also known as the city of the Towers, since it has more than twenty towers, constructed on the projecting edges of the mountain, with a perfect finishing; very similar to the constructions of Sacasyhuaman. The precise function of them is still unknown; we can only say that some of them would have been associated to the water channels that existed in that place.

The Enchanted Ñusta

It is a place situated in the road to the south, which leads to the Ñustayoc hill. It is the statue of a woman that carries her knapsacks on her back. According to the city's tradition, this woman is Inquill, a princess that could not stand the curiosity to see the finished work of her fiancé.

Tiyanacuy

It is a small-size community located in the lower part of the city. Here you will be able to find a perfect seat for two persons, sculpted in stone.

Calla Casa

It is a group of buildings with irregular designs, rustically made, which are placed on the mountain top. It is difficult to get there and it is necessary to pass through some dangerous cliffs.

Písaca

To the southeast we can find another set of rectangular edifications, arranged in a curve, whose walls are considered to be the most perfect of the entire Tawantinsuyo. Near to this precinct, there is a construction

that is similar to a vantage point. From here you will have an excellent view of the valley and the current town of Pisac.

The Intiwatana

This is one of the most significant ceremonial monuments of Pisac. Its location, from the mountain's upper part, domains most of the valley.

The type of its walls is "sedimentary" (the polished-stone couplings have a rectangular external surface). Its sides are carved with hand shapes enclosed in a semicircle; that is why it is considered as the Sun Temple of Pisac.

In the middle of the building there is a stone-carved altar also known as Intiwatana, which must have been used to watch the sun movements and as an altar to celebrate religious ceremonies: the worship of the god Sun or the sacrifices of animals. Likewise, to the west of the altar, people found a carved stone that could have served for astronomical observations. This stone represented the three Andean phases of the religious world: heaven, the earthly world and the subsoil.

The altar has the shape of a letter D, and it is perfectly positioned with the sun rise, in the solstice of June. It is only possible to see a similar rock in Machu Picchu.

The fountains and water channels also characterized this zone. It is said that they had strictly religious aims due to the carving quality. The main fountain is located 20 meters away from the central door of the complex, and it has two engravings by way of handles that could have been used for ceremonial baths.

During the Incan times, the Urubamba River was canalized from Pisac to Ollantaytambo with agricultural aims. Currently, there are many vestiges of the channel's lateral walls, and the Urubamba River flows in straight line 3.3 km away from the city.

AGUAS CALIENTES

<http://www.cusco-peru.org/cusco-surroundings-cusco-aguas-calientes.shtml>

Cusco offers travelers Aguas Calientes, a district located at 110 kilometers from the world navel and only 2 kilometers before the train station of Machu Picchu. Aguas Calientes has a well-developed infrastructure to attend tourists, who converge mainly between May and November.

The temperature of its waters average 42 degrees and its attributes include the treatment of rheumatism and illnesses related to kidneys and joints.

Tourist Attractions:

Historic Sanctuary of Machu Picchu

Phone: (51-84) 21 1067

Visiting Hours: From Monday to Sunday, 6:00 to 17:30

With more than 35 thousand hectares, the Incan citadel of Machu Picchu is acknowledged as Cultural and Natural Heritage of the Humanity by UNESCO. It is known that the sanctuary has more than 300 species of birds and near 200 types of orchids recorded. There are different ways to access the citadel, both through the Camino Inca (Incan Road), which implies a route that may last hours or days- depending on the departure point- and by train or helicopter. The train journey lasts about four hours and includes appreciating a wonderful landscape.

However, the train carriages do not have accessible restrooms. The fastest and most comfortable alternative is going by helicopter, which can be accessed from the Aeropuerto Internacional Velasco Astete del Cusco (Velasco Astete International Airport) (see "Other Services" in the section of Cusco). We recommend you to enter through the rear ramp of the airship. These two alternatives, train and helicopter, are complemented in Aguas Calientes with the service of buses, which travel through the Hiram Bingham road, named after the explorer that discovered the so-called "lost city" in 1911. Buses do not have a special system for wheelchair boarding, for that reason, the persons must be carried from their own chairs to the vehicle seat. Although the Historic Sanctuary of Macchu Picchu cannot be modified since it is Heritage of the Humanity, it is possible to go through great part of the place by means of the assistance of a duly qualified team of persons (see "Other Services" in the section of Cusco). Do not let the thirteen staircases leading to the ticket office discourage you, since many parts of the archaeological site are only accessible ascending numerous stone staircases. A considerable part of the route is facilitated by the existence of cultivation terraces, which are constructions with agricultural aims that belonged to ancient Peruvians.

One of the most amazing areas that can be visited with the assistance of trained personnel is the Temple of Three Windows, which offers a panoramic view of the place. In the external part of the archaeological site we can find the Machu Picchu Sanctuary Lodge hotel, which offers restaurant and coffee house services. The restrooms of the Sanctuary are not accessible. There is a medical center for visitors beside the ticket office. We highly recommend you to visit this archaeological site. Due to its great historic and natural beauty it is considered one of the wonders of the world.

Thermal baths

At 800 meters from Aguas Calientes there are thermal baths that are supposed to have medicine attributes. Precisely, the town was named after these sulphurous waters originating from the rocky underground. In order to get there, there is a steep path with staircases bordering the hills. The road starts in the town of Aguas Calientes and along this path with a pronounced slope there is a series of pubs and delightful restaurants in where you can enjoy the hospitality of local inhabitants and talk to visitors from all over the world. Due to the difficult access, the thermal baths are not accessible for people with restrained physical mobility, but the persons with other type of disability can enjoy a comforting bath in high-temperature waters that arise from the surface in a natural way. The Municipality of Aguas Calientes had built special environments such as dressing rooms, restrooms and coffee houses for your convenience.

Handicrafts Market

It is a local market in where you will be able to buy all kinds of handicrafts and hand-made products. There is enough space among the sale stalls and their height will enable you to appreciate the articles on sale from a wheelchair comfortably. The ground surface is of unsettled soil.

OLLANTAYTAMBO

<http://www.cusco-peru.org/cusco-surroundings-cusco-ollantaytambo.shtml>

Location

This complex is another national archaeological park located at the traditional district of Ollantaytambo, which belongs to the province of Urubamba, on the western side of the Urubamba Valley at 93 km (50 miles or one and a half hour journey approximately) to the northeast of Cusco through the asphalted road Chinchero - Urubamba.

It is a typical town of Incan origin, and it is located at 76 km of Cusco by road (Chinchero-Urubamba) and at 68 km (42.2 miles) by train.

It is located at a height of 2,700 m.a.s.l. (8,856 feet). Both the design and the foundations of most of its constructions correspond to the Incan times. This set was a strategic military, religious and agricultural center.

Historical data

The origin of the name has several approaches. According to the Aymara language, Ollantaytambo derives from the word ulla-nta-wi, which means place to look downwards; the word tambo, is added subsequently. For Quechua language, the name derives from the word Ollanta (which is the name of an Incan Captain whose story is known through literature) and the word tambo, a Spanish derivation of the Quechua word tampu; which means city that offers lodging, food and comfort to travelers.

Testimonies of Ollantaytambo inhabitants give an account of the conflicts and aversions related to the Incas. The history says that the inhabitants refused to pay the taxes imposed by Inca Pachacútec, and this is why they were murdered with impunity.

With the victory, Pachacútec claimed the territory as his and ordered the construction of the magnificent buildings that, even today, the city flaunts. To this end, he used the manual labor of Collao, an area near the Titicaca Lake and Tiahuanaco, which also was defeated. The children of Chuchi Cápac, defeated Collao general, had to work as the fortress builders, but they did not wait too long to rebel and run away. Finally, after many confrontations and a great bloodshed, the Inca Pachacútec got to control the violent rebellion.

Ollantaytambo got engraved in the world's memory thanks to a written drama of the XVI century, represented on the theatre in 1780. The story narrates the conflictive love between general Ollanta and Cusi Coyllor, Pachacútec's daughter. Ollanta distinguished himself from other generals of the Empire for his braveness and great ability, but he had to run away from the city disappointed because he was not able to love a girl that did not belong to his social class. Once he was far away, Ollanta encouraged his population to rebel against the imperial army, causing a war that lasted an entire decade. Finally, our hero was captured due to the betrayal of captain Rumiñahui and taken to Cusco before Túpac Yupanqui; who, after hearing the story, decided to release him and accept him as the partner of her sister.

Another part of the history of this city was starred in by the indigenous resistance of Manco Inca, who, after keeping Cusco enclosed by months and on seeing that his strengths decreased, retreated to Ollantaytambo. The city offered him the perfect defense since it was covered by eleven graded cultivation terraces that enabled him to attain the victory in front of the Spaniards.

The city was the setting for the worldwide meeting of natives, which denominated it Worldwide Capital of the Indians, a decade ago.

Description

Ollantaytambo is another national archaeological park to which different functions had been ascribed. Just as Sacsayhuamán, it is considered a military construction strategically located to protect the city from possible invasions of forest, religious and agricultural ethnos. It is also said that it was constructed to set up roads towards the Antisuyo.

However, what nobody can deny is that it was a very fortified city, surrounded by a wall with pukaras or fortresses. The main fortress is called Royal House of the Sun; but we can also find the Choqana and Inkapintay Fortress on the left side of Urubamba River.

It is one of the few cities that still maintain the urban-Incan planning. It is divided in two parts by the Patacancha River; the first one (to the east) has an octagonal shape with blocks of different sizes, and the second one (to the west) has a ceremonial character, and is the place in where the square Mañay Racay, also known as Aracma Ayllu, is located.

The first part of the town has a grid-shape design, with narrow streets that open up towards the Urubamba River. Each block or square is composed of a group of houses that share the same door to the middle yard. They are made of edged stones jointed with rubblework clay mortar and adobe covers.

Originally, they used a suspension bridge made of braided ichu or maguey fibers that had to be renewed every year. Nowadays, the bridges that cross the river are built on two huge pebbles and are made of large stones.

The agricultural activity of this area benefited from the brook of Patacancha, a place that had huge cultivation terraces that, currently, are damaged and abandoned.

The ceremonial sector was mainly devoted to the worship of "Unue" or "Yaku" (water deities). For this reason, there were a series of fountains that were used to this end, such as the Baño de la Ñusta (Bath of the Ñusta), which is one of the carved-stone fountains made of a single granite piece of 1.30 meters high and 2.50 meters wide. It is one of the most known fountains and the water still flows inside it.

This place is constituted by a small plain that leads to a huge hill in whose sides there are various archaeological monuments. The main monument is located at the top and is known as the "Fortress" or "Royal House of the Sun".

The noble class that inhabited this place had at their disposal a wide urban sector that surrounded a square and especially a Kallanka, which was an amazing building with astonishing dimensions. The royal palaces had wooden doors, with many rooms around a central yard. The lowest part of the buildings is original and is made of pirka, covered with clay.

A half kilometer away from the main road, on the wall surrounding the city, we can find the old main door of Ollantaytambo, called "Llaqta-Punku" or Grating of the Town.

To the west of the square we can find the terraces that were used with two purposes: cultivation and to stop the corrosion of the most significant temples of the area.

