# *DECOLONIZING NATURE*

Indigenous Struggle for Environmental Justice in Mexico

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*Decolonizing Nature: Indignous Struggle for Environmental Justice in Mexico*


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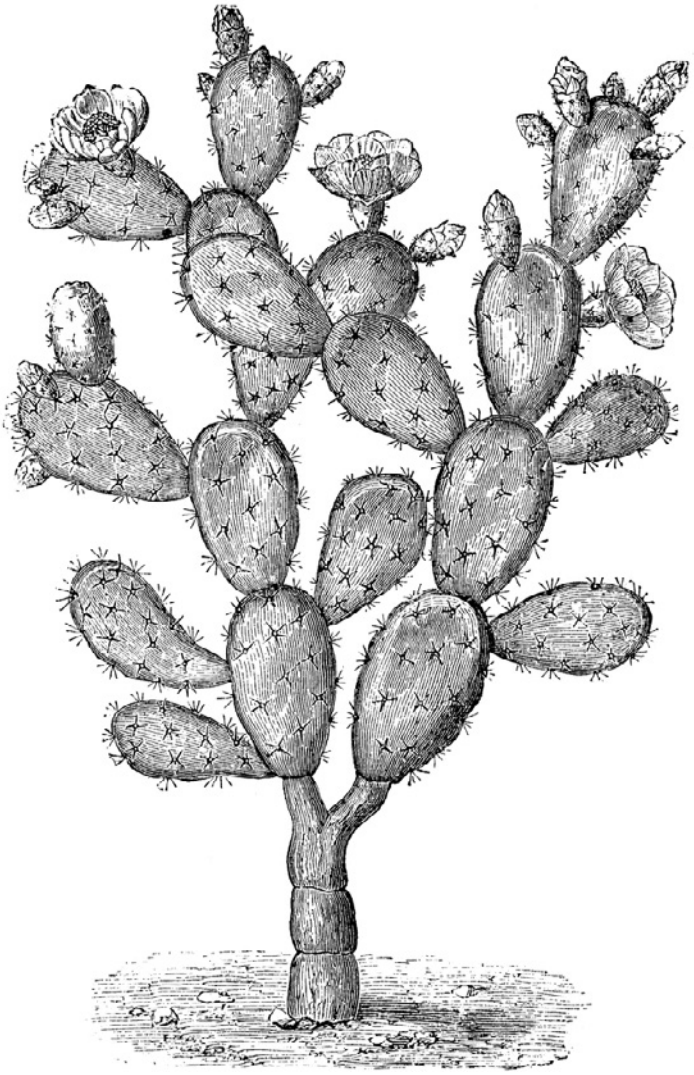


# Chapter 1

*Facts and Figures*

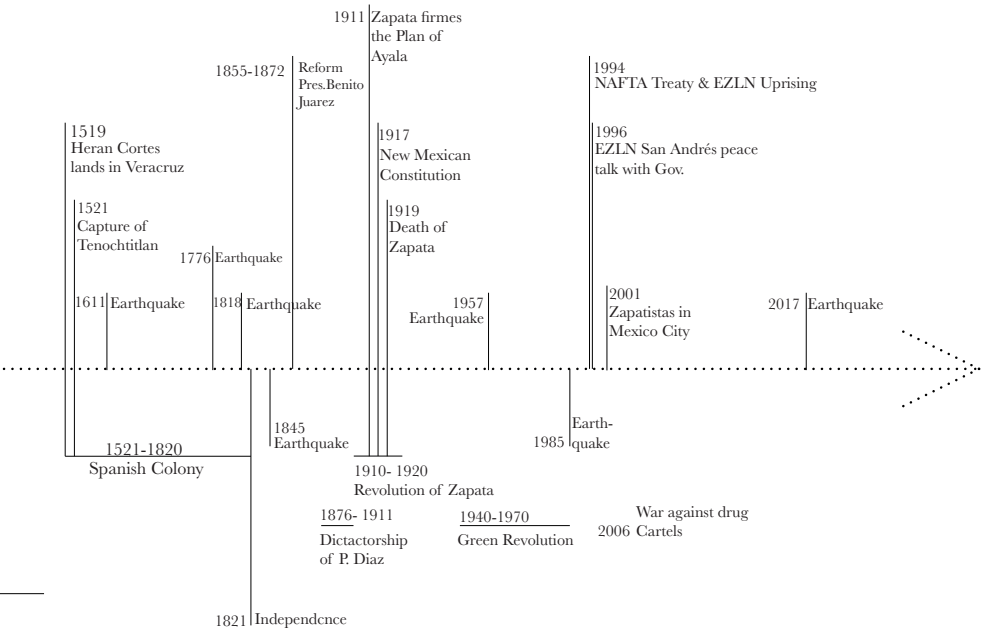
1475
Earthquake

0 to 500 CE
Teothiuacan

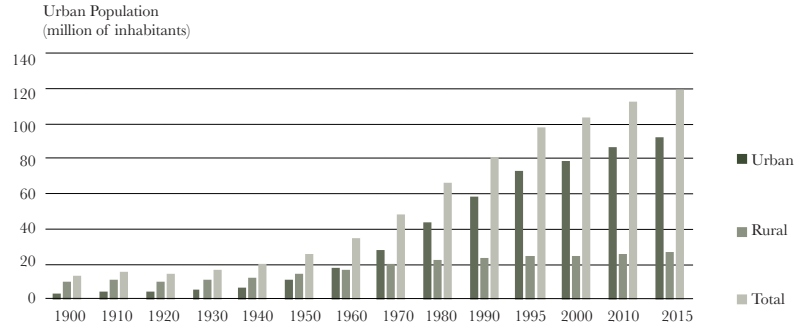
c. A.D 250 to 900 CE
Mayan Civilizations in the Yucatan Peninsula

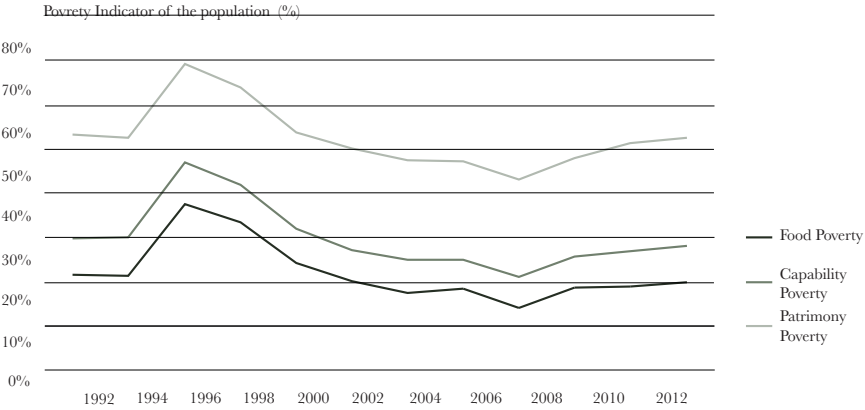
10th to 16th Century
Construction of Mayan Temples

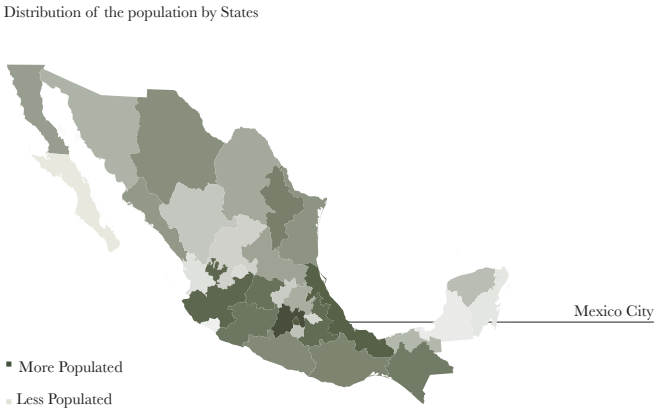
1428 -1521
Aztecs Empire


1911 Zapata firmes the Plan of Ayala
1855-1872 Reform Pres.Benito Juarez
1994 NAFTA Treaty & EZLN Uprising
1519 Heran Cortes lands in Veracruz
1917 New Mexican Constitution
1996 EZLN San Andrés peace talk with Gov.
1521 Capture of Tenochtitlan
1919 Death of Zapata
1776 Earthquake
1611 Earthquake
1818 Earthquake
1957 Earthquake
2001 Zapatistas in Mexico City
2017 Earthquake
1845 Earthquake
1985 Earth-quake
1521-1820 Spanish Colony
1910- 1920 Revolution of Zapata
1876- 1911 Dictactorship of P. Diaz
1940-1970 Green Revolution
2006 War against drug Cartels
1821 Independence

# Statistic Datas *Mexico*

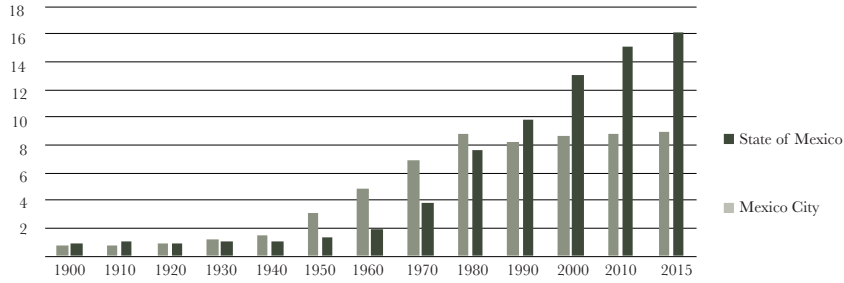


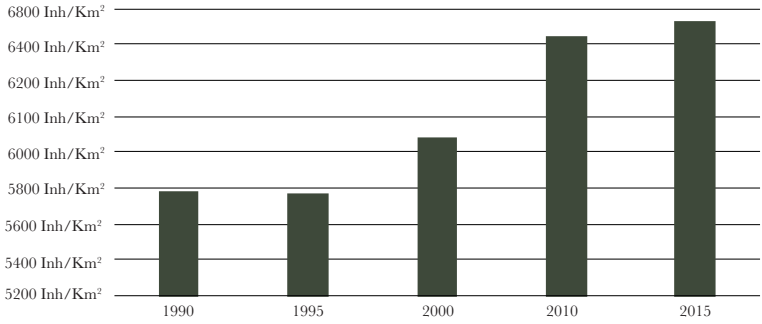



# Statistic Datas *State of Mexico and Mexico City*

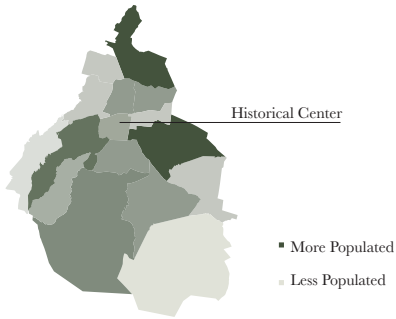
Population
(million of inhabitants)




Density of Inhabitantes in Mexico City
(Inhab./km²)



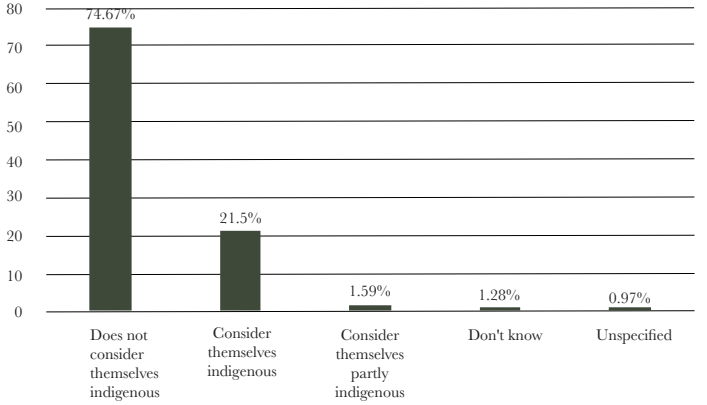

Distribution of the population by Municipality in Mexico City



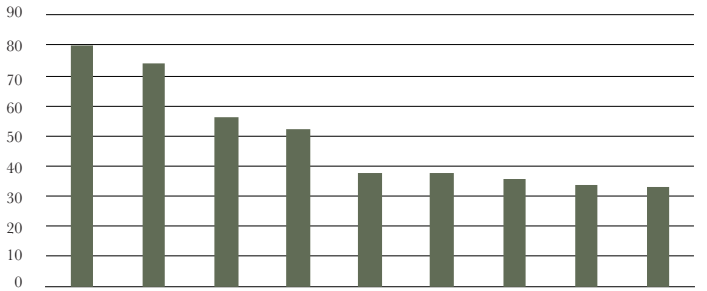
## Indigenous Population

*MEXICO*

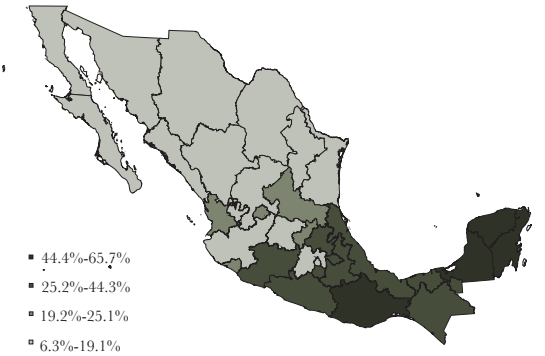
Indigenous Auto-descritpion in *Mexico*



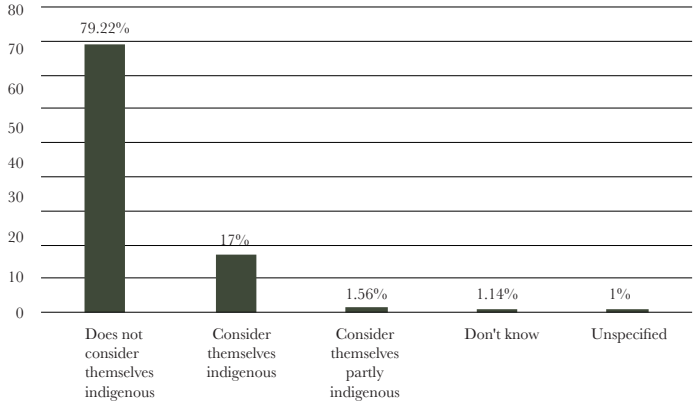

Indigenous peoples aged 5 and over speaking an indigenous language in *Mexico* (%)



