



Turismo geográfico, histórico y socio-cultural

La unión de la geografía, la historia y la cultura de Chile son la base de las salidas turísticas que ofrece nuestra empresa porque son factores que le dan vida a una sociedad. Estos factores son el motor de los atractivos que presentamos a través de salidas originales a quienes visitan nuestro país. Los atractivos geo-turísticos de Chile son incontables y debido a estas riquezas geográficas de nuestro relieve hemos implementado las más innovadoras e interesantes rutas. Este austral país es reconocido por la gran cantidad de volcanes, por la particular forma que tiene y por el desierto de Atacama, el más árido del mundo. Chile es un país tri-continental, tiene más de 4.000 kilómetros de costa y presenta una gran variedad de climas de norte a sur y, de este a oeste, desde la Cordillera de Los Andes hasta el Océano Pacífico. Por lo tanto, el patrimonio histórico-cultural y el geológico son nuestras prioridades a la hora de recorrer nuestro país y nuestras regiones.

Las rutas geo-turísticas que hemos diseñado en Santiago, en la Región Metropolitana y en Chile ofrecen información que cualquier otro tipo de turismo (turismo aventura, turismo rural, turismo de reuniones, etc.) no contempla en sus servicios. Nuestras salidas guiadas y bilingües son geo-turísticas porque realzan el valor geográfico de los lugares que visitamos. Además, los conceptos geográficos son de gran ayuda en nuestra vida diaria porque es probable que vivamos cerca de un hito geográfico como un río, un volcán, un lago, una bahía o una isla. El lugar donde vivimos, con todas sus características geográficas nos lleva a vivir de determinadas maneras y a adaptarnos.

La historia de nuestras vidas está relacionada con la historia de las ciudades donde hemos nacido. Nuestros antepasados habitaron el mismo lugar en el que vivimos hoy y ha sido gracias a la Historia que conocemos las distintas realidades y maneras de vivir de las personas en este planeta. La historia de Chile comenzó a ser contada por extranjeros, quienes llegaron en busca de riqueza y nuevas oportunidades. Antes de eso, muchos pueblos originarios lograron sobrevivir a climas adversos, en medios hostiles; en el norte sobrellevaron el calor del desierto y en el sur, el frío de la Patagonia.

Las formas de turismo que existen actualmente, presentan oportunidades para todos los países. En Santiago y en regiones, las formas de turismo son tradicionales y es por esto que hemos diseñado con innovación rutas que se ajustan a la demanda de viajes que ofrezcan experiencias auténticas. Para Chile y como **Puelmapu Turismo Sustentable**, la oportunidad está relacionada con la unión de la geografía, la historia y la cultura de Chile. Así y gracias a estos factores, entregaremos a quienes nos visitan una mirada más amplia de las características que nos definen y de los atractivos geo-turísticos, históricos y socio-culturales.

Geomorphology and Geography of Chile

By Diego Ampuero

The Geomorphology of Chile, or Chilean relief, is to be classified in 4 morphologic units from east to west and in 5 geomorphologic zones from north to south. The 4 morphologic units are, -from east to west:

The Andes, the Central Valley (or Intermediate Depression), the Coastal Range and the Coastal flatlands. In some parts of the countries, you could also find Andean foothills.

Of the Andes

The *Andes*, or *la Cordillera de Los Andes*, is the longest continental mountain range in the world. It is about 7,000 km long (4,300 mi), about 200 km (120 mi) wide and of an average height of about 4,000 mt (13,000 ft). The *Andes* goes through seven countries in South America, which are Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile and Argentina.

The highest peak in the *Andes* -and also the highest peak in South America-, is the Aconcagua at 6,960.8 mt (22,837.3 ft). It is located 15 kilometers from the international border with Chile, on the Argentine province of San Juan.

The most prominent features of this orogeny are the Nazca plate, the active volcanic arc and the fold-and-thrust belt. These two latter, very present throughout all the Chilean territory. The evolution of the Andes goes back to the Paleozoic, although the present shape is thought to have started mainly during the Mesozoic due to the interaction of both the Nazca and the South American plates. It is suggested in several studies, that the whole length of the Andes should be divided into seven segments, north to south, each having different geological characteristics.