The cultivation terraces oriented to the square side are located to the right. The upper group of these cultivation terraces stands out due to their finely carved stones as well as their excellent assembly. The last cultivation terrace contains the ten-niche precinct also called the Temple of the Ten Windows, and the Monumental Front, whose function is still unknown.

Another remarkable monument is the Inca Misana, an aqueduct carved on the stones of the mountain, next to a liturgical fountain, small staircases and niches of false openings that constituted the places used by the Inca to address to the people.

The privileged position of Ollantaytambo enabled the existence of other small buildings strategically located at high angles of the mountains so as to control the people movement in the valley.

The Fortress or Royal House of the Sun

The Royal House of the Sun, and the entire Ollantaytambo, still maintains the urban planning design of the Incan times. Its rooms still remind us of the presence of Manco Inca, who confronted Hernando Pizarro in 1537, during the indigenous resistance that lasted many more years.

The function of this precinct is still discussed, just as in the case of Sacsayhuamán. Some believe that it was a fortress destined for the protection of the city of Cusco; but others agree with a less martial function given the features of the place: cultivation terraces and finely carved walls on slopes.

The fortress or Indian temple is composed of seventeen superposed terraces made of large carved stones of red porphyry (pink granite) of over 4 meters high, 2 meters wide and two meters deep.

The walls of the Royal House of the Sun have an internal inclination and the main one is composed of six large-stone blocks with small-stone couplings that are part of the Main Altar.

It is believed that the main hewn stone, to build the place, was Cachicata, located at 6 km on the left side of the Vilcanota River. Rocks were partially carved at the hewn stones and then they were brought down to the valley. However, some of them, known as "tired stones", did not get to their destination.

The way in which the huge stones were transported from long distances is always impressive. In this case, they required an artificial channel parallel to the river so as to transport the immense rocks and take them up through a steep slope. They used instruments such as log rollers, rolling stones, camelidae-leather ropes, lever, pulleys and the strength of thousands of men.

It is believed that one of the backgrounds of this kind of construction is the architecture of Tiawanako, which could have been brought by the Collas from the region of the Titicaca Lake, since in the external surface of the room, to the southern edge, there are three carved symbols that belong to the pre-ceramic culture: the "Hanan Pacha" (The Heaven), the "Kay Pacha" (The Earth Surface) and the "Ukhu Pacha" (The Underground). But the Incan particularities are differentiated due to the use of couplings and finely polished external surfaces that were even used as mirrors.

If you want to know the mysteries and the strength of its walls, you can enter to the fortress through a grand staircase made of stone (journey of 15 to 20 minutes) that will lead you to an esplanade and an arcade facing the Mañay Racay Square.

Although some authors consider that the construction was not finished due to the stones that were left in the middle of the road, others believe that, due to the quality and some features of the work, the temple was finished when the Spaniards arrived and the so-called "tired stones" were destined for other similar edifications.

Inca Huatana

It is located at the upper part of the Temple of the Sun, on an almost vertical slope. The Inca Huatana or Intihuatana is constituted by a wall with high niches, on whose sides there are security holes of up to 80 cm. deep. In front of them, there is a structure suspended over a cliff, which makes us suppose that it was used to torture and execute war prisoners or malefactors. Even though the astronomic observatory functions is the most accepted theory.

The Pincuylluna center

Pincuylluna, which means "where the pincuylo (wind instrument of Incan origin) is played", is located to the western of the Patucancha River, in front of the Temple of the Sun. It is an architectonic complex composed of buildings with three identical superposed blocks.

The base of the blocks is rectangular; it has six windows on the façade and six more on the wall that faces the hill, providing adequate ventilation and lightning.

They are considered the most interesting colcas (agricultural stockrooms) of the Sacred Valley, because, to the left, it is possible to see a gigantic stone block that represents the face of an Inca for the villagers.

If you want to visit the place you must know that the journey lasts three hours on foot.

Site Museum

The museum is a creation of the Andean Center of Traditional Technology and Culture of the Communities of Ollantaytambo (CATCCO, in Spanish), and we recommend you to visit it because it presents the history of the region in a didactic and modern way.

It has five rooms on the second floor of a big rambling house, on an ancient Incan square, which enables the visitor to know more things about the history, archaeology, architecture, handicrafts and beliefs of Ollantaytambo inhabitants.

Besides, this association organizes long walks through seven ancestral routes: Yanacocha, Pincuylluna, Pumamarca, Huílloc, Páchar, Cachicata and Ollantaytambo. The long walks take from three to seven hours and have tourist guides.

URUBAMBA VALLEY: The Sacred Valley - (2,850 m.a.s.l.)

<http://www.cusco-peru.org/cusco-surroundings-cusco-sacred-valley.shtml>

If there is something calling the attention of Cusco, it is its contrasts. When you are at the centre of the city, walking by its mischievous and mysterious narrow streets or sitting in the square, it is hard to imagine that the impressive adjoining mountains can shelter such beautiful landscape similar to the one in the Sacred Valley. Few places in the Tahuantinsuyo could compete against the beauty and wealth of this valley, for this reason it received that name. Its character of "sacred" has survived the pass of the time and that magic continues seducing the visitors. Most of them, surrendered to its enchants, decide to leave everything and settle under the shadow of the eucalyptus, at the bank of the Urubamba.

The Sacred Valley has become one of the most important tourist centers in the country. Apart from the incomparable historic wealth, the area of Urubamba offers infinite possibilities to enjoy for the tourist: trekking, thermal baths, rafts or kayaks rides, paragliding or hang gliding, horsing, climbing, etc. Lately they have developed participating tourist programmes inviting the visitor, for instance, to work in a terrace or collect salt from the salt pools. The Sacred Valley also holds two of the most important handicraft markets of Cusco: Pisac and Chinchero.

Although the tourist infrastructure has grown meaningfully in the last years and today we offer a variety of accommodation and restaurant facilities, the valley has managed to preserve its natural enchanting peace.

Geographic Location

Yucay was the name the Incas used to call this fertile valley, one of the most fertile of Peru: its Sacred Valley. They used to be lands of the Inca and his successors, then the Spaniards recognized their possessions thanks to royal favours that granted those territories to the Inca nobility. As a prove of those times we find the palace of Sayri Tupac in Yucay.

The Sacred Valley of the Incas spreaded along the Vilcanota river (the same that going down takes the name of Urubamba or Willcamayu). It embraces the area included between the towns of Pisac and Ollantaytambo.

It is located at 15 km to the North of Cusco. It is at 27km (1 hour) to the Northeast of Cusco and you can get there through an asphalted road in good conditions.

It is possible to get there by two asphalted roads: the first one is the most used leaving from Cusco by Chinchero (28km) to Urubamba (57 km).

The second important road leaves from Cusco to the northeast towards Pisac (32 km) going next to the Vilcanota River up to the village of Calca (50 km) exactly in the heart of the valley. The first route is the most used due to its excellent conditions.

In the valley, there are a series of picturesque towns (some of them has beautiful colonial churches), terraces and other archaeological remains, as well as the most famous corn in the world. Due to all these and its exceptional climate, the Sacred Valley has become a destiny no one visiting Cusco can miss.

Among the tourist activities we have the andinism practised in the snowy peaks of Chicon, Vtkav Willca (also known as Puma Sillo or Veronica), Piturisay, Sawasiray, Terijway and Sunchobamba (all of them are tops of the chain of mountains of the Vilcanota up to 5000 meters high), trekking, rafting (along Pisac, Calca, Huaran, Ollantaytambo), horsing and mountain riding. In the town along the valley there are numerous hotels and restaurants of typical food. We recommend to spend the night in one of them.

Climate

It is at 2800 m.a.s.l.. Its climate is not so severe. As in any other place on this altitude, its climate has two seasons: rainy and dry season. Rainy season is between November and April. The heavy rain may fall suddenly and unfortunately we can not always enjoy a blue sky. But rainy season has its advantages as the hills are covered with thick grass and it is warm.

During dry season the colors of the sky are brilliant but air is dry so the skin seem to break. Generally nights are cold and it can be freezing at dawn. The sky full of stars becomes a real show this time. Talking about its climate, the Sacred Valley is the perfect place. The ancient Peruvians realized that so they came here to get

cure from their diseases. Despite of reaching high temperatures and being in an area full of vegetation, there are not mosquitoes in this valley due to its altitude. Besides, we hardly get hot as there is always cool air.

The road

If you go by car, it would be useful to know that going out by Saphi street you will find San Carlos petrol station where you can get gasoline and check your car comfortably.

Following the route you will arrive at San Cristobal, and if you have time you can visit the church and admire the most popular protecting saints in Cusco. The road to the Sacred Valley is the same to go to Sacsayhuaman so if you desire and have time you could also visit the ruins of this complex: Quenco, Puca Pucara and Tambomachay.

The amazing detail of the road is that leaving Cusco means going up to the mountains surrounding Cusco so you will admire the most impressive sights of the city, especially at sunset and sunrise. If light and time are favorable, you can take magnificent photos. From these points it is possible to admire the layout of the city carefully. When days are clear, the contrast between the red roofs and the blue sky is spectacular.

By the path of the eucalyptus.

The path is nice even though it is a little curved. Along all the way, the eucalyptus and the genista go with the traveler. Four minutes far from Tambomachay and we get to the creek of Corao and the belvedere, from where we admire the valley. Every Tuesday, Thursday and Sundays they celebrate a handicraft fair there.

The belvedere of Taray

It is the first place from where we really admire the valley. Its landscape, as it is usual in Cusco, amazes the traveler who after long curves and ups will suddenly discover the hills and the entire valley. The Vilcanota or Urubamba river is running down there. From this belvedere you can take excellent photographs. We can usually find some children waiting the arrivals of tourists anxiously in order to offer them the brochures that "they make by themselves" and they are very proud of them. The path continues and if we are lucky we could admire the snowy peaks of Huancalle and Pitusiray.

The breast of the Ñusta

The first place we get is Pisac after going down the hills and passing Corao and Taray. From the middle of the hill we will have a perfect view of the town. If you have time and a private car we suggest you stopping there so you can take good photographs and observe the layout of the town. To the left of Pisac, at the feet of the mountains we can observe the "breast of the Ñusta": four rows of terraces that seem to be the breast of a woman. As people say, it could have been a homage to the fertility. Although these terraces are very close to the town they have remain untouched up to our days.

URUBAMBA - 2871 m.a.s.l.

It is a town of Inca origin at 76 km far from Cusco by Pisac, and at 57 km (45 minutes) by Chinchero. It is located in the same heart of Urubamba valley and it is surrounded by beautiful landscapes outstanding the snowy peak of Chicon and the fields. It was one of the main agricultural centers of the Inca empire. In its square we find a colonial church. There are several hotels, taverns and rural restaurants.

SACSAYHUAMAN - (3,600 m.a.s.l.)

<http://www.cusco-peru.org/cusco-surroundings-cusco-sacsayhuaman.shtml>

Sacsayhuamán is one of the most amazing Incan constructions for tourists. Its Quechua name means "satisfied falcon", it was the falcon that guarded the capital of the empire, since it was possible to overlook Cusco from the hill in where it was erected. If, as it is known, Cusco was designed with the shape of a lying puma, Sacsayhuamán would be its head, and the Coricancha would correspond to the feline's genitalia.

