



**4 AMERICA**





Similarly to Africa, the Americas with their 42.5 million square kilometers (16.4 million sq mi) lie in both the Northern and Southern hemispheres. There are over 910 million inhabitants in the 35 countries.

The first people migrated to the Americas from Asia across the Bering Strait as early as about 20,000 years ago, gradually spreading out as far as Patagonia. These were the indigenous inhabitants, or "Indians". As we know, when Christopher Columbus discovered America in 1492 he initially believed he had reached India.

At the end of the Ice Age, 8,000 years ago, when the Bering Strait was still frozen, another wave of migration, the present Inuits (Eskimos), reached the American Continent. These people also travelled from Alaska to the south and southeast, but upon reaching the forest boundary (at the 58th parallel north) they encountered the Native Americans, who were not friendly at all. As the southern regions offering better living conditions had already been taken, the Inuits had to adapt to the extremely hard life in the tundra.

Although the discovery of America tends to be attributed to Christopher Columbus, it was as early as around 985 that the Norwegian Vikings, led by Leif Ericson, made it past Greenland up to the northern part of Newfoundland and built the settlement of Vinland here. Adverse weather conditions and the hostile welcome from the Native Americans nevertheless made the Vikings eventually leave.

Today the Americas are home to Native Americans, Inuits, Caucasians, African Americans, Asians, and people from the Middle East, as well as, of course, people of mixed race (mestizos and mulattos). While North America (the United States and Canada) is the economically strongest region, South America has not found the ideal method for its development yet. It has spent too much time under the influence of military dictatorships, which has been detrimental to building an open, civic society. Yet 250 years ago the Spanish and Portuguese colonies were richer and more powerful than the British settlements in North America. A large wave of economic migrants from Spain and Portugal headed for Central and South America. In 1959 Cuba still had a higher gross domestic product per capita than Spain (this does not change the fact that the then Batista regime distributed wealth in an extremely uneven and unfair way). Before the Second World War, Venezuela and Cuba were at approximately the same economic level but today the difference is striking.

Latin America abounds in rich natural resources. A typical example is Argentina, which could be one of the world's richest countries but is instead still struggling with the legacy of Peron's populist regime that heavily indebted the country.

Natural resources can be extracted in a sustainable manner or in a predatory and devastating way. The Amazon rainforest is the largest tropical forest in the world, but approximately 45% of its size has already been depleted and the devastation continues. Unfortunately, the Brazilians believe they are doing nothing worse than what the Europeans did a few centuries ago. In the past in Central Europe more than 90% of the land used to be covered by forests; today it is 30%. In Southern England, more than 93% of the land was deforested. However, there is a big difference between forest regeneration in the temperate climatic zone, where there is a sufficient layer of fertile soil, and in tropical regions, where the layer of fertile soil is very thin and prone to erosion once the trees are cut down or burnt.

Brazil is one of the countries with the largest social differences in the world. Simply put, there is (similarly to the situation in other Latin American countries) a class of extremely wealthy people (often owning vast amounts of land – latifundistas), a very weak middle class, and a very strong class of the poorest inhabitants, people with no land or work. This has a direct impact on crime and violence, for which some cities like Rio de Janeiro or Sao Paulo in particular are well-known. Poverty, along with the long-term absence of democracy and a thriving civic society leads to organized crime, which sometimes threatens the very foundations of the functioning of the state.

The Andean region is infamous for the production of cocaine, a hard drug. The drug trade brings in tens of billions of dollars a year (the international trade in drugs, including heroin, hashish and others, generates about \$900 billion a year). The 1980s were the years when Pablo Escobar, the ruthless drug baron, head of the Medellin Cartel, operated in Colombia.

The Medellin Cartel controlled up to 80% of the cocaine trade and Escobar's daily personal income was estimated at one million dollars. In 1991 he made a deal with the government that he would surrender and go to jail on condition that he could not be extradited to the United States. His "jail" was a luxury building, a hacienda he was allowed to have built for himself. In addition to the guards Escobar also had his own bodyguards and anti-aircraft weapons. These protected him from a possible attack from the air by US Special Forces, who would carry him off to the USA. He would have remained in prison for the rest of his life in the USA.

In the end, Pablo Escobar escaped from "his" prison but in 1993 he was run down in Medellin and killed in a shootout by the Colombian police, who were probably cooperating with the US Special Forces.

The biggest transshipment point for cocaine on the route through the Caribbean Sea to the United States is Haiti. This country, by far the poorest in the Western hemisphere, is inhabited by the descendants of former slaves. Haiti is a sad case of a non-functioning state. The comparison with the neighboring Dominican Republic, which has comparable natural conditions (the two countries share the island of Hispaniola), is painful. Although Haiti gained independence in 1804, it still has not been able to establish effective government.

In the Americas you will find an immensely diverse world both in terms of nature and culture. Central America and South America are characterized by high levels of poverty and enormous social differences but on the other hand, similarly to Africa, you can feel here a great zest for life, optimism, and a strong belief in a better future. I have visited Latin America several times and, besides my European home, I have always felt most at home there. If I ever had to leave Europe (which I hope will not happen), I would most likely look for a new home right here.





## 4.1 Canada

The capital of the world's second largest country, Canada, is Ottawa. It has only 800,000 inhabitants. The Rideau River flows through it, joining the Ottawa River at the end of the city. The latter forms the boundary between the English-speaking province of Ontario and French Quebec. Should Quebec ever break away from the rest of Canada, Ottawa would become the symbol of the division and not the unification of the country.



The city is dominated by the 553m (1,815 ft) high telecommunication CN Tower, the world's tallest building until 2007, when the Burj Khalifa tower in Dubai took the record with 828 meters (2,717 ft). The human desire to build a "Tower of Babel" seems imperishable.



The University of Toronto was established as early as 1827. Ranking as one of the most famous in the whole of North America, it provides education for 45,000 students. The outstanding arctic ecologist Josef Svoboda has worked here for forty years.



The business center and the "heart" of Canada is Toronto. It has 2.5 million inhabitants and with the whole metropolitan area the number rises to 4.3 million.

Japanese gardens enjoy great popularity everywhere in North America. They help people escape from the hustle and bustle of a city, quieten down and calm the mind.







Toronto lies on the shores of Lake Ontario, which has an area of 19,529 square kilometers ( 7,340 sq mi). It is the fourteenth largest lake in the world, but in stormy weather the waves resemble a heavy sea. The mass of water (1,640 cubic kilometers [393 cubic mi]) compensates, to some extent, for the temperature differences between the hot summers and cold winters. In the past some parts of the lake were heavily polluted by waste generated by the operation of large industrial facilities, especially iron works. Today the situation is much better than in the mid-20th century. The toxic mud has been dredged and now people can swim in the water again, even in the vicinity of the modernized steel mills.



The lake shore is a popular spot for recreation and sports. People thus have nature within reach, very close to the city.



The vast plains around Winnipeg are Canada's breadbasket. The landscape, uninteresting to tourists, features typical square or rectangular shaped corn fields, stretching away to the horizon. In the west the monotony is broken by the Rockies and in the north by woods that blend into tundra above the 58th parallel.

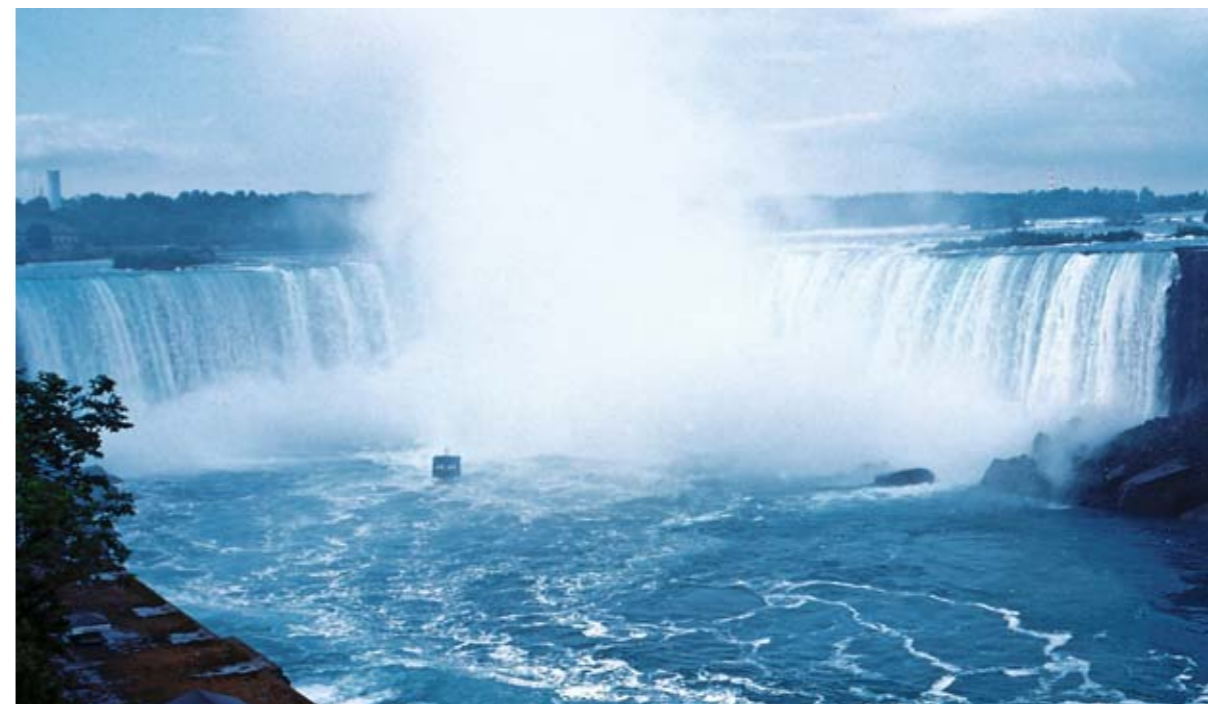


The Niagara Falls are located between Lake Erie and Lake Ontario, on the Niagara River, which forms the border between Canada and the United States of America. They are 52 meters high (171 ft), but will not be forever. Thanks to the soft bedrock they will gradually erode away within the next millennium. The Falls have already moved back 11 kilometers to the south since the last glacial period 10,000 years ago.

Some of the water is diverted to the turbines of hydroelectric power plants and the generated electricity is divided between the United States and Canada. On average 5,700 cubic meters of water per second flow through here. During the tourist season (April to October) at least half the flow must run over the waterfalls so as not to deprive tourists of the attraction. Off-season it is possible to divert up to three quarters of the flow to the turbines.

In 1901, a 63-year-old teacher from Michigan, Annie Taylor, went over Niagara Falls in a barrel. Surprisingly enough she survived, but she warned everyone against giving it a try. Despite this recommendation and the relatively high fines from the government authorities, 14 more daredevils (or lunatics, depending on your point of view) have repeated her attempt. Some of them survived and some did not.

In July 1960 the "Miracle at Niagara" took place. An uncle with his niece and nephew set out for a motor boat ride above the waterfalls. The engine stalled and would not start again. The children therefore jumped out to try to reach the bank. The 17-year-old niece was stronger and managed to swim close to the shore. A mere six meters away from the waterfall she was pulled out of the water by two tourists. Her seven-year-old brother, Roger Woodward, lacked the strength to swim in the current and fell into the depths of the waterfall wearing just a life vest. To everyone's great surprise a moment later he came up to the surface, and without even any serious injuries. He was fished out of the water by the crew of the closest passenger boat. His is the only documented case where someone has survived a fall down the waterfalls without being protected by a barrel or similar equipment.







Hudson Bay encompasses 1,230,000 square kilometers. Numerous straits connect it to the Atlantic Ocean and the Arctic Ocean. The furthest north the railway runs is the city of Churchill at the 58th parallel north. This makes it the destination for grain and goods from southern parts, which are loaded here onto sea-going vessels and distributed worldwide.



In summer Churchill is the location of the greatest concentration of polar bears in the world. Bears remain on the frozen areas of the bay for as long as they can, but with the arrival of summer the ice melts and the last ice floes gather around Churchill. Here the bears are forced ashore. The females give birth to pups and everyone waits for the end of August for the lake to start freezing up again. Towards the end the bears are hungry and therefore dangerous. Tourists come here on safari. You can take photos of as many as 16 bears from one spot. I was not lucky. In the first half of June the bears were still on the ice.



North of Churchill the tundra begins – an area with no woods and with permanently frozen ground (permafrost) that melts only a few centimeters deep in the summer. Here you will also find the Inuit Nunavut Territory, which was granted a relatively extensive autonomy in 1999. Covering over 2 million square kilometers, the territory is 27 times larger than the Czech Republic but its population amounts to not more than 27,000 people in thirty towns. The Inuits (translates as “people”; “Eskimo” is considered derogatory because it means “eater of raw meat”) make up 85% of the population. Local deposits of diamonds may bring great wealth in the future.







Our friend Mike, proudly showing us some dried pieces of reindeer. He offered me a bit but without prior training eating this was a challenge.



Baker Lake with its 1,200 inhabitants lies 300 km west of Hudson Bay, at the 64th parallel. Unfortunately about 80% of the population is unemployed. In the first half of the 20th century the Inuit still lived a nomadic lifestyle just like in the Stone Age. Having adapted to life in incredibly harsh conditions, they lived here for 8,000 years. Within the next 2–3 generations they entered the life of the post-industrial era – they have a school, supermarket, indoor swimming pool, satellite TVs, etc. Oddly enough, this was accompanied by an increase in alcoholism and suicide. On TV the local people watch the lifestyle of “ordinary millionaires” from the south in series such as Dallas, which frustrates them because they cannot reach this standard of living in the north. However there is no way back as they would no longer survive the winters in the tundra. As they passed from the Stone Age to modern society within a few generations, the change of course has brought along a culture shock that they will still take some time to cope with.



For 33 years, Josef Svoboda has carried out his botanical and ecological research in the Arctic. It was thanks to him that I got to visit Baker Lake and learned a lot more about the history of Inuit life than if I had come as a tourist. Joseph studied, for example, the impact of climate change on the fragile tundra ecosystem. He built an open “greenhouse” (see picture), where the temperature is 2 degrees Celsius higher than outside. He studied the progress of the growing season of the plants inside the device as compared to the plants outside. As a “bonus” for the local residents every year he would rebuild a cold frame, where he showed the locals that even in Arctic tundra conditions virtually all vegetables can be grown during the short growing summers (there is always light in the summer, with the sun setting only for about two hours). The Inuit love vegetables but are unable to grow them themselves because, for example, remembering to regularly water and ventilate the cold frame is too much for them. The local mayor put it nicely: “We Inuit are hunters; there is not a tinge of green on our hands.” And so they keep on importing expensive vegetables from the south by air.











The Catholic community of Baker Lake. The missions were founded principally by Oblates of Mary Immaculate and by the Anglican Church. The mutual antagonism between Catholics and Protestants was a source of great confusion for the local residents in the past. Today there are seven or eight different Christian churches in the area. Conditions continue to be very hard for the missionaries even today, especially in winter. As a result, this Catholic community has no priest; he only comes here a few times a year for major religious holidays.



A sad picture. Dog packs used to be vital for pulling sleds when following reindeer herds in the winter. When the Inuit obtained snowmobiles, they lost interest in the dogs. Today a family usually keeps one dog, perhaps as a nostalgic reminder. The dogs, however, do not live in a kennel in front of the house but are behind the village on a chain all year long, far enough from each other to prevent them from fighting. Nature has been extremely hard on the Inuit and vice versa. This often applies to one-to-one relationships as well.

The Inuit used to only form family clans of 20–25 people (not large tribes like the Native Americans) in order to have a chance of living by hunting the reindeer in winter. The birth rate was regulated by placing “surplus” newborn babies in the snow. The old people who could no longer keep up with the travelling clan were given a skin to wrap themselves into, said goodbye to their loved ones, and died of hypothermia. There was no other way as the priority was for the clan to survive.



An example of Inuit art in the local museum founded by the teachers from the south who have stayed. They want to preserve the traditions, customs and folklore as much as possible for future generations, even if only in a “conserved” state. The Inuit are not very interested in learning about their roots now but one day they will be and will want to continue their ancient traditions. They will need something to be able to reconnect with it.







A favorite pastime of young men. When the snowmobile gains enough speed, it is able to "swim" across the water for hundreds of meters. Sometimes the guys go too far, fail to return to the ice in time, and the snowmobile drowns. Naturally the engine and the whole vehicle are then ruined.



Sunset at one a.m. In an hour just a little farther away the sun will come up, starting a new day. Since everyone wants to enjoy the summer, even little children are allowed to stay outside until midnight.



Even today there are no burials in the ground as the soil is frozen tens of meters deep. The coffin is placed on the ground and hemmed in with rocks.



The tundra ecosystems are extremely delicate. These ruts would heal in the European climate within one or two years, but in the tundra it sometimes takes several decades. That is why single-track vehicles (motorcycles) are prohibited here and people can only drive cars and four-wheelers with wide tires.







The tundra is above all an endless horizon. Thanks to the clean air, you can see for more than a hundred kilometers on a clear day.

Baker Lake is 120 kilometers (75 mi) long and 30 kilometers (19 mi) wide. For the locals it is most of all a source of fish. Distinguishing 30 types of ice and snow, the Inuits move expertly across the lake. No one ever drowns; only in the summer does the melting ice sometimes swallow a box with fishing gear that has not been pulled to the bank in time. They simply live in the present. There is still ice today, what happens tomorrow we will deal with tomorrow. Sometimes things work out on their own.



## 4.2 United States of America

The United States of America is the largest economic power, with a gross domestic product of more than 14,000 billion dollars.



Throughout the twentieth century, New York was seen as the "center of the world", representing a sort of a world of its own with a highly cosmopolitan culture. In 2001 a treacherous fanatical attack destroyed one of its main symbols, the World Trade Center. Now it seems that the economic and business centre of the world is shifting elsewhere, to the Pacific Ocean.