In Chile, the Andes homes a variety of mining hubs, placing the country as the 1st major producer of copper in the world, as well as a great number of active volcanoes, around 500, of which 60 have had recorded eruptions in the last 450 years.

Of the Central Valley

The Central Valley, or Intermediate Depression, is located between the Coastal Range and the Andes. Physically, the Central Valley goes discontinuously from the Pampa del Tamarugal, in the Norte Grande region, to the Ofqui Isthmus, in the Taitao Peninsula. The Central Valley also contains the most important and most productive and internationally known wine region of the country. The city of *Puerto Montt* is considered the southern end of the valley, since south of it, the Central Valley goes underwater, below sea level and sporadically re emerges by the Ofqui Isthmus.

Of the Coastal Range

The coastal range is a mountain range extended from north to south along the Pacific Coast of the country. It runs parallel to the Andes from the Morro the Arica in the north, ending at the Chilean Triple Junction, where the Nazca, the South American and the Antarctic plate meet, in the Taitao Peninsula in the south.

The highest point, the Vicuña Mackenna hill, reaches 3,114 mt, and like the Andes, the range lowers its altitude while latitude increases. Between the Copiapó and the Aconcagua Rivers, in this region, also known as the Norte Chico, the range merges with the Andes to reappear just north of Santiago.

The coastal range is the result of the alignment of horst, ferearc highs and accretionary wedges along the Chilean coast. It does not have any lithological origin. It is also the main influence in Chilean climate since it acts as a screen for the central valley and makes a rain shadow to the east.

Of The Coastal Flatlands

The Coastal Flatlands run from North to South, alongside the coast of the Pacific Ocean from the limit with Peru to the *Chiloé* Archipiélago. These flatlands lie between the ocean and the Coastal Range. Mostly in the north, they may be landmarked by a cliff and it may also disappear as it travels down the country. The Coastal flatlands are originated because of the back and forth motion of the sea. Also, due to the flora and fauna below the Norte Grande, towards the south, the Flatlands allow urbanization.

Regarding geomorphological zones

First zone

The first zone corresponds to the first three administrative regions of the country. Basically, The Norte Grande, from the northern frontier to Atacama. The Andes reaches around 20,000 ft high, where the Andean Plateau and a large number of volcanoes are located. The Atacama Desert lies between the Loa and the Copiapó Rivers. The Central Valley is almost completely absent, turning into desert tablelands. In some areas, the coastal range drops off in cliff structures called Coaster Cliffs. The Coastal Flatlands remain very narrow and it even disappears in some specific locations.

Second Zone

The second zone travels from the Norte Grande all the way to the Norte Chico. In this zone, the Andes reach its maximum height in the country at the Ojos del Salado. Watersheds are found surrounded by range. Both ranges get connected with transversal chains creating valleys. Coastal flatlands widen up, specially by the river mouths.

Third Zone

It is located in central Chile, from just north of the Greater Santiago down to the Bio-Bio administrative region. The central valley is more of a sloping plain. There are small hills, formed by volcanic dust. There are also fluvial, glacial and volcanic watersheds. Both ranges come really close in certain points creating narrows between them.

The climate is of the temperate Mediterranean type. Rains considerably increase from north to south, progressively. In the Santiago Area, the average temperatures are around 20 °C during the summer and 8 °C during winter. On the other hand, in Concepción, the average during summer reaches only about 18 °C. Although, during winter is a little higher than Santiago, at around 10 °C.

Around 15 km from the *Los Libertadores* mountain pass, between Chile and Argentina in the Andes, on the Argentine side, there is the Aconcagua; the highest peak in South America at 6960.8 mt (22837 ft). It is, actually, the most elevated mountain worldwide, outside the Himalayas system and one of the Seven Summits.