It is said that the work was started by Pachacútec and continued by Túpac Yupanqui, even though some chroniclers state that it was Huayna Cápac who gave it the final touch. Inca Garcilaso de la Vega says that Apu Huallpa Rimachi was the main architect, and that Inca Maricanhi, Acahuana Inca and Calla Cunchuy successively took control of the works.

Its construction took over seven decades and required the work of 20,000 men approximately, both for the foundations and hewn stone works, the transportation of materials, carving and stones setting. Hewn stones could have been located at Muina, Huacoto and Rumicolca, 20 kilometers away from Cusco, and at closer places such as Sallu, Rumi, Chita, Curovilca and Viracocha. Some of its external walls exceed the 9 meters of height and 350 tons of weight.

Spectacular fortress built with huge carved rocks jointed with absolute accuracy, this astounding sample of the Incan military architecture is, undoubtedly, the greatest architectonic work of the Tahuantinsuyo. But, in addition, it proves the undeniable firmness of the great administrative capacity of the empire and its powerful logistic system capable of mobilizing and organizing such a work.

It is located 2 km away from the city of Cusco, that is, 10 minutes by car. As of the Spaniards arrival its aspect has changed a lot, since this fortress was used as a hewn stone to build the colonial Cusco.

Location

The architectonic complex occupies the edge of the northern slope of the city of Cusco. The southern side of the building was enclosed by a polished wall of almost 400 meters long. The eastern and western borders of the temple were delimited by other walls and cultivation terraces. The main front of the building faces the north and is protected by a formidable system of three cultivation terraces. They are supported by zigzagging walls constituted by large stones that amazed their first visitors and which even now surprise us. According to Inca Garcilaso, these walls were constructed to demonstrate the Incan power.

From Sacsayhuamán, it is possible to obtain a spectacular view of the Sacred City and its surroundings. Besides, you will be able to distinguish summits such as those from the Ausangate, the Pachatusán and the Cinca, places that are believed to be inhabited by apus or powerful spirits that govern the mountains.

Description

Sacsayhuamán is usually described as a fortress because it is practically enclosed by three slopes. However, the fact that the Incas constructed a fortress in that place is unusual, since at the moment of its construction they did not face major threats. Its shape and location would have responded to other principles, such as the harmony between architecture and landscape. Current investigations suggest that it must have been a temple devoted to the worship of the Sun, for which both the construction and the surrounding landscape were important.

The main wall is formed by stones that reach the 5 meters of height and 2.5 meters of width and that can weight between 90 and 125 metric tons. Moving these stones was a real feat, as well as the perfect adjustment among them and the attention given to the bosses' curvature.

The doors

There were several doors communicating the different levels through staircases. Garcilaso had left the names of three of them. The Tiupunco door (tiu means door) was placed at the wall with the largest stones, the second door was called Acahuana Puncu and the third one was Huiracocha Puncu (in honor of god Huiracocha). Juan Pizarro (brother of the conqueror Francisco Pizarro) died in one of these doors from a blow with a stone when the Spaniards attacked the rebel forces of Manco Inca at the enclosure of Cusco.

The towers

The main precinct is constituted by three large terraces, whose plots were leveled and flattened. Several buildings and three big towers were erected on these terraces. To the east side was located Paucar Marca (Precious Precinct), in the middle was Sallac Marca (Precinct with Water) and to the west we could find Muyu Marca (Round Precinct). The first two had rectangular floors. Today there are only a few slight vestiges of the first tower, and only the foundations of the second tower could survive. These remains indicate that it was a rectangular-floor construction. This tower ended up in a triangular ceiling with great slant.

Muyu Marca Tower - The tower of Cahuide

It is a cylindrical tower that, thanks to the excavations carried out and the information comprised in the chronicles, can be imagined. It would have been a building with 4 superposed floors. The first body would have had a square floor; the second would have been cylindrical; the third would have had also a cylindrical shape. The successive would have formed circular cultivation terraces with decreasing width, being the widest of 3.6 m and the narrowest of 3 m. The tower would have ended up in a conic ceiling. Muyu Marca must have reached a total height of 20 meters. It was as amazing work that generated the admiration of several chroniclers. The Spaniards destroyed it, in spite of the protests both from Cieza and Inca Garcilaso.

Not only was Muyu Marca a building with an exceptional design, but it also had a great historic value. It was the place in where took place the strongest indigenous resistance against the Spanish conquerors during the rebellion of Manco Inca. Titu Cusi Huallpa (also called Cahuide) jumped from its highest part in order to avoid being captured by his enemies.

The terraces

Currently there are only a few remains of the ancient constructions erected on the terraces of the complex. Between the Muyu Marca and Sallac Marca towers there was an enlarged square from where, nowadays, there is a magnificent view of the city. On the highest terrace of the set there are a circular well that could have been a reservoir, and a one-door rectangular building. On the southeast end of the complex it is possible to see curve cultivation terraces and two alignments of colcas. In general, in the entire complex there are traces of an excellent system of water supply for its inhabitants, as well as a drainage system for rain water.

Royal House of the Sun

There are abundant descriptions of the richness of the inner decorations, as well as of the high quality and the large amount of objects that were kept in the ancient stockrooms of Sacsayhuamán. This would confirm that it was a temple devoted to the sun worship or, as Cieza de León called it, a "Royal House of the Sun".

How to get there

You can go to the archaeological park both on foot and by car. If you want to get there on foot, journeys last 30 minutes approximately, whereas it will take you 10 minutes if you go by car. There are several routes. As of the Main Square it is possible to go up through Cuesta del Almirante, Plateros or through Suecia. All these streets end in the circumvallation that leads to Sacsayhuamán. Through it you will get directly to the entrance control booth of the archaeological park.

The route on foot

Through Cuesta del Almirante

If you go up through it, it is necessary to continue through Córdoba Street until the Small Square of Nazarenas, in this place you will take Nazarenas Street and then Pumacurco up to the end. Another possibility is to go through Cuesta del Almirante until Ataud Street and continue through this street and then all the way through Huaynapata. This route takes about 30 minutes.

Through Suecia

Another pedestrian route starts in Suecia Street, turns in Huaynapata and follows through Resbalosa until reaching Circunvalación.

Through Plateros

If you walk through it you must continue through Saphi and then take the steep Amargura slope that leads to Circunvalación.

By car

If you rather go by car, you can take Suecia Street up to Salesiano School, turn to the right and continue through Circunvalación.

You can also start in Plateros, continue through Saphi Street and finish in the circumvallation.

A taxi to Sacsayhuamán, without including the tour, might cost 5 soles. If you prefer, you can take the buses of Puputi Street that go to the Sacred Valley, the ticket costs 3 soles.

The Fortress of Sacsayhuamán

One of the greatest lithic monuments of the Incan architecture was, undoubtedly, Sacsayhuamán, which was actually a Royal House of the Sun. In the Incan Cusco there were various Royal Houses of the Sun, Coricancha and Poquencancha were some of them.

The Royal Houses of the Sun were privilege complexes, like small cities inside the city of Cusco, in where people worshiped the general god, the Sun, as well as other minor and particular gods.

These worship centers had their own delimited territory domains, with water supplied through underground channels and lots of houses. Some writers suppose that they belonged to one or several lineages or royal Panacas.

Sacsayhuamán is composed of colossal stone blocks, prodigiously jointed, which guard the city of Cusco.

During that time, its immense stone walls amazed the Spanish conquerors that had just arrived, who called it "Fortress", according to their notion of cities and military constructions; however, for the Incas and their particular conception of the world, Sacsayhuamán was much more significant. The bastions, large fortified towers, houses, Indian temples, stockrooms, roads and aqueducts making up this impressive Incan construction constitute a proof of that.

Waldemar Espinoza Soriano, profuse investigator of the Incan society, says that Sacsayhuamán is popularly called "fortress" even though, as Cieza de León states, "it was a temple devoted to the worship of the Sun".

Among the chroniclers that describe Sacsayhuamán as Royal House of the Sun we can mention the following:

* Garcilaso de la Vega, who sates in his "Comentarios Reales" ("Royal Comments") that people from Cusco knew, from ancient times, that this architectonic complex was actually a Royal House of the Sun. In chapter VI of his Seventh Book he says: "...an Inca with royal blood left the fortress as a messenger of the Sun...he left the fortress and not the Temple of the Sun, because it was said that he was a messenger of war not of peace, that the fortress was the House of the Sun".

* Pedro Cieza de León, Spanish chronicler of the conquest times, states in his book "El Señorío de los Incas" ("The Incan Dominion") that the Royal House of the Sun was located to the north of the city of Cusco, within a collado."

* Martín de Murúa, also a Spanish chronicler, states that Sacsayhuamán "...was, at first, the House of the Sun, and nowadays it is only a witness of its ruin".

"It is undeniable that no other archaeological structure of America is as impressive as Sacsayhuamán. No matter how informed the visitor is, the scene always outshines the imagination". (Alden J.Mason).

Location, Geographic Aspect

Sacsayhuamán is an archaeological complex located to the north of Cusco's main square, 1 km away from the colonial parish church of San Cristóbal.

From time immemorial, the Valley of Cusco or Watanay, as it is also called due to the river with the same name that crosses the area, was not constituted by the fertile lands that would characterize it afterwards, instead, it presented three lakes successively distributed along 30 km.

For that reason, it has been determined that the geologic formation of Yunkaypata (where Sacsayhuamán is located) has 80 million years approximately and has a sea origin, since it has fossilized remains of sea urchins and other organisms of that habitat. The erosion and environment wore away the large masses of stone lime of the place. Precisely here there is a sort of granite slide called "Rodadero" ("Shaped to Roll"); whose polishing is a result from the seismic action of the fault in which it is located.

Rock types such as the andesite, which can be found in the constructions of Sacsayhuamán, does not belong to that place, but they were probably transported from Waqoto and Rumicolca, located at more than 38 km from there. Nonetheless, just as the Peruvian archaeologist César García Rossell states, it will always be an enigma to determine the place or places from which the huge stone blocks were taken to the top of the hill, and the technical means or the dragging equipments, cords, ropes and hundreds of arms used in this task.

Name

Sacsayhuamán or Saqsaywaman is a compound Quechua word that derives from Saqsay: be satisfied or satiated, and waman: falcon. According to some researchers it means "Get satisfied falcon". The falcon is a bird of prey that abounds in that area, and it was the protector entity of the first Inca Manco Cápac.

Others state that the monument is actually called Saqsawaman, which means marbled falcon.

TAMBOMACHAY OR BATHS OF THE INCA

<http://www.cusco-peru.org/cusco-surroundings-cusco-tambomachay.shtml>

Location

The archaeological site of Tambomachay is located at 8 km (15 minutes) to the northeast of Cusco, by asphalted road; and at 1 km of Puca-pucará. It is located at a foothill near the main road to the Antisuyo, over the Tambomachay River. It is also known as Tambo de la Caverna (Cave Roadside Hostelry) and occupies an area of 437 square meters, located at 3,700 meters of altitude.

Apparently, it was one of the favorite resting-places of the Incas, used as a resting watering place and, at the same time, it was one of the pillars of the defense system of the Valley of Cusco.

