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## LA FORMACIÓN DE LA CONCIENCIA ECOLÓGICA EN ACADÉMICOS: UN CUENTO SOBRE LOS CENOTES EN YUCATÁN, MÉXICO

### THE FORMATION OF THE ECOLOGICAL AWARENESS IN ACADEMICS: A TALE ABOUT THE CENOTES IN YUCATÁN, MÉXICO

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#### RESUMEN

En la Universidad tenemos que alentar a la gente joven en la expansión de la conciencia, la cual es reconocida en el lenguaje de la naturaleza, el desarrollo de la sensibilidad en los sonidos del viento, el mar, las selvas y los bosques. Esta conciencia expansiva se enfrenta a los valores de la energía, la expansión, el control y la acumulación de capital, con su doble referencia: la guerra, el sacrificio, la muerte y la desesperanza. Estos valores describen el comportamiento de las sociedades mayas en el eclipse de su esplendor. En los últimos tiempos, hemos construido la racionalidad epistemológica acerca de los fenómenos y organizar los resultados de la investigación científica en los discursos orales y escritos, sin embargo, la amenaza del cambio climático, la crisis ambiental y la contaminación del agua, como en el cenote, ya no es una costumbre afluente a los dioses y sus planes, mientras que se una práctica sin sentido cada día, se convierte en la alegría inconsciente que otros sufren, de los que aún están siendo parte de las piedras y los bosques, los mares y el infinito.

**Palabras clave:** conciencia, universidad, cenotes, cambio climático, maya.

#### SUMMARY

In the University we must the young people in the expansion of the awareness, which is recognized in the language of nature, developing the sensitivity in the sounds of the wind, the sea, the jungles and the woods. This expansive awareness faces the values of the power, the expansion, the control and the accumulation of capital, with its double reference: war, sacrifice, death and hopelessness. These values outlined the behavior of the mayan societies in the eclipse of its splendor. In recent times, we have built epistemological rationality concerning the phenomena and we organize the results of the scientific research in oral and written speeches, nevertheless, the threat of climatic change, the environmental crisis and the pollution of water, such as in the cenote, is not a tributary custom to the gods and their plans anymore, while it is a daily, purposeless practice, it becomes in the unconscious joy that other suffer, of those who are still part of the stones and the woods, the seas and the infinite.

**Key words:** awareness, University, cenote, climatic change, mayan.

#### The cenotes in the myths about the origin

The cosmogony of Mayan people in México conceived the idea of the Underworld as a place inhabited by the forces of darkness, the dead, and the cosmos negative forces. It is the Xibalbá, located underground, the lightless and lifeless place, a place where no one returns from, and where all men are led after death: the realm of the shadows.

According to the narrative of Popol-Vuh\* the entrance to the underworld is located in Carchá, Guatemala, town near to Cobá, Quintana Roo, México (Sotelo: 1988, 79) where the mouth of hell was set, which, in fact, is the door that gets through to another cosmic level. Those who descend to Xibalbá are the dead who leave through the cenotes (natural well).

In mayan, Cobá means 'cloudy waters'; referring to the five cenotes that surround the whole region: Cobá, Macanxoc, Sacalpuuc, Yaxlaguna and Xcanh.

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The route to the underworld is via a long and inclined staircase, which goes through a river that flows dizzily between two ravines; the path is all throughout thorns, blood and water. Ravines and rivers, thorny vegetation. Darkness and moist environment are just what compose the cenotes.

*The underworld's surface is conceived as a big aquatic surface where the primordial waters rest. Such as a bowed line, simulating water folds in its movement, the underworld is represented populated by plants, aquatic fauna and caves in its interior. (Solares: 2007, 260)*

The underworld is, besides, a place of wisdom and rebirth, of life renovation for the dead, and a place where linear time does not exist, only cyclic; time for reunion with ancestors and deities. The descent of men to Xibalbá depicts a phase of the cosmic cycle, where the universe, emergently needs a renewal due to the imbalance of the forces that endanger it. In this sense, the beginning of a new period of the world, corresponds to an edge of the dialectic triangle.

The underworld is also scenery for the gods of light and darkness' ball game. When the darkness overcomes, the world is reined by the chaos, the disorder, desolation, starve, drought and death. If the force of light wins, the world lives in splendor: the waters and the land are balanced and receive a blessing from heaven.