The early geological studies at the Aconcagua go back to 1883 where it was thought to be a volcano, but it wasn't until 1912 when German geologist Walter Schiller proved the theory wrong, stating that it did not have volcanic structures inside.

Fourth Zone

This zone goes between the Araucanía Region until the Los Lagos Region. There is volcanic activity, a large number

of lakes due to melting glacier and the flatlands widen up even more.

Fifth Zone

The fifth zone is all the remaining territory left, below the Los Lagos region. There are watersheds in between the Andes and ice fields nearby the sea. There are also many underwater lands and due to all the ice activity, fjords, inlets, islands and peninsulas are found.

Regarding Volcanoes and Volcanic Activity

The volcanic activity in Chile has a strong influence in our landscapes and geology, as much as our economy and society. As in other countries, in Chile, volcanism is related to other natural hazards like earthquakes, pyroclastic flows and ash. All along the country, Chile has a high concentration of active volcanoes due to the Peru-Chile Trench, a subduction zone where the Nazca and the Antarctic Plates are driven beneath the South American Plate. Easter Island, the Juan Fernández archipelago among other Chilean islands in the Pacific are extinct volcanoes created by hotspots. Chile has around 500 active volcanoes, of which 60 have had recorded eruptions in the last 450 years. The most active volcanoes are the Llaima, the Villarica and the Antuco. Volcanoes in Chile are mostly located in main body of the Andes, present in most of the heights.

In the central Andes, the stratovolcanoes reach up to 5000 mt (16400 ft) above sea level. Nevertheless, their cones don't reach more than 2000 mt (6500 ft) of height. In this area, volcanic activity is low and there are only 15 active volcanoes out of 500. On the other hand, in the Andean zone, there are the highest volcanoes such as the *Llullailaco* Volcano, at 6723 mt (22057 ft) and the *Ojos del Salado*-in the *salar*- that reaching 6885 mt (22589 ft) is the highest landmark in the country. Also, in the southern Andes, the volcanic activity may be frequent and sudden.

The Andean and Antarctic volcanoes have many sizes and shapes from massive stratovolcanoes to small pyroclastic cones.

Due to our volcanic reality, the *Observatorio Volcanológico de Los Andes del Sur* (OVDAS) was created in 1996 by the Geology and Mining National Service (SERNAGEOMIN). This observatory is located at the *Ñielol* hill in the city of *Temuco* and its main function is to watch over the most active volcanoes in the south, such as the *Llaima* and the *Villarrica*. The Chilean volcanic chain is the largest in the world. Some of the most important are:

Láscar: Located SE from San Pedro de Atacama, it reaches 5640 mt (18504 ft). It last erupted in 1993 and the smoke and ashes traveled all the way to the coast of Brazil. In 2006, the volcano started activity and the smoke reaches 3000 mt (9850 ft).

Villarrica: Located not so far from the city of Pucón, it reaches 2847 mt (9340 ft). It is permanently active and there is smoke most of the time.

Llaima: of 3125 mt high, it's the largest volcano in the south of Chile. It is located in the Conguillío National Park. It has 50 recorded eruptions; the last one on January 1st, 2008.

Lonquimay: located 130 km from the city of Temuco, its name means "Great Cliff" in Mapudungun. During its last activity in 1988, the eruption created a new crater due to a ground fissure, on December 25th. The crater was called *Navidad* (Christmas) because of the date.

Osorno: It is inside Vicente Pérez National Park at the Llanquihue Lake, about 60 km from Puerto Varas. It's 2652 mt high and it homes some mountain retreats on its hillsides that allow skiing during the winter.

Tolhuaca: This volcano has three craters and it's main body it's covered by ice. It does not have known recorded activity, although it is still considered potentially active.

Hudson: it is 137 km S from the city of Coihaique. It's ice covered and reaches 1905 mt. Its last eruption was August 8th, 1991.