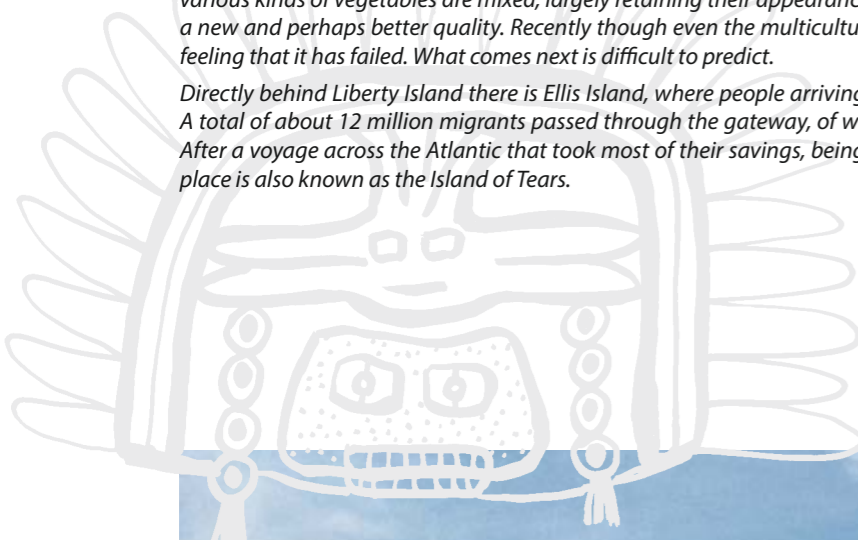






The Statue of Liberty was given to the Americans by the French. Second to life, liberty is the value people treasure the most. Without it one cannot speak of life but of mere survival. For a long time, the United States was a symbol of freedom for all oppressed nations. This, however, is slowly changing. The Americans used to believe they were a "melting pot" – the immigrants coming from various races and nations would "melt" into genuine Americans within a few generations. This nevertheless did not happen. While the immigrants consider themselves Americans, for many generations they also remain aware of being Irish, Jewish, Polish, Hispanic, and so on. This is why some started talking about multiculturalism, which was likened to "vegetable soup". In the soup model, various kinds of vegetables are mixed, largely retaining their appearance and flavor even after having been cooked. They create a new and perhaps better quality. Recently though even the multiculturalism concept has been questioned; there is a growing feeling that it has failed. What comes next is difficult to predict.

Directly behind Liberty Island there is Ellis Island, where people arriving from Europe would undergo the immigration process. A total of about 12 million migrants passed through the gateway, of which 2% were rejected (mainly due to health problems). After a voyage across the Atlantic that took most of their savings, being refused would end in family tragedies. That is why this place is also known as the Island of Tears.



With its eleven million citizens, New York generates an immense amount of waste. The rubbish is disposed of in controlled landfills, which are often hundreds of miles away because waste disposal fees are lower there. The photograph shows a landfill in Ohio, one of the sites where the waste from New York was dumped in the 1990s.



New York is the seat of the main headquarters of the United Nations. In the past the UN had great ambitions and significantly contributed to the decolonization process and to the fight against some of the infectious diseases (for example, smallpox eradication in the 1970s). Now, unfortunately, it is just an association of 193 egotistic countries that form special-purpose groups to promote their own particular interests. On the other hand, it is the only platform where the representatives of all the countries in the world regularly meet and communicate. The UN is often criticized for being financially demanding. This criticism, however, has no substance. While the United Nations may be bureaucratic and inefficient it is definitely not expensive. Its annual operating budget totals two billion dollars, while the peacekeeping expenditures are another seven billion dollars.

Philadelphia is a symbol of the struggle for American independence. On 4 July 1776 the Declaration of Independence was adopted here, followed in 1787 by the Constitution of the United States of America. From 1790 to 1800 Philadelphia was the capital of the United States while the future capital, Washington, DC, was being built.

In the very south, in the state of Florida, there is a chain of 4,500 islands jutting from the Florida Peninsula deep into the Florida Straits, separating thus the Atlantic Ocean from the Gulf of Mexico. The furthest island is Key West, which is closer to Havana (171 kilometers [106 mi]) than Miami, Florida (208 kilometers [129 mi]).





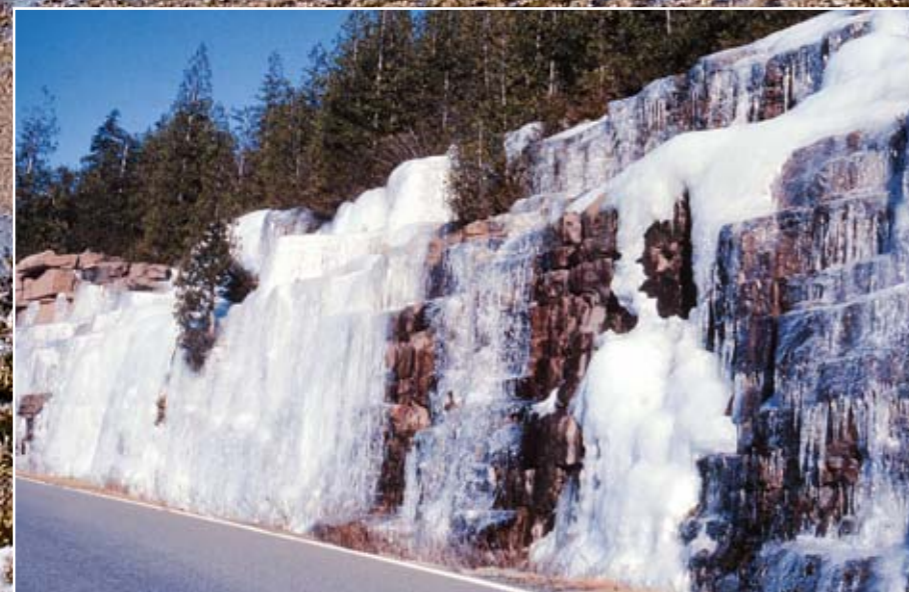
*These trees covered with lichens document the excellent quality of the air.*



*Maine is a state in the northeast of the United States, near the border with Canada. Although it is slightly larger than the Czech Republic, it has only a little over a million inhabitants. 90% of the state is covered by forests, and among the main sources of livelihood are fishing and the timber industry.*



*Mere 200 meters off shore there is a small island called Mount Desert with Bar Harbor, a town of five thousand residents. Inhabited mainly by fishermen year-round, in the summer it becomes a popular tourist resort. 80% of the island is covered by Acadia National Park.*







The island is home to a unique private college, the College of the Atlantic, focusing solely on human ecology. It has only 400 students and 35 teachers. The only public holiday on which there are no classes is Earth Day (22 April).



The landscape and lifestyle on the island attract people who prefer the countryside to the bustle of the city. This is the wooden dome house of my friend, a former dean of the school, Mel Coté.



The United States has outstanding universities. One of the most famous ones is naturally Harvard University, founded as early as 1636. It has 20,000 students from around the world and the average annual tuition is very high (\$40,000). Hardly anybody, including United States citizens, can afford it, but thanks to scholarships, half of the students do not have to pay the tuition.



The ten most prestigious colleges include Cornell University in Ithaca, a town northwest of New York City. Founded in 1865, the college has 19,000 students from 122 countries and boasts 41 Nobel laureates as current or previous faculty members.







Chicago lies on the shores of Lake Michigan. It is the third most populous city in the USA (after New York and Los Angeles), with nearly 10 million inhabitants. There are large communities of people originally from Central and Eastern Europe, especially Poles. In the early 20th century the city had 100,000 immigrants from the Czech lands. From 1931 to 1933 the mayor of the city was a Czech native, Antonín Čermák.

The Sears Tower (renamed Willis Tower in 2009), a 442-meter-high skyscraper, was the tallest building in the world until 1998. Then it was surpassed in height by the Petronas Twin Towers in Malaysia. There are 10,000 people working on its 108 floors.

Minneapolis is the largest city in Minnesota, an agricultural state near the border with Canada. Together with St. Paul, Minneapolis forms the Twin Cities with a total population of 3.5 million inhabitants.

Mount Rushmore is a national monument in South Dakota. From 1927 to 1939 two Borglums, father and son, used the local rock to carve eighteen meter high sculptures of four USA presidents (left to right): George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln.

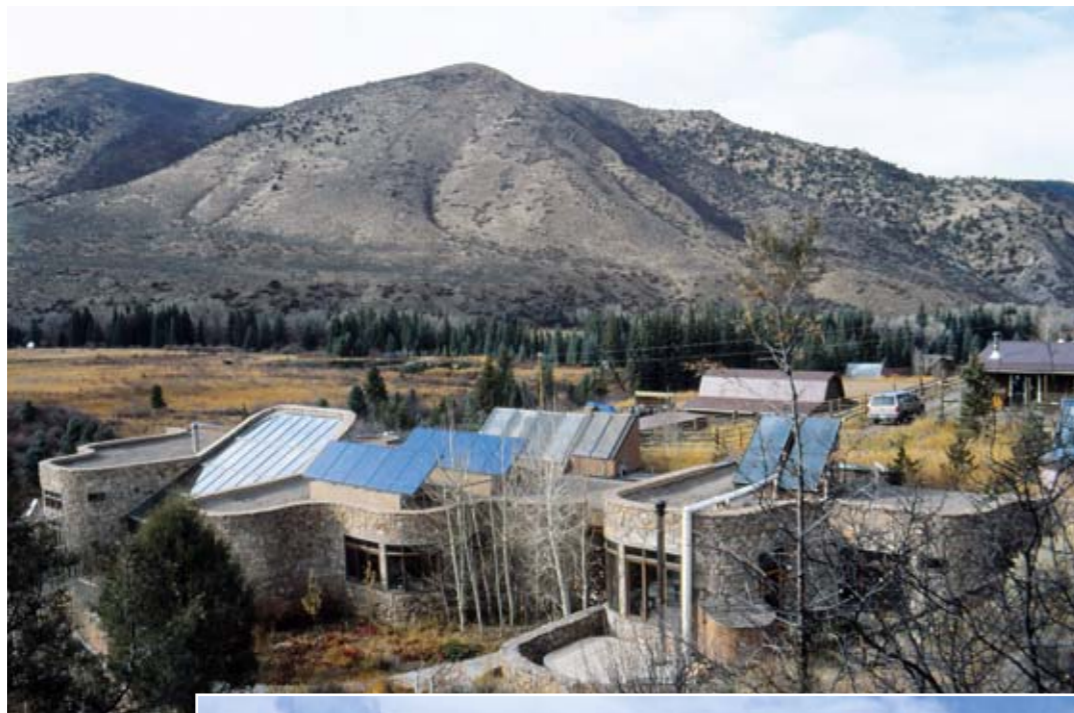


Let us now have a closer look at the stunning and varied nature in the United States. At the end of the 20th century, most Americans did not own a passport. It was not that they could not but because the United States is kind of a world within itself, with basically everything that makes travelling attractive.

Located in Colorado, Rocky Mountains National Park is part of the 4,830 kilometer (3,000 mi) mountain ridge that stretches from Alaska to Mexico. It has 60 peaks at an altitude of over 3,700 meters (12,000 mi). The highest, Longs Peak, is 4,346 meters high. The park is crisscrossed with 578 kilometers (359 mi) of hiking trails. The vast majority of tourists nevertheless only drive to viewpoints, where they look around the landscape, have a snack, and go on.







High up in the Rockies near Aspen (a well-known ski resort) at an altitude of 2,436 meters, Amory and Hunter Lovins, husband and wife, built the "Rocky Mountain Institute" in the 1980s, dedicating it to the study of modern and efficient technologies that are compatible with sustainable development. In winter the temperatures drop even below 40 degrees Celsius. "Super-insulation" and "super-windows" retain basically all the heat inside the building. Compared to other similar buildings, these save 99% of the heating energy and 90% of the electricity required for the household.

The landscape of the Midwestern United States consists mainly of prairies, which are still used extensively only. One or two hundred years ago this area probably looked the same.



Canyon de Chelly, a national monument, is located in the northeast corner of Arizona. It lies in the territory of the Navajo Nation, who now administer a partly autonomous territory of 67,000 square kilometers (26,000 sq mi) bordering on Arizona, Utah and New Mexico. The area used to be populated by the Anasazi tribe, which was later pushed out by the Navajo. The photo shows what is left of the original settlement, the White House Ruins.



Near the Rocky Mountains in Colorado lies the Great Sand Dunes National Park and Preserve. It covers only 340 square kilometers (131 sq mi) but the sand dunes reach up to 230 meters high. Especially in the spring the water melting down from the snow and glaciers in the Rockies forms interesting contrasts and natural sceneries.



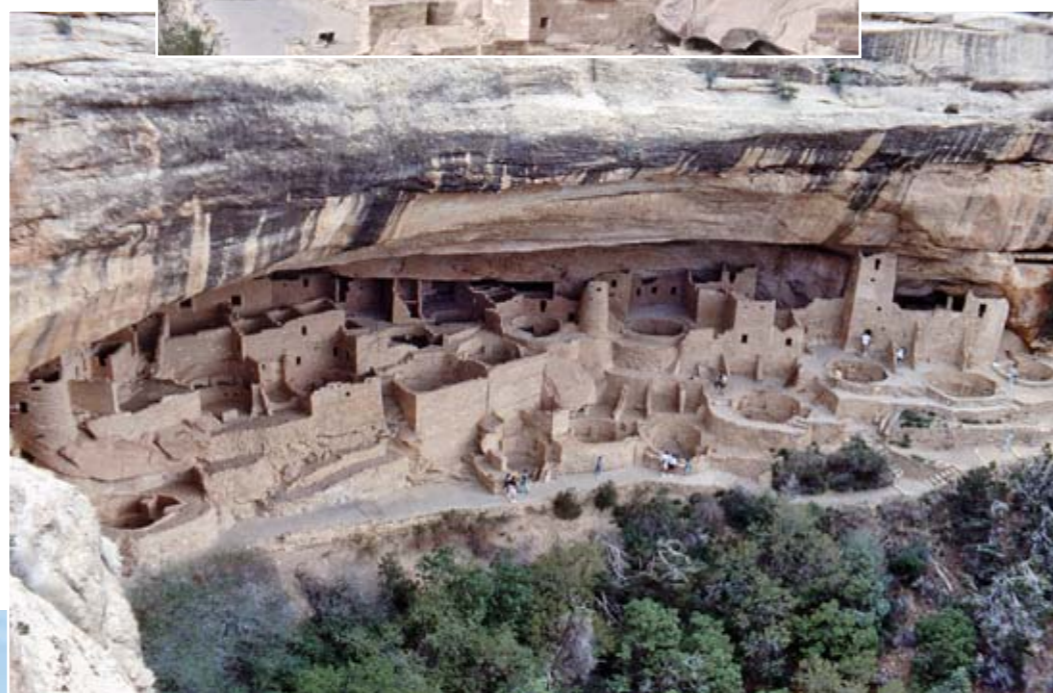








*In the southwestern part of Colorado, near Four Corners (the point where the boundaries of four states – Colorado, Arizona, Utah and New Mexico – meet), at an altitude exceeding 2,000 meters above sea level, lies Mesa Verde National Park. It features a well-preserved Anasazi settlement built in a cave and protected by a steep cliff. The Anasazi arrived here sometime from 550 to 1300 AD. They were primarily farmers growing corn but also hunters.*



*Monument Valley is on the border between Utah and Arizona, within the Navajo Nation reservation. The sandstone towers are up to 300 meters (1,000 ft) tall.*



*Bryce Canyon National Park is not really a canyon but a natural amphitheater. It all started with water and wind erosion, which formed fascinating geological formations in the sedimentary rocks. The park is at an altitude of 2,500 meters above sea level.*





*Canyonlands is the most beautiful natural park I have ever seen. It is situated in the southeastern part of Utah and is quite large – 1,366 square kilometers (527 sq mi). The Colorado River runs through it, meandering wildly; over millions of years it has formed unique natural scenery. Every year the park is visited by nearly half a million tourists.*



*Not far from Canyonlands there is Arches National Park. Nature, or erosion to be more precise, has molded more than 2,000 arches, or rather vault formations, in the local sandstone.*

*One of the most famous is Landscape Arch. It is said that cowboys used to test their courage by trying to ride over it on a horse.*

*The park receives only about 250 millimeters of rain a year. This is not much and that is why xerophilous vegetation, including cacti, thrives here.*







*Petrified Forest National Park is located in the northeastern part of Arizona in Navajo and Apache territory. Here are the badlands – sedimentary rocks containing clay sand, which were formed by water and wind erosion.*

*The national park is known primarily for its large areas of "petrified wood". In the petrification process, organic materials are replaced with minerals, mostly silicates. This takes place underground, without any oxygen, which prevents the wood from decomposing. The petrification process is relatively fast, usually less than 100 years. The preserved parts of the petrified wood reveal the original growth rings.*



*The southern part of Nevada is home to Las Vegas, also known as Sin City. It has nearly 600 thousand inhabitants and is considered the capital of gambling, shopping and spending. This is matched by the extravagant architecture of the hotels and casinos, imitating, for example, the Mississippi steamer or, more recently, the Egyptian pyramids or the Eiffel Tower. A lot of the casinos were built in the 1930s by the gangster Benjamin "Bugsy" Siegel, who thus triggered the development of this industry in the city.*

*If you drive just a little away from the city, the scenery changes completely. We are in the Mojave Desert, where people live in trailer homes off the road. Some probably choose to live this way but others are forced by their financial situation.*

*Forty kilometers southeast of Las Vegas there is the Hoover Dam, built on the Colorado River from 1931 to 1936 during the Great Depression. It prevented rainstorm floods and collected water for irrigation. The installed hydro turbines have an output of 2,080 megawatts (identical to the Czech Temelin nuclear power plant). The dam is 221 meters high and 379 meters wide. It was a technological marvel for the period, which nearly a million tourists still come to see every year. Sadly, over a hundred workers lost their lives in the construction.*





Grand Canyon National Park together with Yellowstone National Park and Yosemite National Park are the three best known and most popular parks in the United States. Situated in the northeastern part of Arizona, Grand Canyon is 446 kilometers (277 mi) long, in places as much as 29 kilometers (18 mi) wide and 1,830 meters (6,000 ft) deep. The Colorado River and its tributaries have been eroding this landscape for 40 million years. The river has been flowing in its current bed for about the last 17 million years.



Descending to the bottom of the canyon is not difficult or dangerous, it is challenging only because of the difference in altitudes. It is advisable to have enough water because you will pass through five vegetation belts, from alpine at the top to subtropical at the bottom. When a friend of mine, a botanist from the USA, did the descent, it was snowing at the top but at the bottom of the Canyon it was 25 degrees Celsius. Before the arrival of the Europeans, the Canyon was inhabited by the Hopi, who considered it a sacred and pilgrimage site.