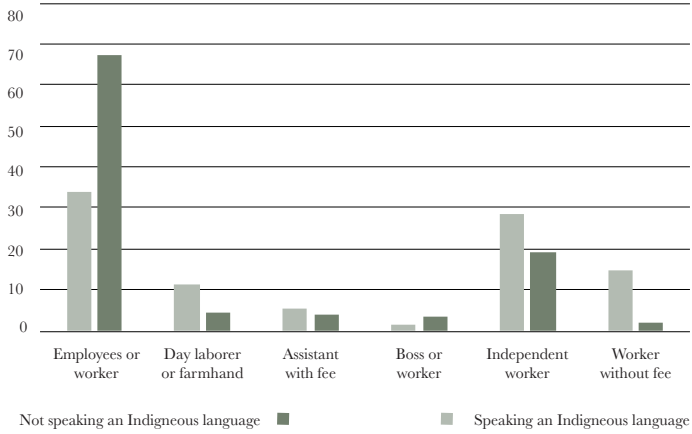

Indigenous Auto-descritpion in *Mexico* (%) by States



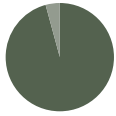
Indigenous Auto-descritpion in *The State of Mexico*



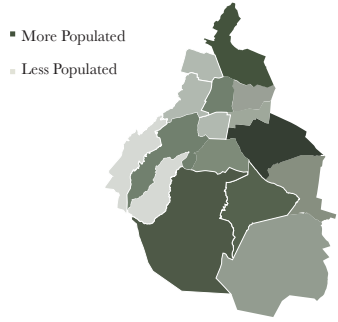

Distribution of the population aged 15 and over by job position according to indigenous language condition 2015 (%)




1/3 of indigenous peoples are living in cities



4.23% of indigenous peoples aged 5 and over speak an indigenous language(State of Mexico)




Distribution of the indigenous population in Mexico City

# Chapter 2

*Introduction*

## *Decolonizing Nature*

> There is nothing more important, timely, and urgent to consider as our present ecological crisis, […] Under currents forms of governance, our relation to the environment threatens our coming existence, where not only nature is colonized but also our very future, a colonization that we must all struggle to resist[1]
>
> — T.J. Demos

The origin of our current environmental crisis can be traced back to colonial times, when Westerns countries began to enrich themselves by accumulating wealth at the expense of nature. Indeed, when nature and economy intersect, nature becomes natural resource, a privatized and financialized commodity whose accumulation forms the basis of imperialist systems. The logical consequence of centuries of nature's dispossession is the current overlapping between modern capitalist values and the logics of extractivism. Like 16th century settlers, international corporation of agribusiness, fossil fuel and real estate investment continue to significantly modify the planet's landscapes, climates, biodiversity and ecosystems. The consequences of such policies are dramatic: massive spread in water and air pollution, rising temperatures, millions of people displaced, increase in poverty, deforestations, wars and more...

This situation of environmental crisis worsens every year and is seriously threatening the survival of humankind. In 1992, the United Nations conference on Environment and Development agreed that the pollution of the planet is everyone's responsibility, however, not all countries are responsible for climate issues equally. Industrialised countries are much more polluting than the poorest, for example, the United States' ecological footprint would need five earths to be sustainable while Colombia's would need only one. According to Oxam's 2015 report *Extreme Carbon Inequality*, "The poorest half of the global population are responsible for only around 10% of global emissions yet live overwhelmingly in the countries most vulnerable to climate change — while the richest 10% of people in the world are responsible for around 50% of global emissions." [2]In this context, developed countries are exceeding their "pollution allowance" and

[1] T.J Demos, *Decolonizing Nature Contemporary Art and the Politics of Ecology, SternbergPress* (Berlin, 2016).p.29

[2] Oxfam Media Briefing, *Extreme Carbon Inequality*, 2015.

owe the others a compensation, a concept known as climate debt. Even though this notion is helpful for immediate ecological changes, it is not enough and it is politically very problematic, allowing wealthy countries to buy their way out of committing to the planet's natural commons. As long as a handful of powerful human beings consider themselves to be above and outside nature, the environment will always be reduced to a consumable good.

Decolonizing nature means to radically change this anthropocentric entitlement, to shift from a vertical and hierarchical system to a horizontal network of interrelations between humans, nature and all beings is the first ethical and imperative step towards the decolonization of nature and Earthly survival.

## *Rethinking Nature – Culture: Learning from Indigenous Cosmologies*

> All the forests, the sky, the sun, the stars, the moon are living beings with souls and life just like us. That is why we say that without the forest, we *Tarahumaras* will die.[3]
>
> — Isidro Baldenegro Lopez

How a society coexists with its physical environment depends on how it conceptualises nature. In western societies, nature is seen as independent and opposed to culture. Even though humans and non-humans are all made of the same chemical elements and subdue to the universal laws of physics, non-human "things" such as animals, plants, rivers, and mountains are considered culturally and intellectually different. This particular dualism is called naturalism by the anthropologist Philip Descola,[4] and it is a core principle of Western thought. Aristotle is the first one to mention it, when he tries to classify organisms according to their level of perfection. Subsequently Judeo-Christian faiths introduced the notion of Man's transcendence, whose the essence depends on God mercy. Being God's most perfect creation, men were given the right to administrate, control and subdue nature. In the 17th century, the development of science lead to a mechanistic and reductionist conception of nature made of different parts that could be dismantled like a machine. With Descartes' split between body and mind, the dualism between nature and culture, hence known

[3] Baldnegro Lopez, Isidro, *Goldman Environmental Prize Ceremony: Acceptance Speech*, 2005

[4] Philippe Descola, *Par-delà nature et culture*, Paris, 2015.

as "Cartesian", became finally crystalized in Western anthropocentrism. Today, this opposition is being placed under general scrutiny and our society is becoming increasingly aware that, far from being universal, to many civilizations across our planet, this dualism makes very little sense. In his book *Beyond Nature and Culture,*[5] anthropologist Philip Descola attempts to overcome the Cartesian dualism by creating a system that explains the diversity of relations between nature and culture in world populations. Inspired by fellow anthropologists Bruno Latour and Eduardo Viveiros de Castro,[6] Descola describes the various worldviews in accordance with their relations of continuity or discontinuity with nature. He calls this system "the four ontologies: naturalism, animism, totemism and analogism". Naturalism, the Western ontology, is characterized by a radical discontinuity of interiorities (mind and conscience) but similitude in physicalites (body or biology) between human and non-human beings. Totemism, the ontology present, among others, in Autralian Aboriginals, is characterized by a continuity in both interiority and exteriority. Animism, present in many South American populations, is defined by similitude in interiority and difference in physicality. Analogism, finally, is defined by the opposition in both interiority and physicality, such as in the case of Aztec populations of pre-colonial times.

As we now realise, centuries before Westerns scholars such as Bruno Latour and Philippe Descola began questioning anthropocentrism, indigenous peoples all over the world had been basing their cosmologies on an ecological awareness that we now turn to in search for alternatives to our blind spots. Even though colonial wars forced indigenous peoples to abandon their traditions, their relationship to nature remained horizontal and harmonious. In the current context of environmental crisis, acknowledging the indigenous legacy may be a good way of working towards a more sustainable and equitable future.

[5] *Ibid.*

[6] Eduardo Batalha Viveiros de Castro (born 1951) is a Brazilian anthropologist who coined the concept of perspectivism, an anthropologist theory stipulating that some civilizations do not only think animals are acting like humans but that animals are seeing the humans like animals. The encounter with this theory led Philippe Descola to the development of his 4 ontologies — naturalism, animism, totemism and analogism — as he explains in his book *Beyond Nature and Culture*.

> I think of globalization like a light which shines brighter and brighter on a few people and the rest are in darkness, wiped out. They simply can't be seen. Once you get used to not seeing something, then slowly, it's no longer possible to see it.[7]
>
> — Arundhati Roy

The violence of the environmental crisis is not spectacular and instantaneous, it is rather taking place gradually, like a slow hurricane, tearing down nature on its way. Rob Nixon, American professor on environmental issues, used the concept of "slow violence" in order to describe the situation: "Climate change, the thawing cryosphere, toxic drift, bio magnification, deforestation, the radioactive aftermaths of wars, acidifying oceans, and a host of other slowly unfolding environmental catastrophes present formidable representational obstacles that can hinder our efforts to mobilize and act decisively."[8]

In a world where speed, efficiency and immediacy rule, the particular temporality of the environmental crisis, makes its effects almost invisible to the eyes of the populations, politicians and multinational corporations. Even though casualties are alarming, such a slow-motion crisis has a subdued urgency that is easily obscured from media and political agendas. The principal victims of slow violence are vulnerable people who lack means of defence. Indigenous communities are among the first to be impacted, as their livelihoods depend on a healthy and sustainable environment. The drying up of rivers, deforestation or gas extraction leads to the slow disappearance of their ancestral traditions and lands. Despite such unequal fight, many indigenous peoples are taking prominent parts in movements for environmental justice. Indigenous activism is getting increasing international attention, as demonstrated by the recent Dakota access pipeline outrage[9], where the Standing Rock Sioux tribes peacefully rose against the invading construction, which threatened the ecosystems of their homelands and currently counts five oil spills in six months of operation. The violent response from private security and militarized police forces against activists raised international outrage and concern. Indeed, taking stand against

[7] Roy, Arundhati, cited in: Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass, ) 2011 p.1.

[8] *Ibid*.p.2

[9] Brown, Alleen, *'Five Spills, Six Months in Operation: Dakota Access Track Record Highlights Unavoidable Reality — Pipelines Leak'*, The Intercept, 2018

such extractivist companies is today riskier than ever. In 2016 alone, 200 environmental defenders died across 24 countries, 40% of whom were indigenous.[10] Rarely anyone has been prosecuted for these crimes, but strong evidence points to multinationals', paramilitary and even governmental involvement in some cases.[11]

"Today, the time for doubt has passed"[12], said the UN Secretary-General Ban Ki-moon in 2007 while talking about climate change. In effect, ecology needs to urgently intersect with politics, in order to mitigate the social, environmental and economic impacts of climate change. Just as every individual has a set of inalienable human rights, new policies should recognize the rights of nature as fundamental for all beings, including ecosystems. Following this principles, Ecuador and Bolivia have recently shown the way forward in imagining new contracts of a political ecology, by integrating in their constitution, laws that defend the rights of Mother Earth, defining her as a living being, unique and indivisible.[13]

## *¡YA BASTA! The Mexican Resistance for Environmental Justice*

> The world that we want is a world where many worlds fit[14]
> — Subcomodante Marcos

Mexico is an iconic example of a place where a wealth of historical layers of regarding different and opposing conceptualization of nature have confronted each other and sedimented over time.