Greater Santiago area

About 100 km southeast from Santiago, in the *Maipo* Canyon, there is the *Maipo* volcano. It is a stratovolcano lying on the border between Chile and Argentina. Of 5263 mt high, its last recorded eruption was in 1908. In the present, on the Chilean side, the lands nearby the volcano are part of a private property called *Cruz de Piedra*. This makes the volcano impossible to be climbed.

About 90 km southeast from Santiago, also in the *Maipo* Canyon, there is the *San José* Volcano. It is a stratovolcano part of a larger volcanic group in the area, including the La Engorda, Espíritu Santo, Plantat and Marmolejo volcanoes.

The *San Cristóbal* and *Santa Lucía* hills

Within the Santiago City area, we find both the San Cristóbal and Santa Lucía. Originally known as *Tupahue* and *Huelén* in Mapudungun, these are some of the most characteristic places in the city. The San Cristobal hill is part of a group of mountains that altogether are the Santiago's Metropolitan Park, that with about 722 ha, it is one of the largest parks in the world. Both these hills are thought to have been volcanoes tens millions of years ago. All of this in words of the Geology department from the University of Chile.

Bibliography

Chile - A Primary Source Cultural Guide by Jason Porterfield and Corona Brezina. Rosen Publishing Group
Icarito.cl
escolares.net
geo.arizona.edu
Wikipedia.org

One of Earth's wonders

The Earth around the mountain rumbles and shakes. Soon fountains of fire and puffs of steam shoot up into the air. Red-hot melted rock called lava pours out of the top of the mountain and flows down its sides. The sun is hidden by dark clouds of ash and smoke. The mountain has blown its top. A volcano is erupting.

Many people think of a volcano as one of the wonders of the Earth, but when it erupts, a volcano can be a very frightening thing. Today we know more about the eruptions of volcanoes. But people are still amazed at the great power of an eruption. Many still as, why do volcanoes erupt?

Volcanic Eruptions

What causes a volcano to erupt?

As we walk on the Earth from day to day, it seems like a solid place to live. We can run on the Earth. We can jump in the air and come down firmly on the ground. The Earth can even support large buildings weighing thousands of tons.

But we live only on the surface of the Earth. Our idea of the Earth is not the whole picture. Every now and then, things happen that don't quite fit in with our view of the Earth as a nice solid place to live. The eruption of a volcano is one of those things.

Many ages ago people would look at the fire and steam pouring out of a volcano and wonder what could cause such a sight. Since they had not developed scientific methods and equipment, these early people could only make up stories of gods to explain the eruptions.

Today we have a much better idea of what the inside of the Earth is like. We know that far beneath our feet, things are not nearly as stable as we might like to believe. The surface of the Earth is really a thin crust. Under this crust is a very thick layer called mantle. At the very centre of the Earth is the core. The core of the Earth is very hot. Scientists think that the core may be as hot as 10,000° Fahrenheit (about 5,500° Celsius). Pressures inside the Earth are also very great because of the weight of the rocks above.

Inside the mantle are pockets of melted matter. The melted matter is called magma. The great heat and pressure inside the Earth squeeze magma into weak places and cracks in the rocks around it. Magma can also come out on the Earth's surface through cracks in the ground or through a volcano. When magma reaches the surface, it is called lava.

Just as warm soda pop shoots out of a bottle when it is shaken, the pressure of magma and gases inside the Earth can cause a volcano to explode. If the pressure is great, it will cause eruptions which can send tons of rock, lava, and ash shooting into the sky. Sometimes, however, the lava flows out, like thick syrup, across the Earth's surface.

Once the lava reaches the surface, it begins to cool. The cooled lava can remain on the side of the volcano, building it up. The islands of Hawaii, as well as many other islands, were built up from the ocean floor in this way. Some volcanoes throw out ash and large rocks which also help to build up their sides.

Where can volcanoes be found?

There are about a thousand known volcanoes, but only about half of these are active. Active volcanoes are those which have erupted from time to time. While volcanoes can be found around the world, they are not spread evenly around the world. Most of them are grouped together or are found in long chains, often near the sea. The Pacific Ocean is circled by a ring of volcanoes. Because many of them are still active, this area is sometimes called the Ring of Fire.