The interpretation of the mayan contemplation that Patricia Mercier offers us in her text *The secrets of the mayan shamans* (Mercier: 2002), says that there are portals that lead to other dimensions of reality. These are gaps in time that communicate us with the ancestors to establish dialogue, a link that brings the facts of the past through the memories. It is a memory strategy that challenges the omission and convenes the reminiscence. These portals are generally found in natural places, such as caves, mountains, special trees, holes in the ground, fresh water wells with roots and underground rivers, which leads us to think that cenotes are included in this description.

*The Mayans used ritual practices, hallucinogenic plants and personal bleeding to control and limit the forces, so powerful, that these even got to people through the portals during the ceremonies. The power of these portals in sacred temples, sheltered forces during many centuries to become energy accumulators. (Mercier: 2002, 97)*

Precisely, the cenotes are portals that lead to spheres of wisdom about the cosmos, men and nature. The mayans studied during centuries the phenomena of time and had certainty that it is like a continuous spiral or a moving propeller throughout space.

*They lived according to nature rhythms, according to the Sun, the Moon, the sunrise and the sunset, according to the seedtime and harvesting, and according to the habits of the bats, the bees and the jaguars. It is not crazy to affirm that they did not suffer from stress nor from diseases that affect us currently. (Mercier: 2002, 98)*

The oldest archaeological testimonies show that the Underworld was an aqueous place, where the stagnant water, the rivers and lakes abounded, and was habited by emaciated and old beings; in one word: monsters. In the same place of these beings, that evoked sickness and death, there were naked women of great youth, representing the vital sensuality that faces the dark forces of decay. This life-and-death dialectic set off the conjunction of night and day, when the Sun and the Moon coincided. "Thereby, instead of being only a region of death and destruction, the underworld becomes a zone of gestation, transformation and regeneration." (Solares: 1997, 258)

The gods of the underworld sealed a pact with men: It is possible that, by request of gods, men would practice human and animal sacrifices, since bleeding was a way to renew the agreement between gods and men. The Mayans were attending to the sacred time that indicated the moment of renewal in the cosmic cycle, staging the fight between the gods of Xibalbá and the god of the corn. When the god of the corn succeeded, vital forces would take over the universe. Otherwise, if the gods of death won, the desolation, starve and illness prevailed.

When the gods of Xibalbá overcame, drought was not delayed, the swarms of insects did away with entire populations and everybody was hungry and thirsty. This coincided with an eclipse that fell over Yucatán during the year of 1454, the destruction of Mayapán started off with a revolt, but the determining factor for its devastation was the drought, the cold, the hunger and the sociopolitical discontent. “The drought that started around 1450 was part of a global pattern of climatic changes”. (Gill: 2008, 368)

*It was the time when the fire, settled in the Petén, came out from between the clouds in the sky and was seen everywhere. It was the time when the face of the Sun and the face of the Moon were covered, in the fourteenth Tum, the vegetation disappeared and people prayed to the gods. It was an uncrowded time, a time when the governors and the count of years were lost, a time of big calamities, general death and disgrace. (Gil: 2008, 369)*

Drought covered Mayapán, the Petén and ended with the Itzaes (warlocks of water, habitants of Chichen Itzá). The chronicle of the Chilam-Balám from Chumayel tells that with the drought, the epidemics came along, there was little raining and therefore, there was sudden death because of the hunger. Taken from the chronicles of the text, Gill reports: “The vultures enter to the houses because of the pestilence. There is a sad devastation with swarms of flies on the roads...” (Gill: 2008, 368).

That was the time when Xibalbá reigned with its dark robe; despite of the prayers of the Mayans to end the drought, and the quantity of sacrificed people in the dry caves, the hunger was taking over population.

The scarce raining which was not enough to fulfill the cenotes, provoked demises of thousands of persons because of dehydration, the drought as a climatic effect does not only response to the imbalance of the natural forces and the nuisance of the gods, but to the pollution of the cenotes by metals and human leftovers that the habitants did, which leads to the supposition that there was discontent in all the ways of government and management of natural resources that also led to the social disorganization of the mayan cities. The race for the power made by the governors, the incipient urbanization of the cities and the abysmal planning of the water supply in drought and war times, ended up in an environmental catastrophe.

The organization of societies, the economic and cultural wealth distribution, and the control of the migration flow, is only possible when the interests of the community with an environmental dynamic are corresponded.