Spanish domination over Mesoamerican cultures has been the first crucial modification of the concept of nature in Mexico, illustrated by the transformation of traditional local farms into the feudal *hacienda* system. In 1810, colonies ended but the following economic policies of dictator Porfirio Diaz promoted the development of the remaining haciendas, helped by foreign investments that dramatically increased rural poverty. In reaction to this, Emiliano Zapata, the leading figure of the Mexican Revolution, fostered a political uprise

[10] Global witness, *Defenders of the Earth*, London, 2017

[11] *Ibid.*

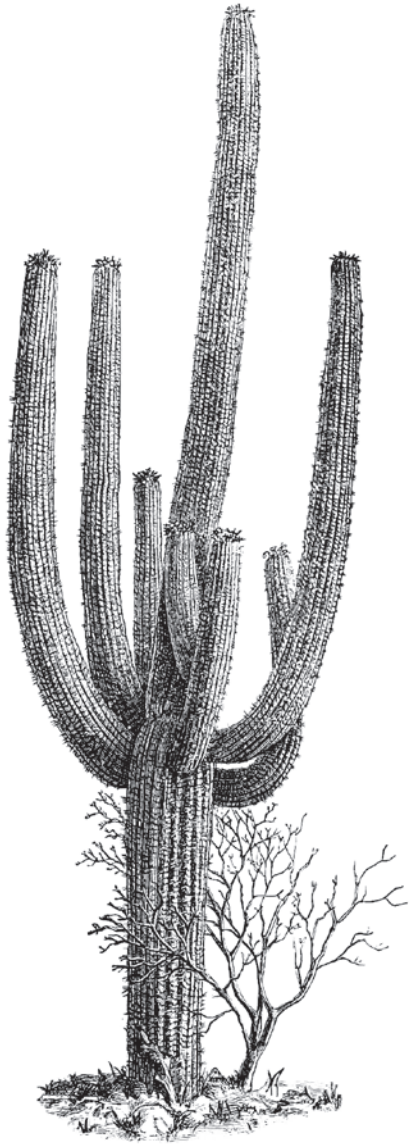
[12] Ban Ki-Moon, '*Secretary-General's Address to High-Level Event on Climate Change*', 2007

[13] Universal Declaration of Rights of Mother Earth , W*orld People's Conference on Climate Change and the Rights of Mother Earth*, Cochabamba, Bolivia, 22nd of April 2010.

[14] Subcommandante Marcos, *Cuarta Declaración de La Selva Lacandona* , 1996

that demanded an immediate decolonization of nature and labour, as well as a renewed the respect for the cultural legacy of indigenous peoples. In consequence, agriculture in Mexico went through an important reform characterized by the setting up of communitarian agricultural lands called *ejidos.* Due to the rise of capitalism in neighbouring countries, the social reform didn't last and the small *ejidos* were sold to powerful agribusiness companies. In 1994, The NAFTA Treaty[15] gave the final *coup de grace* to the fragile layer of indigenous nature, destroying small economies in the country. Once again, inspired by Emiliano Zapata, a group of indigenous people from Chiapas (South of Mexico) called the *Zapatistas* did not surrender and started the first post-modern revolution against neo-colonialism. They loudly claimed *¡YA BASTA!* (That's enough!) to 500 years of environmental injustice. The violent repression they received from Mexican Army Forces forced them to isolate themselves in the dense Chiapas jungle, where they are still living today in an autonomous and communitarian way. Despite the seclusion, the Zapatista shout of rage and revolution echoed all over the world. Consequently, other indigenous groups rose up and today, indigenous movements for environmental justice are at the forefront of the climate resistance. Thanks to their courage, "A world where many worlds fit" — a decolonized world that includes humans and nonhumans, regardless of their origin, culture or language — is not yet an impossible utopia.

[15] The Nafta Treaty – the North American Free Trade Agreement – is an agreement signed by Canada, United States and Mexico in 1994. The aim was to create a trilateral trade bloc in North America. The Treaty is still existing today.



# Chapter 3

*Layers of Nature Histories*

*fig 1.* Indigenous Map of Tenochtitlan, 1541
*fig 2.* Cortes Map of Tenochtitlan, 1524

## *Spatialization of Time*

If the way a society makes maps is a reflection of how it sees the world, then Mesoamerican people saw it differently from the Europeans. Before the arrival of Cortes, the Spanish conquistador who began the first phase of colonization and caused the fall of the Aztec Empire, indigenous peoples of Mexico employed a sophisticated cartographic system made up of pictograms representing landscape features or names of places. Symbols and hieroglyphs were not a representation of reality but of toponyms. For example, a place name was often composed of the hill symbol even though it was not necessarily hilly, meaning that space was understood through words more than through geographical contour lines. Mesoamerican cartography can be divided in four categories: terrestrial maps that include property plans and city plans; cartographic histories that tell a narrative of the place; cosmographical maps that show either the horizontal cosmos (the earth's surface) or the vertical one, the *axis mundi* or world tree; and celestial maps of stars and constellations. The narrative of the place, or the "spatialization of time"[1] was a key element because space and time were conceived as inseparable concepts. Maps regularly included information about the conquest of land, the creation of its boundaries or the migration toward it. In addition, a timeline was added with a precise calendar system, as well as information about genealogical lineage.

> Mesoamerican societies *did* see the world differently than did contemporary Europeans. They saw space as so deeply connected to time, be it historical or calendrical, that the two could not be rent apart.[2]

The comparison of two contemporary Mesoamerican and Spanish maps helps us understand the differences between these two societal worldviews. First of all, the former is not a geographical representation of the city but a social one. The map is divided by a big blue cross representing the famous canal system of the city and creating four quadrants (in analogy with the four quadrants of the cosmos). In the middle, an eagle stands on a cactus, illustrating the founding act of Tenochtitlan. The representation of time is made by means of a calendar that frames the map and, in the bottom half, a visual narrative of important battles with the main temple in the background. If we now compare this map with another one made in 1524 by a Spanish cartographer, we

[1] Miguel Léon Portilla, *Aztec Thought and Culture and Study of the ancient Nahuatl mind,* 1993, p.54-57, cited in *Barbara E. Mundy,* Mesoamerican Cartography, p.193

[2] Barbara Mundy, 'Mesoamerican Cartography', *Contained in:* The History of Cartography *Vol. 2 Bk. 3 Cartography in the Traditional African, American, Arctic, Australian, and Pacific Societies (Chicago : University of Chicago Press, 1998)*, 1998, p.193

will notice first the panoramic point of view of the map. The draughtsman places himself "above" the territory and represent the landscape in from a "God's-eye view". Even though exact geographical representation is not the map's final goal, every house and squares are drawn in a way that suggests visual and spatial relation. People are added sailing around the city in Venetian-looking boats. In sum, whereas the Spanish aimed to measure and describe the landscapes and architecture of the newly discovered Tenochtitlan, Mesoamericans focused more on the importance of its socio-historical dimensions.

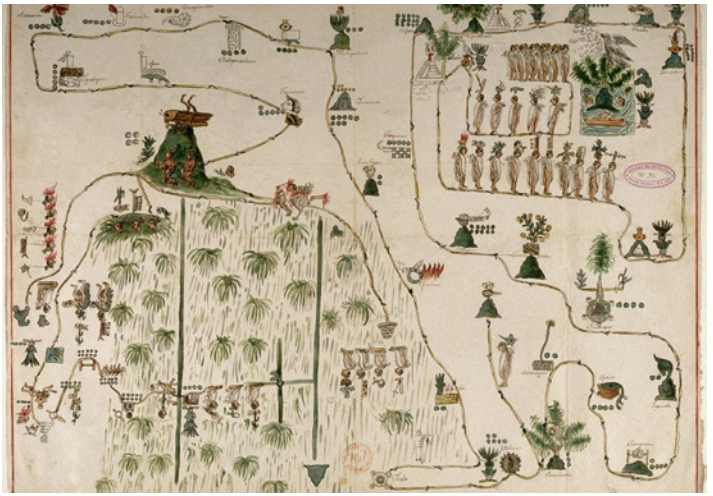


*fig 3.* Sigüenza Map, 17th century

*fig 1.* Pilgrimage of the Peyote

## *The Magic Reality*

Mexico has historically been a place where animals, plants, mountains, the sky and seas are considered sacred. It is a place where the magic prevails over the rational and where the invisible becomes reality. Ceremonies, rituals and prayers are important features of indigenous cultures, allowing them to engage in dialogue with the environment, material or spiritual. In Mexico, 14'150'000 people speak some form of the more than 59 different Mesoamerican languages[1], corresponding to around the same number of different ceremonies and rituals. These ceremonies mediate the contact with non-human nature. Just as in a dialogue between people, indigenous peoples would call the rain or the sun in order for them to come. For example, during the agricultural process, it is necessary to call the "owners" of water in order to have good harvest.

> *Apancihuatl* is said to be "a woman" who has long hair, she is the owner of water, the essence of water, although not all of us can see it; *apanquixitiani* is the "male", the water is divided in two, female and male. Those who know the rituals (*Tlametquetl*) teach us how to make the offering to the water [...] we believe that if we make offerings, if we dance and pray the owners of the water will not go, if we do nothing, the spring will dry.[2]

In some parts of Mexico, hallucinogenic plants are used as a channelling device. One emblematic example is the pilgrimage of the peyote. It originated on the pacific side of Mexico, in Jalisco. At the end of rainy season, Wixatari peoples (or Huicholes in Spanish) go to a mountain where they believe the world was created. The goal of this journey is to communicate with ancestors and to thank the gods, and a specific cactus, the peyote or the hikuri (Wixatari word), is used for this purpose. The excursion, long and demanding, serves the purpose of personal purification. The ceremony is also important for the social body of the because it reinforces a sense of community and marks the moment of change in governance.

Today, the sacred and the magic are still an important part of the daily life and community affiliation of indigenous peoples. The sacralisation of nature leads to a profound respect of the environment, as caretaking within the community becomes equated with taking care of Mother Earth.

[1] INEGI, *Estadisticas a proposito del dia internacional de los pueblos indigenas.* Aguascalientes, Mexico, 2016.

[2] Santos de la Cruz Hernandez and others, *Cosmovisión Indígena Contemporánea Hacia una descolonización del pensamiento* (México, 2014), p.40. [My translation]

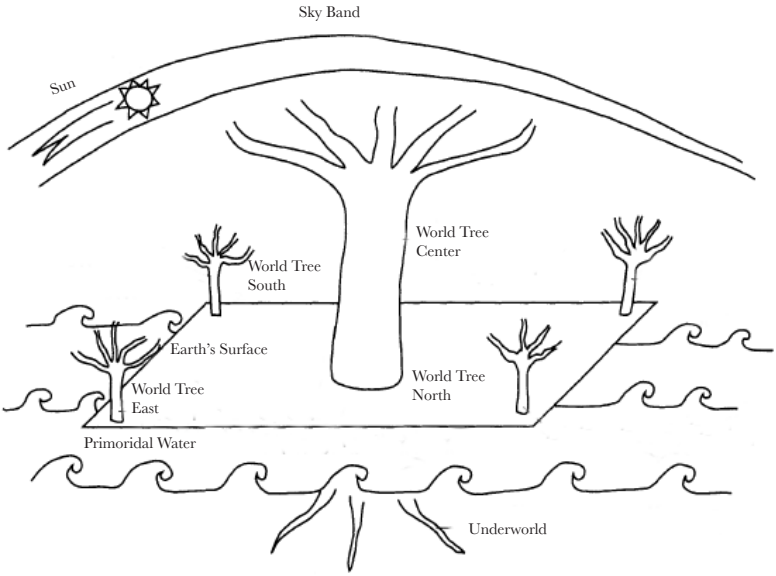



*fig 1.* Diagram of the Mesoamerican Cosmos with cosmic trees

## *Myths & Analogism*

Since pre-Hispanic times, indigenous peoples of Mesoamerica have constructed and established complex relationships with nature, the family, the idea of community and the cosmos. For them, history was not the sole means of explanation of the world. The past was as constructed as a sacred depository of myths that narrated the link between humans and their surroundings.

> …these societies [Indigenous] never broke their ties with the sacred that determined their relationship with the cosmos, nature, the family, community or the past. A link that is not explained by history but by myth. The myth is a singular way of "narrating" the outstanding events that happen to the community, and the way in which its members perceive and live the sacred. [1]

Mesoamericans held a variety of different myths depending on whether they were Aztec, Mayan, Olmec, etc. Only one was common to all — the myth of the cosmos. Invariably ordered and in contrast with the chaotic and hazardous world of humans, the cosmos was composed of two axes: the horizontal earth's surface and the vertical world of trees. The earth's surface was thought to be floating on water (the primordial waters), and it was part of a layer-system that stretched from the underworld to the sky (the sky could be represented as a band or a group of layers). The terrestrial surface itself was divided in four quadrants corresponding to the four cardinal points. For the Aztec people, east was the most important direction because it was the place where the sun rises. Indeed, the sun determined the regularity of the seasons, the productivity of the lands and the cycle of life, and was therefore seen as responsible for human survival. Aztecs considered east to be the place of dawn, north to be the place of the dead, west to be the woman's land, and south was seen as the thorny land. The center, a fifth cardinal direction, was the human hearth. On each cardinal point, a tree was thought to be holding the sky from falling on the earth. At each of the trees' roots, various objects and monsters were to be found. For example, in the east, the sun disk was represented on a temple platform with the tree rising from it. In the west, the tree's roots sprouted from the mouth of

[1] Florescano Enrique, *Memoria mexicana*, 2 edition (México, 1994).p.459[My translation]

a dusk demon who waited for the souls of women who died during childbirth. Each cosmic tree was stylized to resemble a local Mexican plant such as maize, cactus or cacao.

The structure of the cosmos described in Mesoamerican cosmological maps had a central influence on people's lives. For example, city plans such as Tenochtitlan, were built following cosmographical structures (cf. Chp. Nature Commodification). The Tenochtitlan map in the Codex Mendoza (fig.1) illustrates this analogism: the four X-shaped water canals are echoing the four quadrants of the earth's surface and the fifth direction is represented by an eagle eating a snake on a cactus — the creation myth of Tenochtitlan.