For geology students the Canyon is the best "textbook" on nature. It features eleven geological layers exposed by erosion, down to rocks that are two billion years old.



In order to visit Saguaro National Park, you need to drive all the way down to near the Mexican border, close to the city of Tucson, Arizona. It is truly worth it! You will be rewarded with views of 300 square kilometers covered with high cacti in the Sonora Desert (especially Saguaro cactus, *Carnegia gigantea*). The cacti live up to 150 years and the tallest of them, Champion Saguaro, towers to 13.8 meters (45,3 ft).











Let us have a brief look at Texas. Here Houston is home to the NASA space center and a museum. This is one of the rockets to the Moon which was never used. The entire Apollo program, during which the Americans landed on the Moon five times, cost \$25 billion. As the public thought it was too expensive, in the mid-1970s the politicians ruthlessly terminated the program. People will definitely not return to the Moon before 2020 and who knows if the next brave steps into space will not be taken by someone other than the Americans.



Most water (not only in Texas) is used in agriculture. Without irrigation the region would be dry, suitable perhaps for extensive livestock grazing.



Death Valley National Park lies on the border between Nevada and California, spreading over 13,630 square kilometers. It is the driest and hottest place in the United States of America. It is the deepest place in the Western Hemisphere, lying 86 meters below sea level. Every year nearly 800,000 tourists come to see the park. Caucasians first crossed the valley in the winter of 1849 while heading for the California gold fields. Some of them died here of thirst and exhaustion, which gave the place its name.



Sequoia National Park is located in the southern part of the Sierra Nevada, California. The Giant Sequoia, the largest living organism on Earth, grows here. Other sequoias are to be found in the adjacent Kings Canyon National Park.

Not all plants need photosynthesis, as long as they parasitize on another organism.





General Sherman is the largest tree. It measures 83.8 meters (274.9 ft) and its trunk at the base is 31.3 meters (102.6 ft) in girth, and so at least 15 people would be needed to hug the tree. As the trunk diameter is 11.1 meters (36.5 ft), for example a whole class would comfortably fit inside. The total wood mass is 1,478 cubic meters (52,513 cu ft) (a cynic might say the wood would be enough to provide heat for 75 years). The age of the tree is estimated to be 2,300–2,700 years but some sequoias are even more than 3,000 years old. It is fascinating to realize that when Jesus Christ was born, some of the trees that are still there were over a thousand years old.

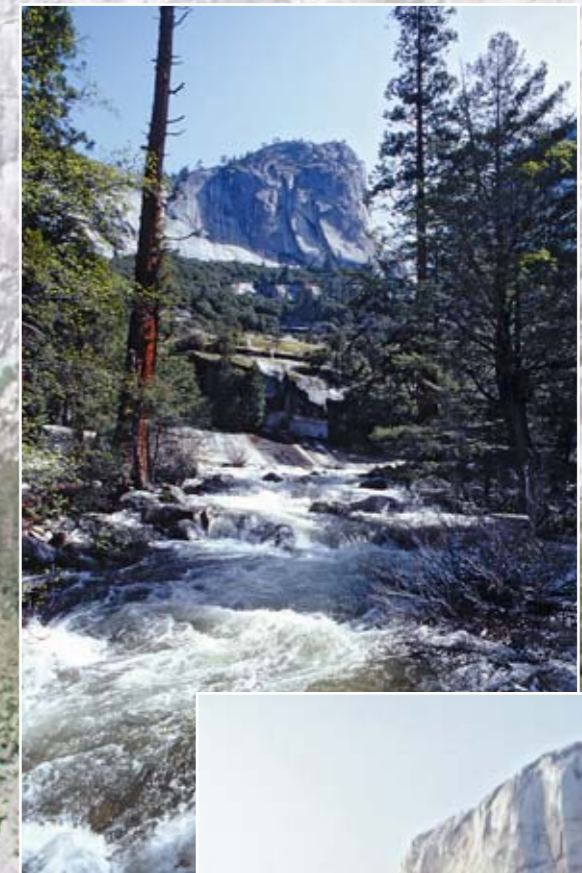
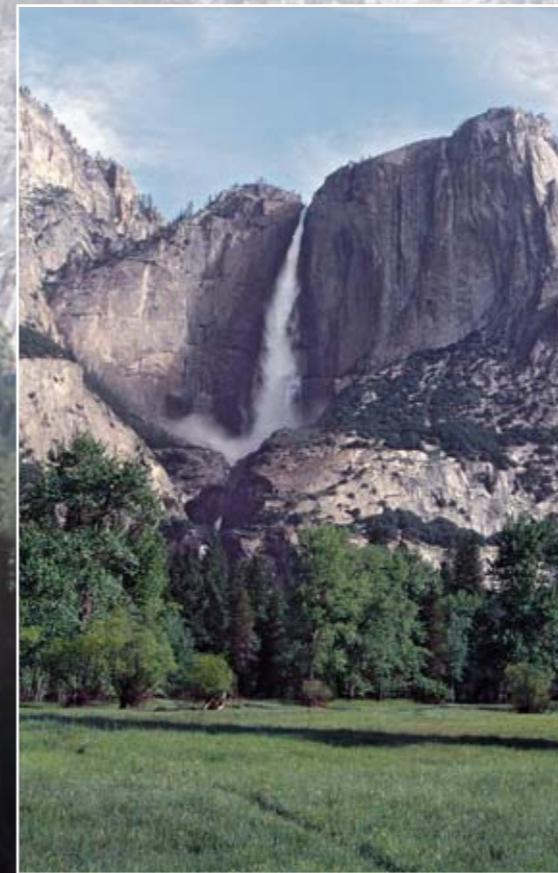
The national park was established as early as 1890. The first park rangers were temporarily housed in the trunk of a fallen tree. While one part of the tree served as living quarters, the other was turned into horse stables.

Sequoias are highly resistant to fire. Fire started by lightning will not harm the tree (even though the burns look dreadful enough at first glance) but destroy the undergrowth competition.



Yosemite National Park is located near Sequoia National Park. Established also in 1890, it draws nearly four million tourists a year. It covers 3,080 square kilometers at an altitude from 648 to 3,997 meters. The park therefore has everything—mountains, glaciers, beautiful waterfalls, abundant wildlife and 2,400 plant species (including the Giant Sequoia).

Yosemite National Park is a paradise for rock climbers, whose Mecca is the renowned El Capitan wall, which is a 910 meter-high granite monolith. Solo ascents are highly regarded. Since the rock must remain in its original condition, it is necessary to climb up one rope's length, anchor oneself, climb back down, remove the previous anchor, climb up again, and repeat the whole process again. Of Czech climbers, Miroslav Šmíd accomplished the solo ascent in 1978, taking eight days. Unfortunately, in 1993 he tragically died here in Yosemite.







One of the most visited cities in the world is San Francisco, California. Incidentally, if, hypothetically, California seceded from the United States, it would become the seventh strongest economy in the world. Today San Francisco is home to over 800,000 people but the whole area around San Francisco Bay has 7.5 million inhabitants. The pyramid-shaped skyscraper is called the Transamerica Pyramid. Towering up to 260 meters, it is a symbol of the city. As San Francisco lies near the 1,300 kilometer (800 mi)-long San Andreas tectonic fault, where the Pacific and the North American tectonic plates collide, there are occasional earthquakes here. The most tragic took place in 1906, claiming more than 3,000 lives.



San Francisco is a "small town" compared to Los Angeles (photo below), which is known for its infamous smog caused by roughly six million cars.



Lombard Street, a street with the highest gradient in San Francisco, is "flooded" with flowers.



Alcatraz Island (also known as The Rock) is located 2.4 kilometers (1.5 mi) off shore. Strong currents and sharks make it basically impossible to swim the distance. The island first held only a lighthouse, then a military fort, later a military prison and then eventually what was probably the most feared federal prison, which was closed down in 1963. Today it is just a tourist attraction. Over the 29 years Alcatraz served as a federal prison, a total of 36 inmates tried to escape 14 times (of whom two men tried to escape twice). Only three escapers were never found, not even their bodies. They are thought to have perished in the cold waters of the ocean, but we will never know for certain.



Golden Gate Bridge crosses San Francisco Bay where it opens into the Pacific Ocean. It was completed in 1937 and remains one of the technical wonders of the modern world. It is 2,737 meters (8,981 ft) long and 227 meters (746 ft) high. Every day 118,000 cars travel over it.





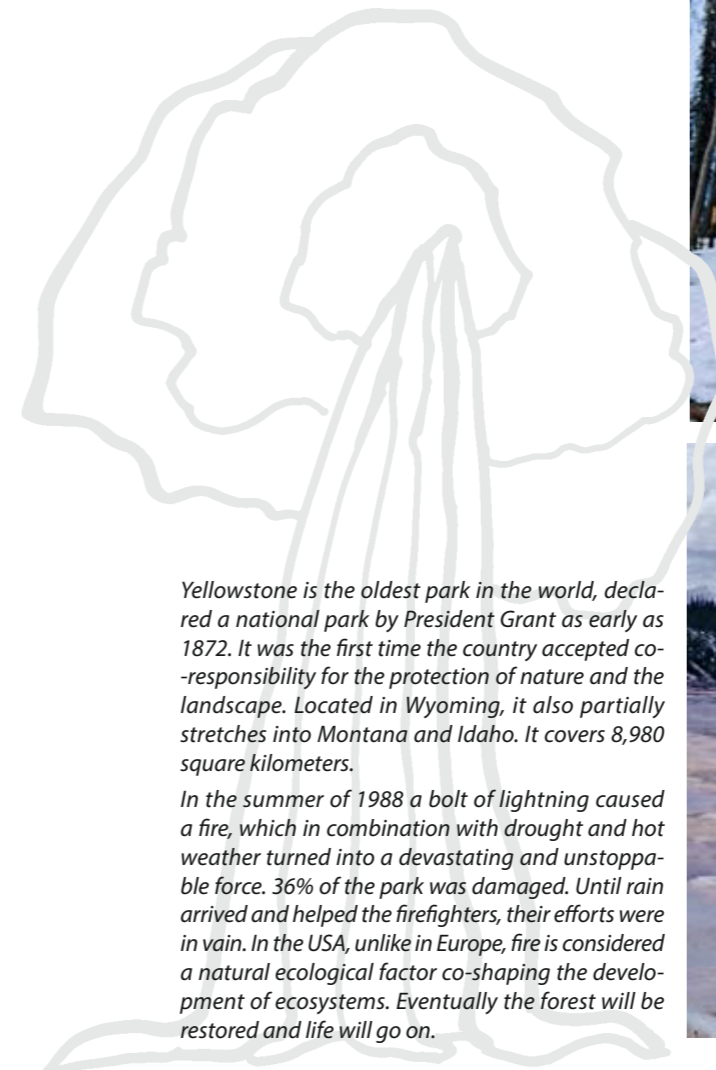


Thanks to the wet and warm climate, the forests along the Pacific Coast are always green and full of life.

The seal is the most common pinniped in the world; it is estimated the Northern Hemisphere is inhabited by about half a million of these animals. It grows 1.4 to 1.9 meters (4.6 to 6.2 ft) tall and weighs from 50 to 170 kilograms (8 to 27 stones). Obviously not very scared of people, here the whole colony is lounging directly at the harbor pier.



Lassen Volcanic National Park is located in the northeastern part of California. The last major eruptions took place between 1630 and 1670. However, as was the case with Mount St. Helens volcano in Washington in 1980, after a long period of inactivity this too may come back to life. This is documented by smaller eruptions that occurred between 1914 and 1921.



Yellowstone is the oldest park in the world, declared a national park by President Grant as early as 1872. It was the first time the country accepted co-responsibility for the protection of nature and the landscape. Located in Wyoming, it also partially stretches into Montana and Idaho. It covers 8,980 square kilometers.

In the summer of 1988 a bolt of lightning caused a fire, which in combination with drought and hot weather turned into a devastating and unstoppable force. 36% of the park was damaged. Until rain arrived and helped the firefighters, their efforts were in vain. In the USA, unlike in Europe, fire is considered a natural ecological factor co-shaping the development of ecosystems. Eventually the forest will be restored and life will go on.







*It is unbelievable but Yellowstone features half of all the geothermal phenomena in the world that are "fed" by underground volcanic activity.*

*Old Faithful Geyser ranks among the biggest attractions of the national park. It is hard to take pictures of it without including all the restaurants and other tourist infrastructure around it. Eruptions come every 90 minutes, lasting from 90 seconds to 5 minutes. Within this time 14 to 32 thousand liters of boiling water are sent gushing 32 to 56 meters (105 to 180 ft) high. The nearby Steamboat Geyser is even bigger but has irregular eruptions at much longer intervals. Therefore it is not nearly as popular and well-known.*

*Yellowstone National Park is referred to as the continental super-volcano. The entire park is a volcanic caldera measuring 65 kilometers in diameter. Beneath the surface there is a magma chamber of 72 kilometers (45 mi) in diameter and 13 kilometers (8 mi) in depth. Over the last two million years this super volcano has erupted three times, always at intervals of 600,000 years. The last eruption occurred 630,000 years ago and the pressure of the magma is growing again. An eruption may take place in ten, ten thousand or even a hundred thousand years – nobody knows. If it happened, about one third of the United States would be destroyed.*



*It is not hard to see moose or bison in the area. One must be careful with bison. Although usually calm animals, if frightened or angry they are three times faster than people.*

*Bison are a success story in the protection of species diversity. Originally, there were millions of them grazing the American prairies. Then the Caucasians nearly wiped them out until, at the beginning of the 20th century, there were less than a thousand left of these majestic animals. They were basically regarded as a lost species. Then the bison began to be effectively protected and their numbers began to grow again. Today North America has about 300,000 bison again.*











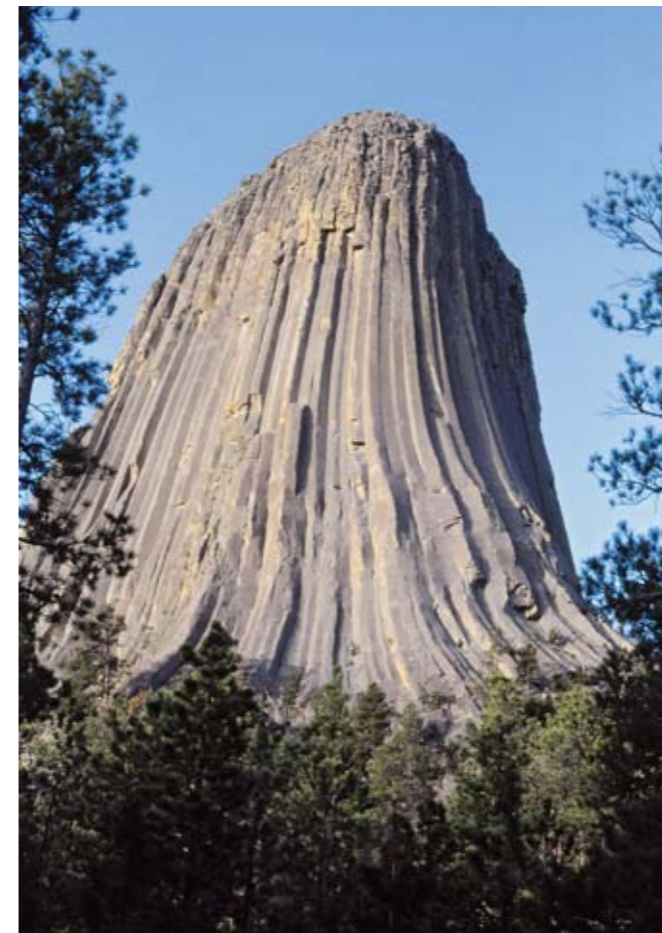
*Mammoth Hot Springs are composed of travertine terraces. The hot water gushing from the springs cools down, with calcium carbonate (limestone) being deposited here. In cold weather the rising steam creates a special atmosphere.*

*You can spend all your vacations in Yellowstone and you will not be bored. The park covers an area almost double the size of the Olomouc region, and is literally interlaced with a great variety of natural wonders.*



*Grand Teton National Park lies very near Yellowstone, which is a bit unlucky for it. It is a beautiful area, with mountain peaks reaching from 3,000 to 4,000 meters (10,000 to 13,200 ft) above sea level and plenty of animals. However, it falls short in terms of its size (1,300 square kilometers) and popularity to its more renowned neighbor.*

*Let us go back to the east. In Wyoming we will visit Devils Tower National Monument. It is a former volcanic vent, where the peripheral, less resistant rock has been eaten away by erosion. The tower rises to 386 meters above the surroundings, which makes it a popular destination for rock climbers.*







Let us conclude our tour of the continental United States with several notes on Washington, DC. The metropolitan area has a population of about 5.5 million people of different races. One of the symbols of the city is of course the White House. About a third of the building is open for tourists in the morning, but in the afternoon the same premises may hold the official program of the presidential couple. As the president and the entire government are paid by the taxpayers, it is considered only natural that people should have access to these places, adapted to the White House operation and the security requirements.



Each year the city holds its National Cherry Blossom Festival, which envelops the Capitol (the seat of the U.S. Congress) as well as other parts of the city in the typical color of cherries in bloom.



The Smithsonian Institution is probably the world's largest museum complex (19 museums, a zoo, and research centers), with an annual budget of almost \$800 million.



While roaming the city, you may bump into various people, like Albert Einstein for example.



One of the museums is the National Air and Space Museum, founded only in 1976. It houses the largest collection of aviation and astronautics memorabilia. Today it is hard to believe that the first astronauts would set out into orbit in these "capsules".

The X-15 rocket-powered aircraft was developed as early as 1954 (nine years after World War III!) and tested in the early 1960s. It could fly to a height of 100 kilometers (67 mi), which is considered the boundary with outer space. In 1964 it reached a speed of 7,274 kilometers per hour (4,520 mph) (2,021 mps [6,629 ft] per second). Due to its enormous fuel consumption it started from a B-52 bomber at an altitude of 10 kilometers (6 mi). Another problem was its limited use – at such high speeds any sharp maneuver may lead to an insufficient supply of blood to the pilot's brain and the loss of consciousness. Following 192 powered flights, this magnificent aircraft (there were actually three planes) therefore retired in 1970.