Its name derives from two Quechua words: Tampu, which means collective lodging; and Mach'ay, which means resting-place. However, according to other references, the word "machay" means "caves", which would describe the particular environment of the place in where it is possible to appreciate these natural rocky formations that, according to the indigenous tradition, were object of worship or magical customs.

It is composed of a set of stone structures finely carved, aqueducts and water falls originating from near springs and thermal sources; that is why people think it was related to the worship of water, one of the pillars of the Andean conception of the world. It is considered one of the Indian temples of the first Antisuyo ceque.

According to the chronicles, it was the game preserve of Inca Yupanqui, which makes us think that it was an area rich in animal species.

Site description

It also known as "Baño de la Ñusta" (Bath of the Ñusta) or "Balneario Inca" (Incan Watering Place). The monument is remarkable due to its architectonic excellence. We can appreciate four walls or graded terraces embedded to the hill, made of irregular carved-stone polyhedrons, brilliantly assembled, and which make up three parallel cultivation terraces. A thick wall (15 meters long and 4 meters high) decorated with four niches erects on the last polyhedron. The stones had been perfectly adjusted. It has four large trapezoidal niches of 2 meters on average. In front of the building there was a circular large fortified tower that must have had defense and communication aims.

Worship of Water

The water itself was worshiped as the source of life.

Tambomachay has an extraordinary hydraulic system. Two aqueducts, artistically carved on the rock, transport and keep a constant flow of clean water during the whole year, which comes from a large puddle located at a higher level.

This network of underground channels pours its waters in a small stone puddle situated at the lowest level. This puddle had to be a liturgical spring, where the Inca worshiped the water with the noblemen of the Empire.

The "Baño de la Ñusta" is very similar to that of Ollantaytambo, made of stones perfectly assembled, with carved edge and drainage gutters. Even though it is now an opencast work, the foundations seem to indicate that it was a closed precinct originally. We enter through four trapezoid portal platforms with double jamb.

If you look the monument from the river you will be able to see two thick walls that cut the support wall. The wall that faces the river has two big niches and the other, almost perpendicular to the first one, has a door with double jamb. This kind of door was used by the Incas to stress the significance of a place. Through that door we get to a small room in which we can see the water that springs from the bowels of the Earth.

So far we haven't been able to discover the origin of the spring that supplies such clear and abundant water to the sources. Some people think that the slight slope in where the site is situated does not have the capacity to produce said water and that it can come from the opposite bank of the river. However, the one thing that cannot deny is the perfection of the channel carving. The sound of the water, the quietness and peace of the environment, as well as the closed and secluded form of the space in which it was constructed,

give Tambomachay a peculiar atmosphere. Besides, it is a great sample of the skills of Andean architects to harmonize constructions and landscape.

PUCA PUCARA

<http://www.cusco-peru.org/cusco-surroundings-cusco-paucartambo.shtml#pucapucara.shtml>

At 7 km to the northeast of the city, by the road leading to Pisac (30 minutes by car and 2 hours on foot), we find this incaic site which Quechua name means "red fortress" due to the color of the rocks when the twilight reflects on them. (puca = red and pucara = fortress or defended place).

It would deal about a military building made up by overlapping terraces, interior squares, aqueducts, watchtowers, high walls and staircases. However, Its presence along the road may also indicate that it was a wayside inn, though its structure does not belong to the standard outlining that characterizes those buildings along the Inca trails. On this possibility, there is a version that says the Inca accommodated there his numerous delegation each time he decided to visit the Tambomachay baths.

The site occupies another typical rocky place standing out in the Sacsayhuamán plain. Towards the western side, it shows a facade on a free area like a small square. On the opposite site, there is a medium size building, which main characteristic is its strategic location since it controls the whole surrounding territory.

It was built with three walls of irregular plant that set three levels for each site.

The first wall was outlined to be winding so as to carefully avoid cutting the prominent rocks. Towards the north and behind the outside wall, there are six rooms of different sizes arranged in such an irregular way so as not to touch the stones forming the wall. Towards the west, there is a high trapezoid square, which is accessed by a staircase. Buildings on both sides surrounded the square. The nine rooms of regular outline in this open area do not seem to belong to a fortified environment.

A second wall surrounds the central elevation. Between this and the first, there are wide cultivation terraces that spread all over towards the south and the east. Behind the second wall, there are three atypical rooms for the Inca architecture since two of them lack of a rectangular plant, it is trapezoidal. The third wall surrounds the top and there are no traces left of its buildings.

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Puerto Maldonado

http://travel.peru.com/travel/ids/2002/9/26/DetalleDocumento_48301.asp

Puerto Maldonado Basic Facts

Area or Surface: 85,183 km².

Main Resources: rice, yuca, coconut, rubber, wood, gold.

Population: 76,000 inhabitants. The capital is Puerto Maldonado and has 46,732 inhabitants.

Number of Provinces and Districts: 3 provinces and 10 districts.

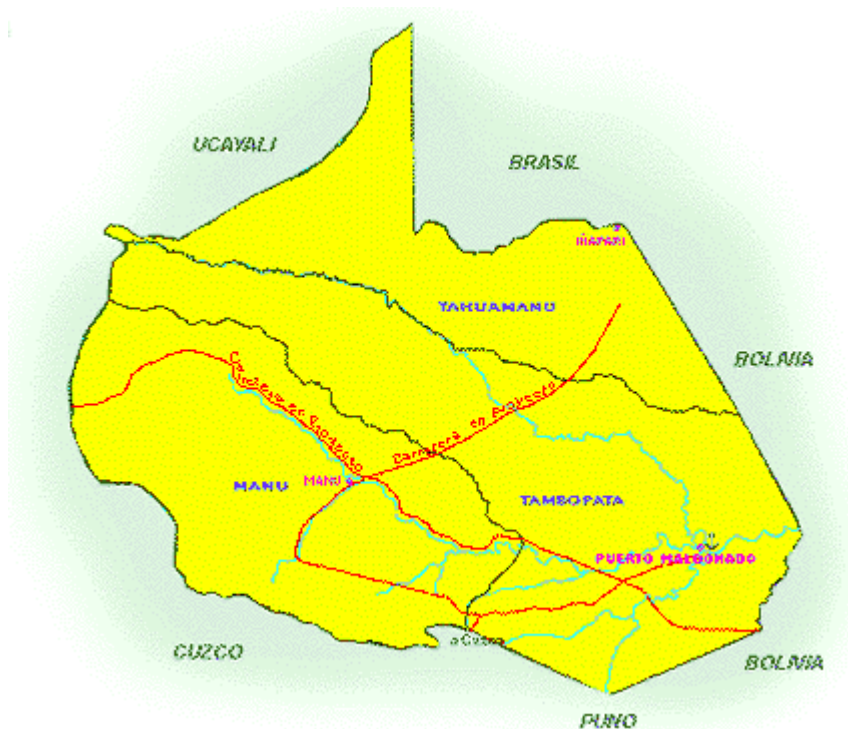
Date of Department Foundation: December 26, 1912.

Ethnic Groups: machiguengas, mashcos, campas.

Typical foods: pataraschca, sopa de motelo, timbuche, masato, tacacho.

Fauna: reptiles (boa constrictor, shushupe, naka naka), lizards (white lizard and black lizard), birds (blue partridge, sharara, cushuri, herons, camungo, parrots, guacamayos), monkeys (frailecillo, pichicos), felines (jaguar, tigrillo, puma), and fish (zúngaro and paiche).

Flora: cedar and mahogany.



Department of Puerto Maldonado

The territory of Madre de Dios, in the areas near the Cusco provinces of Paucartambo and Quispicanchis, was known since the Inca Era. First Inca Roca and then Túpac Yupanqui arrived to the higher part of the watershed of Alto Madre de Dios, incorporating it into the empire.

Madre de Dios, Puerto Maldonado, Manu and Tambopata - Candamo

http://www.enjoyperu.com/peru_travel_tours_information/enjoy_peru_whats_new/madre-de-dios-puerto-maldonado-manu-and-tambopata-candamo.html

Madre de Dios, a Peruvian Region in the south-east of the country, with an area of 85,300 sq km, has a population of 99,452 inhabitants, of whom 67,632 live in its capital, **Puerto Maldonado**. It has three provinces **Manu** (Manu), **Tambopata** (Puerto Maldonado), **Tahuamanu** (Iñapari), with a

total of ten districts. Within its territory are: Manu National Park, Bahuaja-Sonene National Park, Tambopata National Reserve and Alto Purus Reserved Zone. Its main resources include the production of chestnuts, rice, yucca, coconut, rubber and timber. The principal mining product is gold. It was founded as a department (now a Region), on December 26th, 1912. There are ethnic groups of Machiguengas, Mashcos, and Campas in the territory. Typical dishes are pataraschca, sopa de motelo, timbuche, masato and tacacho. The Anniversary of Puerto Maldonado is celebrated on July 12th. The Anniversary of Madre de Dios, the most important civic festival in the region, is held on December 26th.

It is a land of broad and slow-flowing rivers and beautiful lagoons surrounded by the most exuberant vegetation. **Madre de Dios** has the best soils in all the Amazon Rainforest, and its main source of income is the production of chestnuts and rubber. The region is also home to native tribes as yet untouched by the advance of civilization. The main groups settled in the region are the Huarayos, Mashcos, Piros, Amahuacas, Yamanahuas, Amaracaes and Machiguengas.

The city of **Puerto Maldonado**, Capital of the Region and known as the "Biodiversity Capital", is located on the confluence of the **Madre de Dios** and **Tambopata** rivers. It is a hot city, surrounded by impressive vegetation, with broad streets and many houses with palm-leaf roofs and kitchen gardens. It is the starting point for visiting Bahuaja-Sonene National Park and Tambopata-Candamo Reserved Zone. Its closeness to Cusco means it can be included within an interesting tourist circuit.

Isolated and exuberant, the small city of **Puerto Maldonado** was founded at the end of the 19th century and only during the 20th century was it gradually populated by Andean migrants from Cusco and Puno. **Madre de Dios** is a Region with abundant virgin rain-forest and associated landscapes; it may possibly be the most unspoiled and least eroded part of the Peruvian Amazon.

The petroglyphs and other interesting archeological finds on the banks of the rivers Shinkebenia and Palotoa, as well as in the Pantiacolla cordillera, are evidence of the presence of humans since ancient times. Later, the Tahuantinsuyo empire encountered fierce resistance from the warlike Mojos, inhabitants of the region.

Inca Empire dominance of this region was gradually limited, as from the time of the Inca Roca, to part of the upper valley of the **Madre de Dios** river (at that time known as Amarumayo). During the colonial period, some Dominican missionaries failed in their attempt to evangelize the region, the principal reason being the violence and resistance of the native tribes.

In 1566, Don Juan Alvarez de Maldonado, in command of a large expedition, penetrated the territory of Madre de Dios and sailed along its river. However, the biggest expedition was headed by Don Faustino Maldonado in 1860. This explorer, after sailing the rivers Ucayali and Urubamba, reached Cusco. After remaining two months in the city he began on his journey to Madre de Dios. Sailing the river Piñipiñi and then the **Madre de Dios**, he followed on up the Madeira aiming for the Amazon, to then go back to his starting point. Unfortunately he was drowned in the waters of the Madeira, at a difficult point known as the "Devil's Cauldron", and the expedition continued under the command of his son, who completed the planned route together with the survivors.