Indigenous cosmologies have agricultural origins, thus nature is the fundament of everything from politics to religion, to economy, etc. In his book *Beyond Nature and Culture*, French anthropologist Philippe Descola uses the concept of "analogism" to describe the nature-culture relation occurring in indigenous Mexico. In his definition, the analogist ontology is marked by a discontinuity between the interiority and physicality of every being. This means that, for indigenous Mesoamericans, non-humans such as plants and animals do not have the same emotions, desires or self-awareness as humans, nor do they share any biological similarities whatsoever.

Descola defines analogism as one of four human ontologies and it is best understood in that context. For example, naturalism, the Western ontology, is characterized by a separation and discontinuity of interiorities, mind or conscience, and a continuity of substance, body or biology. Animism, on the other hand, assumes that many human and non-human beings have similar interiorities to one another, but are made up of very different bodily substances. Finally, totemism sees a continuity between both interiority and physicality across a very wide array of beings. Analogism is thus a radical system of difference, in which each being has a uniquely constituted interior and physical existence.[2] In the analogist perspective, the world is imagined as a composite of infinite singularities and in order to render this complexity intelligible, a complex system of similitude and hierarchy is necessary. In establishing similitudes in between humans and non-humans, differences become explicable and consequently create a relation of interdependence and closeness. The analogist nature-culture relation explains, for example, the way in which Mesoamerican politics reflected the divine hierarchy and how discords in communities were believed to reflect divine conflicts.

[2]Philippe Descola, *Par-delà nature et culture* (Paris, 2015).

Indigenous communities of the 21st century still value the sacred as a way to relate to nature. Generally, their daily life is rhythmed by a calendar based on the Mesoamerican one (itself based on the cosmos logic), which determines moments of harvests and religious celebrations, both Catholic and pre-Hispanic ones. Nowadays, myths and legends are an integral part of indigenous traditions and must be cherished like relics of a time when gods, spirits and human were all agents of a communal universe.

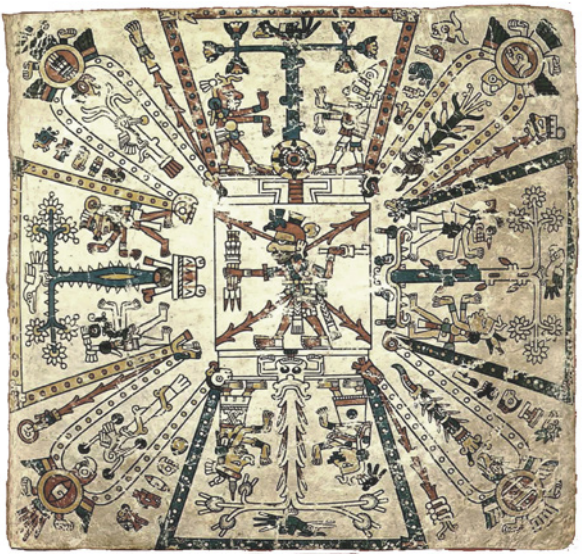


*fig.3.* Indigenous Map of the cosmos, First page of the Codex Fejévérary-Mayer, 1829

*European Exoticism*

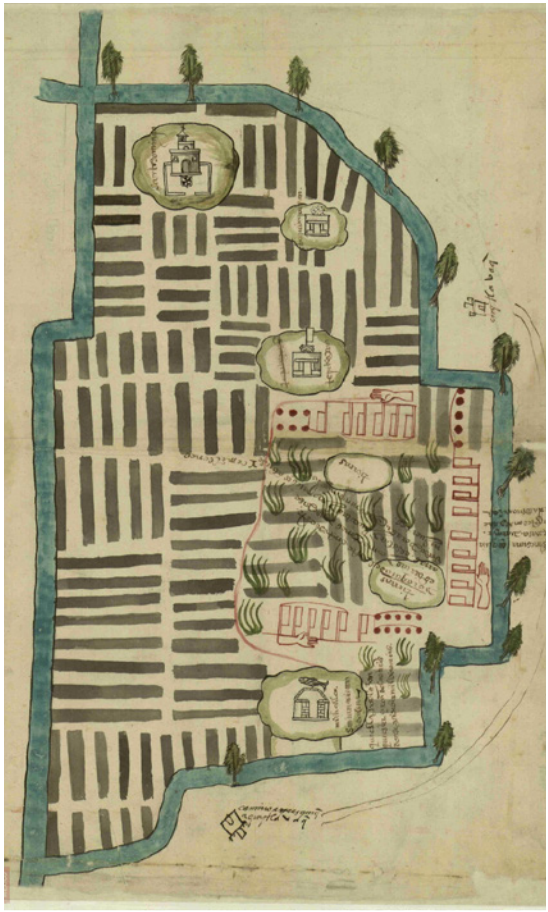


*fig 1.* Indigenous Map of San Gerónimo, Coyoacán, Ciudad de Mexico, 1554

> … gentlemen, and sons of gentlemen, zealous in the service of our Lord, and of Your Royal Highnesses, and desirous for the exaltation of your royal crown, and the extension of your dominions, and the increase of your revenues, assembled and spoke with the Captain Hernán Cortés, saying that this land was good and that, judging by the sample of gold which that cacique had brought, it was reasonable to believe that it must be very rich, and that he and all his Indians were well-disposed toward us.[1]

The act of commodification is the basis of a system that turns objects into marketable items. In the same what that the philosophical stone was believed to transform everything into gold, commodification transforms natural entities, like trees, stones or plants into raw material and valuable goods.

The victory over the Aztec empire by the army of Cortes was the starting point of a colonial empire that ruled from 1521 until the war of independence in 1810. During this period, Spain had two main goals: to enrich itself and spread Catholicism. In Mexico, the main source of wealth was nature and its commodification was put in place through mining and intensive agriculture. In order to privatize and control the production, *haciendas* were spread all over the "new" territory. This system was imported from Spain and it was composed of a big rural estate that controlled the production and the stocks. The aim of the *hacendados* (owners of *haciendas*) was to make profit by selling goods to Europe — cacao, sugar cane, fruit, animal products and also silver, gold and later copper, coal and iron. In the process, new species and diseases from Spain were also imported into Mexico, with devastating impacts on the environment and the ecology of the country.

Workforces in the fields and mines were generally composed of indigenous peoples. Therefore, *haciendas* were purposefully located near indigenous villages in order to have access to free labor. This new concept of land privatization was previously unknown to the indigenous populations, who were used to collective organizations of propriety such as the *calpulli* in Tenochtitlan, a unity of the city were the inhabitants lived in a communal way. Their lands were first stolen and then distributed by the Spanish crown to the *hacendados* who henceforth controlled both production and labor. This new hierarchy echoed the social structures of feudal Europe in the Middle Ages,

[1] Cortés, Hernán. Cartas y relaciones de Hernan Cortés al emperador Carlos V. Edited by Pascual de Gayangos. Paris: A. Chaix, 1866. Microfilm.

where peasants (or serfs) worked for free in exchange for goods or protection but never money. Naturally, the *hacienda* system facilitated power abuses such as slavery to spread all over the country. In addition to the horrible working conditions, European diseases like smallpox decimated the indigenous populations which dropped between 80% to 95%[2] in 100 years. The 1910 Mexican Revolution of Zapata and the agrarian reform of 1917 abolished the *hacienda* system. However, Mexico is still, to this day, afflicted by a very unequal system whereby a parallel could be established between powerful industry owners having taken the place of the *hacendados* and the Mexican government that of the Spanish crown.

[2]Acuna-Soto, Rodolfo, *Megadrought and Megadeath in 16th Century Mexico*, 2002

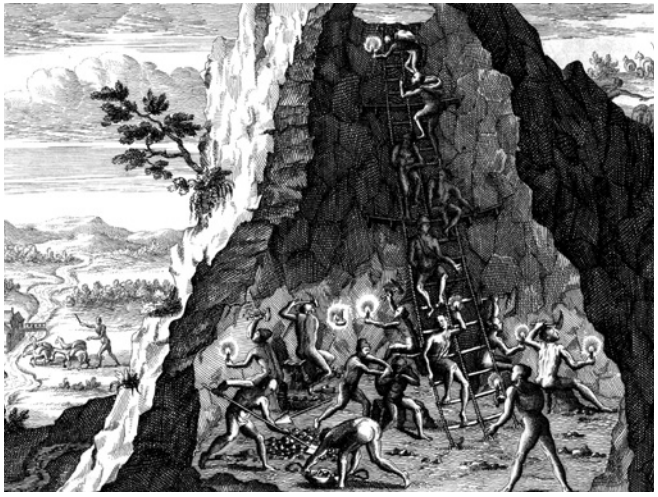


*fig.2.* Frederick Catherwood , *la Hacienda Xcanchakan*, 1843
*fig.3.*Theodor de Bry, *Engraving of a mine in Potosi*, 1590

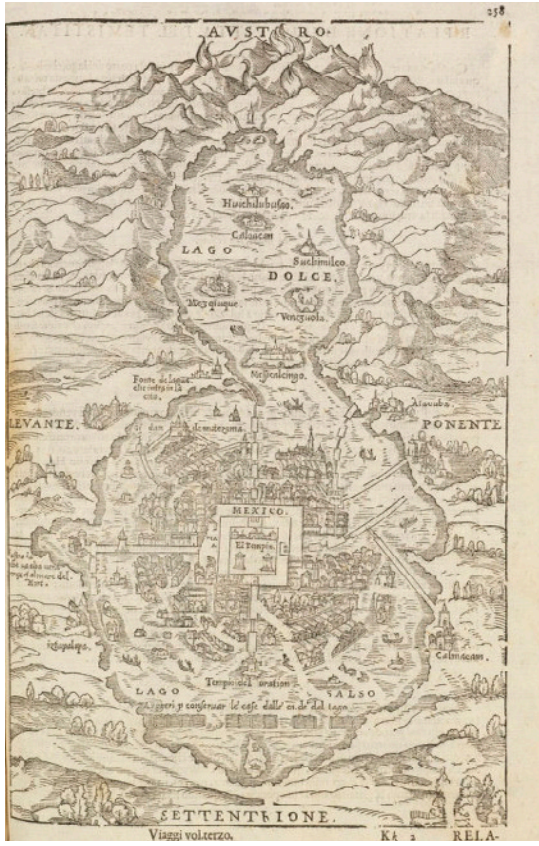



*fig 1*. A woodcut map of Mexico City, 1556

## *Nature Paradox*

As Spanish conquistadors gained further control over the land, they needed a new city to set up their power. Cortes decided that the future Mexico City should take place on the location of the Aztec capital of Tenochtitlan. At the time, the valley of Mexico was covered by Lake Texoco and Tenochtitlan was built on one of its island. 250'000 people lived there governed by king Moctezuma II. Because this was a swampy region, the city was crisscrossed by a complex system of water canals that made it similar to Venice. There was a complex system of cisterns and dams to control water level and avoid flooding, and three aqueducts brought drinkable water to the inhabitants. Roads connected the city to the mainland on each cardinal point and the urban plan was extremely rational. Indeed, its plan was a replica of the quadripartite division of the world as depicted in the indigenous cosmology: east, west, north, south and center. Consequently, four main water canals divided the city and at their intersection was the religious center with the *Templo* Mayor, which was considered the fifth cardinal point and the location of the axis of the universe. The four parts were then divided in districts called *calpullis*, communal unities made up of a group of houses. In its totality, the specific environment of the city accommodated an impressive agriculture system called the *chinampas*, the Aztec floating gardens.
Tenochtitlan did not resist the Spanish invasion. After many difficult fights, the Aztec surrendered and the city was plundered and completely destroyed. Cortes decided to rebuild it in Spanish manner and elected it as Mexico City, the capital of New Spain. During the reconstruction, Spaniards (Spanish people living in Mexico during the colonial period) did not rebuild the Aztec dams and cisterns, and the city suffered several flooding episodes. Unlike the Aztecs, the new inhabitants did not find any utility in the lake, neither for agriculture nor for fishing, and thus decided to drain it. After independence, the lake had already dramatically reduced its surface.

Overtime, Mexico City became an important city and grew increasingly large, forcing the drainage to continue with the last canal being built in 1938. In 1967, the construction of a "profound drainage system" (*Sistema de Drenaje Profundo*) started deviating water flowing down from the mountains and mixing it with the city's dirty water, leading to a severe drinkable water shortage that is problematic to this day. As a consequence of all these decisions, Mexico City is now going through a water crisis. Indeed, the city has one of the world's largest

water demands, at 5th position in world ranking with 300 liters for each of the 8.9 millions of people, plus the millions of workers coming in every day. In order to deal with this, the city needs to pump water either from the underground phreatic nape, which makes the city subside, or 100 km away, from indigenous land, replacing their natural environment with pipelines and tanks.