The Vietnam Veterans Memorial – it seems to symbolize the contradictory perception of this war. It is made of black marble and set below ground level (that is, no towering monument standing tall in celebration). It bears the names of 58,175 Americans who died in the war. Each year nearly 4 million people visit the monument.



The monument also features a bronze statue, The Three Soldiers.

Washington National Cathedral was built in neo-Gothic style. Construction work began in 1907 but was completed only in 1990. This is a problem of all "historical" buildings in the USA – compared with European monuments they are very young.

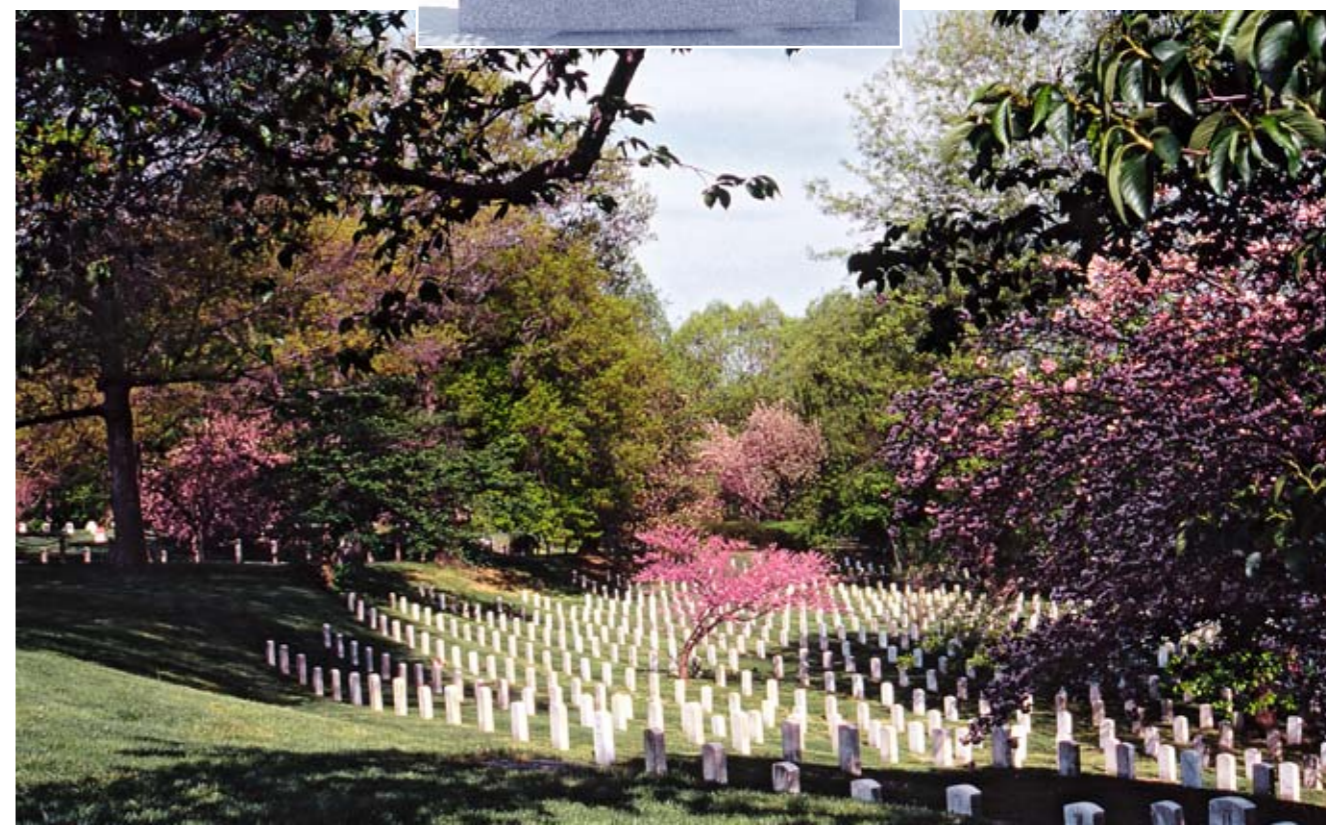


Washington, DC and the surrounding areas suffer from a high crime rate, but it depends on where you live. While in the USA on the Fulbright program, I stayed in the neighborhood of West Falls Church, where one need not worry. On the other hand, it is not very advisable to go to some of the poor black or Hispanic neighborhoods, especially after dark.



Arlington National Cemetery has been a military burial site for national heroes since the American Civil War (1861–1865).

There is also a monument to the seven astronauts who tragically died in the Challenger space shuttle disaster on 28 January 1986 in the second minute after launch.

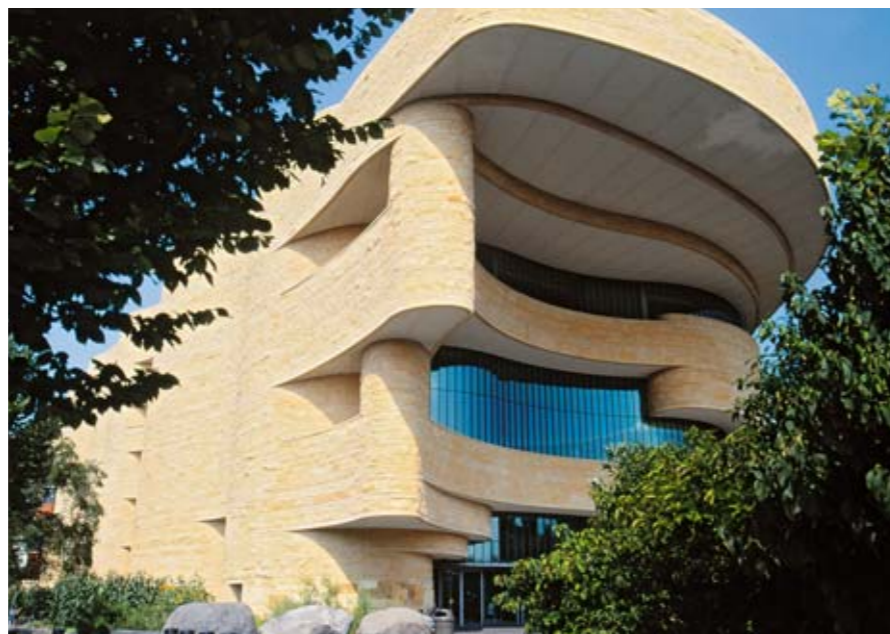




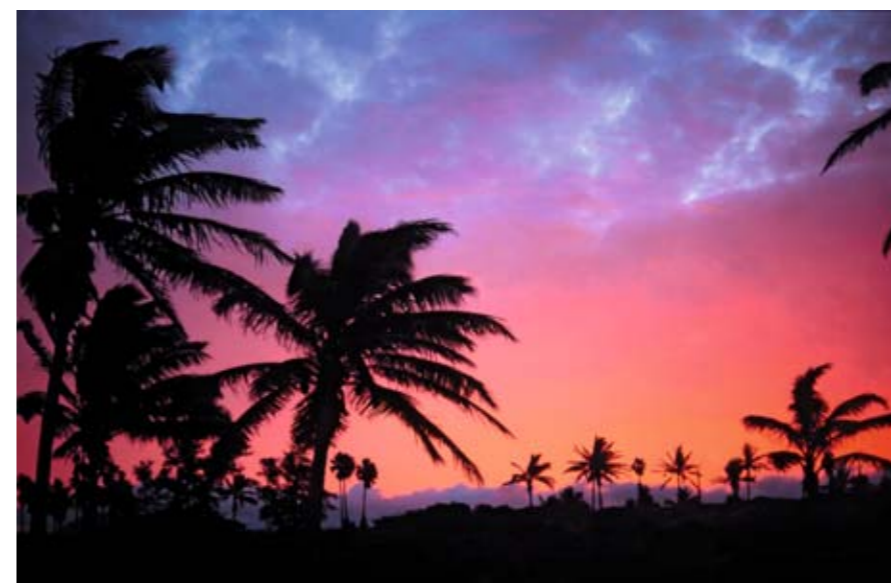


Very interesting from the architectural point of view, the National Museum of the American Indians opened as recently as 2004. The museum is still trying to decide what type of exhibitions to put on. After its launch it was strongly criticized for exhibiting a "mix" of artifacts while failing to sufficiently evaluate and explain their significance. This may perhaps be just "teething troubles".

The original inhabitants of Americas certainly deserve a high quality museum that would document their lives over the course of time.



### 4.2.1 Hawaii



By joining the Union in 1959 Hawaii became part of the United States. A federal state of the United States, Hawaii spreads over eight major islands (of which the largest and most attractive is the Big Island) and a number of smaller volcanic and coral islands and islets. This archipelago is in the Pacific Ocean 4,000 kilometers (2,400 mi) away from the mainland, representing the northern tip of Polynesia (Polynesia consists of a triangle delineated by Easter Island, New Zealand and Hawaii). Hawaii is a country of elements. As the tour guide says: "Water, wind and fire give this country a face so beautiful that it hurts your eyes."



Demonstration against HIV-AIDS in 1992. At that time we were only beginning to suspect how deadly this virus causing immune system failure was. The screens carry the names of victims who had then succumbed to AIDS in the USA.

The zoo tries to create as good living conditions as possible for the animals. For example, this bear has a large enough run separated from the visitors, not by bars, but a stone wall that the animal cannot climb. The zoo is gradually being transformed into a kind of eco-park, where animals live in acceptable conditions.







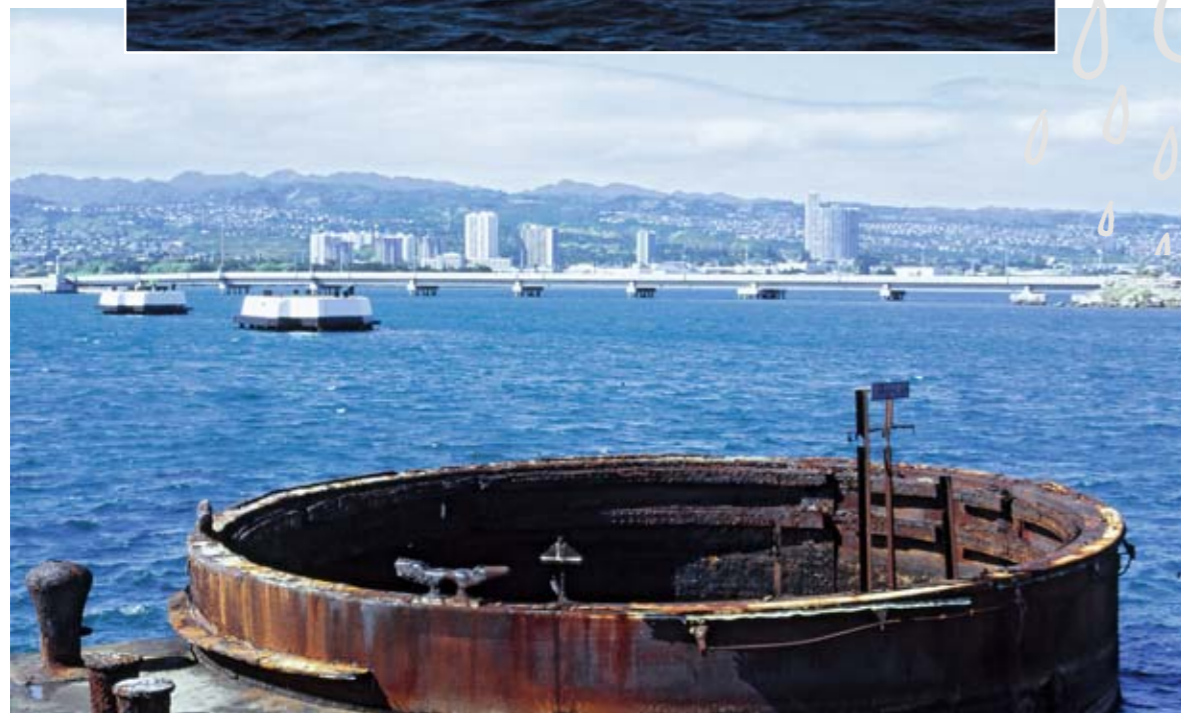
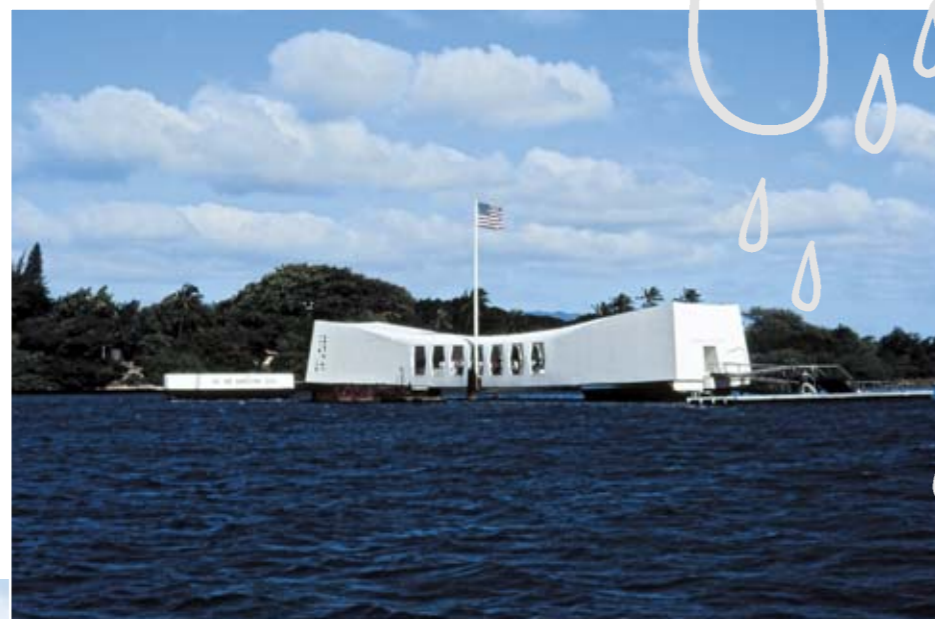
There are about 1.2 million people in Hawaii, about the same as in Prague. Most of the population is of Asian origin (mainly Japanese). The descendants of indigenous peoples make up 22% of the population. Clearly not everyone is happy with the current state of affairs, many locals feel that their land has been stolen from them.

Honolulu, the capital (400,000 inhabitants) is situated on the island of Oahu. Tourists are drawn to the greatest local attraction, the USS Arizona Memorial, which was sunk on 7 December 1941 during Japan's treacherous attack on Pearl Harbor. The attack killed 2,335 American troops, of whom 1,177 were on the Arizona, which received a direct hit during the bombing and sank within nine minutes. Every year more than 1.5 million visitors honor the fallen.

The Arizona was never pulled out of the shallow waters of the port, and a part of it shows above the surface even today. The hull constantly drips oil, which creates small colored shapes on the water's surface, referred to as the "tears of the Arizona".



On the island of Oahu many tourists visit one of the world's most famous beaches – Waikiki. It is a big mistake because this is a textbook example of the tourist industry with all its negative aspects. A mere 20 km away from Honolulu, the southern tip of the island boasts the gorgeous Hanauma Bay with coral reefs and the extinct volcano Koko Head towering above.







The island of Hawaii, also called the Big Island, was formed when two large volcanoes merged – Mauna Kea (White Mountain) and Mauna Loa (Long Mountain). Mauna Loa (4,160 meters [13,677 ft] above sea level) is an active volcano, which includes the Kilauea caldera, the most active vent. There was still hot magma for Mark Twain to watch when he visited the island.

Now the top layer of the caldera is hardened, and the eruption centre has moved about 15 km east, to a location called Pu'u O'o.



When you get to the Big Island, you can spend a lot of money on expensive hotels or go for a cheaper option – camping. A night at the campsite is usually \$5 to \$10, and occasionally the camping is even free. You can then watch the sunset in the Pacific Ocean or listen to the tide in the moonlight from your own "home". Staying in a hotel will, however, protect you from a coconut falling on top of your head, which is what the sign in the photo warns against.



The volcanic activity constantly changes the landscape. Only a few years ago this was a road but today it is buried under a two-meter-thick sheet of solidified magma.

In places the landscape literally changes before our eyes. The flowing lava is gradually hardening up and the island is slowly enlarging.







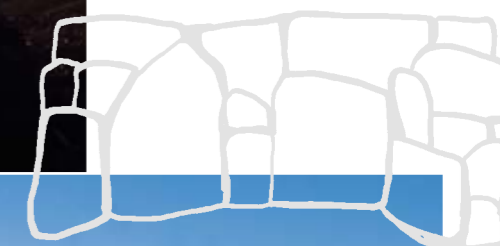
The Hawaiian Islands were populated by the Polynesians around 1000 AD – they must have been very brave to set out in canoes and with no compass into the unknown, on journeys of hundreds of kilometers. Their courage was reinforced by their faith, a polytheistic religion that worshipped four prominent deities. One of these deities, Kane, created the first man out of the dust of the earth and breathed life into him.

With a little bit of imagination you can feel as if you were on the Earth at its very beginning, billions of years ago, when the Earth's surface was only gradually cooling down and dry land was forming.

In several decades the area will have become gradually colonized by plants. As volcanic lava and ash are fertile, one day the location that is now called "Devastation Trail" will be covered with lush vegetation.



Until the Caucasians arrived, the locals did not build any great architectural works that would survive for centuries. The only ones to have survived are small religious buildings or ramparts or walls that were constructed with lava stones.







The Hawaiian islands were discovered in 1778 by James Cook. At first Cook and his crew were welcomed and entertained with religious reverence as the legend had said this was how one of the four main deities would reemerge out of the sea. Later, Cook sailed further north but a storm made him come back. The natives and the crew had a dispute, in which Cook was killed in this very bay.

In 1820 the first Christian missionaries reached Hawaii. They created a script for the indigenous language and spread the faith and education. The most famous of them is Father Damien (1840–1889), originally from Belgium, who helped people with leprosy. On the island of Molokai he founded a leprosarium, where he himself died of the disease after sixteen years of ministering to lepers. Recently, in October 2009, he was canonized.