*The human beings live in a physical world, and our most important challenge is to exploit the physical world to bring out the maximum quantity of energy and material for our societies. The interlaced external elements which we must interact with, are the weather, the geography, the geology and the ecology. (Gill: 2008, 439)*

The decay on the old and modern civilizations, the decline on its culture, on its art and on their technical discoveries, is a consequence of the climatic collapse that was, particularly in Yucatán, registered between centuries IX and X. The Mayans on the regions of Yucatán, Campeche, Belice and Guatemala experienced the extreme climatic crisis, in absence of food and overall, with lack of water. They suffered the drought during 200 successive years, between 800 and 1000 a.D. “The most serious drought during the 7000 years registered in the lacustrine sediments nucleus of the low mayan lands”. (Gill: 2008, 25)

The cenotes were not used as ceremonial locations anymore once the drought reached them. The prayer for the gods to calm their fury down was a constant ritual practice until the end of time. Written in the book *Chilam Balam* from Maní “the Mayans left to their caves in drought times, where they lived, prayed and died” (Gill: 2008, 415). “Their references mention swarms of insects, raining scarce, starve and thirst, because of drought and terrible heat and so much mortality that vultures entered to the houses to eat the bodies of the dead ones” (Gill: 2008 367).

One of the cities that endured the impact of the schism was Cobá, located in a fresh water lagoon provided by the underground aquifer, which allowed the settlers to delay the general dehydration. Around 1451, the Itzaes left Uxmal, Mayapán, Chichen Itzá, and finally, Cobá. The last Itzaes that survived the drought, took refuge in Champotón (Campeche), a water depot that permitted them to extend their lives, until the water was also finished.

The cenotes were extinguished, the fresh water mantle was evaporated because of the high temperature, and the underground flows stopped communicating in a cyclic way, triggering a disorder on the hydric transmission.

### **Geological Origin of the cenotes**

In the tertiary period a meteorite (named Chicxulub) impacted on the north of the Yucatán peninsula, fragmenting the limestoned subsoil, which is the main component of the region. The meteorite impact provoked the creation of the underground rivers and cenotes. There are currently 3000 km of subterraneous tied rivers.

It also exists the assumption that the cenotes are a consequence of the landslides and the subterranean erosion over the limestone. The fact is that these are communicators to the aquifer mantle of the ocean based on the fact that they are bounded to underground flows. The limestone formed due to the deposit of carbonates, is porous and sensible to impact, landslide and erosion, which continuously makes their walls decayed and cave-looking.

The strongest thesis that argues the origin of its creation is that there is a direct relation with the edges of the crater that Chicxulub made, which lays buried under the Yucatan’s calcareous slab since 70 million years ago. These caverns are spread throughout the whole Mayan Riviera in a subterranean connection system, and it is estimated that there are around 10000 in a surface of approximately 150000 km.

It is important to highlight the fact that it exist a Ring of the Cenotes constituted by 500 concavities that, further than its mythic basis, are determinant in the balance of the regional biodiversity.

Inside the cenotes there is a great diversity of species. Because of the relative isolation of these water bodies, their geological story, and their geographical features; many of the organisms that live in them are endemic. It is true that, a considerable percentage of the characteristic species on the

caves, or on the Yucatán cenotes are of marine origin, and they have invaded the environment of the continental waters, precisely, via the subterranean ducts.

### **Communication and contamination of the cenotes**

Blocking the hydric communication of the cenotes represents a constant threat, mainly in two processes that alter the subterraneous interchange of water:

1. The collapse of the vault that makes the sediment that is deposited in the bottom of the cenote and bit by bit seals the communication with the aquifer mantle.
2. The entry of seawater through the bottom of the cenote.

It must be highlighted that the marine layer in the cenotes is not stagnant, it circulates moved by the tides and storms throughout tunnels connected to the sea.

The contamination of cenotes is caused because of the subsoil, and mainly for throwing culls and metals into it.

Inside the cenotes there are a lot of species that are not precisely aquatic. Insects, reptiles, birds and mammals get to this source of water and keep a relation with it. The cenotes are a sort of oasis of the territories of Yucatán. However, the danger they are destined to, is to turn them into dumps. A hole in the ground, sometimes hidden in the cave roof, seems, for many people, a perfect site to throw garbage, which disturbs the natural conditions of the cenote and may induce the disappearance of species and, in some cases, the fill of the place by rats and other plagues. Practically, the incorporation of organic materials does not only alter the balance of the ecosystem in the cenote, even more, it pollutes the water since the moment clear water is replaced by cloudy and smelly water.