> ... I joined the group in 2003 because many bad things were happening to our rivers. Our crops have been affected. There aren't as many fish as before. Because they took the water from underground, the land is dry. [...] Now, we're asking the government to pay us back for what we've lost. We're not fighting, we are just defending our rights.[1]

In addition to that, extreme flooding affects the city during rainy seasons and becomes increasingly difficult to evacuate because of the expanding urbanization. For the moment, there appears to be no clear solution, as the government remains very divided on the question. Center right-wing fractions want to privatize water in order to cover the costs of the required upgrades, whereas the left claims that privatization would increase prices without promises of better quality.

In conclusion, since colonial times, Mexico City has always had a very paradoxical relation with water — on the one hand, it lacks water and on the other it is constantly struggling to get rid of it. It is as if the lake is always lurking, trying to gain its land back, and the inhabitants always pushing it back in an infinite fight.

[1] Interview of an Indigenous activist around Mexico City. Watts , Jonathan, '*Mexico City's Water Crisis – from Source to Sewer*', *The Guardian*, 2015,

*fig 2.*Diego Rivera, *La Gran Tenochtitlan,* 1945

*fig.3.*Jose Maria Velasco, *En Camino a Chalco con los volcanes,* Valley of Mexico, 1891
*fig 4.* Flooding in Mexico City, 2015

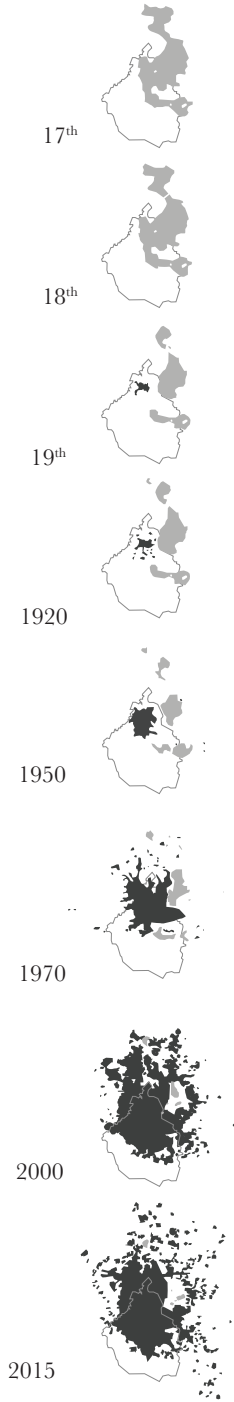
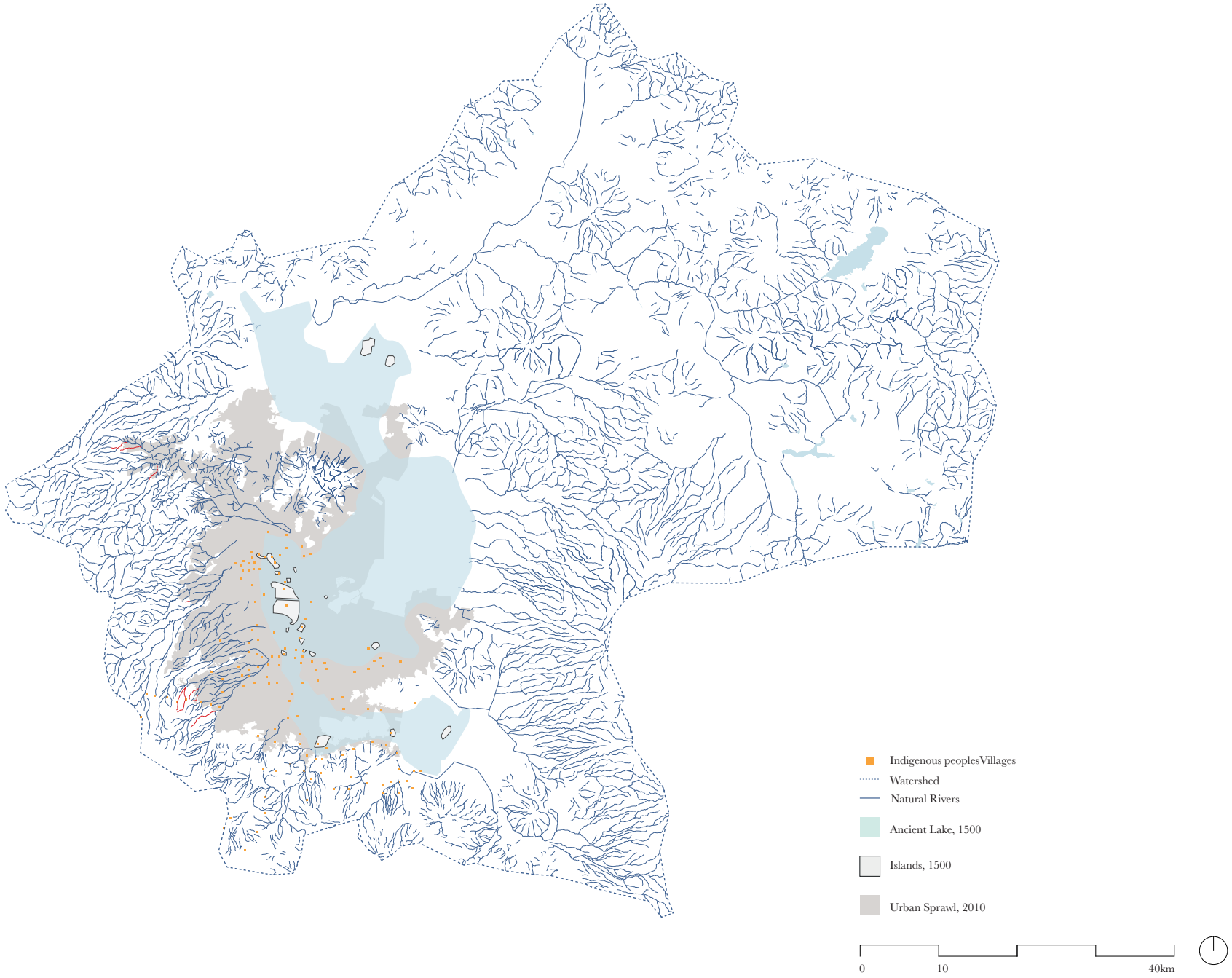



*fig.5.* Timeline of the lake and city's evolution


Indigenous peoplesVillages
Watershed
Natural Rivers
Ancient Lake, 1500
Islands, 1500
Urban Sprawl, 2010
0
10
40km

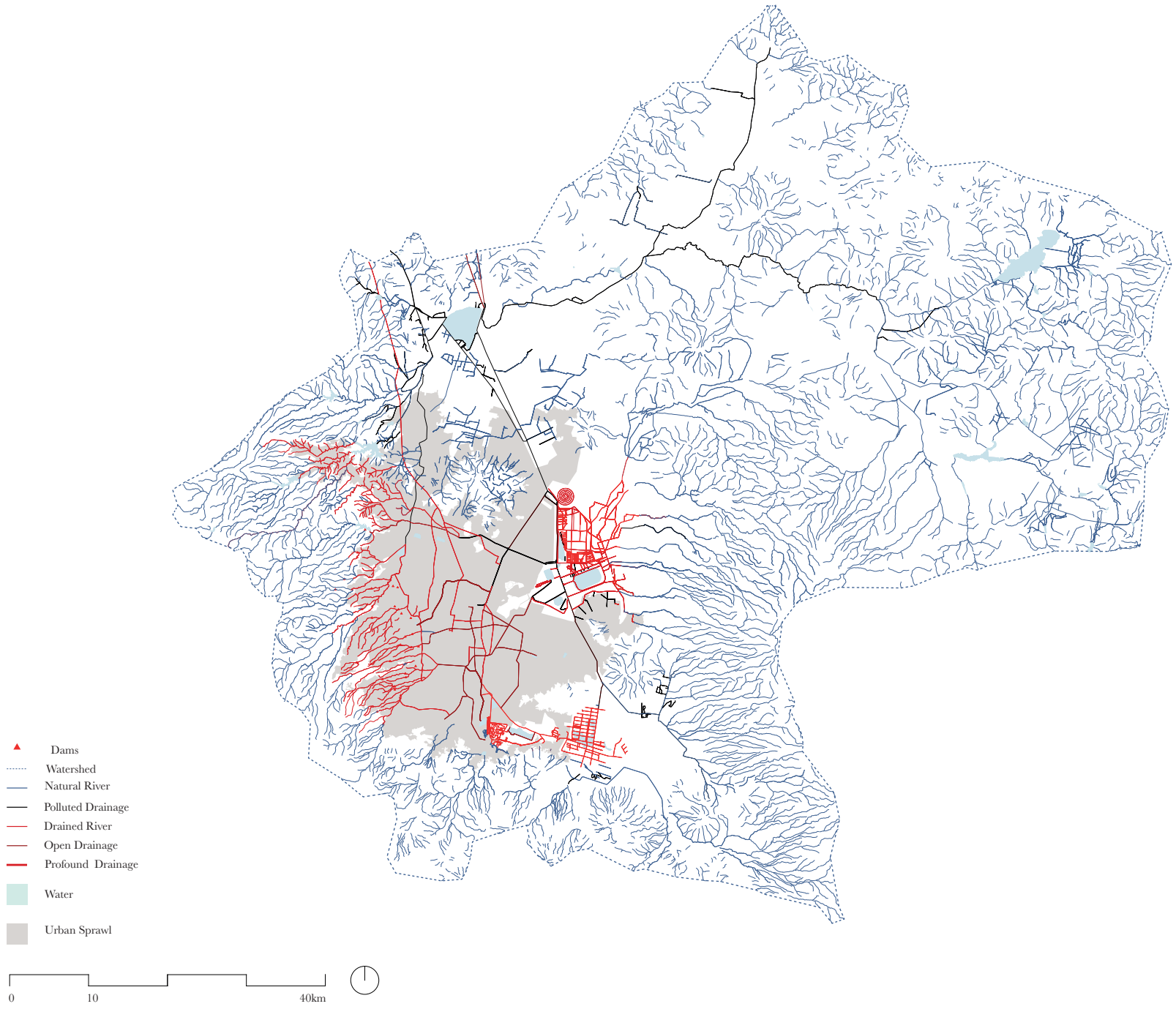

Dams
Watershed
Natural River
Polluted Drainage
Drained River
Open Drainage
Profound Drainage
Water
Urban Sprawl
0
10
40km

*fig 1.* Indigenous Mexican Map of Tetlistaca, 1580

## *Missionary Catholicism*

The colonialization of Mesoamerica was not only military but also spiritual. For the Spanish crown, spreading Catholicism to New Spain was a moral duty and also a justification for the conquest. In his letters to the crown, Cortes describes the customs of the Aztec people and their cult of idols as the "most horrible and frightful thing", stating that "these people should be initiated and instructed in our Very Holy Catholic Faith".[1] Indeed, after the Aztec defeat in Tenochtitlan, one of Cortes' first actions was to destroy the *Templo Mayor* and reuse its stones to construct a church on the very same ground. Building churches was one of the most important acts of spiritual conquest. Spaniard friars used to go into indigenous communities in order to build them and perform sacraments such as baptisms and confessions. The Twelve Apostles of Mexico are the most famous example of this. They were a group of Franciscan missionaries who, despite the small number, marked the beginning of a systematic catholic evangelization of the land and its people. Franciscan missionaries are also credited with the creation of the codex, a compilation of indigenous knowledge on various subjects such as cosmology, rituals, ceremonies, animals, plants, and general culture. Their goal was to gather indigenous knowledge in order to render evangelization more effective. Bernardino de Sahagùn, known for the Florentine Codex, compared his work with that of a doctor who would compile information in order "to cure" indigenous peoples from idolatry. In the codex, there is also a Nahuatl vocabulary (Indigenous language of Central Mexico) for the friars so that they would be understood when they preach. During almost 300 years, Missionaries destroyed an enormous quantity of pre-Hispanic objects, such as maps, deity representations and artifacts, since all was considered idolatry. Therefore, today, codices are precious and unique witnesses of the lost wealth of Mesoamerican cultures.

Naturally, the destruction of the indigenous cultures has historically lead to serious identity problems. In reaction to this, indigenous peoples have systematically found ways to integrate the new gods into their old traditions, in such a way that Christian beliefs gradually mixed with cults of nature, ancestral myths and traditional ceremonies. One example of this is the overlapping of the Virgin of Guadalupe and the Aztec Goddess of Nature fertility, *Tonantzin*. When Spanish missionaries destroyed a temple dedicated to *Tonanztin* and replaced it with a

[1] Cortés, Hernàn. « First letter, Cortés Defends His Decision to Conquer Mexico ». In *Cartas y relaciones de Hernan Cortés al emperador Carlos V.* Paris: Pascual de Gayangos, 1866.

church in honor of the Virgin of Guadalupe, indigenous peoples continued to use the place to worship their goddess. Thanks to this confusion, indigenous peoples could continue their tradition alive and the Virgin of Guadalupe became the first common symbol of the different social classes that Spanish conquest introduced. In fact, official Catholic accounts report that the last person to have seen the Virgin was an indigenous man of the Valley of Mexico and that she spoke to him in Nahuatl.