In the Hawaii of today you can still meet "retired hippies". Here these flower children try to practice to a certain extent the ideals of life of freedom and love, which they took to when young in the 1960s. They often make a living by selling craft products in the market.



Surprisingly enough, the largest livestock ranch (Parker Ranch) is surprisingly not in Texas or elsewhere in the continental USA, but in Hawaii. Brought here for the first time in 1793, cattle thrive here. In twenty years, the cattle grew from 20 to 20,000 animals. Today, Parker Ranch has 35,000 head of cattle.

As we have mentioned, Hawaii is a country of elements and one of them is the wind. The wind rushes in from the endless Pacific Ocean to the coast and its frequency and intensity provide ideal conditions for electricity generation. One of the first (now technologically outdated) large wind farms was located right here.







The tallest peak in Hawaii is Mauna Kea (4,200 meters above sea level). It can be basically regarded as the highest mountain in the world because its foot stands on the seabed, which is 5,500 meters below sea level. This makes it 850 meters higher than Mount Everest.

From tropical beaches you can reach an alpine environment with snowy slopes within an hour. Beware of altitude sickness though, as it may occur at an altitude of over four kilometers. Due to the global climate change, snow has been receding and we may live to see the time when it disappears from the peaks completely, even in the winter months.

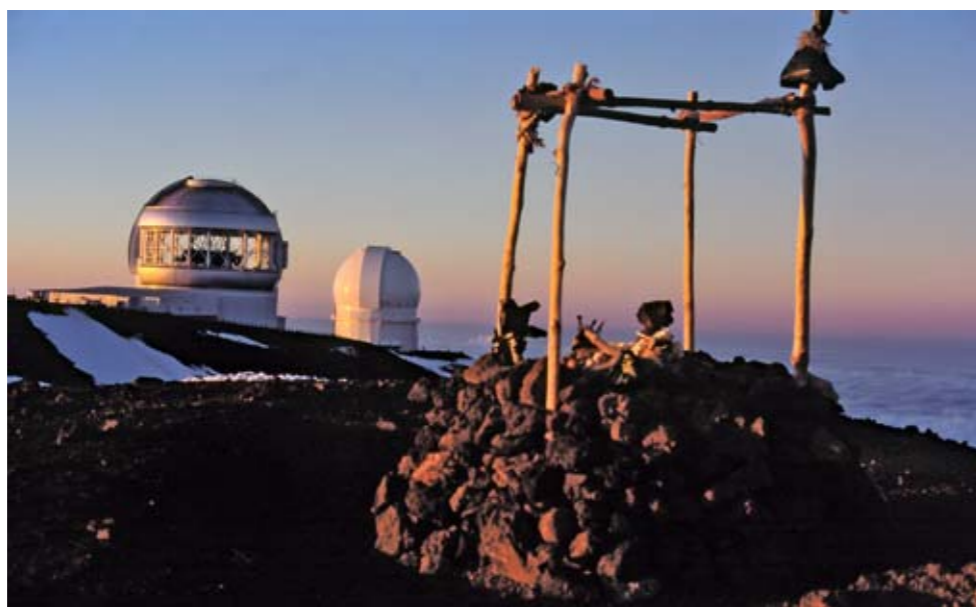
Absolutely clean air, a thin atmosphere, and virtually zero light pollution make it the world's best place for astronomical observations.



The world of natural religion meets the world of science here symbolically at one point. Both the worlds have a common goal – to help explore the world and our place in it.



Were we to look for the Garden of Eden on Earth, I would recommend starting here. Due to evolving for millions of years in isolation from the outside world, over 8,000 endemic species of plants and animals have developed here. There are neither large predators nor malaria here. You can thus feel totally safe walking around the landscape, as if it was a Garden of Eden.







Nothing, however, is idyllic and flawless. The sea currents carry the traces of human civilization in the form of pollution thousands of kilometers across the ocean, up to the western coast of South America. A part of the coast is spoilt with especially plastic waste.



*ALOHA is the most beautiful word in the Hawaiian language. Its true meaning was handed to me by my grandfather and my father at the beginning of the 1920s.*

**A** stands for the whole word Aloha, which means "Welcome. Whatever I have may be yours, share with me."

**L** symbolizes the Hawaiian word Loko Maika`i. It means "What I say comes from my heart and my good intentions."

**O** symbolizes the Hawaiian word Oio`olu, which means luck. It is a part of our heritage – happy Hawaiians who enjoy helping others.

**H** symbolizes the Hawaiian word Ha`aha`a, which means modesty and humility.

Welcome, we will be happy to do what you wish for because we are happy if we can do something good for others.

**A** symbolizes the Hawaiian word A`a ka Maka.

This means that our eyes are wide open but our lips are sealed. If we have given you a present, we know what we are doing and there is no need to talk about it.

*This is the true meaning of the word ALOHA, as I learned many years ago. However, I need to warn you to use it only if your heart truly feels it.*

*Josephine Kebi`i Kipi*

*Natives as well as all the residents of Hawaii use the beautiful greeting Aloha to say hello or goodbye. Each letter of the word has another meaning.*



*It is appropriate to conclude a visit to Hawaii with something positive because the islands are truly beautiful. The coastal reefs and the tropical forest with the Akaka waterfall create sceneries you will never forget.*







### 4.3 Mexico



Mexico (more accurately, The United Mexican States) has 106 million inhabitants, with 25–28 million people living in the capital Mexico City and the adjacent municipalities. Set at an altitude of 2,000 meters (7,300 ft) above sea level, the city is surrounded with mountains, which is reflected in the air quality, especially during an inversion. It is surprising that such an urban ecosystem two or three times the population of the Czech Republic can even work.

Fifty kilometers northeast of the capital there is one of the greatest Mexican attractions, Teotihuacán. The former capital of the Aztec empire, in its time it was one of the largest cities in the world, with 200,000 inhabitants. It was built around the Pyramid of the Sun (Pirámide del Sol), which was erected around 150 AD. It is the third largest pyramid in the world, following Egypt's Great Pyramid of Giza and another Mexican pyramid in Cholula. It is 70 meters high and each side of the square base is 222 meters long.



A view of the central part of Teotihuacan, the Avenue of the Dead (Calzada de los Muertos) and the Pyramid of the Sun from the top of the Pyramid of the Moon (Pirámide de la Luna).

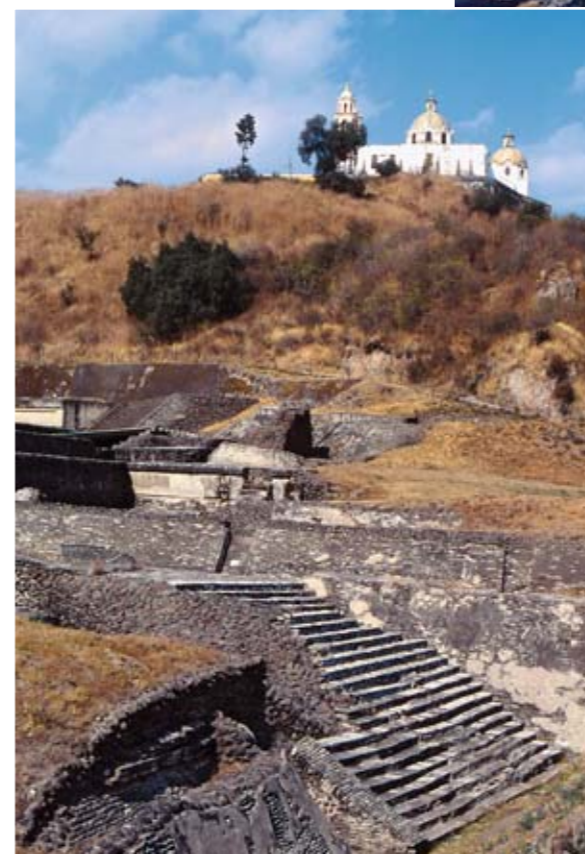
Ten kilometers from the city of Puebla there is the world's largest pyramid, Pirámide Tepanapa, the Great Pyramid of Cholula. In the 4th century AD it stood 65 meters high and each of its sides was 450 meters long at the base. After conquering Cholula, the colonizer Hernán Cortés had a Christian church built here. Afterwards the pyramid became so overgrown with vegetation that it nearly disappeared, until it was recently partially uncovered again by archaeologists.



The city was founded in 1521 after Hernán Cortés conquered the Aztec empire. It was erected on the ruins of the former Aztec capital, Tenochtitlan. This cathedral, Templo Mayor on the central Zócalo Square, was also built on the site of a former Aztec temple, using the original material. While today we would say it was a barbarian thing to do, at that time it made sense. The conquerors felt the need to show the locals that their god was more powerful than the gods worshipped by the indigenous inhabitants.



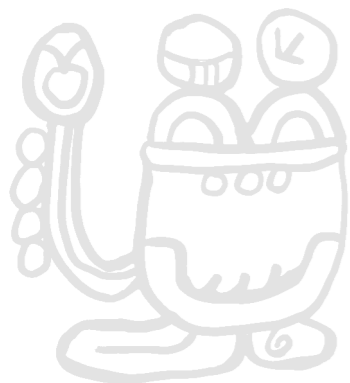
Ninety percent of Mexicans are Catholic. The people adopted Christianity mainly thanks to a miracle. In 1531, on the outskirts of what is today Mexico City, an indigenous boy, Juan Diego, witnessed an apparition of the Virgin Mary, whose looks and dark complexion resembled an indigenous Mexican woman, who even spoke Aztec. The local bishop did not believe the boy and asked for proof. Juan Diego went and returned from the place of the apparition with his poncho full of roses, which was a miracle in itself in the winter. When he opened the poncho, it showed an imprint of the Virgin Mary. Since then, this has been the best known and most venerated icon in all of Latin America and the site of the apparition is the most popular pilgrimage destination. Just eight years after the apparition it is said that eight million Aztecs had converted to Christian faith.







The eastern edge of the valley of Mexico, which cradles the capital, is formed by two volcanoes, Popocatepetl (5,452 meters [17,930 ft]) and Iztaccihuatl (5,220 meters [17,159 ft]). Popocatepetl is called the "Smoking Mountain" for it is an active volcano. The last major eruption took place in December 2005, when the volcano spewed hot ash five kilometers [3 mi] into the air.



In Xalapa, a city of nearly half a million, it is worth visiting the great Museum of Anthropology. The main attraction here is the seven giant Olmec heads, up to 3,000 years old. If you compare the look of the Aztec and Mayan pyramids with those of Egypt, or the Olmec heads with the Easter Island statues, a "heretical" idea may come to your mind: what if the ancient civilizations were in touch in a way of which we know nothing yet.

Uxmal was an important Mayan city built sometime after 600 AD. As it is in the dry part of the Yucatan Peninsula, the Maya built an ingenious system of water reservoirs and tanks here. Around the year 900 the inhabitants left the city for reasons we still do not know. It may have been due to a prolonged drought which made the region uninhabitable. Archaeologists rediscovered this area only in the 19th century.



Not far from Uxmal there is Ruta Puuc, a group of Mayan ruins just a few kilometers away from one another. Although not as famous and photogenic as Uxmal or Chichen Itza, they are definitely worth a visit. If you decide to travel by bus, you can do both of them comfortably within one day. One of the advantages of the tour is the small number of tourists.

Chichen Itza is the most famous Mayan sight on the Yucatan Peninsula. The central structure is the El Castillo – a pyramid the Maya used as a stone calendar. This place, too, was for unknown reasons abandoned by the Maya in the 9th century. However, people returned at the end of the 10th century, but probably shortly afterwards the site was violently conquered by the Toltecs. The latter were infamous for their bloody human sacrifices made for religious rituals that bordered on obsession. In the 14th century the site was once again abandoned for unknown reasons.

Inside, the pyramid conceals a throne studded with precious stones (jade) in the shape of a red jaguar, a Mayan sacred animal.







Near the coastal town of Tulum you will find Mayan ruins that are attractive and photogenic mainly thanks to their setting.

Forty kilometers inland of Tulum, it is worth visiting the ruins of Coba hidden in the jungle. Here you will realize how powerful the jungle is, having managed within a few centuries to almost completely swallow up human dwellings. Once (from 800 to 1100 AD) there used to be a town of 50 square kilometers (20 sq mi) with 40,000 people living here.

We are now moving onto the poorest Mexican state, Chiapas, which borders Guatemala. A major tourist attraction is the ancient Mayan city of Palenque, founded as early as 100 BC. It had its heyday from 630 to 740, only to be abandoned after the year 900. Due to abundant rain and the impact of the tropical climate the city soon drowned in lush vegetation. It was discovered by Europeans only in 1746. Today the complex of monuments is looked after by dozens of workers, who are constantly fighting the jungle and expanding vegetation.



Chiapas is poor even for Mexico. This is doubly the case with rural areas, where farmers struggle hard for their livelihood. There was a reason why in the 1990s Chiapas was the centre of the Zapatista movement, led by Subcomandante Marcos, which sought to improve the status of indigenous peoples in particular. Although Subcomandante Marcos has successfully hidden his identity, he is said to have been a university lecturer. To do credit to the Zapatistas, it is true that they employed propaganda rather than killing in their fight. When they used weapons it was only against military or police stations.

A natural attraction of Chiapas is the Aqua Azul waterfalls, hidden in the jungle. When I was visiting (January 2000), the area was occupied by soldiers deployed here because of the Zapatista bases in the jungle and it was impossible to do the whole scenic route. We came across a charmingly imperfect but potentially dangerous translation of a warning: "Peligro - No Nadar." In English the sign said "Dangerous Not to Swim".











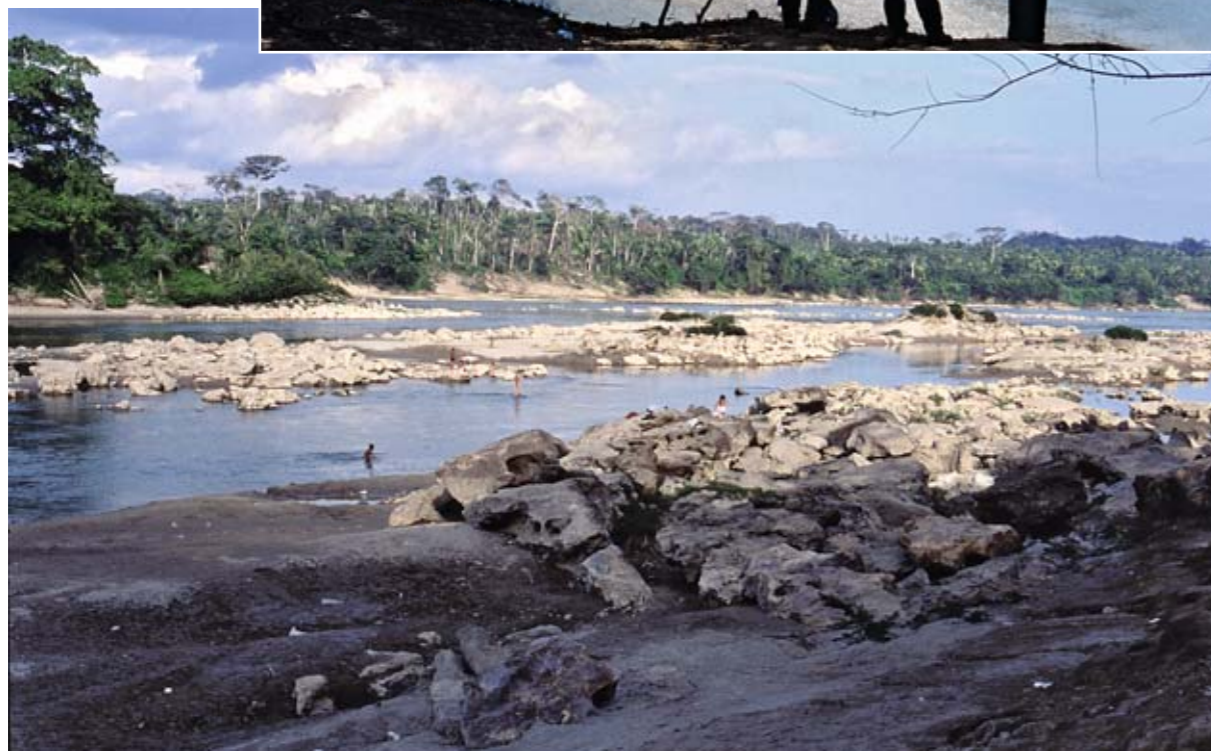
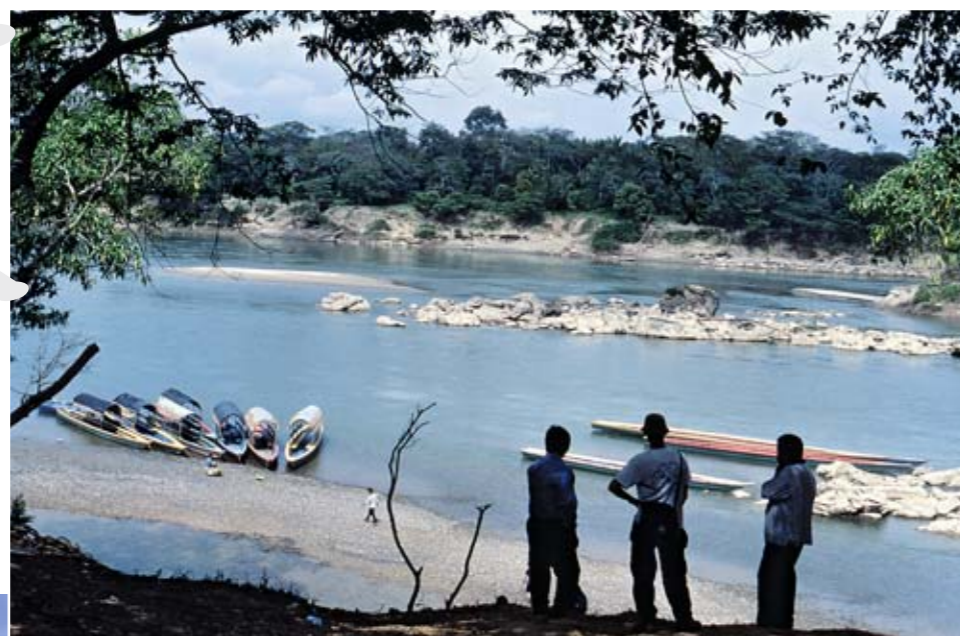
Deep in the jungle, at the border with Guatemala lie the ruins of the Mayan cities of Bonampak and Yaxchilan. It is very difficult to reach them, especially Yaxchilan. The last 22 kilometers you need to travel along the border down the Usumacinta River on a boat. You will be rewarded with a view of the city in the jungle, where it seems as though the jungle was winning over the archaeologists. Biologists would feel they were in heaven here. The woods are home to 4,300 plant species, 450 butterfly species, 340 bird species, and 163 mammal species, including the local "king of beasts", the jaguar. During the trip we had to pass through several military checkpoints as we once again found ourselves in the area of Zapatista rebels. However, the worst experience of the day was going back by microbus. The vehicle in a rather deteriorated technical condition was, in my opinion, driven by a lunatic; I do not remember ever being more afraid on the road.