To the researcher Juan Schmitter (2001),

*The geology and the weather favor the survival and development of pathogenic organisms in the subterranean water; it is not strange that gastrointestinal diseases are an important cause of death on the region. The pork farms, the outdoors fecalism, and the combination of the domestic and pluvial drainage have deteriorated the bacteriological quality of groundwater in the peninsula. Likewise, organophosphorus, carbamates and organochlorine pesticide residues have been found, from the horticultural zones of Yucatán, in potable water wells. It is pretty probable that the same situation is happening in the cane zones of the southern regions of Quintana Roo and that may have repercussions in the cenotes.*

*These problems will be hardly remediable due to the inaccessibility of the aquifer mantle; nevertheless, it is essential to diminish the deterioration of the quality of the groundwater. For that, it is suggested to space the wells and not overexploit them to avoid the saline intrusion; handling the solid residues; monitoring the use of pesticides, treating the water for human consumption with processes additional to the chlorination; and restricting the use of water extracted in high contamination zones, such as Mérida. Moreover, even though the mentioned problematic must be integrally attacked, the correct handle of each cenote will have positive local consequences. It is precise to avoid the extraction of vegetation that surrounds it, because it shelters and feeds the fishes, turtles and other organisms, besides being the main source of energy of the system. The introduction of exotic species,*

*generally pernicious on any natural ecosystem, is more serious in small water corpses, where the tilapia, for instance, may become the dominant fish of the system in a smaller period of time than in bigger lagoons.*

### **Fusion of two perspectives**

The cosmogonic myths of the mayan culture highlight the importance of the cycle of time, where gods and men are immersed, the raised events in the mayan town were and will be, as in the case of the drought triggered by the triumph of the dark forces of Xibalbá, what led to the suffering of the disease and death of its habitants. In the present time, this event will be repeated because of the extinction of the cenotes, which is a tendency in the climatic behavior that mankind is provoking with its polluting practices, throwing organic and inorganic waste to the cenotes, infecting the water with human excrement and cloudy water, using them as trash cans.

It is important to recall that in ancient times,

*Millions of persons perished and until now nobody knows why... People died of starvation and thirst. They died in their beds, in the plazas, in the streets and in the roads. Their dead bodies were mostly unburied and were devoured by vultures and vermin that entered to their houses to eat the bodies of those who had not died on the outside. There was nothing they could do; there was no place they could go. Their entire world, as they used to know, was immersed in a burning, painful and brutal drought. Their fields and woods were such as dry paper. The smell of smoke was everywhere. Their reserves of water were used up and there was nothing to drink anymore. (Gill: 2008, 23)*

Even if it is true that the force of the underworld reigned in that era, the polluting practices of the Mayan classic and post classic settlers concretized in human sacrifice, animal sacrifice and the introduction of metals precedent of their military weapons, disturbed the rhythm of the subterranean waters, since they were not able to drain their caudal in the sea, in the complex systems of the small estuaries, coastal lagoons, mangroves and dunes, like the current reserves of Dzilam, in the biosphere Ría Celestún and Ría Lagartos, such as the Dzilbilchaltún National Park.

The cenote Azul (Blue cenote), adjacent to the lagoon of Bacalar, remains nowadays exposed to the residual waters of polluting enterprises and to the poisoning practices of the population. We only have to remember that the ecological schism that brought the drought in the ancient times to understand that we are all part of the nature; we are made of ground, water, wind and storm.

### **The formation of ecological awareness**

The habitants of Yucatán and Quintana Roo in México seem to forget the importance of the cenotes as centers of energy that vitalizes the body and the soul.

A society that sacrifices their environment and alters it due to the irresponsible behavior of the joyful member in the wild capitalism; a predator entity that lives the immediacy of the modernity, skipping the reflexion and the remind of the past, is a society that moves away from the founder word; and as an undaunted stone, it watches the advance of the destructive civilization. The destruction of the nature is the reflex of the individual annihilation of all of us; the environmental predation is the expansion of the psychic deterioration of humanity.

In the case of the peninsular habitants of the southeastern México, they are forgetting that they belong to the great sacred text of the jungles, wetlands, savanna, seas, lagoons, crags and infinite skies. The naivety or the ignorance set us on the edge of the ecocide; we act oddly, on the indifference of the mayan cosmic cycle that announces the return of the environmental catastrophes. In the University we must educate the young people in the expansion of the awareness, which is recognized in the language of nature, developing the sensitivity in the sounds of the wind, the sea, the jungles and the woods. This expansive awareness faces the values of the power, the expansion, the control and the accumulation of capital, with its double reference: war, sacrifice, death and hopelessness. These values outlined the behavior of the mayan societies in the eclipse of its splendor.

