

## Teaching landscape architecture for the brain

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### Abstract.

In the Basin of Mexico, where it is today Mexico City; in the fifteenth century, the most brilliant of the ancient Mexican kings, Nezahualcoyotl Acolmiztli transformed the natural landscape of his territory to fulfill its mandate as a ruler and record the progress and greatness of his culture and his people. The site is now a cultural landscape of great importance whose study is an enriching lesson in landscape architecture, sustainable development and environmental planning. The site, in addition to the unique beauty that holds, shows human thoughts and actions that produce the processes that lead to sustainability: after five hundred and sixty years 40% of that land is still cultivated and the site is heraldry of culture of ancient Mexico. The study here has led me to consider the prevalence of thinking about the action, therefore my research work focused on trying to establish how the architect configured his brain to think like and secondly to introduce new aesthetic categories in landscape architecture teaching.



Fig 1. The Lordship of Nezahualcoyotl seen from the eastern basin of Mexico.

**Keywords:** Think, configure, learn, awareness, teach

## 1. About the site and its current meaning.

The place we know today was the result of several circumstances and decisions: In the basin of Mexico during the years 1447 to 1453 AD, had an untimely frost followed by a prolonged draught that dried to two thousand square kilometers of lakes and disabled the crops leaving a natural catastrophic event that nearly wiped out the population of 300000 inhabitants.



Fig. 2. Location of basin of Mexico Basin of Mexico in 1447 Basin of Mexico today

At the time in the basin was dominated by three Lords (or kings) who ruled the manors of Tenochtitlan, Tezcoco and Azcapotzalco. They were joined in the Triple Alliance, the most powerful empire on the continent at that time. The lord of Tezcoco he was Nezahualcoyotl, Lord Totoquihuatzin reigned in Azcapotzalco and the great Moctezuma in Tenochtitlan. Given the emergency food lords emptied the royal granaries, their header cities were over populated and when famine struck Moctezuma decided to go to war against the people of South, following by Totoquihatzin to collect taxes. Nezahualcoyotl instead chose to locate water sources in the high mountains of eastern basin and channel water to his city by creating three irrigation systems to produce food. This decision was a radical change in the natural landscape of the city, region and in the life of the inhabitants of his dominion and whole basin.



Fig. 3. Tezcoco landscape The three irrigation systems of Tezcoco South system called Tezcotzinco system

This region consists of long ridges of piedmont, short valleys, and in that time, a long narrow strip of plain lake. The ancient lake was brackish due to the influence of saline soil. It is a semi-arid region of dry warm weather, twelve hours per day of sunlight with average temperature of 18° C., rainfall of 500 mm. annually during the summer and freezing winter. The soils are shallow, dominates the horizon B of basic mineral and vegetation that occurs along the altitudinal gradient includes riparian plants and *Halophites* in the plain,



grassland, xerophytic scrub and weeds in the foothills and forests of *Juniperus*, *Cupressus*, *Quercus*, *Pinus* and *Abies* in the mountains.

To channel water from the springs located at an altitude of 2600 meters to the plateau at 2200 meters channels were carved into the rocky surface of the mountains, following the contour lines, surrounding peaks and crossing the fords with embankments of which were built stone canals. The path of the channels, twelve miles on average, has a 2.8% of constant slope. Water velocity was regulated by increasing or decreasing the channel section and varying in depth to avoid turbulence. The main channel derived secondary and tertiary channels of distribution with a width ranging from 50 to 2.5 centimeters.



Fig. 4. The paths      The spring zone      Channel carved      Mouth of the canal      Domestic dam

Nezahualcoyotl awarded the construction of the channels through appropriate tax card, then entrusted its maintenance and management of water supply to the entire region as the Nahuatl agricultural calendar of 260 days per year.



Fig. 5. The longest embankment      Embankment of Caño Quebrado      Current production terrace

Simultaneously with the construction of canals were built hundreds of thousands of square miles of stone walls to contain about one hundred and fifty million cubic meters of fertile soil formed by silt dredged from the bottom of the dry creeks mixed with humus from the montane forests, these were provided in the 30000 hectares of productive terraces enabled.

This region produced amaranth and corn to feed the population of the basin by solving the famine, promoting the repopulation and subsequent glow of the whole basin due to biophysical symbiosis generated with the works of environmental adaptation and production management in time.

The underlying reason for the decision of Nezahualcoyotl was his intimate knowledge of its history as a nation, as a culture, as king his personal obligation and no doubt his knowledge of the geography of the state and its relation with their worldview: In the worldview of Mesoamerica was believed that two solar deities to be dismembered a monstrous being called Tlaticpac. A species of lizard fish whose back the earth's crust was created and whose belly aqueous created haven. Once created the earth, the deities place four cosmic



trees to prevent the two parts of Tlaticpac back to join. However these trees allowed the flow of the underworld and earth deities that were beyond earth and sky. In my opinion we are talking about the energy exchange in the trees flows through their vascular system, aspect that the ancient Mexicans were well aware and identified as the flow of energy which the plant life depends.

According with my interpretation the idea of the back of a lizard as the origin of the earth it is because throughout of Mesoamerica is full of mountain ranges that define their physiography. Also is this the reason why its inhabitants thought their deities inhabited hills archetypal. The idea that the sky comes from the aqueous belly of the monster derived from the fact that Mesoamerica region occupies a large subtropical fringe of the continent where rainfall is abundant, there are great jungles and mighty rivers, therefore, a high percentage of humidity.

It is relevant in a story like this to point out that the ancient knowledge this cultures had about the natural environment was deeply associated with the construction of their worldview. And in that construction saw themselves as custodians of the creation of the deities to ensure its perpetuation. I cannot elaborate more on this paper to explain the extraordinary manner in which their worldview influenced the lives of these people, but I can comment that the responsibility imposed on them by the traditions led them to study, conserve and were possible to reproduce the ways in which nature generates itself and is self.