At the end of the 19th century and the beginning of the 20th, the rubber planters explored the territory of **Madre de Dios**, looking for rubber and shiringa trees. The most remarkable of these was Fermin Fitzcarrald, who in 1893 discovered the "Varadero de Fitzcarrald", now known as the "Fitzcarrald Isthmus". During the next two decades, numerous adventurers and traders exploited the forest along the new road and found plenty of rubber and gold. It is remarkable that only as from 1915, through the perseverance of the Dominican missionaries, did the local tribes start to accept civilization. But there are still today some tribes that remain totally isolated both physically and culturally.

THERE ARE INTERESTING TOURIST ATTRACTIONS SUCH AS:

PUERTO MALDONADO

Lake Los Castañales, 11 kilometers from the city, is a favorite place for bathing in summer; Lake Valencia, 60 kilometers from **Puerto Maldonado**, almost on the border with Bolivia; and the town of Laberinto, a gold mining settlement known as a roistering spot, located 50 kilometers from the city. This city also has a conjunction of abrupt terrain with numerous micro-climates and a great variety of soils, encouraging the development of a diversity of life-forms.

EL MANU

Manu National Park was declared a Biosphere Reserve in 1977, and is now divided into three management categories: **Manu National Park** (considered an "untouchable zone"); **Manu Reserved Zone** (suitable for eco-tourism); and **Bajo Manu Cultural Zone** (with a native population of 43,294 inhabitants).

Thanks to its natural isolation, the Manu shelters many species considered to be in danger of extinction both locally and worldwide, such as the jaguar, the spectacled bear, the river wolf, and black and white lizards. It is thought to house the greatest and most varied range of biodiversity existing on the planet. Located 650 kilometers from **Puerto Maldonado**, it has more species of plants and animals than any other similar-sized place in the world. In the biology station of Cocha Cashu alone, nearly a thousand species of birds and 200 mammals have been identified. In Manu, altitudes range from the 4,000 meters of the Amazon plains to a mere 200 meters, passing through the "kingdoms" of moss and rain, dwarf woods and mist woods.

Access to the area is both difficult and expensive. It is most advisable to arrive from Cusco in organized package tours.

TAMBOPATA CANDAMO TOURIST RESERVE

The Reserve has an extension of 1,478,942 hectares, and is located straddling the departments of Cusco (60%) and Madre de Dios (40%). In its diverse habitats and forests, there are 750 species of birds and more than 11,000 species of butterflies with world records among zoological groups.

The reserve also houses 181 species of trees on dry land, 155 in alluvial forest and an amazing collection of fauna (monkeys, otters, four species of felines, etc.). In the area of the river **Tambopata**, **Lake Sandoval** or **Peque Peque** and the canoeing circuit, considered to be one of the most exciting and beautiful in Peru, are worth visiting. Heath **National Pampa Sanctuary** (102,109 hectares) has a very strange flora and fauna: the "maned" wolf, the most corpulent canine in South America, and the marsh deer, whose only habitat is this reserve. The drive takes six to eight hours.

Tres Cruces is a high look-out point, famous for its spectacular dawns and for the event of the "white ray", which gives the effect of three suns shining simultaneously. This light phenomenon occurs during the winter solstice (June 22nd).

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Tambopata and Bahuaja-Sonene National Park

<http://www.parkswatch.org/parkprofile.php?l=eng&country=per&park=tabs&page=inf>

General information

Date of most recent on-site evaluation	September 2002
Location	Tambopata Province, Madre de Dios Department, Sandia and Caraballa Provinces, Puno Department, south-eastern Peru
Year Created	1990
Area	1,366,106 ha (National Park: 1,091,416 ha; National Reserve: 274,690 ha)
Ecoregions	Moist forests of the south-western Amazon
Habitats	Moist tropical forests and premontane moist tropical forests

Summary

Tambopata National Reserve and Bahuaja-Sonene National Park border one another in the southern Peruvian Amazon region. The area contains high levels of biodiversity and beautiful natural landscapes. The two protected areas were initially declared as a reserved zone in the early 1990s. Subsequently, after a drawn-out consultation process and negotiations with stakeholders, two definitive areas were set aside as a national park and reserve.

Biodiversity

The Tambopata River watershed is one of the world's richest ecosystems in terms of biodiversity. The area features a major diversity of plant life, including forest species of economic importance such as cedar (*Cedrela odorata*) and mahogany (*Swietenia macrophylla*), and palm trees such as the pona (*Iriartea ventricosa*) and aguaje (*Mauritia flexuosa*) among others. The area is home to large numbers of giant river otters (*Pteronura brasiliensis*), an endangered species, as well as vulnerable species such as the anteater (*Myrmecophaga tridactyla*), the giant armadillo (*Priodontes maximus*), black spider monkey (*Ateles paniscus*), the jaguar (*Panthera onca*), pink river dolphin (*Ajaja ajaja*), the yellow-headed river turtle (*Podocnemis unifilis*) and the anaconda (*Eunectes murinus*) among others.

Threats

Parks Watch - Peru classifies Tambopata National Reserve and Bahuaja-Sonene National Park as vulnerable due to a variety of threats. The most pressing problems are agriculture and land conversion, gold mining, illegal logging, excessive extraction of other natural resources (wild game, fish, fruit and palm fronds, among others), paving of the Cuzco-Puerto Maldonado road, and increased migration to the region.

Geography

The protected area features eight life zones: subtropical humid forest, tropical humid forest, subtropical high-humidity forest, subtropical high-humidity foothills cloud forest, subtropical rainforest, tropical cloud forest foothills, subtropical lower foothills cloud forest and semi-flooded subtropical premontane cloud forest (1).

The main rivers that flow through the area are the Tambopata, Malinowski, la Torre, Tavera, Candamo and Guacamayo. The main rivers flowing around the area are the Heath, Inambari and Madre de Dios. A series of smaller rivers and gullies make up the rest of the area's watershed.

There are several ways to access these protected areas. One can fly to the southeastern jungle town of Puerto Maldonado, the capital of the department of Madre de Dios. By road, one can drive from the Andean city of Cuzco to the northern edge of the protected areas or from Puno to the southern border. River access is down the Madre de Dios and Tambopata Rivers in shallow-bottomed boats. From Bolivia, one can reach the area via the Madre de Dios and Heath Rivers.

Average annual temperature is 26° C, ranging from 10-38° C; with average annual rainfall of 1600-2400 mm (2). Rainfall in the protected area is typical of most areas in the Peruvian Amazon. The climate ranges from humid and warm (3000 mm and 25° C on average), sub-level humidity and semi-warm (1700 mm and 26° C on average), high-level humidity and semi-warm (4000 mm and 23° C) (3).

1 The National Office of Studies in Natural Resources ONREN. Environmental Profile of Peru. 1986.

2 Rasanen, M. "Geohistory and geology in the Peruvian Amazon". In: Kalliola, R. Puhakka, M. and Danjoy, W. (Eds.). The Peruvian Amazon - tropical humid plantlife on the subAndean plain. Gummerus printing, Finland. 1993.

3 Conservación Internacional - Perú. Zona Reservada de Tambopata Candamo (Madre de Dios - Puno) Perú. Noviembre 1999. P. 20

Biodiversity

Tambopata features a high diversity of habitats, and therefore an incredible number of species are represented (4). In the Andes there are high levels of endemism (5), and this is true in the protected area as well. The protected area concentrates rich biodiversity for several groups of organisms (6). The protected area features common species and concentrates a rich biological diversity in several groups of organisms. The Tambopata River watershed is considered to be one of the world's richest ecosystems in terms of biodiversity. An indicator of this vast wealth is the fact that in an area of just 550 hectares, researchers have found 91 species of mammals, 570 birds, 127 reptiles and amphibians and 94 fish, among other surprising records (7).

Flora

The Tambopata River in Madre de Dios near the Puno foothills is riddled with clumps of bamboo, the exclusive habitat of a variety of species of birds and mammals. The area features mature flooded forest and jungle typical of lower cloud forest. Flora in the national reserve is fairly typical of the southwest Amazon Basin (8). The Heath River and surrounding plains are a unique ecosystem in Peru. The pampas are pastures that are periodically flooded, and small groves of trees with varied plant life grow in isolated clumps on the plain.

The protected area is home to a wide diversity of plant life, including exploited forest species such as cedar (*Cedrela odorata*), mahogany (*Swietenia macrophylla*), tornillo (*Cedrelinga* sp.), Brazil nut (*Bertholetia excelsa*), palm trees such as the pona (*Iriarte ventricosa*), aguaje (*Mauritia flexuosa*), huasai (*Euterpe* sp.) and ungurahui (*Jessenia bataua*).

Fauna

Researchers have discovered in the protected area large numbers of species that are now rarely found elsewhere in the Amazon jungle due to poaching, particularly tapirs and spider monkeys, but also jaguars, white-lipped peccary, medium-sized and large monkeys and caiman. The rivers teem with giant river otters.

Within the reserve, the lower elevation zone is dominated mostly by Amazonian bird species, the ones that are at or near their upper elevation limits, and by species that are restricted (or partially restricted) to the narrow band of rain forest found on the lower slopes of the Andes. Because of the growing deforestation rate along this latitudinal border in other parts of the Andes, this ecosystem is one of these most threatened in all of South America. A relatively large portion of this ecosystem is found within the Bahuaja-Sonene National Park.

In a 5,000-hectare area where La Torre River feeds into Tambopata, almost 575 bird species have been registered. In addition, this same area contains approximately 1200 butterfly species, making its conservation extremely important (CI Peru) (9).

The Heath plains and environs have yielded 74 species including marsh deer (*Blastocerus dichotomus*), maned wolf (*Chrysocyon brachyurus*), giant anteater (*Myrmecophaga tridactyla*), short-haired highland dog (*Atelocynus microtis*), 28 species of amphibians and 17 species of reptiles (10).

According to the Red Book on Wildlife in Peru by Víctor Pulido, the protected area features various species with differing conservation status. There are species on the verge of extinction such as the otter (*Lutra longicaudis*) and giant river otter (*Pteronura brasiliensis*); vulnerable species such as the anteater (*Myrmecophaga tridactyla*), giant armadillo (*Priodontes maximus*), howler monkey (*Alouatta seniculus*), black spider monkey (*Ateles paniscus*), white squirrel monkey (*Cebus albifrons*), black squirrel monkey (*Cebus apella*), choro monkey (*Lagothrix lagothricha*), jaguar (*Panthera onca*), pink river dolphin (*Ajajia ajaja*), paujil (*Crax globulosa*), South American river turtle (*Podocnemis expansa*), yellow-headed river turtle (*Podocnemis unifilis*), anaconda (*Eunectes murinus*); and rare species such as the hairy armadillo (*Dasypus pilosus*), Goeldi's marmoset (*Callimico goeldii*), highland dog (*Speothos venaticus*), pacarana (*Dinomys branickii*), harpy eagle (*Harpia harpyja*); and species in a status yet to be determined such as the musmuqui (*Aotus miconax*), shot-eared dog (*Atelocynus microtis*), tropical weasel (*Mustela africana*), ocelot (*Leopardus pardalis*), margay (*Leopardus wiedii*), jaguarundi (*Herpailurus yaguaroundi*), ash deer (*Mazama gouazoubira*), macaws and parrots *Ara ararauna*, *Ara militaris militaris*, *Ara macao*, *Ara chloroptera*, *Ara severa castaneifrons*, *Ara couloni*, red-footed tortoise (*Geochelone carbonaria*), white cayman (*Caiman sclerops*), and rainbow boa (*Epicrates cenchria*).