In recent times, we have built epistemological rationality concerning the phenomena and we organize the results of the scientific research in oral and written speeches, nevertheless, the threat of climatic change, the environmental crisis and the pollution of water, such as in the cenote, is not a tributary custom to the gods and their plans anymore, while it is a daily, purposeless practice, it becomes in the unconscious joy that other suffer, of those who are still part of the stones and the woods, the seas and the infinite.

Under this sense, the mayan prophecies about ecological catastrophe do not belong to the sort of the unknown, the drought, the hunger and the thirst repeat cyclically on time and it depends on the ecological awareness of our people, that the harmony of the environment may be restored.

The balance of the natural forces as a home for mankind, is a need for us to continue existing; it is a task that may only be accomplished as from formation, because the conscience and formation are two elements that make the spirit of the person, a solidary spirit, and a spirit of abidance, stronger than the instinct of survival; it is a ontogenetic impulse to transcend in the universe.

To shape this ecologically solidary spirit, it is necessary to educate our students in the University. It is not enough to teach a specialized curriculum, we have to find epistemic mechanisms that are concretized in discursive networks and social practices to modify the predatory behavior, managing to create alliances among all the settlers, specially fighting for conservation of the cenotes in México.

### **The awakening of the environmental awareness**

The poetry-analytics as a method draws a link between dreaming and memories under this statement: we dream while we remind and we remind while we dream. The interior trip to childhood is a visit to paradise, to the cave where we initially lived, and once we find the place, from there, we assign a new sense to the existence, to impact our behavior.

Looking back represents the past, beyond being only a memory; it is the powered present through the dreamed image. The remembrances are the remake of the past in the act of dreaming. So that the memory is the reservoir of a file that consumes itself. As soon as the memory produces it, it immediately devours it. It is a memory that has a passion for destroying their registers; this is its ruin, unless the oblivion is defeated by the remembrance. A combat that dreaming assumes inasmuch as it has the virtue to create, invent new characters in different situations. In this point in which psychology and poetic are distanced, the intimacy is not explored with the eye of the science, but with the freedom of poetry.

The reverie brings the pure remembrance, dateless, out of the modern time, reviving abolished dreams and forgotten conquers. The oblivion is accompanied by the registers of the memory whose



vocation is destructive and joyful with the sepulture of the remembrances. Contrary, reverie undertakes the combat against the oblivion. Let's face the scholar issue: Is the poetry a way to comment the speeches at the university classrooms, calling the students to the game of their memories, interested in recovering remembrances and remaking the oblivion? Is it, perhaps, that poetry rescues the lost childhood and generates 'in sight' in the processes to know the students? And, is the formation of a sequence of instants what sculpts the students' awareness, what recalls the past with the nature, immersed in the chords of the ground? Is the formation of a web made with fibers of remembrance and the return of the lost things? What is our duty, as teachers? Do we have to prepare the students to have a thick charge full of wisdom that resolve the immediate practice in their lives, or to embroider their conscience with the symbolic thread that is released from the big memory nucleus in the universe?

*Existing in the whole nature an intimate dependency and having learned the soul of all the things, nothing impedes that the one that remembers only one, gets to discover the others, if he is brave and does not perish while researching. Because researching and learning are nothing but the anamnesis. (Platón: 1977)*

From this perspective, there are three queries in the area of education:

1. How can we know the ways of the students to remember in the classroom?
2. Is it worth building ethics of the memories, that from the imagination and the charm, the oblivion is assumed as the beginning of the recovery of the lost issues?

Is there a compulsion to the oblivion, as the attempt to delete the experiences between the teacher and the student, represented in apprenticeship?

By means of the psychoanalysis and the poetry, a re-significance of the past can be done, and remake the ontogenetic remembrances of the person, in its conjunction with the nature, converging both in the alliance to preserve the life in the time, which joins the present, past and future.

Platón sets important bases for analytic poetry to form the conscience.

We take for granted that:

1. The soul has experienced everything.
2. The remembrance of one thing can lead us logically to the knowing of another one.
3. The learning is the consequence of the memory.
4. The learning is the mathesis that contains all the meanings.
5. The learning is the reminiscence of a fact, a word, a being that tip itself over inside the memory.