San Cristobal de las Casas is a beautiful colonial city (130,000 inhabitants), situated 2,160 meters above sea level. Thanks to the local favorable climate there is no danger of malaria here. Founded by Spanish colonizers as early as in 1528, the city was named after the Dominican friar and missionary Bartolomeo de las Casas. San Cristobal was one of the four cities where the Zapatistas began their revolution by taking over government offices on 1 January 1994.

On the border with Guatemala, about 100 miles southeast of San Cristobal, there are the "Lagos de Montebello" lakes. As it was foggy I unfortunately could not take any photos, but a walk around the surrounding forests cheered me up.

In this region, villagers have no luck as the plots are sloping and full of stones, and fertile soil is hard to find. The locals spend their lives toiling in the fields. There is hardly time or energy left for anything else.



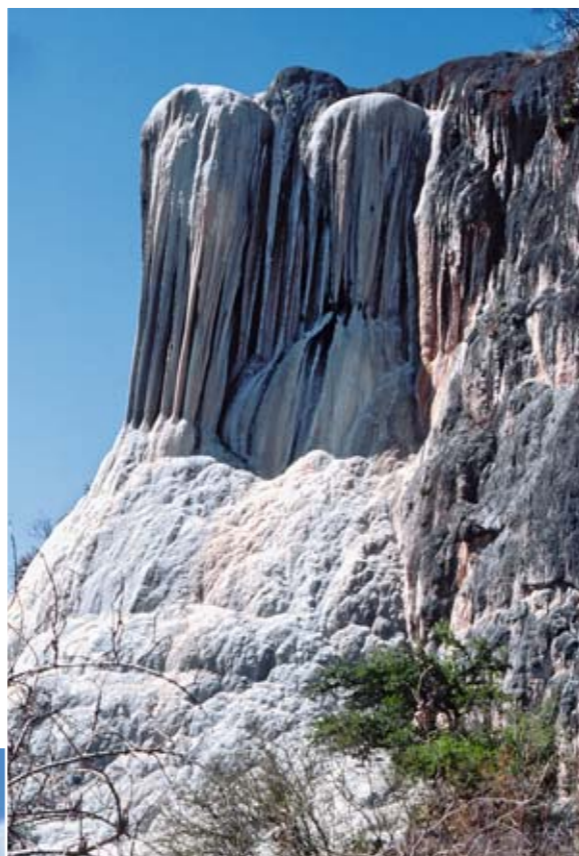




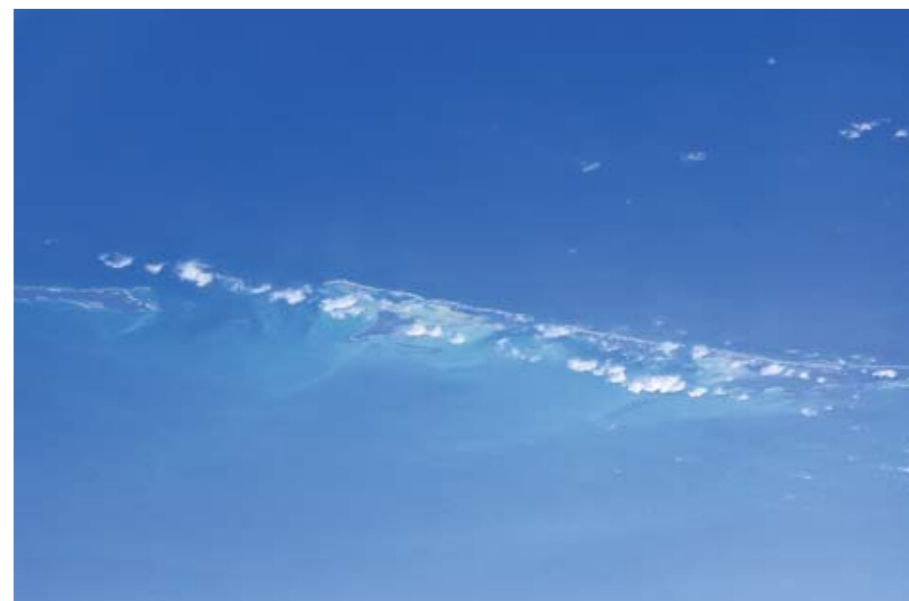
Near the town of Mitla, about halfway between Mexico City and the border with Guatemala, there are the rock formations Hierve el Agua resembling waterfalls, that only a handful of tourists come to see. They were formed by hot mineral springs bubbling up to the surface. On the top there are numerous small lakes, similar to, for example, the well known tourist attraction in Pamukkale, Turkey.

East of the city of Tuxtla Gutierrez, on the Grijalva River, there lies Sumidero Canyon with its 800-meter (2,600 ft)-high rock walls. In 1981 a dam with a hydroelectric power plant was built here, raising the water level for 25 kilometers (15.5 mi). It is actually a sort of Chinese Three Gorges Dam on a small scale. From the environmental perspective, flooding the canyon was questionable but now it is simply there and a boat ride down the canyon is definitely worth it.

There are three valleys (Valles Centrales) in the state of Oaxaca, running 40 to 100 kilometers (25 to 60 mi) (in radial directions from the city of Oaxaca (263,000 inhabitants). The altitude around here is roughly 1,500 meters. The surrounding mountains and the ruins of the ancient Zapotec civilization (about 2,500 years old), of which the most famous are Monte Alban and Mitla, create beautiful scenes that I think wonderfully portray a typical Mexican countryside.



## 4.4 Haiti



On the way from Florida to Haiti we pass the Bahamas. It is an archipelago of several dozen larger and hundreds of smaller islands. The island of San Salvador was the first land visited by Christopher Columbus in Americas. Local residents were taken by the Spanish to work as slaves in the gold mines in Haiti and Cuba. In 1717 the Bahamas became a British colony and it was not until July 1973 that it obtained independence.

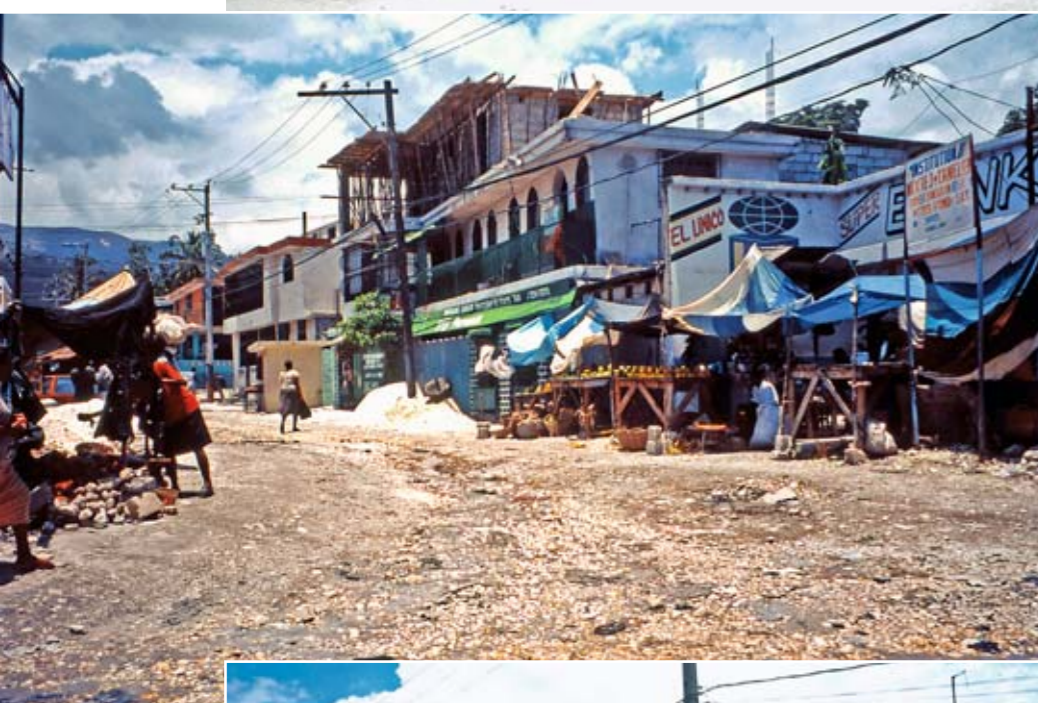
Haiti is the poorest country in the Western Hemisphere and one of the poorest countries in the world. There are 8–10 million people living on 27,750 square kilometers; the population density equals 300 inhabitants per square kilometer. In reality the situation is much worse as 75% of Haiti consists of mountains and therefore most of the territory has no agricultural potential. Although the official statistics say the capital Port-au-Prince has over a million citizens, there are actually about 2–3 million people.







This is reflected in the appearance of the city: the outskirts tend to only have unpaved roads.



There were also some nice places in the capital, such as the Presidential Palace, known as the "White House", which actually does look a bit like the seat of the U.S. president. Or Villa Manresa, which served as a retreat for Christian missionaries and their families when they came to visit. Unfortunately this is no longer true since 12 January 2010: both the buildings collapsed in the devastating earthquake. About 250 thousand people died in Haiti, and to date (data valid in 2011) one and a half million people have been living in makeshift conditions, dependent on humanitarian aid.

The head of Haiti's voodoo religion resides on the outskirts of the capital. I only remember his first name, Max (in the red shirt in the middle). Voodoo contains elements of the polytheistic tradition, imported together with the West African slaves, and of Roman Catholicism. In Haiti, 80% of the people are Catholic and 20% Protestant, but about 50% of the population also profess voodoo (incompatible with Christianity). Max is an interesting personality. He studied organic chemistry at the Sorbonne in Paris and then earned his PhD and worked at Cornell University in the United States of America. Only then did he return to his homeland.







Haiti shares the island of Hispaniola with the Dominican Republic, but the differences in the development of the countries are striking, despite the fact that both of them have comparable natural conditions. Haiti imports all sorts of things from the Dominican Republic and the vehicles are loaded literally up to "the brim". I took this picture at the border crossing.



Hundreds of development projects have been implemented in Haiti but often to no avail. This school was equipped with computers, a satellite Internet receiver, and solar panels designed to produce electricity. After the American donors left, however, everything fell to pieces. The government pays the teachers only sporadically, which is why the tuition is what it is. The computers were stolen and only a fragment of the original project is still on the roof.



Slovak doctors have been doing a great job in Haiti. Vladimír Krčméry and his team run several hospitals, or rather health centers, here. One of them is located in the northwest corner of the country in Mole-Saint-Nicolas.



This place was one of the first stops Christopher Columbus made on his first trip to the Americas.



Pure limestone is among one of the few natural resources Haiti has. It is mined mostly manually because human labor is much cheaper than the use of machinery. Off the coast of Haiti, near Port-au-Prince, underwater deposits of natural gas have been discovered, but the country does not have the technology to mine it and foreign investors will not come due to the political instability.



The worst living conditions in Haiti are in the slums. The most famous of them are to be found in the capital. It has the poetic name of "Sun City" (Cité Soleil) and a population of 200-400 thousand living in extreme poverty. Yet more and more people come to the capital from the rural areas hoping to make a living here.











Removal of forest directly affects water erosion. Torrential rains easily wash bare soil away, leaving the land barren for centuries.



According to the World Health Organization, there is no polio in Haiti. This statement cannot be true. For example, this little girl we came across in a fishing village is probably suffering from nothing other than polio. Another possibility is that her affliction could have been caused by syphilis transmitted from her parents. Without blood analysis we cannot determine with certainty what disease she has. In Haiti there are, however, whole areas that have not seen a doctor for years. Therefore we cannot consider the reports of the World Health Organization fully reliable.



Unfortunately, Haiti can serve as a textbook example of an environmental disaster. This island used to be and could still be a tropical garden. Today, however, the opposite is true. Primarily due to overpopulation the ecosystems are being destroyed. As people need energy from biomass, they have deforested 99% of Haiti.



The abandoned church in Mole-Saint-Nicolas looks pathetic. There is, however, another, a more modern and functional one nearby.



Until recently, the town of Baie-de-Henne was home to the Czech missionary Roman Musil. While working primarily as a priest, he tried to help make the living conditions of the local population at least a little more dignified. Here he stands in front of a well with drinking water, on top of which there are 32 solar panels installed. They generate electricity, which is used to haul water from deep down to the surface.

Other solar panels are installed on the presbytery. They supply power for the lighting, a computer and a refrigerator. The presbytery can also use a diesel generator to produce electricity, but the fuel is expensive and needs to be imported from far away.







The population of Baie-de-Henne and the surrounding area amounts to more than 10,000 people. In spite of this there is not a single doctor working here! This health center was built by the Japanese as part of development aid, but now is empty. Only now and then do Slovak doctors come here from Mole-Saint-Nicolas.

This forgotten region, too, occasionally witnesses politically motivated violence. This is what is left of a former police station, which was attacked and burned during the 2004 riots, when the then President Jean-Bertrand Aristide went into exile. Since then the town has had no police but no one seems to mind too much.

Aristide is an interesting albeit sad figure of the modern history of Haiti. He is a former Catholic priest, who as a young charismatic man helped in the slums In February

1991 he surprised everyone by winning the first democratic presidential election. Nevertheless in September 1991 after a military coup, Aristide had to flee the country. Following strong pressure from the international community and sanctions, he returned in October 1994 for the remainder of his five-year term in office. Later on, in February 2001, he was elected president again, but his government was worse and worse and he made one mistake after another. The situation became unbearable and riots swept across the country, until, pressured by the United States of America, Aristide went into



exile in February 2004. He now lives in South Africa. He is said to have left the country with several hundred million dollars. It is a sad story of a man who meant well but became more and more ensnared in the intrigues and authoritarian methods of government, until he ended up as a caricature of a top politician.

One of the means of livelihood of the local population is the production of charcoal. As there is not enough wood, the production also uses cacti, which is rather abundant here (the local landscape is dry, resembling Arizona, USA).



In Haiti, people have great respect for the dead. They build expensive tombs that exceed their financial resources. As a result, a family often falls into debt and over time loses the strength to look after their ancestor's grave, which in the end makes the cemeteries look desolate.

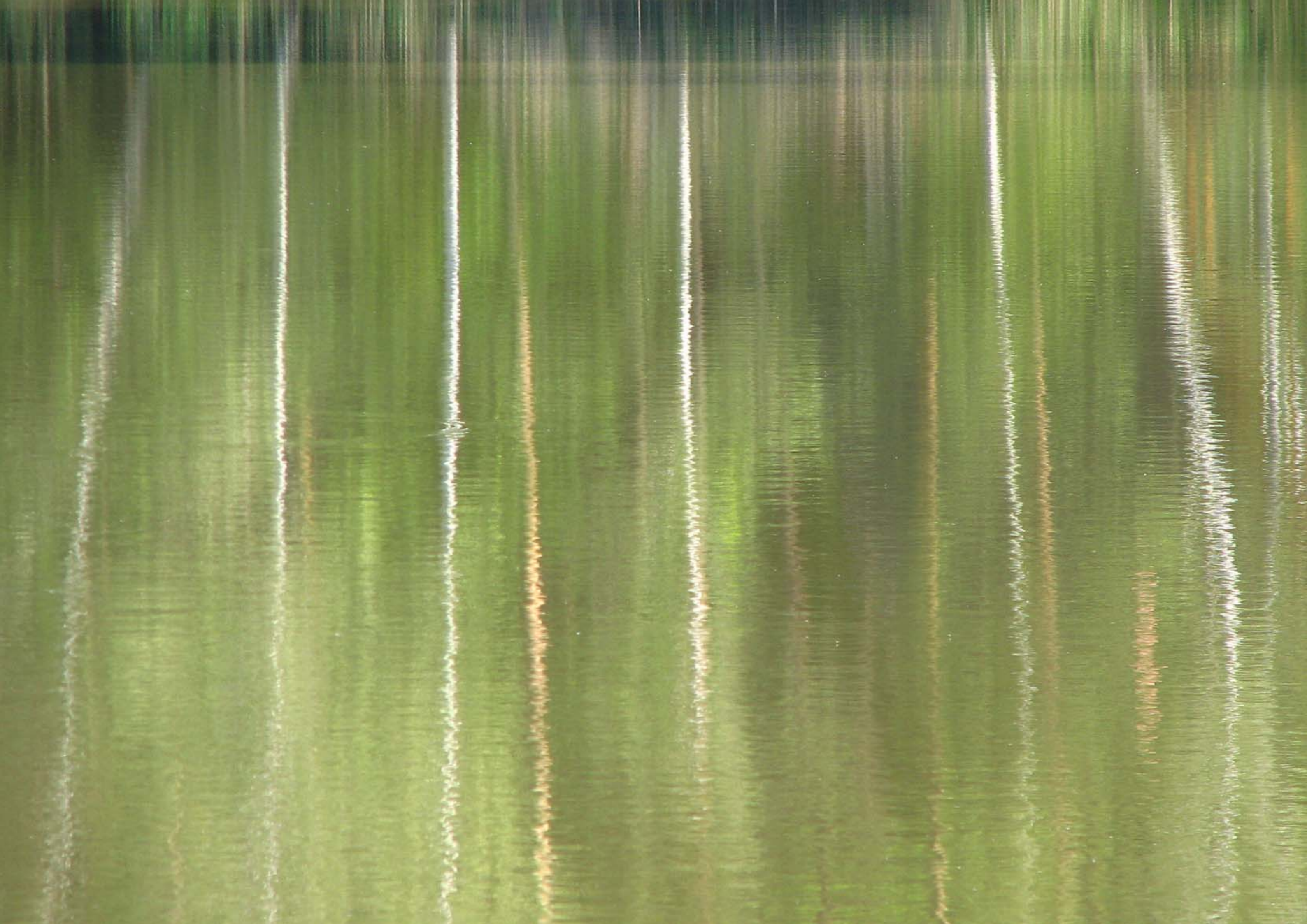
Sometimes it only takes a little to make children very happy. For a few thousand Czech crowns Roman Musil bought diving masks and fins for the children. If Haiti is rich in something, it is beautiful beaches. Children then love frolicking in the sea. The main "bonus" is that children learn to swim in their early years. Many local people live by fishing, but ironically enough they often cannot swim. Some of them drown, leaving their children orphans without a father – the breadwinner. If these children ever become fishermen, they will not drown, at least not in calm seas just a few hundred meters off the coast.