4 Conservación Internacional Rapid Assessment Program. The Tambopata-Candamo Reserved Zone of Southeastern Peru: A Biological Assessment. 1994. P.15.

5 Young, K. R. y Valencia, N. "Los Bosques Montanos en el Perú" P. 5 - 10. 1992.

6 Ascorra, C.; Solari, S.; Vivar, E.; Tenicela, M. Y Arana-Cardó, R. "Patrones de diversidad y endemismo de los mamíferos peruanos". Vol. III. En: Halffter, G. (Eds.), Diversidad biológica en Iberoamérica. Programa CYTED. Instituto de Ecología. México.

7 Conservación Internacional Perú Sistemas de producción y manejo del café en el alto Tambopata.

Serie técnica 4. CI-Perú ediciones. Lima, Septiembre 2001. P. 6.

8 Ibid. P. 20.

9 Ibid. P. 21.

10 Ibid. P. 23.

Management

Administration

Peru's natural protected areas are monitored by the General Department of Natural Protected Areas, with administration provided by the National Institute of Natural Resources INRENA, an entity which is part of the Agriculture Ministry. The current administration is governed by Law N° 26834, the Law of Natural Protected Areas promulgated 30/06/97 and Supreme Decree N° 038-2001-AG.

Tambopata National Reserve and Bahuaja-Sonene National Park were created out of the same protected area, Tambopata-Candamo Reserved Zone. Despite the fact the areas feature different categories of protection and management, the reserve and the park share a single administration, which includes 13 park wardens (11 in Madre de Dios and two in Puno), one administrative employee, a manager and four professionals providing support (three in Madre de Dios and one in Puno). The master plan for the protected area is currently being prepared.

The area is protected by five control posts: 1) At the entrance to Lake Sandoval on the Madre de Dios River; 2) the Huisene post on the Madre de Dios River where the Palma Real River flows into the Madre de Dios; 3) the Torre post, on the Tambopata River where it merges with the La Torre River on the border of the national reserve near the community of Infierno; 4) The Malinowski post, on the Tambopata River where it merges with the Malinowski River, near the border of the national park; 5) the San Antonio post on the Heath River. In the department of Puno, in the area of San Juan del Oro, an office functions in the town of Putina Punco, staffed by a professional and two park wardens.

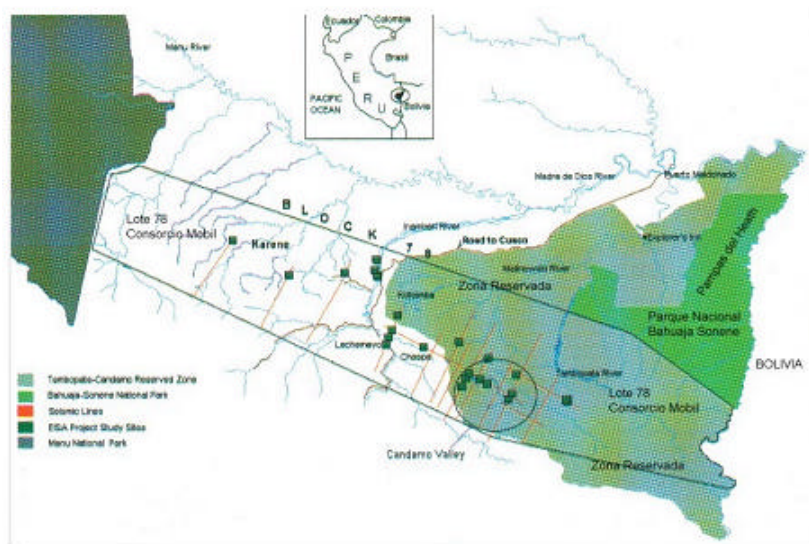
Budget

The total annual budget is 140,000 nuevos soles (approximately US\$38,000) allocated to covering operating expenses, and which is financed by the park's own cashflow, largely from entrance fees paid by tourists entering the protected area. Salaries are covered by national funding. WWF Peru helps cover the salaries of three professionals and a park warden. There are also budgets from international funding: US\$30,000 from Dutch cooperation and US\$8,000 from Biofor to prepare a Master Plan. In the medium term there will be funding available from Phase II of the Global Environmental Facility's (GEF) project for the protected area.

History and Borders

In January 1990, the Peruvian government established the Tambopata-Candamo Reserved Zone through Ministerial Ruling No. 032-90-AG-DGFF covering an area of 1,478,942.45 ha. The initial boundaries of Tambopata-Candamo Reserved Zone were used to create the Bahuaja-Sonene National Park and later the Tambopata National Reserve.

After a participatory process, Supreme Decree No. 012-96-AG of July 17, 1996 created the Bahuaja-Sonene National Park as a strictly protected zone covering an area of 537,053.25 hectares (11). The area covered by the Tambopata-Candamo Reserved Zone, without taking into account the Bahuaja-Sonene National Park, continues to be a reserved zone.



Conservation International's map showing initial borders of the Bahuaja-Sonene National Park, the Tambopata-Candamo Reserved Zone and Block 78.

The new national park was curtailed by the presence in Block 78 of a US oil firm, which was exploring for oil in the area. The area in Block 78 overlapped the southwestern section of the reserved zone, including the Tavera River Basin. Mobil, having failed to discover quality hydrocarbons in abundance, handed Block 78 back to the Peruvian government. The territory was then incorporated in to the national park. Thus on September 4, 2000, Supreme Decree No. 048-2000-AG (5/09/00) (12) expanded the area covered by Bahuaja-Sonene National Park to 1,091,416 ha. Supreme Decree No. 048-2000-AG also created the Tambopata National Reserve in Madre de Dios with an area of 274,690 ha. Finally, Head Office Ruling No.298-2001-INRENA marked out the borders of the buffer zone for the Tambopata National Reserve (13).

The western buffer zone extends from the northern border of Tambopata Reserve to the Cusco-Puerto Maldonado highway. The eastern buffer zone extends from the Reserve to Tambopata River and lower Madre de Dios. INRENA's resolution 298-2001 established a temporary buffer zone for Bahuaja Sonene National Park until corresponding studies are completed to officially declare its boundaries. Currently, Bahuaja Sonene's buffer zone surrounds the south eastern park until the community of Mazuko.

11 Artículo No. 22, letra A de la Ley No. 26834 Ley de Áreas Naturales Protegidas y artículo No. 50 del Decreto Supremo No. 038-2001-AG Reglamento de la ley 26834.

12 Deroga el Decreto Supremo No. 012-96-AG que estableció los límites iniciales del Parque Nacional Bahuaja Sonene.

13 Artículo No. 25 de la Ley No. 26834 Ley de Áreas Naturales Protegidas y artículo No. 61 del Decreto Supremo No. 038-2001-AG Reglamento de la ley 26834.

Human influence

There are no human establishments within the boundaries of the Bahuaja-Sonene National Park. Within Tambopata National Reserve, there have been isolated settlements along stretches of the Malinowski River and where it flows into the Tambopata River.

The buffer zone in the northern section of the Madre de Dios is home to some 3,200 people.¹⁴ This figure is a conservative estimate as it does not include migration over the past five years or those living on the other side of the road, who despite living outside the area, nevertheless make direct use of it. The buffer zone in Puno to the south is home to a temporary population of some 3,800 people,¹⁵ Andean indigenous migrants who travel to the region to plant coffee. This figure is also conservative, according to the manager in charge

of the park's master plan and the national nacional.¹⁶ The area has a floating population of seasonal migrant workers which can reach some 11,000 people at times of year when there is demand for workers.

There is little information on the Inambari River area. It is known that there are settlements in the area, but there is no exact data on how many settlements exist nor what their residents do for a living; it is presumed that they farm in the upper reaches of the forest, cut timber in the lowlands and work in informal mining activities throughout the area.

The creation of the protected area was the result of a participatory process which gauged the opinions and concerns of the local inhabitants, private institutions and non-profit development entities. When the protected area was originally created, at first the local population opposed the idea for fear they would be prohibited from making use of the area's natural resources and working in their subsistence activities. Today, there is less opposition to the concept, and there is greater awareness among the local population, thanks to the coordinated efforts of NGOs and state entities.

Tourism

Tourism is becoming an increasingly important activity in the area in recent years. Madre de Dios is home to 25 registered tourist lodges, 11 of which lie within the buffer zone and two within the reserve. There are also independent tour guides operating in the area, with 13 guides registered to date. Some local inhabitants are participating with their own lodges and hostels with the aid of loans and institutional backing. The area features two lodges that are owned by indigenous communities, one in Infierno on the Tambopata River, Posada Amazonas, and the other in Sonene on the Heath River, Ese Eja Indian Lodge.

Tourism in the protected area is concentrated around the Tambopata River and the lower Madre de Dios. Every year, 7-8,000 tourists visit the area mainly from abroad. Tourists are charged an entry fee to visit, and the amount depends on the activity: whether the tourist is spending the night, visiting the macaw clay lick or whitewater river rafting. The area features a rafting circuit which runs down the Tambopata River from Putina Punco crossing the entire national park down to Puerto Maldonado.

Some lodges located in front of the buffer zone on the other bank of the lower Madre de Dios River use the buffer zone by crossing the river, establishing trail networks and visiting Lake Sandoval and environs. Some tour operators offer visitors the chance to go fishing or hunting, and demand authorization from the protected area. Independent guides tend to take tourists to campsites instead of the lodges, making it harder to control their activities.

The giant river otter is a species of great interest to tourists, and tourists often stress otter colonies residing in lakes. A similar problem occurs with the parrots and macaws, which descend to peck at the clay lick. Here tourists often get too close or make too much noise, upsetting the birds. The administration of the protected area has set up regulations for all tour operators working in the area and rules for visitors' behavior, with fines for companies that fail to comply.

¹⁴ Conservación Internacional Rapid Assessment Program. The Tambopata-Candamo Reserved Zone of Southeastern Peru: A Biological Assessment. 1994. P. 11.

¹⁵ Ibid. P.11.