> In cultural terms, it can be said that the *Guadalupana* was the first protective goddess of the alienate universe of indigenous peoples, the first divinity of the Christian religious pantheon that the indigenous peoples appropriate and the first communal symbol that unified the various social classes that emerged from the Spanish conquest.[2]

Today, the Virgin of Guadalupe is still the most important religious symbol for Mexicans from all social classes, it is a national cultural icon that holds the country together. It became a symbol of patriotism and thus also an emblem of all independence movements, from the 1810 Declaration of Independence to Emiliano Zapata's revolution and, lately, the Zapatista Army of National Liberation (EZLN) named one of their villages Guadalupe Tepeyac, in honor of the Virgin. Mexico is a very Catholic country — 90% of the total population—. For Indigenous peoples, Catholicism is also the most common religion: 80.8% of indigenous peoples over 5 years old (and talking an indigenous languages) consider themselves Catholics. 10% protestants or evangelicals, 5.3% without religions 2.6% non-evangelic religions. And 0.3% to other religions.[3]

[2] Florescano Enrique, *Memoria mexicana*, México, 1994.p.415[My translation]

[3] Carlos Zolla and Emiliano Zolla Márquez, *Los pueblos indígenas de México: 100 preguntas*, La pluralidad cultural en México, 1, 2. ed. actualizada, México, DF, 2011, p.107.

*fig.2.* Virgin of Guadalupe on the *Tunal*, 1648
*fig.3.* Tonantzin Aztec godess

*fig 4.* Diego Rivera, *La colonización o la llegada de Hernán Córtes a Veracruz,* 1915

*A World Where Many Worlds Fit*

*fig 1.* Diego Rivera, *Agrarian Leader Zapata,* 1931

## *Agrarianism*

In the history of Mexico, the disrespect for Nature and rural communities has always been a triggering force for revolutions. The Mexican revolution of Emiliano Zapata in 1910 and the EZLN uprising in 1994, named after Emiliano Zapata (Ejercito Zapatista de Libertad National or Zapatist Army of National Liberation), are both movements that fought or are currently still fighting for the rights of the Earth, the respect of indigenous cosmologies and justice in Mexico. Emiliano Zapata was a farmer from the state of Morelos, in central Mexico, who fought to his death for the rights of rural communities exploited by centuries of *hacienda* ruling and 35 years of dictatorship. He and his army demanded a more equitable land repartition, more liberty, justice and laws for the indigenous peoples, requests that he wrote in his famous Plan of Ayala. For him, the land had been stolen from its indigenous peoples and had to be given back. His battle for land and freedom lasted 10 years and had crucial impacts on the country, such as the end of the Profilio Diaz dictatorship, the destruction of the *hacienda* economy and the creation of a new constitution based on the Plan of Ayala's demands. The Agrarian Reform that followed introduced the *ejido*, a system of communitarian land ownership that redistributed lands back to the peasants. It was inspired by the communitarian unit of the Aztec cities, the *calpulli*, and the *ejidal* land of the Spanish, which consisted of forests or pastures belonging to a community. The Mexican *ejido*s is a mix of these two concepts applied to agriculture in order to create a new system of land division that is modern but at the same time rooted in ancient tradition. Even though the solution had potential, it did not last. In 1992, as a part of an economic restructuration, a new agrarian law stipulated that *ejidal* lands could now be sold under certain conditions and that the redistribution of land to indigenous peoples should end. The new reform had a strong impact on rural life and lead to the increase of poverty and migration to the USA. In addition, the 1994 NAFTA free trade agreement between Canada, USA and Mexico was signed to facilitate exchange of goods between them. Small rural economies were the first to be impacted by these economic changes, which eventually lead to the second agrarian revolution, the Zapatista Uprising in Chiapas.

Neozapatismo, the reclamation of Zapatista ideology, is a mix between the agrarian thoughts of Emiliano Zapata, the thoughts of Subcomandante Marcos (leader and spokeman of the Zapatist Army), Anarchism, Marxism and Mayan

traditions. The Zapatista Army is composed of indigenous farmers, women and men from Chiapas who demand more autonomy, self-determination and control over their natural resources. Just like Emiliano Zapata 80 years earlier, the EZLN compiled their claims in a manifesto titled The San Andres Accords in order to negotiate with the government. Agreements were never reached and, eventually, the Mexican army violently subdued the uprising. After that, the Zapatistas isolated themselves in the jungle of Chiapas where they have been, to this day, living a rural life without depending on the international markets to survive.

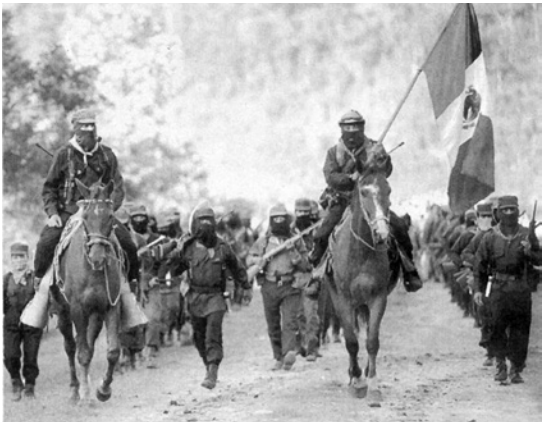


*fig 2.* Zapata Army enter Xochimilco in Mexico City, 1914
*fig 3.* Zapatista Army in Chiapas, 2003


*fig 1.* Beatriz Aurora, *Another world is possible. A world where all the worlds fit.* [My translation ]

## *Libertarian Socialism*

The Zapatista ideology (Neozapatismo) is characterized by strong libertarian socialist politics, such as the opposition to neoliberalism, any forms of authority and globalization, essentially everything that the NAFTA treaty stands for. Since the San Andres Accords have not been recognized, Zapatistas were led to create their own alternative and autonomous society. This political organization is called *caracoles*, meaning "conches": a network of solidarity between indigenous villages of Chiapas. The metaphor of the *caracol* is inspired by a Mayan myth of the god who held the sky from falling on the earth and had a shell of *caracol* around his chest in order to listen and check on the world and to woke up the other holders if they fell asleep.

With this new network of political resistance, the Zapatistas managed to construct an alternative society where no members have any centralized power. Instead, the organization is confederal, thus everyone can say its opinion and everything is voted by the community in a horizontal way. Indeed, horizontality was already an important notion for the Mesoamerican cosmovison, hence the world was seen as a horizontal plane floating on water.

This horizontal, anti-systemic organization lead to the creation of autonomous health care, education and social structures based on the rural indigenous life. In order to warrant the survival of their autonomous communities, indigenous farmers from Chiapas developed, among others, coffee cooperatives operating in complete independence from the international market. The Zapatista Coffee Cooperatives were created in reaction to the International Coffee Agreements of 1989 that lead to the collapse of the price of coffee all over the world.[1] Farmers of Chiapas could not cover the cost of coffee production and a lot abandoned their land (and went to the USA). Those who didn't leave, joined the Zapatistas. Coffee production is regulated by the community and benefits are redistributed to education, health and other social structures. In addition, the coffee is grown traditionally, without chemical products and in a respectful way that minimized disturbances to the ecosystem. The way in which Zapatistas managed to realize an alternative, autonomous and sustainable society based on justice and freedom that is still working today, shows the whole world that the movement for libertarian socialism is more than just a utopia.

[1] In 1989 the protective regulations from the International Coffee Agreement were suspended. In the same period, the World Bank and the International Monetary Fund gave generous loans for the development of coffee cultivation in countries that until then were not producing (like Vietnam). As a result, there was an oversupply. The prices in the international market collapsed and, despite temporary rises, remain at low levels until today

*fig 1.* Zapatista Women, 1994

## *Eco-Feminism*

> We must unite, we have that big task, removing this capitalist system that is destroying our communities, that is destroying our peoples, that is dispossessing us of what is ours, that is contaminating all these waters, and is cutting down all these forests; that's why it's necessary to unite and together be able to destroy this capitalist system that is not only going to destroy our communities and our peoples, but that is also going to destroy human life […][1]
>
> — Marichuy, Mexican indigenous woman, candidate for the federal election of 2018

Ecofeminist ideology establishes a parallel between the exploitation of nature and the domination of women. Just like libertarian socialism, ecofeminism rejects every form of authority, principally the patriarchal one. In capitalist countries, men are considered hierarchically above women and this unequal relation is only possible when the concepts of nature and culture are separated. In the same way that capitalist man dominates nature, he subordinates women, indigenous peoples, the poor or children.

In Mexico, indigenous communities have always been harmoniously linked with nature, thus their societies were not organized in a patriarchal way. However, colonialism, westernization and globalization brought the notion of domination, exploitation and accumulation of wealth, forcing men to provide for their families with money while women stayed home. Eventually, men became responsible for the family's survival and became more powerful. This division of labor polarized the indigenous communities and, in consequence, at the end of the 20st century, indigenous women were facing tremendous lack of education, mistreatment and physical abuse. However, in 1994, one third of the Zapatista insurgents were women who rose for gender equality and rights for indigenous women. Notable women of the Zapatist movement are *Comandante* Ramona and Major Ana Maria, who are now iconic examples for all indigenous women. As the EZLN movement rejected all forms of authoritarian domination, such as patriarchy, laws for equal gender relations were integrated into the Zapatista revolutionary laws, namely the

[1] Chiapas Support Committee, '*Marichuy in La Garrucha*', 2017

Women's Revolutionary Law: a collection of 10 laws attempting to improve the life of indigenous women.

Even though the concept of feminism is definitely a Western idea, the Zapatista struggle is a worldwide concern. Major Ana Maria said:

> … the women's struggle is the struggle of everybody. In EZLN, we do not fight for our own interests but struggle against every situation that exists in Mexico; against all the injustice, all the marginalization, all the poverty, and all the exploitation that Mexican women suffer. Our struggle in EZLN is not for women in Chiapas but for all the Mexicans. [2]

Recently, the EZLN groups and The *Congreso Nacional Indigena* has designated María de Jesús Patricio Martínes, an indigenous woman from Tuxpan better known as Marichuy, to be the spokeswoman of indigenous peoples all over Mexico in the next federal election in July 2018. She aims to fight against the capitalist system that is destroying nature, for indigenous dignity and the status of women in Mexico. In an alternative ecological society much like the Zapatista one, there is no domination of women and mothers, of the earth, of the animals and the plants. Patriarchal subordination becomes outdated and life takes the place of money at the center.

2 Park, Yun-Joo, *Constructing New Meaning through Traditional Values: Feminism and the promotion of women's rights in the Mexican Zapatista Movement,* 2003

*fig 2.* Marichuy and Zapatista women

*fig 1.* A yield test for hybrid maize in Cotaxtla (Mexico), 1962

## *Green Revolution*

Over the last 500 years, Mexico's rural landscape has been affected by several layers of contradictory changes. First, the Spanish conquest that destroyed local indigenous farming and implemented the *hacienda* agricultural system. Second, the USA's massive investments under Porfirio Diaz' dictatorship. Third, the return to communitarian agriculture structured by the introduction of the *ejidos.* Finally, the Green Revolution that transformed small scale family farming into agribusiness.

The Green Revolution happened between 1940 and 1970. The *ejido* system, which had been introduced after the Mexican Revolution (1910-1920), could no longer support the needs of the growing population. At the same time, the ideals espoused by leftist communitarian agriculture were in stark contradiction with the rising power of capitalism. Consequently, Mexico felt the need for a new land reform. With the backing of both Mexican and US governments, the Rockefeller foundation and the UN Food and Agriculture Organization, new technologies such as high-yielding seed varieties, agro-chemicals, fertilizers, and new machines were imported to increase agricultural production. Eventually, more lands and thus more water were needed, leading to the construction of dams and electrical generator facilities. In consequence, the amount of irrigated land increased by 50% between 1930 and 1960 and by the end of 1970, Mexico produced enough food for its own people and for exportation, becoming an example for all Latin America.

> Corn production increased from 1.6 million tons in 1940 to 14.1 million tons in 1985. The production of beans increased from nearly 97'000 tons in 1940 to a peak of 1.5 million tons in 1985. Wheat became one of the largest crop, with production growing from 464'000 tons in 1940 to over 5.2 million tons in 1985. Sorghum production increased from 200'000 tons in 1950 to 2.7 million tons in 1970.[1]

The exportation of fruits and vegetables became so important that Mexico had to import corn, beans and wheat from the USA, despite them being the basis of the Mexican cuisine since precolonial times.

[1]David A. Sonnenfeld, 'Mexico's "Green Revolution" 1940-1980: Towards an Environmental History' (University of California, Santa Cruz), 33.

The green revolution had dramatic effects on the rural smallholders of *ejidal* lands who could not compete with big capitalist industrial business. They were forced to abandon their lands and many migrated north to the USA. The environment was also deeply affected and the aftermaths are still visible today. Water supplies for irrigation were overused and and contaminated; pesticides promoted by the Mexican government and transnational agribusiness intoxicated workers and land; intensive monocropping destroyed the traditional farming of crop rotation and damaged the quality of the soil; and the need for land for cropping and cattle raising lead to the deforestation and desertification of a lot of states. The NAFTA treaty continues and further extends this logic of mass exchange and commercialization, leading many *ejido*s to being sold and privatized. Today, 80% [2]of Mexico's total exports go to the United States, making it the US's third largest agricultural trading partner. Exotic fruits and vegetables such as avocados, limes and lemons or tomatoes are the main product of exportation, even though much of the corn for internal consumption is still being imported from the US.