Children are the hope of the country. Their eyes show hope and zest for life. They will not have it easy though. Half the population of Haiti is illiterate and, likewise, many of the present children will never learn to read, write or count, which will prevent them from developing their creative potential. However, hope has always been there in Haiti throughout its very difficult history. The first inhabitants, the Taino people, arrived in Haiti in canoes from eastern Venezuela some 3,000 years ago. When Columbus arrived, there were around 400 thousand of them living on the island of Hispaniola. The Spanish exploited them on plantations and in mines to such a degree that in 1519 (within a mere 27 years!) there were only 3,000 Taino left. Therefore, the colonizers began importing black slaves from West Africa, who were physically stronger and more tolerant of hard work. At that time, the present Haiti was a French colony (the Spanish kept the eastern part of the island, today's Dominican Republic), making an extremely profitable "Pearl of the Caribbean". At the beginning of the 19th century, the black people rebelled and from 1 January 1804 gained independence from France (the Haitian flag is based on the French tricolor, but has no white stripe). Problems nevertheless continued because Haitians had no concept of good governance, nor have they ever learnt it. For example, between 1843 and 1915, of the 22 heads of the state only one was able to complete his term. In 1957, after months of unrest the country acquired a new president, François Duvalier, who won the election with his peculiar mix of nationalism, racism (meaning racism against white people) and mysticism based on voodoo. Fourteen years of harsh dictatorship ensued, which many nostalgically think back to today as a time of order if nothing else.

Haiti has been independent for over 200 years; a sovereign but extremely poor country. It is hard to say what it will be like in a hundred or two hundred years. Haitians have not learned to govern themselves effectively yet. On the other hand, we in developed countries still have not found out how to effectively help them.





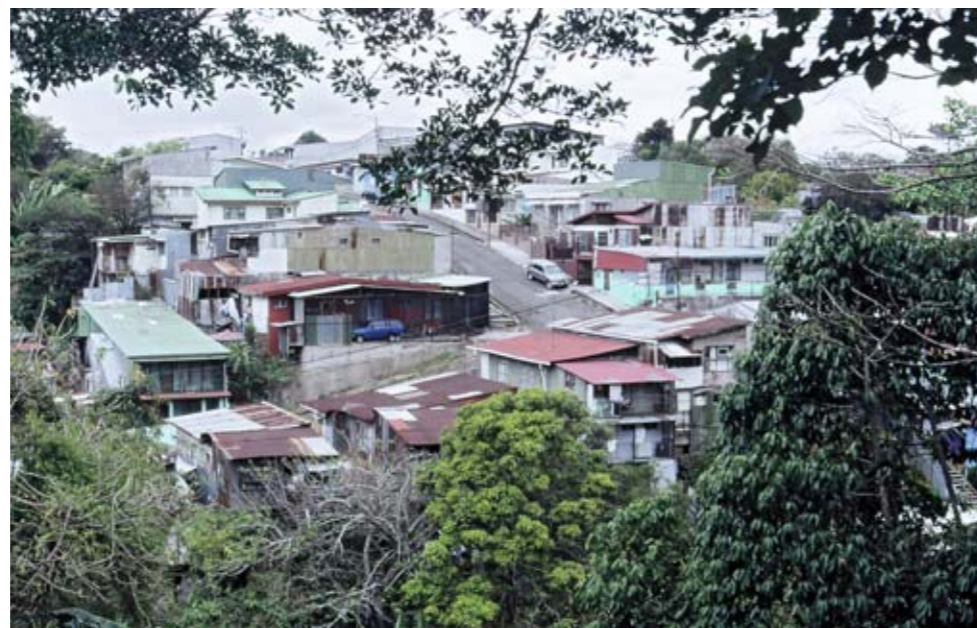






## 4.5 Costa Rica

I find Costa Rica to be a very interesting Central American country, only slightly larger than Slovakia (51,000 square kilometers [19,730 sq mi]), with a similar population (4.5 million). Costa Rica was an oasis of political stability at a time when the neighboring countries were suffering from major unrest and civil war (Nicaragua, Panama, El Salvador, Honduras, etc.). It is all the more remarkable as this country does not have its own army. Costa Rica deserves praise for its approach to the environment. Gradually 28 national parks have been established here, taking up over 12% of the country. This country has, however, one unexpected problem. Its natural wealth, stable political system and well functioning state attract affluent Americans, who are purchasing land and building haciendas here. Eventually it might happen that Costa Rica will not be conquered or colonized but quietly sold out. The photo shows the suburbs of the capital, San José.



Irazú Volcano National Park is located near San Jose, twenty kilometers northeast of the city of Cartago. The largest and highest active volcano in Costa Rica (3,432 meters), it was last active in 1963. Since 1723 there have been fifteen eruptions recorded, and so we can assume that sooner or later it will wake up again. The summit is covered with volcanic ash. Its main crater is filled with a green lake and is 300 meters deep. In good weather when standing on the top and looking to the west you can see all the way to the Pacific Ocean and to the east the Caribbean Sea. The volcano is surrounded by jungle. Throughout the year the weather tends to be hot and humid with an average rainfall of 2,160 millimeters.



Near the small town of Guácimo, halfway between San José and the Caribbean coast, a tropical forest conceals EARTH University (Escuela de Agricultura de la Region Tropical Húmeda – School of Agriculture for the Humid Topics) set on a former banana plantation.

Founded in 1990, it offers a four year program for 410 students focusing on ecological and sustainable agriculture. Every year 100 students selected from 1,300 applicants enter the college.

About a third of the students are from Costa Rica, while the rest come from 24 other countries, mainly Latin America. The annual tuition is \$15,000 but most students have a scholarship as the university is supported by American foundations and is intended to serve as a model school training the agricultural elite of the future.



The college incorporates 3,000 hectares (7,400 acres) of land, which is the size of a relatively large agricultural cooperative that used to be common in the Czech Republic. Twice a week from six in the morning the students have to work on the farm or in the fields.

The students are encouraged to develop an entrepreneurial spirit. During their studies, each of them must carry out a multi-term project developing their own business plan under the guidance of their instructor – for example, yogurt production, chicken breeding, and so on. At the beginning the students receive a certain amount and in order to successfully complete the course their project must be viable and not lose money. If the project is profitable, part of the proceeds go to the student and part to the college.







Sunset at EARTH University.



One of the points of interest is this biogas plant made to help heat the water.



## 4.6 Brazil

Brazil is the fifth largest and fifth most populous country in the world (192 million inhabitants) and the largest in South America. As a result it has great power ambitions within Latin America (it would like to become a permanent member of the UN Security Council as a representative of Latin America). The other countries naturally are not happy about this, and this feeling of alienation is enhanced by the fact that unlike the other Spanish speaking countries, Brazil has Portuguese as its official language. The symbol of Brazil, Rio de Janeiro with its seven million inhabitants is undoubtedly one of the most beautiful cities in the world thanks to its setting.



Rio means above all beaches for tourists, with the Copacabana, Ipanema and Leblon being the most famous. They make a beautiful backdrop for the luxury hotels but just a little behind them there start shanty towns referred to as favelas. Perhaps nowhere else on the planet Earth are the worlds of the rich and the poor so closely linked.



Dominating the city and welcoming visitors is the 39.6-meter-(98 ft) high statue of Christ the Redeemer (Cristo Redentor). It stands on the 710-meter (2,310 ft) -high Corcovado (Hunchback) peak. It is said that in Rio, Christ's arms should not be so wide open but rather folded on his chest, because due to the very high crime rates visitors are very likely to be robbed. Thieves, teenagers from the slums (favelas), form gangs that become dangerous especially because they have absolutely no respect for human life. Therefore, the only prevention is to not have any valuables with you but only a small amount, which you need to hand to the potential attackers right away.





The largest city in Brazil is Sao Paulo. The city itself has 11 million inhabitants and with the suburbs 20 million. Aside from Tokyo, which has up to 30 million people when we include Yokohama, we can say that this is the second most populous city in the world after Mexico City. The city center looks nice, featuring several large and maintained parks. It, too, is nevertheless surrounded by a ring of favelas and the resulting criminality. Whenever there is inversion, the city suffers from smog problems caused by the traffic.



The favelas in Rio climb up steep hills, where the land is more affordable for the poor. Compared with the slums in Asia or Africa they appear less wretched. Life is not easy here though. Gangs of drug peddlers and dealers rule the favelas, finding here a perfect refuge from the police. From time to time they even use their money to build a sports ground or help in some other way. In return they demand secrecy and loyalty; anyone who violates these is harshly punished.

Satellite TV is also worth mentioning. Often unemployed, people spend many hours a day watching endless stupefying series and soap operas on TV. It is an escape from the everyday reality into the virtual world for them.

In Brazil you can witness the biggest differences between the rich and the poor. Twenty percent of the population with the highest income earns thirty times more on average than twenty percent of the population with the lowest income. If we compared the income of the richest five percent and the poorest five percent, the difference would be several hundred percent.

One of the great advantages of Rio is that almost in the very center of the city there begins the 32-square-kilometer (20 sq mi) Tijuca Forest National Park featuring the Corcovado Mount with the statue of Christ the Redeemer. You can thus easily escape the city bustle and spend relaxing moments in the tropical forest that teems with lush vegetation all year round.

A place of interest is the capital of the Brazilian state of Paraná, Curitiba, with nearly two million inhabitants. Referred to as a Mecca for architects, the city is considered to have the best living conditions in Brazil. Enough public green spaces contribute to a pleasant environment. Moving around the city is easy thanks to the extensive pedestrian zones in the city center and the excellent bus rapid transit system. As one lane of the road is dedicated to buses only, public transport is cheap, fast and comfortable. For the poor, the city has created an interesting system of support – for the waste that people collect and sort they receive food stamps. This feeds many people and the city is unusually clean for one of the developing world.





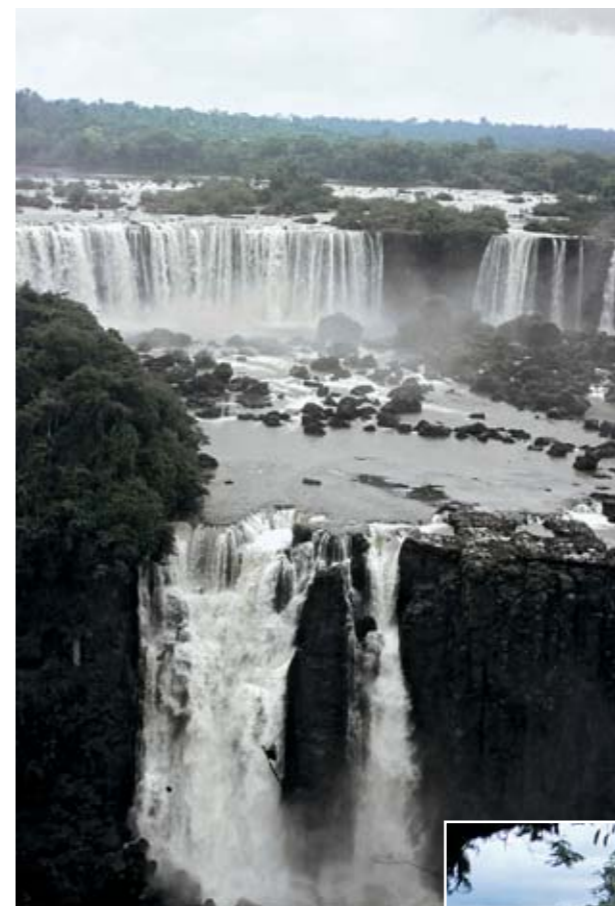


From Curitiba you can take a four-hour journey by train to the port city of Paranaguá. In order to overcome the 900-meter (3,000 ft) climb, the 110-kilometer (68 mi) route runs through 13 tunnels and over 67 bridges. It crosses the Atlantic forest, the last remnants of which are now protected by the Pico do Marumbi State Park. In the past, more than 90 cent of the original forest area was cut down and converted especially to sugar cane plantations. When driving through the national park, you feel as if the jungle stretched to infinity. A map or a satellite image, however, reveals how much of the forest has been destroyed. Something similar is also taking place in the world's largest tropical rainforest, in the Amazon Rainforest. From the ground you would think the forest areas were endless and thus indestructible in a way. A satellite picture would tell a different story – about half of the original Amazon forest has been destroyed and there is no stopping the progress of “civilization”.



The Atlantic forest also includes coastal mangrove growth, an impenetrable but extremely rich ecosystem.

To some extent, life in Paranaguá has retained its colonial character. Thanks to the tropical heat, humidity and sultriness it is very slow. Although the city is one of the main Brazilian ports, you have to travel 30 kilometers (19 mi) down the river Baía de Paranaguá to reach the open sea.



It would be a sin to be in the state of Paraná and not visit one of the greatest natural wonders of the world, the Iguazu Falls on the river of the same name that forms part of the border between Brazil and Argentina. It is a system of 275 waterfalls spreading over a total length of 2.7 kilometers (1.7 mi) with an elevation of up to 82 meters (269 ft). The Falls average flow is 1,746 cubic meters (62,000 cu ft) per second, but once after rain the maximum recorded flow reached 12,800 cubic meters (450,000 cu ft) per second. In contrast, during the dry summer of 2006 the flow dropped to a mere 300 cubic meters (10,600 cu ft) of water per second.

About two thirds of the waterfalls are located on the Argentine side of the border, including the most famous part called the Devil's Throat (Garganta del Diablo). It is a 700-meter-(2,297 ft)long, 150-meter(500 ft)- wide and 82-meter-(269 ft) high cataract (tiered waterfall). You can have yourself driven right under the Falls from the Argentine side by a motorboat with a very powerful engine.

Whether coming from the Brazilian or Argentine side, the spectacle of such a mass of water is impressive, comparable only with Niagara Falls in North America or with Victoria Falls in Africa. From the Brazilian side you have a better panoramic view, while from the Argentine side you get close to the Devil's Throat. It is best to visit both the banks of the river, the only thing you need to do is make a detour of about 30 kilometers (19 mi).







## 4.7 Peru



Peru is the third largest South American country with almost 30 million inhabitants and an immense variety of natural conditions. In the west there is a relatively densely populated coastal strip, while to the east there rise the Andes with the highest peaks towering over 6,000 meters high. The Andes then descend into the Amazon lowlands with tropical rain forest.

The first stop I made was in the city of Arequipa (I arrived from the south, from Chile), which lies 2,325 meters (7,628 ft) above sea level. The city is surrounded by three volcanoes, the most significant of which is El Misti (5,822 meters [19,098 ft]). From time to time the volcanoes wake up (most recently in 2001) and so life can become threatening.

Santa Catalina Monastery is probably the most beautiful sight in the city and at the same time one of the most stunning complexes of colonial buildings in Peru.

Approximately 120 kilometers north of Arequipa there lies Colca Canyon, until recently regarded as the deepest canyon in the world (3,191 meters). The nearby Cotahuasi Canyon is about 163 meters deeper but for now Colca Canyon remains the most popular with tourists. Above the canyon there are villages influenced by Spanish colonial architecture.



One of the greatest attractions of Colca Canyon is condor watching. This majestic bird that lives at elevations of 3,000 to 5,000 meters (10,000 to 16,000 ft) above sea level has a wingspan of up to three meters (9.5 ft), and when flying it makes perfect use of hot air currents. Symbolizing the connection between heaven and earth, the condor was worshipped by the Incas as a sacred animal.



For the indigenous peoples tourism is often a way to earn extra money. This little girl with her llama likes to have her picture taken but expects a small amount in return. Incidentally, the name of the animal has a bizarre origin. The Spanish conquerors would ask the natives what the animal was called: ¿Cómo se llama? (What is its name?). The natives believed that the Spanish call the animal "llama" and gradually the term took hold among both the natives and the Spanish.

Below, the natives farm their fields using the terraced method. Each piece of even steeply sloping land is used to the full.











As the oldest continuously inhabited city in the Americas, Cuzco is a true treasure for archaeologists. It was the capital of the Incas and subsequently of the Spanish conquerors, too. Today the city has another, less flattering, first – the amount of robbed tourists.



Cuzco is the traditional starting point for the most attractive location in Peru – Machu Picchu. Visiting this gem in the mountains is not cheap; the trip will cost you at least \$200. The best thing is to first take a bus to Urubamba and then a bus or taxi to Ollantaytambo. Here you can board the expensive train to Aguas Calientes, the town which is the point of departure for Machu Picchu. A single ticket for the train is at least \$55, that is, there and back for \$110. You will not be allowed to take the local, much cheaper connection; you are obliged to go by the tourist train. The local inhabitants live in such poverty that they cannot afford any train whatsoever and instead walk along the tracks.

Considering how much money tourists bring to this area, the stations along the way look desolate and I suppose the locals receive absolutely nothing from tourism.



There is always something blooming in the jungle and it would be wonderful to follow the forest trails that the ancient Incas used to take through the forest. We are here today for something else though.

Aguas Calientes, a town of two thousand inhabitants, does have a nice part with hotels, restaurants and shops, but when you cross the river, you will find yourselves in areas where people live in great poverty.



It is advisable to start queuing for the buses that take tourists up from the Urubamba River to Machu Picchu at half past four in the morning. During the season, every day 1,000 or more people arrive to see the landmarks and that is why I recommend getting up early. It is worth it. The day breaks and the sun draws the moisture condensed here during the cooler night out of the jungle.







After paying nearly \$60 at the entrance to the grounds you will be rewarded with the stunning views that you know from calendars and tourist guides.