Conservation & Research

Since the protected area was created, a series of conservation and research projects have been developed, including:

- * The giant river otter research project run by the Frankfurt Zoological Society
- * Rainforest Expeditions' Macaw Ecological Research Project
- * Environmental Education project run by the Southern Jungle Conservation Association (ACSS)
- * INRENA's regional project for protected areas of the Amazon. All research has been carried out at the Explorer's Inn on the Tambopata River and in other parts of the protected area by students and naturalists over the past 25 years, much of it thesis work, essays and unpublished reports.
- * Mobil's environmental and social impact studies for oil exploration in Block 78
- * Various studies or data collected by park guards including logs registering the climate, visitor entrances, community relations activities, research into the palmiche palm tree and felines, among other studies and research projects
- * INRENA's project to protect the yellow-headed river turtle in the Heath River with the participation of the

native community of Sonene, with backing by Peruvian NGO Pronaturaleza

* Projects run by Conservation International, such as Rapid Biological Evaluation (RAP), which produced fast and simple inventories to provide scientific information to help determine the protected category of the area

Activities that pose the greatest threat to the Tambopata National Reserve and the Bahuaja-Sonene National Park include:

- * Gold mining
- * Illegal logging
- * Extraction of forest resources
- * Increase in farming

Gold mining

From the mid-1970s to the late 1990s, gold mining has been the key economic activity in this part of Peru. When the government created the Tambopata-Candamo Reserved Zone in 1990, there were mining operations in existence, and they continued to operate after the reserve zone was declared. Today, the traditional mining areas of Madre de Dios have been massively overexploited and less gold is extracted as a result, forcing many miners to explore new opportunities for employment.

Gold mining causes a major impact on the forests, riverbeds and canyons. It makes the water cloudy and sediment-filled, as well as pollutes rivers with mercury. Mining in the lower Madre de Dios River is done on a small-scale by gold panners and on a larger scale with floating dredges. The capacity of the dredges is greater than that of gold panning as it digs up more of the riverbed and the ground, causing more environmental impacts.

Gold mining is done informally along the Malinowski River, with the minerals being extracted by hand on the riverbanks. While today the administration in charge of the protected area has banned the entry of dredges into the area, preventing impact by mechanized, larger-scale operations, there are still large numbers of individual miners working on a smaller scale in the area. Because of the temporary nature of gold panning and difficult access to many areas where it is carried out, it is difficult to pinpoint exactly how many people are working in the area. Miners have formed a variety of groups and associations to defend their interests(17). At workshops and other participatory events for the preparation of a master plan for the protected area, these organizations have expressed their opinion that the entire area around the Malinowski River should be open to mining. Mechanized mining operations have concentrated in the area around Mazuko, in the buffer zone, using tractors, frontloaders, trucks, powerful waterpumps and large extraction platforms.



Gold panning in Malinowski River

Mining within the community of Kotsimba is done on a small scale. Part of this community lies within the buffer zone, but it also borders the park and the national reserve and is home to the headwaters of the

Malinowski River. Despite the fact that this settlement is considered a native community, only two native families live there and the rest are highland migrants making a living from gold panning and logging. The community's population is approximately 300 inhabitants that are spread out across a large area. The village recently carved out a dirt road that runs down to the Malinowski River. The opening up of this trail has made access easier for all kinds of extraction-based activities, particularly miners in search of new prospecting areas.

The road to Cuzco features several access routes down to the Malinowski River, whereby one can reach the river in a couple of hours. These detours are used mainly by miners based along the river to transport their tools and food supplies down to the area of operations. Miners based at the mouth of the Malinowski River travel down the Tambopata River and cross through INRENA's control posts, while the other access routes are not monitored.

Illegal logging

According to Supreme Decree No. 038-2001-AG, commercial logging is prohibited within national reserves. Also described by this decree are acceptable practices, which include the management of agroforestry and secondary forest plantations (18). Yet, illegal logging occurs in both the buffer zone and the national reserve. While the control posts along the Tambopata and Heath Rivers prevent much of the wood from being taken out of the national reserve, wood is continually extracted for commercial purposes, and loggers often manage to avoid INRENA's control posts.

The main method of forestry management in the area is that of selective logging. Woodcutters generally chop down the most commercially valuable trees with chain saws and split up the tree trunks, cutting them into planks on-site before transporting the wood to the sales point. Wood is smuggled downriver, through gorges and down side roads. Briolo Gorge within the protected area is a site where many people (mainly residents of Puerto Maldonado) enter to extract wood. The Gorge is between Lake Sandoval and the Palma Real River in the lower Madre de Dios. According to local sources, approximately 5,000 feet of wood is extracted per week along the Tambopata River, in the village of Condenado near the mouth of the Malinowski River.

Along the road to Cuzco along the Puerto Maldonado-Mazuko stretch, loggers are also smuggling out large quantities of wood. Extraction is done mainly by migrant farmers based along the road who have cleared the nearby forests of valuable wood and are forced to look ever deeper within the buffer zone for wood which they then truck out from their farmlands beside the road.

The Jayave River, which crosses the road at Kilometer 126 on the way to Mazuko, is an important link in the illegal logging trade. Loggers float trunks and planks down to the road before loading the wood onto trucks headed for Cuzco. At the same time, the villages of Villa Rocío and Santa Rita are also heavily involved in illegal logging.

Migration to the area has increased illegal logging. In the Manuani Gorge, near Mazuko in the buffer zone, a group of migrants has invaded the area and set up operations under the guise of an agro-forestry herders' association. This group of migrants is involved in illegal logging and is clearing the forest to prepare it for grazing pasture.



Access road to Kotsimba

The community of Kotsimba is also involved in logging and holds contracts for wood extraction in its territory, so logging is legal in this case. The inhabitants of this community have received the support of a group of loggers to build a dirt road down to the Malinowski River. This support gave them access to loans to rent heavy machinery and other necessities which they now have to repay. Debt payments are made in wood equivalent, not in cash. This road also makes it easier for miners to enter the area, both small-scale and mechanized operations, as well as migrant farmers looking for land to settle. When the forests of the Kotsimba community have been overdeveloped, this will force settlers deeper into the protected area.

Logging roads and trails open up areas of tropical forest that were previously inaccessible to migrant farmers. This was the case of an area called Jorge Chávez, where an old logging road made it possible for people to enter the area to extract wood and plant fields in area bordering the national reserve. In the buffer zone in the southern section of the national park, there is intense, ongoing logging (19). This activity opens up more forest trails, which are then used by migrant farmers to access and settle the area.

Extraction of forest resources

The main types of extraction of non-timber forest products include hunting game, fishing and gathering of fruit, palm fronds, honey and eggs among other products. This is done by the local rural population for subsistence, but also for commercial reasons (20).

Studies conducted by Loja show that there is more fishing pressure on Tambopata River than lower Madre de Dios River (21). Inhabitants of the native community of Infierno often venture onto the La Torre River, a tributary stream of the Tambopata River within the national reserve, to hunt and bring back other products from the forest. Similarly, the inhabitants of the communities of Sonene and Palma Real travel upstream along the Heath River, deeper into the national park, without being prevented from entering by park guards, as this area is part of their ancestral lands. At the same time, in the village of Mazuko and west of the buffer zone, migrants hunt intensively in the area.



Hunting for subsistence



Illegal hunting of endangered species done to sell the skins commercially

Fishing is done for subsistence, although there is also commercial fishing in the lower Madre de Dios, on the northeastern edge of the buffer zone. Average fish catches in the lower Madre de Dios account for 90% of total registered catches in Puerto Maldonado, underscoring the importance of the area for the region's fishing industry. It should be pointed out that pressure from the fishing fleet on hydro-biological resources in the lower Madre de Dios is on the rise. At the same time, fishing on the Tambopata River is facing the onslaught of a growing population, with fish as their main source of protein (22).



Subsistence fishing on Heath River

Another resource in demand in the area is the palm frond, which is used to roof homes in both rural and urban areas. Moreover, fruit from palm trees such as the aguaje (*Mauritia flexuosa*), ungurahui (*Oenocarpus bataua*), pona (*Iriartea deltoidea*), are popular on the local market. The method of harvest is currently unsustainable because to extract the palms and fruit, the trees are cut.

Brazil nut harvesting (*Bertholetia excelsa*) is a major activity in both the buffer zone and the national reserve, and an important product in the entire region. Large groves of Brazil nut trees are found within the protected area, and there even concessions to harvest Brazil nuts in the area. INRENA, with backing from conservationist NGOs, is preparing a plan to put the Brazil nut trade in order. The plan will obligate harvesters to have their papers in order, install septic tanks in their camps, mark the trees, and clear trails. Brazil nut gatherers must declare the exact quantity they have harvested, the amount of workers employed, what wages are paid, how much is invested in food, etc. All this data will help monitoring in the future and make the activity more efficient.

Other products are extracted on a lesser scale, such as resins, fibers, medicinal plants, and honey. However, more of these products are being sold on the local market (23). The growing population of Puerto Maldonado has spurred more vendors' booths selling natural medicines and herbal remedies than existed five years ago. In the case of turtle eggs (*Podocnemis unifilis*), these are becoming increasingly scarce along the major rivers due to over-extraction. The Heath River features beaches that are important nesting sites.

Agriculture

Migrants in Madre de Dios generally prefer to cut down new areas of virgin forest instead of returning to previously planted areas. It is becoming a widespread custom for farmers to cut down four or five hectares of virgin forest every year, only to use just one hectare for subsistence crops, leaving the rest unused and degraded. Ignorance of proper agricultural techniques has ravaged the land in the region. In the buffer zone, this situation is particularly bad among the migrants along the road, including those living on the Tambopata River and the lower Madre de Dios.



An activity that also causes a major impact on forests in the buffer zone is livestock herding. Cattle ranching in the region, like in all tropical forests, produces low yields, and needs 1-2 hectares of pasture per head of cattle. Each year, ranchers have to cut down more forest to feed their cattle. This situation can be seen above all along the Puerto Maldonado-Cuzco road, where there are large numbers of cattle.



The southern part of the national park, in the district of San Juan del Oro, in the area of Puno, is under intense pressure from farming. The access road into the region, which runs past the village of Putina Punco and runs alongside the upper Tambopata River as far as the Bolivian border, has made it possible for Andean migrants to enter the area to plant coffee and other staple crops. The impact of farming is easy to spot: erosion and soil depletion, slash and burn activity in large areas of forest, and pollution of rivers and gorges.

Growing migration to this area has expanded the amount of land planted with crops, subsequently destroying the forest. The topography in this area is hilly which is easily eroded. The situation in this area is alarming, as local authorities see the area as an opportunity for expanding agricultural land and locals generally oppose the concept of the protected area. Farming leaders are also pushing to penetrate deeper into the area and into the national park. There have been cases of holding, manipulating and invading land, involving lower-ranking local government officials (24).

The area is the site of a project run by the United Nations Development Program (UNDP) that as part of the counter-narcotics program is promoting coffee to halt the spread of coca leaf plantations used to make cocaine. The project is promoting the installation of greenhouses to produce coffee shrubs. By producing coffee plants and distributing them for planting, the project is spurring the deforestation of the area for agricultural purposes. Furthermore, the project supports the construction of an airstrip and the improvement of access roads. Support provided by this project in the area has consolidated the presence of migrant farmers and spurred larger numbers of farmers to flock to the area, which has turned out to be counter-productive for the protected area.

FUTURE THREATS

- * Gold Mining
- * The Inter-Oceanic Highway
- * Migration and landgrabs

Gold mining

Due to the fact that alluvial deposits in the areas of Huaypetue and Punkiri have been overexploited, these produce little gold today. The owners of the mining machinery, finding their income dwindling and being unable to maintain their infrastructure and operations, have been searching for new areas to mine and are looking at the possibility of entering the area around the Malinowski River near the Kotsimba community to work all along the river.