[2]Mexico Country Commercial Guide, *Mexico-Agriculture,* 2017

*fig.2.* Ejidos in the State of Guadalajara, Mexico
*fig.3.* Intensive agriculture in the State of Sonora , Mexico

*fig 1.* Mining Exploitation owned by Carlos Slim,San Felipe, Baja California, Mexico 2017

## *Land Extractivism*

Since colonial times, nature in Mexico has been interpreted as a collection of valuable resources that need to be extracted in order to be sold for profit in international markets. Indeed, today's versions of the Spanish landowners of the *haciendas* are now the big private multinationals, the narcotraffickers and the real estate investors. Neo-extractivism is considered nowadays to be one of the main reasons behind climate change, deforestation, water contamination, poverty and armed conflicts.

Mexico is struggling with serious problems of extractivism, especially due to exploitation originating from Canada. Canada has a sophisticated mining industry that amounts to 60% of the world's total enterprise and 70% of that is located in Mexico. Many of Mexico's soils rich in silver, gold or petroleum are located in indigenous communities and yet indigenous peoples do not benefit from this at all, on the contrary. Even if many of them are voicing their discontent and organizing around the need to defend nature, Canadian owners are stronger and more important to the Mexican Government. Adding to the problem, at the moment, there is no legislation protecting indigenous peoples that would require efforts of information and consultation of the community before building or mining on their lands.

> The self-determination of affected communities is violated from the moment a mining concession is granted without a community's free, prior and informed consent. This has happened all over Mexico and in many other places and is part of how the current mining model is structures to violate affected peoples' rights from the get go, well before any mine is built. [1]

Even though this struggle is massively unequal, indigenous peoples are often involved in political environmental movements, taking peaceful actions in order to defend their traditional lands, human rights and the right to have access to a healthy environment. In 2016, the international NGO Global Witness reported 200 killings of environmental defenders.[2.] In almost all of the cases, the murderers walked free or were never found. Governments were not only

[1] Janowitch, Nathaniel, *'Mexican Indigenous Protests Shine a Spotlight on the Damage Done by Canadian Mines*, Mexico, 2016

[2]Global witness, *Defenders of the Earth,* London, 2017

unhelpful in the punishing of these crimes, they were often also implicated.

Berta Caceres, from Honduras, and Isidro Baldenegro Lopez, from Mexico's indigenous Tarahumara people, are both indigenous environmental defenders awarded with the Goldman Environmental Prize (known as the Nobel for environmental defenders) who were found dead in 2016 and 2017, respectively. Caceres was defending indigenous communities against the construction of a big hydroelectric dam in Honduras, a project financed by a Chinese state-owned hydropower company, the World Bank and a Honduran electrical company. Isidro Baldenegro Lopez was fighting against logging companies in the North Mexico's Sierra Madre mountains. The fight against extractivism is difficult but countries like Bolivia or Ecuador are showing the way in creating laws for the Rights of Mother Earth[3] which integrates human beings, plants, animals, mountains rivers etc. in the same life systems.

[3]"Ley Marco de la Tierra Madre y Desarollo Integral para Vivir Bien", Bolivia, (La Asemblea Plurinacional, 2012)

*fig 2.* Berta Cáceres by the Gualcarque River in the Rio Blanco region of western Honduras

*fig 3.* Isidro Baldenegro Lopez with elders of the Tarahumara community in Chihuaha, North of Mexico

*fig 1.* Ciudad Juarez, The border town with US, Mexico, State of Chihuahua, Ciudad Juarez, 1985

## *The case of Ciudad Juarez*

The NAFTA Treaty did not only impact the rural areas of Mexico, it also caused a massive growth of urbanization, especially in the towns along the US-Mexico frontier. In 1940, Ciudad Juarez was a small town of 50'000 inhabitants but the sudden changes in Mexican economy impacted it immensely. The population rose to 995'770 inhabitants in 1995, just after the signing of NAFTA, and to 1'508'000 in 2013. The treaty of free exchanges promoted a general relocation of US industries to the Mexican side of the border line. The taxes were free, Mexican labor was a lot cheaper, and the government was less strict on environmental regulations. Consequently, *maquiladoras* nested all along the border, the typical US. factory of Mexico, operating under preferential legislations and tax-free.

Because of the poor living conditions in rural Mexico, indigenous people massively relocated to find work in the border. Many men went into narcotrafficking and women started working at the *maquiladoras*, whose owners preferred young women who would typically work longer hours without complaining. Women became especially precarious, badly paid and are transitory in status, little more than disposable tools for economic development. Because of this, and due to the augmentation of drug cartels in the city, female homicide in Ciudad Juarez is the highest of the country, with more than 3000 dead women in 2012, almost all *maquiladora* workers. As is becoming increasingly evident, the NAFTA treaty's capitalist approach does not only devaluate Mexican goods, it devaluates women, and it is one of the main reasons behind of the country's increase in violence. Despite the frightening situation, local activists are fighting for international attention and, hopefully one day, thanks to them, it might be possible to live safely in the center of Ciudad Juarez.

# Chapter 4

*Pockets of Environmental Resistance in Mexico City*

*fig 1.* Henri Cartier-Bresson, Mexico City, 1963

> We, Mexicans live in two great worlds, the world of modernity or the western world, and the Mesoamerican world, the world of indigenous peoples.[1]

Because of the Green Revolution and the economic inflation that followed, the 20th century in Mexico, was marked by the fast growth of cities and, particularly, of Mexico City. Left without lands, indigenous peoples were forced to migrate for new jobs opportunities. Because of the economic situation, cities were undergoing a fast process of modernization and a large workforce was needed. Indigenous peoples arriving from other states outnumber the already existing communities that live, since the Spanish colonization, in the most marginalised zones. This mass migration, is one of the main reasons for the explosive population increase in Mexico City, which grew from 700'000 inhabitants in 1900 to 8.2 million in 1990, reaching 8.9 million today. Nowadays, 8.8% (17% in the State of Mexico) of the total population consider themselves indigenous[2], making Mexico City the indigenous capital of America. In spite of this, racism and economic discrimination towards their ways of life leads to segregation in remote places of the city, where indigenous communities are, nevertheless, keeping their cosmologies and traditions alive, as a way to resist and survive cultural colonialism.

Even though the Zapatista uprising dignified and empowered indigenous peoples throughout the country, in the city, their complex situation stayed mostly unchanged. Mexico City is currently facing mounting environmental, political and social challenges due to corporate capitalism,[3] whereby real estate investors, industries and the Mexican government are often affiliated as the urban conquistadores of the 21st century. Indeed, the city's uncontrollable and destructive urban sprawl, the eradication of nature in order to build shopping centres

[1]Santos de la Cruz Hernandez and others, *Cosmovisión Indígena Contemporánea Hacia una descolonización del pensamiento* (México, 2014).

[2]INEGI, *Etnicidad* . Principales resultados de la Encuesta Intercensal ,2015. Estados Unidos de Mexico. Estados Unidos de Mexico, 2015.

[3] Mexico City's actual pollution index is 86.67 one of the highest in the world/ the wealthiest 1% of the population have 21% of the national income.

and roads, the industrial contamination of the air and water, and the unequal repartition of wealth all deserve to be considered as another form of colonial extractivism.

Although the creation of sustainable and autonomous communities worked in Chiapas, the Zapatistas are geographically isolated in the jungle. In contrast, the capital Mexico City is the groundwork of neo-colonialism and thus a target-place for future projects of decolonization. In Mexico City, a "revolutionary withdrawal from the state [like the one happening in Chiapas] isn't an option"[45], therefore, acupunctural projects of decolonization seem more likely to emerge and have more potential to be successful. In this logic, the teachings from Zapatista ecology, indigenous cosmologies and environmental activism are all inspiring examples in order to think about alternatives for a more sustainable Mexico City.

[4]T.J Demos, *Decolonizing Nature Contemporary Art and the Politics of Ecology*, SternbergPress (Berlin, 2016).157

[5] *Ibid.* p.157.

## *Projects of Decolonization*

Increasing numbers of artists, architects, activists, historians, and academics are imagining alternatives for a more sustainable and fair Mexico City. Thanks to their activism, people are gaining increasing awareness of the situation and these different projects of decolonization are showing the way towards wider discussions on environmental justice and political ecology, and bringing hope for future generations.

### *Ciudad Futura, 1998*

In 1998, architects and Mexico City natives Alberto Kalach and Theodoro Gonzalez de Leon, imagined an urban project for rescuing the remaining parts of the ancient lake *Texcoco*, situated at the border of the city. The lake has suffered from centuries of drainage and canalization to allow for the construction of the capital on its basin. The disappearance of such a source of water has significantly modified the ecosystem and lead to serious environmental problems. Driven by the will to rebuild the relation that inhabitants of Tenochtitlan historically had with nature, the project proposes to bring the lake back to the city, designing a network of small lakes connected by canals created from the residual water that the city is currently draining away. Alberto Kalach says in an interview: "All the water that comes into the basin – we pollute and get rid of it, instead of treating and recycling it. The way the city has evolved is basically fighting against its environment[1]".

The new inundated area of *Texcoco* would measure 12'000 hectares. Such a project could have an important environmental, social and economic impact on the region. Thanks to the lake, the climate would be more temperate and the air contamination would decrease. In addition, it would help the regeneration of fauna and flora in the area and the subsidence of the city could be stopped as the water would again infiltrate into the aquifers. Socially, the poorest outskirts of the city would be in a new, natural and healthier environment, which would decrease the marginalisation and alienation of the area. Finally, urban sprawl would be more controlled, creating a new landscape for Mexico City.

[1]Shumi, Bose, '*Meet the Architect Who Wants to Return Mexico City to Its Ancient Lakes*', The Guardian, 2015,

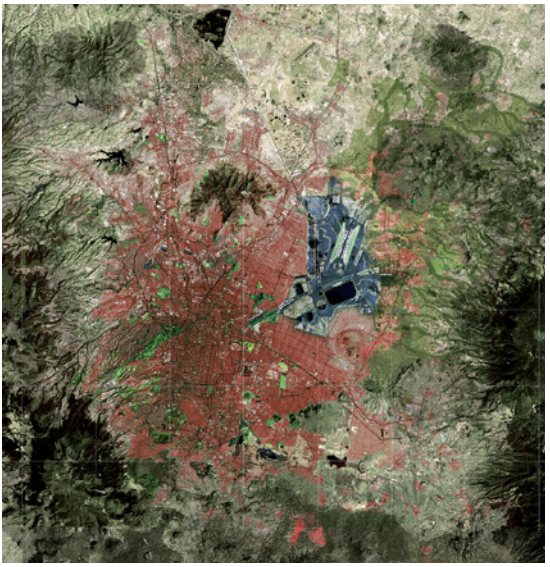



*fig.2.* Ciudad Futura, 1998
*fig.3.* Maria Thereza Alves, *Return of the Lake*, 2012