Space and agricultural land were scarce. Therefore, the houses were built directly on the slopes and agricultural crops were grown on carefully maintained terraces that prevented erosion.

We still do not know what Machu Picchu served for because the local population did not have a written language until the Europeans arrived. Nor is it clear why it was suddenly abandoned in 1572. Perhaps this place too was hit by an epidemic of small-pox the natives contracted from the Spanish, but it is not certain. The structures deteriorated for more than three centuries until they were rediscovered in 1911.

The best thing is to first virtually run through the entire complex and get as soon as possible to the gate through which tourists enter Huayna Picchu, a hill that rises 200 meters steeply above the surrounding terrain, providing a beautiful view of the surroundings. Every day no more than 200 visitors may enter at seven o'clock in the morning and another 200 people 3 hours later. Not everyone, therefore, gets to see it. I was lucky; I was number 184 in the first round.



It was not easy to build a city in the mountains. The stones were drawn here from far away and from places that were much further below. As the Incas did not know the wheel it must have been incredibly hard work.

While it is impossible to spend the night here, it pays to stay in the whole complex and its surroundings from sunrise to sunset, when the last buses leave. Machu Picchu may serve as a lesson that the civilizations that were here before us managed to build beautiful things in inaccessible places and yet disappeared. No civilization has a guarantee that it will be here "forever", even though people at the time may pretend so.







Let us now leave Machu Picchu and head southeast to Puno, a town of a hundred thousand inhabitants and situated on the banks of the largest alpine lake of Titicaca, at an altitude of 3,821 meters above sea level. The lake covers 8,980 square kilometers and is as much as 304 meters deep. The eastern part of the lake belongs to Bolivia.

Titicaca is the highest commercially navigable lake on the planet. The story of the Yavari steam boat is interesting. The Yavari and her sister ship the Yapura (in the background) were built in England in 1862 and transferred to the port city of Arica (northern Chile). Dismantled into 2,766 parts, the ships were then hauled by mule (!) all the way to Lake Titicaca, to an altitude of nearly four kilometers and then reassembled. When they were no longer of use to the Peruvian army, they were left on the shore. In 1982, while visiting the lake, an Englishwoman, Meriel Larken, decided to save the ships and put them back in operation. She founded the Yavari Project and won support from, among others, Britain's Prince Philip. In 1999, after almost half a century, the Yavari was launched again. This is a nice example of what an individual with a goal in mind that he or she believes in and follows can do.



Not far from the shore there are floating artificial islands (Islas Flotantes). This is how people used to defend themselves against aggressive and expansionist neighbors, such as the Incas. Today there are sixty islands half a football pitch large, each of them housing 5-6 families with a total of about thirty people.



The largest island has a school, a post office and, of course, a souvenir shop. About 45 islands are popular with tourists and so local people have become an attraction and the eager subjects of the visitors' cameras. Besides fishing it is one of their main sources of income. Another approximately fifteen islands lie deeper in the lake and the locals shun tourists, preferring the traditional life.



When I was visiting, there was a wedding taking place on one of the islands. It was a peculiar mixture of tradition, modern life, and kitsch (see the two swans over the heads of the newlyweds). There was music for people to have fun and dance to. The electric guitars and all the equipment were powered by a diesel generator. The newlyweds were given lots of presents by their friends from the surrounding islands. But there was a hitch in it. The groom had to have a toast with every one, and when this photo was being taken, he could not focus very well anymore.







During the Inca empire and even before it the local inhabitants would bury important citizens in stone towers called chullpas. These were up to 12 meters (39 ft) high, and the deceased would be given food, clothes, as well as treasures for their journey into the beyond. Some towers were even decorated, for example, here with a picture of a lizard. Today the largest number of these relatively well-preserved towers is to be found near Sillustani, 50 kilometers (31 mi) from Puno. All the tombs have, unfortunately, been plundered.

The demolished condition of the towers is not the result of the robbers but lightning. The local stone contains iron compounds, which in a storm makes the towers work as lightning rods.



The Sillustani towers stand on a peninsula at the little-known but pretty Umay Lake at an altitude of 3,890 meters. Nature lovers will find here a large number of plant and waterfowl species.



Puno, dominated by a statue of the Inca, is very photogenic at sunset. It is good to remember though that at this altitude the sun is very strong and once it sets, the temperature quickly drops to zero.







After crossing the border between Peru and Bolivia in the city of Copacabana, we can immediately tell we are now in the second poorest country in Latin America (after Haiti). With there being no bridge over the bay of Lake Titicaca, one must travel in these vessels, which of course only makes the transport more expensive and, more importantly, slow.

Bolivia spreads over a little over 1 million square kilometers and has almost nine million inhabitants. It is a landlocked country, with no access to the sea. This has not always been the case. From 1879 to 1883 Bolivia fought with Peru against Chile and lost. It lost the province of Atacama, where the largest deposits of saltpeter in the world are, and with it access to the sea. Other parts of the territory Bolivia lost in its disputes with Peru and Brazil. Bolivia gained (or rather won) independence from Spain in 1825. Since then, however, the country has periodically suffered from numerous wars and unrest. The position of the army has always been and still is very strong.

Altiplano is typical of Bolivia. This dry high-altitude plateau in the Andes is characterized by hard living conditions.

While La Paz has a population of 1.5 million, the plateau is home to another million inhabitants. People wriggle their way among thousands of cars without much effort. Unlike the Czechs, local pedestrians and drivers are patient and even smiley.

A little outside the capital (about twenty kilometers away) is the starting point of one of the most beautiful hiking trails in the Andes, El Choro Trek. It begins in La Cumbre, at 4,725 meters (15,501 ft) above sea level, from which you need to climb to 4,859 (15,942 ft) meters. Then the trail drops 3,250 meters lower, down to the tropical jungle at the village of Chairó. The 70-kilometer (43-mi) hike takes two to three days but as you might get robbed it is not recommended to walk alone. Therefore I just went to the highest point and then back. I was rewarded with a magnificent view of the surrounding mountains.



La Paz is the highest capital in the world. It lies in the wide canyon of the Choqueyapu River, below a plateau on which is the highest international airport at an altitude of 4,000 meters. The air is so thin that airplanes need a runway twice as long as usual to take off.

Santa Cruz, a lowland town located on the east, competes for dominance with La Paz. The eastern part of the country is rich in natural gas fields, and there have been efforts to separate this part from the poorer, mountainous Andes. For now La Paz remains the capital, and hopefully it will be so even in future because splitting the country would probably lead to bloodshed.





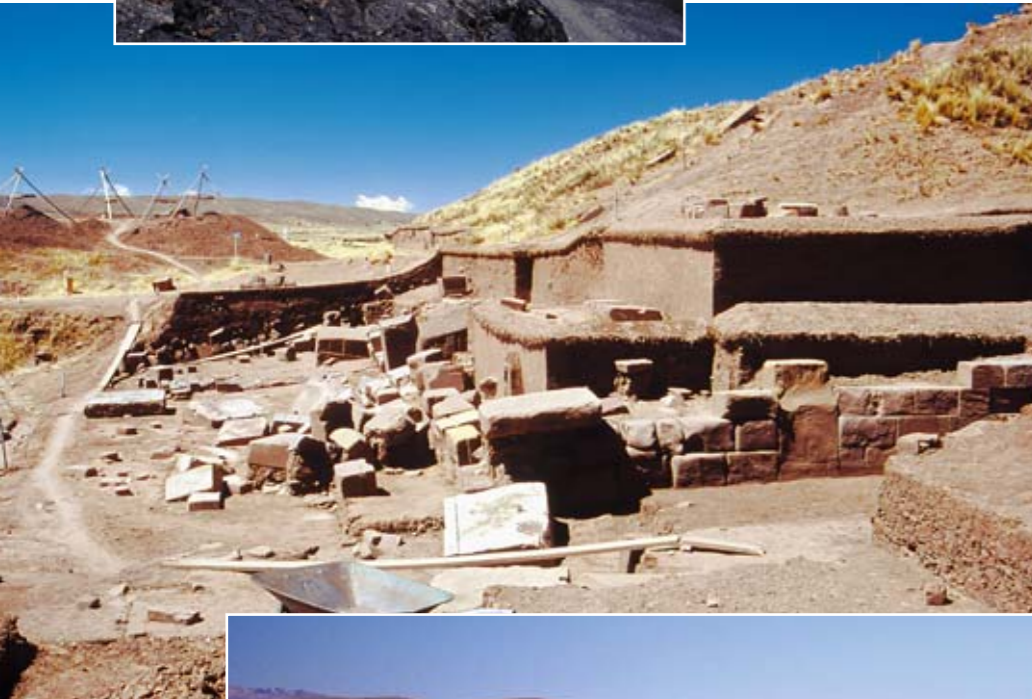


It is best to set out early in the morning because later on the sun grows stronger, drawing out the moisture that has condensed in the jungle over night. Around noon at the latest the hills disappear in the clouds and the visitor can no longer see the surrounding landscape.

On the southern edge of Lake Titicaca, about 70 kilometers (43 mi) east of La Paz, are the ruins of Tiahuanaco (also called Tiwanaku), over 1,000 years old. The civilization that built these structures had probably emerged sometime around 600 BC. We know only very little about it. The city that used to stand here had at least 20,000 inhabitants. For reasons unknown, the civilization ceased to exist sometime around 1200. Indian legends say that Tiahuanaco was the capital of a white man with a beard, who went by the name of Viracocha. At its heyday, this civilization probably influenced the whole of the Andes, and geographically, the archeological site lies in its centre. There are hypotheses claiming this civilization might have had some connection with the Egyptian civilization. The remains of coca leaves and tobacco were reportedly found in Egypt, a fact that would confirm these two worlds were indeed connected. At least that is what we were told by our guide – but one needs to take this information with some reserve.

Intensive archaeological surveys are being carried out today and it is quite possible that one day this place will be among the historical monuments whose importance is comparable to the greatest Inca, Mayan and Aztec sites.

A famous place in Bolivia is Potosi situated 4,090 meters above sea level. This is the highest city in the world with a population exceeding one hundred thousand. Founded in 1545, today it can only remember its past glory. Rich in silver and other metals, in the 18th century it was the largest and richest city in all of Latin America, boasting even its own opera. The source of wealth was the mountain Cerro Rico (Rich Mountain).



Nowadays, the Potosi residents are actually trapped. There is currently no means of earning a living here at this altitude other than by mining precious metals. However, as there is no silver left now and the other metals are mined using a very primitive, manual method, the miners stand no chance of competing with mechanized mines with modern technology in Canada or elsewhere in the world. Toiling away as hard as centuries ago, they remain equally poor.



Miners are religious and when leaving the mine they usually place small gifts at the statue of Jesus Christ as an expression of gratitude. Interestingly enough, they leave even more presents at the statue of the local demon Tata Kaj'chu. The reason is simple – the miners believe that God is in heaven and assume that the demon must then reside underground, where the uncomfortable heat climbs up to 45 degrees Celsius. They call the demon Tio (Uncle) and never devil (Diablo). As they take what belongs to him (silver, tin and other metals), they appease him with sacrifices – alcohol, coca leaves, and cigarettes that they place lit between the lips of his sculptures.



Metals have been mined here uninterruptedly for over four centuries. Indians and slaves imported from Africa worked in terrible conditions, dying especially of silicosis. In colonial times, from 1545 to 1825, as many as eight million people died prematurely as a result of mining. The conditions are not much better now. After 10–15 years of working in a mine the miners inevitably contract silicosis caused by inhaling toxic inorganic substances. If fifty percent of their lungs are destroyed, they may retire but will find it hard to support their family with the pension. Therefore, they usually continue to work and die young, between the ages of 40 and 45. The boy in the photo is 17 and has been working in the mine since he was 11. He is lucky to be able to speak some English because he can spend a part of his working time as a tour guide. At his age miners usually have children for they know they will not live long. Before going down into the pit, miners need to buy coca leaves and dynamite at the local market. Both are readily available here. The miners chew coca during the entire shift, which usually takes 5–6 hours. Without it they would not be able to stand the inhuman conditions.





Bolivia is still not that touristy. Although Bolivia can be considered as attractive as Peru, the country is visited by much fewer tourists. One of the biggest attractions is Salar de Uyuni, the world's largest salt lake. Covering 12,106 square kilometers (it would fill in the whole of Kosovo, the youngest independent country in the world), it lies 3,653 meters above sea level. Each year, 20,000 tons of salt are extracted here. This amount is not a problem because the lake is estimated to contain 10 billion tons of salt.

The natives suffer from poverty. They are very devout, and if you see a chapel that is this desolate, it means that they really do not have any money to spare.

The salt lake features islands covered with cacti. Together they form a landscape ideal for taking photos.

Not far from the town of Uyuni there is a "graveyard of locomotives and wagons". It is a sad sight, especially because we realize that with these machines the Bolivian railway more or less closed down, too (except for a few tracks). There is no money for maintenance, and travelling by train, especially at night, is self-imposed suffering (at night the temperature in the cars usually drops below freezing point). Transport takes place mainly on the road, which certainly does not help the environment, particularly with regard to truck traffic.



One of my greatest experiences while travelling around Bolivia trip was going down the Southwest Circuit for three days. The elevation of over 4,000 meters (13,123 ft) above sea level provides for one of the toughest living conditions.

The entire area consists of volcanic peaks, usually exceeding 5,000 meters (16,400 ft), lakes of various colors, and fascinating geological formations. A sign near the Chilean border says it all: "This is my country, Bolivia. Welcome!" I thought it said something more: "Our country is poor, but it is ours. You're welcome here as friends".











The only national park in the area is Red Lagoon (Laguna Colorada), which even charges an entry fee. It lies 4,278 meters (14,031 ft) above sea level. The algae and plankton living in the water saturated with sodium, magnesium, borax and gypsum create rich colorful combinations on the surface. Surprisingly enough, there are even flamingos by the lake. If you want to spend the night here there is a lodge, but the conditions are tough. The temperature at night fell well below freezing point (there was no fire, nor anything to make it with). I could not really sleep despite putting on all the clothes I had. On the other hand, these harsh conditions and undeveloped infrastructure and services protect the area from becoming flooded and subsequently degraded by mass tourism.

Finding your way around is facilitated by small stone mounds. Without a good four-wheel-drive vehicle it is impossible to drive up here.

The Southwest Circuit is thus still a region of genuine wilderness. It would be wonderful if it stayed the same for a long time, for as long as possible.



## 4.9 Chile



Chile is now the most developed country in Latin America, but the price it paid was perhaps too high. In September 1973 the country underwent a military coup, when, after the bombing of the presidential palace (see photo), the left-wing and democratically elected president Salvador Allende probably committed suicide. He was replaced for 17 long years by General Augusto Pinochet. During and immediately after the coup 35,000 people were arrested. Many were tortured and three thousand people were killed during the dictatorship. The tough economic reforms that would never be acceptable in a democracy proved to be successful, making Chile today a rich country in South American terms. However, 19% of the population are still living below the poverty line.

As in the majority of the other South American countries, the army has enjoyed a privileged position in society. For ambitious young men from the underprivileged classes it also represents one of the few opportunities to build a career.

The capital, Santiago de Chile, has about five million inhabitants. The visitor's first impression will probably be an unpleasant feeling from the constant noise and smog. But when the clouds clear, you will see the majestic Andes ridge that flanks the eastern edge of town.







Las Condes is a typical product of globalization. This commercial and financial center looks almost identical to any city center in the United States.

The 863-meter (2,831 ft) hill that rises above the city is called Cerro San Cristóbal. It provides views of the city, the mountain panorama, and of the sunset. If you wish to escape the city bustle for a moment, this is the place to go.



Valparaíso (280,000 inhabitants) is the main seaport of Chile. It is referred to as "The Jewel of the Pacific", (La Perla del Pacífico), but that is a slight exaggeration. It is mainly popular with sailors and visitors seeking wild nightlife. On the other hand, the surrounding hills are covered with slums, the existence of which proves that economic growth and globalization usually have not only winners but also losers.



Worthy of mention is the archaeological museum (Museo de Arqueología e Historia Francisco Fonck). In front of the building there stands an original Moai statue brought from Easter Island.

The central square in Valparaíso.



Not far from Valparaíso (about 15 minutes away by train) you will find the beginning of Viña del Mar, where the "successful and rich" reside. This city with nearly three hundred thousand inhabitants is nicknamed "The Garden City" (Ciudad Jardín) and compared to the port of Valparaíso its cleanliness is truly striking. The greatest points of interest include Palacio Vergara, the former residence of a prosperous family, now housing a museum with a landscaped park.







The last major city close to the border with Peru is Arica (185,000 inhabitants). This is one of the driest cities in the world; until 1973 it had allegedly not rained for 400 years. Today, the average annual precipitation is only 0.8 millimeters per year.

The photo captures the oldest attraction in Arica, St. Mark's Church designed by Gustave Eiffel before he became famous for building his "Eiffel Tower" in Paris.

Archaeological excavations around the city reveal that this site was inhabited by people who came from the north as early as 9,000 years ago.

Most people visiting Chile set out south from the capital, especially to Torres del Paine national park and further down to Patagonia. I went to the north, which was also definitely worth it. The coastal part of Chile is lined with "the harshest" desert in the world, the Atacama. The western shores of South America are washed by the Humboldt (or Peru) Current, which is 400–900 kilometers (249–550 mi) wide and transports 10–20 million cubic meters per second at a speed of 16–24 kilometers (10–15 mi) per day. Air humidity coming from the Pacific condenses over the cold current, which basically prevents any precipitation from reaching the mainland.

In the photo we see Moon Valley (Valle de la Luna) near the small town of San Pedro de Atacama, on the border with Bolivia. At sunset the desert brightens up with a palette of rapidly changing colors and shades.



Arica is the starting point for visiting Lauca, a beautiful national park. First we need to climb from the ocean to 4,000 meters above sea level. We travel through the Andes foothills until we reach the Altiplano plateau.

The natives manage to make a living even here. They farm their terraced fields, carefully using every bit of fertile land. On less fertile plains they keep llama, vicuna and alpaca, which give them wool, milk and meat.

The centre of the national park is Chungará Lake, one of the highest lakes in the world (4,570 meters [15,000 ft] above sea level). Above it there towers the 6,348-meter (20,827 ft) dormant volcano, Parinacota.