The entry of mechanized mining operations into the headwaters of the Malinowski River is an imminent and major threat to the area. The operation would affect the watershed, causing an impact on the Tambopata National Reserve and the surrounding buffer zone.

Inter-oceanic Highway

In recent months, local authorities, special interest groups and the population in general in Madre de Dios have been providing strong political and public support to pave the trans-Amazon Highway. Brazil is paving its stretch of the highway, known locally as the Estrada do Pacífico, and work has moved within 50 km of the Peruvian border. Under current circumstances, the highway will have a tremendously negative impact on the region in terms of social, environmental and ecological problems. A paved road will provide access to all kinds of vehicles and hence more people.



Carretera Puerto Maldonado-Cusco Carretera Río Branco-Asis en Brasil, foto: J. Leguía

Migration and land grabs

The arrival of immigrants leads to an increase in forest clearing for agriculture and greater extraction of natural resources. A critical hazard for the protected area is the increase in migration in the southern stretch of the reserve near Puno. Migrants are drawing nearer to the national park. In this section of the protected area, the process of occupying virgin cloud forest is continuing down into the lower reaches of the valley and along tributaries of the Tambopata. Ever since the access road reached Putina Punco in the late 1980s, the road has been moving further into the jungle with the help of municipal equipment and gasoline donated by mostly coffee cooperatives. It is estimated that during the last decade approximately 2.5 km of highway advances per year. Members of the coffee producing cooperatives have stated that they will continue to push the highway forward with or without the support of governmental institutions.²⁵ In environmental terms, the consequences of the road are severe.

The presence of more people south of the protected area is fueling greater demand for natural resources in the area. At the same time, this is further exhausting the soil, leading to more slash and burn agricultural techniques and more river pollution that flows downriver into the national park. These impacts are linked directly to the pressure that Andean migrants are putting on the area's natural resources.

17 Like for example there is the Association of small-scale farmers and gold-panners of Malinowski (APAYLOM) located on the river parallel to kilometer 70 on Cusco highway, the Association of Artesenal Miners of Tambopata and Boca Malinowski (AMATABOM), the Association of Artesenal Miners of Tauro - Fátima, among others.

18 Artículo 55, acápite 55.4, reglamento de la Ley de Áreas Naturales Protegidas Decreto Supremo No. 038-2001-AG.

19 Unpublished information provided by a key informant.

20 Ley de Áreas Naturales Protegidas No. 26834 del 17-06-97, artículos No. 21 letra b y No. 22 letra f.

21 Loja, J. Biología y uso actual de algunas especies de fauna silvestre en zonas del Bajo Madre de Dios y en la Comunidad Nativa de Infierno. CI - Perú Ediciones. Serie técnica 3. Lima, Septiembre 2001. P. 32 y 33.

22 Cañas, C. Evaluación de los recursos pesqueros en la provincia de Tambopata, Madre de Dios (julio 1995 - diciembre 1998). CI - Perú Ediciones. Lima, Septiembre 2000. P. 16, 17 y 61.

23 Personal observation by author, Diego Shoobridge.

24 Personal communication with involved persons.

25 Lozano Op.cit. P. 39.

Gold mining

It will be important to get a better understanding of the real situation of mining activity in the protected area, and to check the area near Mazuko for mining activities within the national park and visit the buffer zone in the Inambari River to gauge how many people are operating in this region.

We recommend keeping a log to register all the miners working within the protected area, check their operating permits and contracts and size up the scale of each operation. New mining operators should be banned from the protected area.

A plan for mining needs to be designed and implemented to provide guidelines and mechanisms to run mining operations so that they do not affect the protected area or the environment. Once the master plan is ready, the area should be zoned and mapped, and mining activities strictly enforced. Supervision visits need to be made to areas where miners operate, especially during the mining season, and visits need to be made unannounced, to verify miners are complying with the plan. Miners need to be obligated to prevent mercury from polluting the rivers.

There needs to be awareness campaigns with the miners. They need to learn about the environmental and mining regulations and how to follow those regulations. In addition, control and monitoring of mining activities is essential. The administration of the protected area needs to be in close contact with national and regional mining authorities in order to establish coordination mechanisms and information exchange.

While the Energy & Mines Ministry is promoting growth in the mining sector by providing facilities for miners, it needs to be strict when enforcing mining legislation. INRENA's technical opinion is required in order to set up mining operations in buffer zones. INRENA should reject all new mining activity in the area and oppose the start-up of new operations. It is fundamentally important that mechanized mining operations be prevented from entering the area around the Malinowski River through the community of Kotsimba.

Illegal extraction of wood and other forest resources

The relevant authorities must be strict when enforcing forestry legislation and the law of protected natural areas. The government should promote the design and execution of management plans and establish regulations covering logging and the extraction of other products. The administration of the protected area, together with the General Forestry Department of INRENA, should carry out inspections and field visits to areas where illegal logging is known to be ongoing, in order to put a stop to the activity and sanction violators.

While forest wardens are currently limited in their capacity to monitor the field, due to financial restrictions, one alternative is the use and construction of temporary control huts. These shelters would facilitate the presence of wardens in the field and make it possible to save money on monitoring expenses.

Hunting is done without any regulation, meaning some species are hunted to excess and others, which could be of use, are not sought after. Work needs to be done to promote and provide incentives for communities based around the protected area to establish monitoring and control mechanisms. This would require professional advice and training and institutional support. Steps like seasonal bans on hunting certain species, prohibiting the slaughter of animals with litters of young, the rotation of hunting territories, restrictions in the frequency of firearms use, breeding of wild species, and limits to commercial hunting should be taken into account for hunting management plans.

For commercial fishing, size and weight limits for fish caught should be established and respected. Communities with backing from professionals and institutions need to organize their own mechanisms to control the activity, marking borders and fishing seasons, and banning the entry into the protected area by fishermen from other areas.

In the fruit and palm trade, harvesters should be prohibited from cutting down the trees to harvest the products. Traditional but rarely used tools and mechanisms enable people to climb trees. Use of these tools should be promoted to those involved in non-timber products extraction.

Increase in agriculture

Regulations must be established for agricultural concessions, implementing a process of legal re-zoning of the land while ensuring proper management of the land itself. Farmers should be prevented from unnecessary slashing and burning of the forest and should be obligated to plant and use all the land that has been cleared in order to cut down on "wasted" land.

In the area of Putina Punco in Puno, the land needs to be protected from soil erosion. Coffee plantations should be established using techniques that conserve nutrients in the soil and the productivity of the earth while diminishing forest clearing. Peru needs to promote a change from traditional slash and burn agriculture and instead look to a more sustainable farming system with diversification, crop rotation and soil enriching.

The upper Tambopata region will continue to have a vulnerable economic development situation as long as it depends on the coffee monoculture. Complementary products and services should be developed as well. It is necessary to identify new commercially viable crops and other viable and sustainable activities, such as ecotourism and adventure sports (26).

Awareness campaigns are needed, as well as training and technology transfers to promote the efficient and sustainable management of the ecosystem, and to implement organic farming, diversified agriculture, and forest management.

The protected area urgently needs infrastructure, more professional personnel and park guards, as well as strengthening INRENA control posts in the southern area of the national park in Putina Punco (Puno).

The Inter-Oceanic Highway

Paving Cuzco-Puerto Maldonado road will attract large numbers of people. It will be necessary to tighten control of the road through the buffer zone, focusing on existing access to the Malinowski River. Due to the difficulty of controlling a large sector and INRENA's limitations in its implementation, it will be vital to involve local communities in the process of control and monitoring. This involves strengthening organizations, providing training and establishing efficient communication channels that will make it possible to file timely reports and denunciations.

The administration of the protected area should establish personnel in Mazuko so they can have presence in the field and control part of the road from Puerto Maldonado and to San Gabán in the west section of the national park. In coordination with the Forestry Department and the Energy & Mines Ministry in the area, authorities could run joint monitoring and control of miners, loggers and migrants in this threatened part of the protected area.

The situation in Kotsimba is critical regarding the protected area, as it borders the national reserve and the park, and what occurs there will have an influence on the protected area. Work needs to be done to strengthen organizations and ensure internal cohesion amongst communities so that they can defend their natural resources and prevent the entry of new extraction-oriented migrants.

NGOs and other development institutions need to run environmental awareness campaigns in the area, especially about the road in order to garner local political support for conservation measures and to alert the local population to any threats so they know how to react in case of an emergency.

Migration and land grabs

It is vital that new settlements be prevented from establishing a foothold in the protected area, above all in the area around the Malinowski River, as people can enter and move around with ease using the various access roads from the highway.

In the area of Putina Punco in the southern section of the protected area in Puno, urgent measures need to be taken prevent the current trend in migration to this area. Land ownership needs to be analyzed and clarified, and the mechanisms that allow migrants to gain access to the land needs to be studied and understood. Efforts should be coordinated with local authorities to impose the law and order through the intervention of the government.

In the area of Puno, awareness campaigns and consultations on the protected area and the region's future development are urgently needed. These can be similar to campaigns that have run in Madre de Dios which have had encouraging results. It is important that local inhabitants be informed in detail of the advantages of the protected area, its limits, what is permitted by legislation, and that they are able to voice their concerns so that their opinions may be taken into account in the decision-making process.

Tourism

Tourism is a key activity in the area. Entrance fees from tourists are a significant source of income for the administration of the protected area. A tourism-use plan needs to be implemented, which ensured that all tour operators comply with established regulations. Educational campaigns and training will need to be promoted for the tourism trade, for both guides and visitors. Tourism operators need to distribute educational leaflets to visitors detailing guidelines and procedures for tourism in the protected area and to ensure that guides comply with

established rules. Administration of the protected area needs to focus on ensuring all tour operators comply with the regulations, levying fines and other sanctions to non-compliers which will provide income for the protected area.

Conclusions

The Tambopata National Reserve and the Bahuaja-Sonene National Park are adjoining natural areas that function with a single administration. The areas are home to a rich diversity of flora and fauna distributed through several life zones and breath taking natural landscapes.

Within the reserve and park themselves, there are no settlements, but there is a burgeoning population around them. Both protected areas are listed as vulnerable. Today, the buffer zone is under intense pressure, with a growing possibility that the reserve and the national park could be affected.

The most pressing threats to the area are agriculture and land grabs in the southern region of Puno, and gold mining along the Malinowski River and the west section of the national park. Illegal timber harvest is also a problem, especially in the national reserve in Madre de Dios and the southern part of the national park in Puno. At the same time, excessive extraction by local inhabitants of other natural resources such as wild game, fish, fruit and palm fronds is also a threat to the future availability of these resources. The paving of the Cuzco-Puerto Maldonado road will facilitate migration and give more people access to the area, which in the future will bring pressure to bear on the protected area.

The current situation regarding mining operations within the protected area needs to be better understood and clear operating regulations need to be established. The relevant authorities must be strict when enforcing the laws of forestry and protected natural areas. Farmers should be prevented from unnecessary slash and burn agriculture, and work should be done to promote the use of techniques, which conserve soil nutrients and the productive quality of the earth. Land ownership should be legally reordered, with obligatory proper management of the land. Communities need to be involved in managing and monitoring, which will demand improvements in organizational capacity. In Puno, environmental awareness campaigns are needed in which authorities and local institutions discuss the protected area and the future development of the region.