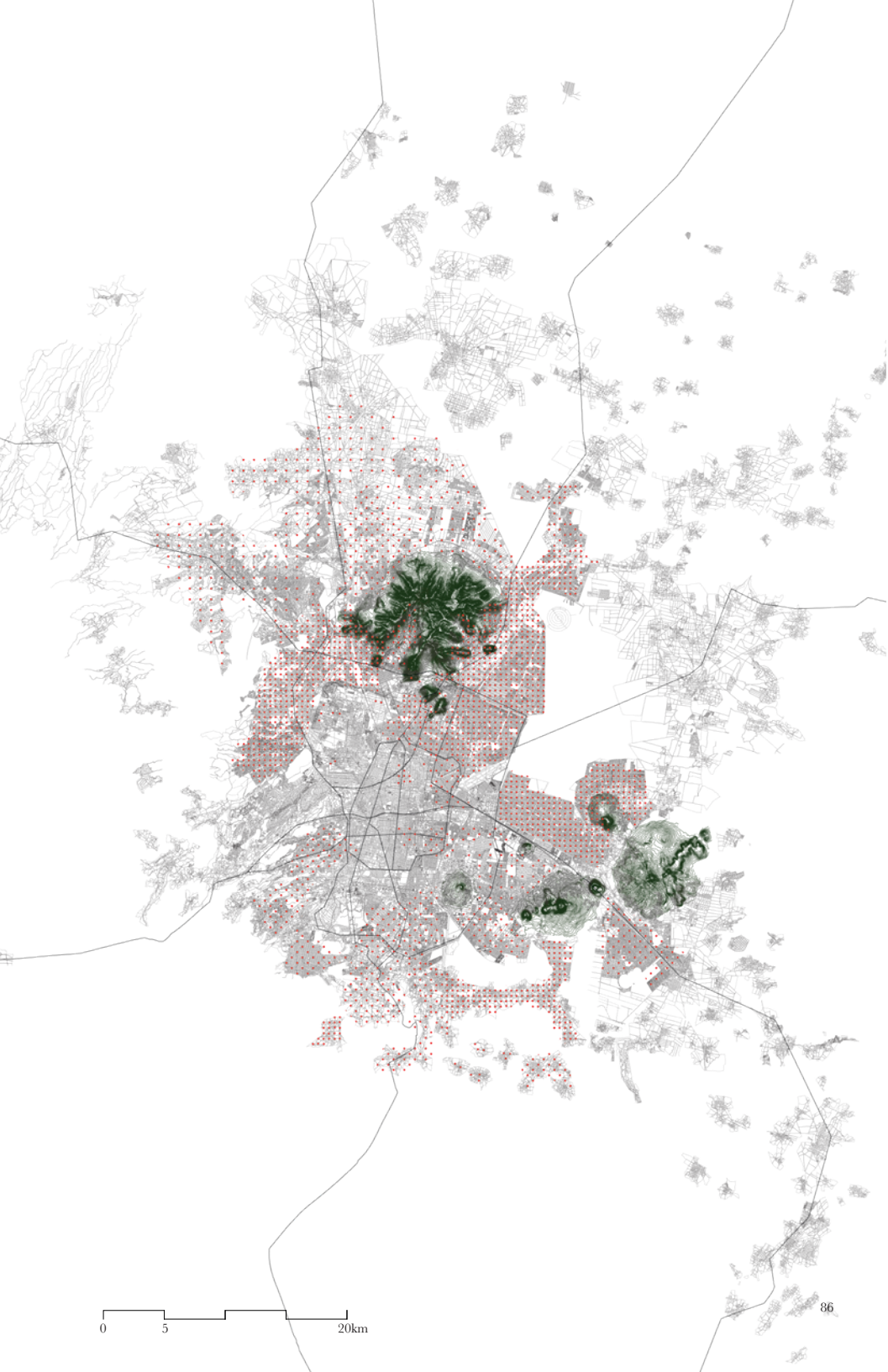
*Return of the Lake*, 2012

Brazilian artist Maria Thereza Alves, who lived in Mexico for 8 years, investigated the area of Chalco in the south-eastern part of Mexico City. Chalco is one of the poorest areas of the capital and the living place for a lot of indigenous communities. Before the arrival of Cortes, the it was used for the agriculture as a *chinampa*[2]. Historically, due to its fertile ground, Chalco has always been a desirable, coveted place. In the 20th century, a rich Spanish landowner, Inigo Nierga Laso, gained the right to build his hacienda on the land. In order to have more agricultural land, he drained the lake of Chalco, which lead to the destruction of the ecosystem and its local economies. Such an intervention is still affecting the population today with plagues, floods, contaminated water, earthquakes, etc. In order to give visibility to this situation, Maria Thereza Alves imagines the *Return of the Lake* project. The installation consists of three elements: the first is a model of the colonial process, the second is the re-creation of a *chinampa* and the third one is a book compiling pictures and texts by the residents as well as by activists, academics and historians who publicly resisted Chalco's transformation.

The Return of a Lake offers "an investigation of how colonial practices such as the ongoing appropriation of native people's lands, culture and livelihood continue in place as a quotidian reality for indigenous communities and obstruct the possibility of a viable and ecologically sustainable future for all members of Mexican society."[3]

[2] The Chinampa is a Mesoamerican agricultural system which was largely diffused in Tenochtitlan. The system took advantages of the shallow lake bed of *Texcoco* to grow crops without the necessity of watering. A kind of Aztec floating garden. Before the arrival of the conquistadores, the chinampas provided all the city of *Tenpchtitlan* with crops.

[3]Thereza Alves, Maria, *The Return of a Lake.* 2012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## *Mexico City: Imagining Indigenous Life-worlds*

This map aims to show the ongoing colonization process of indigenous peoples and nature in Mexico City. As mentioned earlier, for 500 years, the uncontrollable city growth and the promotion of capitalist, profit-driven values, has alienated and marginalized the autochthonous indigenous peoples. This colonization process is promoting a cultural homogenization in the urban landscape and thus destroying the coherence and continuity of indigenous lifeworlds. A lifeworld is the background of all experiences which makes things of the life meaningful, hence what indigenous peoples have to give up when living in the capital Mexico City. A city where different lifeworlds can cohabite echoes the Zapatista Motto: A World where many worlds fit,[1] a concept that I would like to develop further in the following architectural project.

[1] Subcommandante Marcos, *Cuarta Declaración de La Selva Lacandona*, 1996

In Mexico City, there are around 800'000 indigenous inhabitants (8.8%)[1], 120'000 of which speak an indigenous language.[2] Because of discrimination and poverty, they have restricted access to services such as healthcare, house purchase, internet, education and they are not represented in the government. Even though they seem forgotten by Mexican society, they are far from ignored by the economy of tourism. All the folklore around indigenous Mesoamerican cultures is a considerable source of revenue for the country. Such fetishism and objectification is a form of cultural colonialism that caricatures the image of indigenous traditions and transforms them into commodities. It should be noted that Amerindians are women and men of the 21st century, even if "folklorisation" would have us believe that they still live like it is shown in history books. Just as indigenous peoples of the 16th century were forced to worship new gods, ingeniously adjusting them to their own cosmology, Native Americans of the modern age are carefully adapting their traditions to new technologies[3]. Therefore, despite living within Western capitalist systems, they are still defending that nature and humankind should establish harmonious relationships. Such intersections influence also the relations between members of the community. Just as common work is needed in the field to have a good harvest, in the city, every member participates in the different urban events of the community. These communal principles are not merely organizational, they are the guideline for all actions in the community, be it political, social, juridical, cultural, or economic. Communality is the reflection of the indigenous worldview, which sees trees, rivers, plants, animals, ancestors, men, women or children as members of the same horizontal network. Because of this interrelation, if one member fails, all the network is debilitated. Such a strong relation of mutual dependence leads naturally to solidarity and respect between all beings. In contrast and opposition, the progressive Westernization of Mexican society

[1] INEGI, *Porcentaje de la población que se considera indígena,* 2015

[2] Until the 80s', indigenous peoples were considered indigenous if they were talking an indigenous language. This method was obviously simplifying the complexity of indigenous cosmologies in Mexico. Thereby, today it is more common to use the number of people that consider themselves indigenous. Despite the different methods, it is still an unresolved issue nowadays.

[3] For instance, the Zapatistas of Chiapas used cellular phones and internet in order to generate a national and international solidarity network.

reinforces the notion of individualism. In current times, to uphold communal values demands strength and determination, and younger people, vulnerable to the seduction of access to consumer goods, are less interested and often stop participating in community life.

The difficulty, in Mexico City, is to find a way for a better cohabitation between very different social groups. In order to overcome this, Western society ought to acknowledge indigenous citizenship, regardless of its apparent opposition with capitalistic values. Colonialism, and thus capitalism, tend to erase variety in food, language, education, thinking and culture in order to control it. Consequently, during the last 500 years, the indigenous peoples of Mexico City have had to constantly resist mono-culturisation.[4] In 1960, the United Nation General Assembly supported a law for the self-determination of *all* people. A law that was linked with the international process of decolonization. In Mexico City, this law is regularly flouted either through the industrial contamination of indigenous lands, the urbanization of their natural resources, or the erasure of their identity or the systemic impoverishment of their lives.

## *Pockets of Environmental Resistance*

*In April 1995, some months before the beginning of the UN World Women's Conference in Bejing, Hillary Clinton, the First Lady of the USA, visited Bangladesh. She had come to find out for herself what was true of the success stories of the Garmeen Bank projects in Bangladeshi villages, of which she had heard so much. The microcredits of the Garmeen Bank were said to have improved the situation of rural women in Bangladesh remarkably. Ms. Clinton wanted to find out whether the women had really been empowered by these microcredits. For the Garmeen Bank and development agencies, "empowerment for women" means that a woman has an income of her own and that she has some assets. Hillary Clinton visited the women of Maishahati village and interviewed them about their situation. The women answered: Yes, they now had an income of their own. They also had some "assets": some cows, chicken, ducks. Their children went to schools. Ms. Clinton was satisfied. The women of Maishahati were obviously empowered. But she was not prepared for the next round of the interview, when the village women turned around and asked her the same questions. Farida Akhter reported the following exchange of questions and answers between the women of*

[4] Maria Mies and Veronica Bennholdt Thomsen, The Subsistence Perspective: Beyond the Globalised Economy (New York : Australia : New York : Distributed in the USA exclusively by St. Martin's Press, 1999).

*Maishahati and Hillary Clinton:*

- *Apa [elder sister], do you have cows?*
- *No, I have no cows*
- *Apa, do you have your own income?*
- *Well. Formerly I used to have my own income. But since my husband became president and moved to the White House I have stopped earning my own money*
- *How many children do you have?*
- *One daughter*
- *Would you like to have more children?*
- *Yes, I would like to have one or two more children, but we are quite happy with our daughter Chelsea*

*The women from Maishahati looked at each other and murmured, "Poor Hillary! She has no cow, no income of her own, she has only one daughter. In the eyes of the Maishahati women Hillary Clinton was not empowered. They felt sorry for her.*

This story is quoted from the book *The Subsistence Perspective, Beyong the Globalised Economy*, written by Maria Mies and Veronika Bennholdt-Thomsen, in 1999.[5] It aims to put in perspective the Western notion of economy and empowerment, with a special focus on female subsistence and autonomy. As the quote shows, Bangladeshi women have a totally different relation to the world than Hillary Clinton. The so-called good life of Hillary Clinton is not a good life for the women in Maishahati. Hillary and the Maishahati women illustrate, respectively, the opposing views of the Global North and the Global South. Hillary is the White, privileged woman speaking from within the capitalist economy, inherently unstable and dependent on the exploitation of various marginalized groups, particularly women and the environment. The Maishahati women stand for the realisation that "catch-up development" is a myth, because there is a connection between the wealth and progress of one hemisphere and the poverty and regression of the other. The Bangladeshi women represent the condition of a majority of people in the world, while Clinton represents the

[5] *Ibid*,p. 1,2.

Northern minority whose privilege is based on loot. The "subsistence perspective", advocated by Mies and Bennholdt-Thomsen calls for a new politics and economics that counters this inequality and promotes a good life for all, needs-based, environmentally sustainable, co-operative and local:

> It expresses most inclusively all we expect of an alternative social orientation: freedom, happiness, self-determination within the limits of necessity […] The concept of self-provisioning is, in our opinion, far too limitating because it refers only to the economical dimension. "Subsistence" encompasses concepts like "moral economy", a new way of life in all its dimensions: economy, culture, society, politics, languages etcetera, dimension which can no longer be separated from each other.[6]

In this sense, Maishahati women and indigenous peoples of Mexico have a similar lifestyle. Indeed, for both of them, a good-life does not mean to depend on money, consumption, education or social status to survive but on a means of subsistence, like children, a goat or a field of corn. In contrast, capitalism replaces nature with money accumulation and the idea of subsistence in world-view of anthropocentrism. In favour of industrial and technological production, capitalism has devaluated everything that was free of charge, such as natural resources or "unproductive", wage-free jobs, such as housework or peasantry. This equation of development with environmental control and exploitation, the total overcoming of nature's limitations, is at the basis of our current climate crisis and the social unrest that is adjacent to it. For this reason, real changes will occur only when the crisis is considered political and not only environmental. Life and nature have to be again the central focus of economy, and even though such a transformation seems very difficult in our society, the indigenous example shows that it is possible.

Although I am aware that the complete decolonization of nature and indigenous peoples in Mexico City is, at least for now, impossible, I think it is plausible to imagine a network of small pockets of resistance. Just as in Chiapas, the spreading of these pockets in the capital could create a new network of solidarity and nature, where different social groups could meet, and cohesive lifeworlds could be weaved together. These pockets could be inspired by the vernacular

[6] *Ibid.* p.19.

*milpa* system, a familiar multi-crop field, initially invented by the Mayans, which has been in use throughout Mesoamerica until today. The *milpa* is the core institution of the community, as it not only teaches people how to work the earth, but also how to read seasonal cycles, the respect of life and the sacred traditional rituals. The pockets of urban *milpas* would become a place of resistance against neo-colonialism and to rediscover the subsistence production of corn, beans and other produce that might provide them with food autonomy. A network of urban *milpas* could offer places of relationship between indigenous people and the city, relinking the agrarian with the urban, the ecological with the political, ultimately claiming and formalizing a visible space of indigenous citizenship.

*Para todos la luz. Para todos, todo.*[7]

[7] [My translation] « Light for everyone, Everything for everyone »Subcommandante Marcos, *Cuarta Declaración de La Selva Lacandona,* 1996

*Annexe*

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Indigenous population

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Layers of nature histories

Mesoamerican Cosmologies

Spatialization of time

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*fig.3.* Satelite View, Google Earth

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Pockets of environmental resistance

Mexico City: Learning from the Zapatista Ecology

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