Scientists learn more about volcanoes with every eruption. Yet there is still much they do not know. Hopefully scientists will someday be able to tell exactly when a volcano is about to blow its top.

Source: Scott, Foresman and Company, Wonders and Winners, 1988

El legado de los pueblos originarios

Antes de que llegaran los conquistadores españoles, habitaban en Chile distintos y varios pueblos originarios, que dependiendo de la zona se adaptarían, por ejemplo, los cazadores al clima seco, sin lluvia del desierto y los pescadores al clima helado de la Patagonia en el extremo sur. Curiosamente, el asentamiento humano más antiguo de Chile y de América hace más de 13.000 años, -del Pleistoceno tardío-, aparece en el sur cerca de lo que es hoy Puerto Montt, en Monte Verde y por otra parte, en el norte han sido encontradas las momias más antiguas del mundo, las de la cultura chinchorro.

Culturas cazadoras, recolectoras, agrícolas, pescadoras, aymaras, rapa nui, diaguaita, picunches, selk'nam, likanantai y cuantas más, existieron distribuidas de norte a sur y entre la Cordillera y la costa. Por lo mismo, existen sitios arqueológicos de gran valor que deben ser cuidados, compartidos y estudiados para así obtener un componente más que permita descubrir la Historia de Chile. De todas las grandes culturas que existieron, según el Instituto

Nacional de Estadísticas (INE) en 2002, los pueblos originarios son sólo cuatro: mapuches (87%), atacameños (3%), rapa nui (0,67%) y aymaras (7%). Pasado el tiempo y después de la Independencia, en 1835 sólo 1.010.336 de personas habitaban Chile, mientras que ya en 2007, según el INE, la población chilena era de 16.598.074 de los cuales 8.216.068 eran hombres y 8.382.006 eran mujeres.

Chile

En el territorio chileno pueden identificarse cinco zonas claramente: el Norte Grande, el Norte Chico, la Zona Central, la Zona Sur y la Zona Austral. En todas estas zonas sus habitantes han vivido procesos sociales, culturales y económicos que los han definido y otro factor que también nos define son los temblores y terremotos. Los terremotos, eventos impredecibles presentes desde el comienzo de nuestra historia, han afectado a más de una generación a lo largo del territorio. En cada época destacan episodios y crisis que lograron que avanzáramos hasta el punto de comenzar a usar el ferrocarril en 1851 o construir el Palacio de Bellas Artes en 1880 para conmemorar el primer centenario de Chile.

Después del plebiscito de 1989, cuando triunfara la opción “NO” que significaba no aceptar la represión y que el General Augusto Pinochet siguiera en el poder, Chile volvió a elegir a un presidente. Desde ese año hasta 2010 este país fue gobernado por una coalición política, llamada “Concertación de partidos por la democracia” y en 2010 asumió el primer gobierno de derecha desde la dictadura militar. El tránsito hacia una democracia plena ha sido largo y cuatro gobiernos, incluido el actual, han intentado avanzar hacia el desarrollo, lograr reformas gradualmente, crear políticas sociales para reducir la pobreza y a su vez, cumplir con metas internacionales como las propuestas por las Naciones Unidas (NN.UU.) llamadas “Objetivos de Desarrollo del Milenio”.

Actualmente, Chile es visto como uno de los países más estables económicamente en América del Sur, como uno de los más importantes exportadores de cobre y como un socio comercial serio. En 2011 la minería del cobre representaba el 10,8% del PIB. Es decir, dentro de las actividades económicas ésta juega un papel fundamental y estratégico. Con presencia en la Antártida, Oceanía y Sudamérica, Chile se convierte en un país tri-continental, en vía de desarrollo y que es considerado por la Organización para la Cooperación y el Desarrollo Económico (OCDE) como el país con mayor desigualdad de distribución del ingreso.

Bibliografía:

Gran Atlas de Chile, 2008

Chile y su Historia, 1994

www.memoriachilena.cl