Remembering is to revive a period of the past that was in the darkness of the oblivion, the remembrance lights up the memory to defeat it.

When we talk, a door to the past is opened, so its texture is infiltrated to our language, the memory energizes, and stops being the cave of the secrets. So that if talking involves remembering, remembering involves knowledge, here we understand that the person who talks, realizes.

Platón says that remembering is to find by self the lost, the forgotten with the activity of talking, triggered by the stimulation of an exterior or interior question, in the abrupt lands of the memory. Learning is just reminiscence, is the reminder of things already known in another time.

The re-creation of the memory by the poetry is similar to bring oblivion things due to the contiguity, similarity or contrast. It is enough to convoke the wanted things, so an image appears on the memory fabric, a representation.

The formation of the ecological conscience is built with the remembrance of our life in the womb, and even more, undertaking the return to the depths of the archetypal remembrance of our specie in the Earth, emerging from the oceanic water, covered by the foliage of the jungles and woods, in the atmospheric warmth and the hydration of rivers and wetlands.

Recognizing that the human beings proceed from water, air, ground and skies, we can strengthen the identification with them, so that causing damage to the nature is to demolish the protection of our lives, even more, that means weakening our breathe.

In the Basque custom that Andrés Ortiz-Osés (1996) comments, the nature is represented in the Mother Earth. The destiny, need, random and causality of every mortal generates the ontological pulse of our specie, and in appears “*as the great receptacle of all the things: ambit of the force of life and dwelling of souls, spirits and numbers. We can deeply characterize it as the House of the Being...*” (Ortiz-Osés: 1996, 45)

The nature shelters the vegetal and animal worlds and the four elements: air, water, soil and fire, those that we come from, are the essence of our souls, thoughts and energy.

*It is important to remark, on this fact, that the Earth is alive internally and externally: in its interior, there are rivers of milk and abysmal waters from where winds and storms come; in its exterior, the mountains grow and the sky shelters the lamp of the night –the Moon- and the lamp of the day –the Sun-, which divide the sky again between diurnal and nocturnal, deep or moody, spiritual (lunar), inhabited by dead men and supernatural geniuses. (Ortiz-Osés: 1996, 47)*

If the human race inhabits in the planet Earth, where it finds refuge, protection and life continuity, the fact that its social practices are destructive does not surprise us; these practices go against the cultural values that each culture has built. Such as the practice of throwing garbage to the cenotes, cutting trees, poisoning and wasting the water and polluting the atmosphere. This planet is not the only one in the universe, but at least it is the best among the possible worlds, the only one that has received us and lets us live. Further than the issue that this is an ensemble of geological varieties, this is the Mother Earth that.

*Integrates everything, it is about a cosmic Earth, that in its limitlessness encompasses everything, from the bottom to the top, inductively. We stay with an immanent transcendence that works almost pantheistically, inasmuch as it takes part of the terrestrial or telluric totality. (Ortiz-Osés: 1996, 48)*

The conscience of preserving the environment by the remembrance of our original past, consist in recognizing us as a part of the cosmic forces of the hurricanes, storms, wind and tremors. We are the impetus of the nature which makes itself present strongly in the cenotes.

## **FIRST CONCLUSIONS**

The formation of the ecological awareness is a pedagogical task that the university teachers must generate in the students.

The reminders and the oblivion are the elements of the memory and they founded the learning dialectic. When the remembrance is imposed over the oblivion, the recreation of the conscience prevails; the unconsciousness of the immediate fact of existing and the natural balance, are evidence that shows that the oblivion predominates in the memory.

The forces of the remembrance and the oblivion are competing. The mankind should defeat the forces of chaos and get added to the battle of nature to beat the imbalance, the chaos and the disorder.

The attention and conservation of the cenotes are conditions for harmony to exist between fresh and salty water, between light and darkness of the caves in the Yucatán peninsula.

In the cosmogonic myths of mayan thought, Xibalbá is the region of death, darkness and forces that provoked suffering as in the drought, the starve, the thirst, war and migration.

The cenotes represent the balance between the water and the land that avoids the climatic crisis, the provision of potable water for normal use and the preventive accumulation in case of extreme drought and environmental schism.

The cenotes are geological phenomena that must be explained and interpreted in its sacred origin and scientifically-technological function.

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