In the case of Nezahualcoyotl say that when the situation resolved and recovered the prosperity of the state, built on the sacred hill of Tezcotzinco his magnificent royal palace whose conception is an outstanding display of talent from the king to transform the environment to living space with an specific end considering the worldview of his time, the biophysical characteristics of the site, human knowledge and aspirations of a ruler.



Fig. 6. The sacred hill of Tezcotzinco

The hill was considered sacred because Tezcotzinco was noted by Nezahualcoyotl great grandfather King Quinantzin, as the guardian mountain of the founding of the city of Tezcoco. The ancient Mexicans believed that the Ometeotl primeval god, the god dual (ome-two, teotl-god), live in the cave of a hill called archetypal Tamoanchan and from there blew the breath to life he deposited in the belly of pregnant women. It was a myth about the divine origin of life, why pointing to a hill as Tamoanchan of the founding of a city giving it a



status of divine origin which ensured the protection of god for their existence and development. With this background Nezahualcoyotl had to take stock of wisdom and intelligence to take the hill and physically dwell therein without offense to his people, it went like this:

Nezahualcoyotl was the seventh king of his line. The Acolhua people Kings. When his first ancestor, the King Xolotl, arriving in the region of Tezcoco around 1100 AD, he and his people still dressed in animal skins who were hunting and living in caves, but they knew pervert the course of streams and small rivers to irrigate the land they began cultivated to produce corn.

The king Quinantzin introduced the cultivated of cotton which began to manufacture their clothes, he built the first stone palace and organized the lordship as a perfect socioeconomic and cultural structure governed by an absolute monarchy responsible for the fate of his subjects. Turn preserving its land, values, customs and worldview. Nezahualcoyotl known himself as heir of this concept of a ruler, he knew the technical, scientific and cultural development of his people and the wisdom and power of their worldview. So when he saw himself before the environmental disaster, used the only resource he had, people who had gathered in Tezcoco, not to take them to die in the war but to build in the slopes of the mountains the most important productive landscape of the fifteenth century. Creating a great example of what is now environmental planning and sustainable development.



Fig. 7. Andesite rock



The Tezcotzinco (in center)



Productive terraces

At the time of Nezahualcoyotl built his palace at the hill of Tezcotzinco, Tlaloc Water God had become to be the most important and influential in the life of the inhabitants of the basin, of course as result of the drought from his vision had been decreed by the god. It was believed that god Tlaloc lived an archetypal hill called Tlalocan in which there were many bodies of water in all its manifestations: rain, rivers, lakes, waterfalls, underground streams, all forms that produce fresh water on the earth. They believed that for this reason the Tlalocan was full of jungles and forests inhabited by countless numbers of archetypal insects, birds, fish and mammals. The Tlalocan it was a paradise such that he only arrived the warriors killed in combat, mothers dying during the childbirth and misshapen people who was considered sacred too.

It is important to mention this background because Tlalocan became the legendary destination of the most valuable people in basin of Mexico. With this knowledge Nezahualcoyotl set out to recreate in the hill of Tezcotzinco the earthly image of Tlalocan, merged the two myths: Tamoanchan, the divine origin of Tezcoco and Tlalocan, fate of his people. This was the way the King could legitimately take the sacred hill.

To represent the Tlalocan in the hill of Tezcotzinco, Nezahualcoyotl made a master piece of what we now call landscape architecture:

Nezahualcoyotl knew the territories of today's southeast of Mexico and Central America because there came to his Kingdom and decided that the earthly image of Tlalocan it should resemble that of the land in which mostly rain, rivers, lakes, fish, wildlife and forests, so he built in the hill an analogy of that landscape.

To achieve its objective would have to modify the characteristics of a semi-arid area in warm dry climate of a place of warm humid climate, to transform a site of poor and shallow soil on a site of moist soil, fertile and deep, enter in an ecosystem of bushes and scrub vegetation needed to reproduce the characteristics of the jungle and finally introduce a suitable wildlife.

Then he first decided it was to occupy the southern slope of the hill that had an inclination sufficiently fit to be terraced. On the north slope of the hill there is a relict forests of *Quercus* adapted to the slope of 45° on average. The south side also has the best sunlight during the whole year and is sheltered from the wind by the same shape of the hill that creates a shadow of wind.





Fig. 8. Watersheds View from the west of the hill of Tezcotzinco Tezcotzinco map

On the hillside was terraced floors of 1.50 meters deep, were planted two tree species, *Schinus molle* and *Eysenhardtia polystachia*, to create an open forests with the following quality: the *Schinus* is a large ever green tree of very fine texture in foliage and *Eysenhardtia* it is a small deciduous tree also fine-textured, this combinations helped to create translucent shade during the summer and partial shade during the winter to take advantage of the sunlight.

Building the infrastructure of the main water channel, water was carried up the hill of Tezcotzinco making led to the eastern “noise” of the same. At that point it was built a collector and from there, a perimeter road carried water to three sides which built three stone structures, carved in rocks, called pools representing the way the people Acolhua ran from the arrival in the basin of Mexico to their settlement in Tezcoco.



Fig. 9. Slopes Stone canal The collector The perimeter road

Once the hill was equipped with water, small dams were built along the south side of the perimeter road these were stored in water and then drop it on the andesite rock, that way the water was sprayed and created enough moisture to modify the microclimate of the slope. At the same time were built waterfalls, fountains, ponds and canals filled with bodies of water to the hill.

When the slope south is obtained the right conditions the King ordered transplant all kinds of tropical plants at the site and enter the wildlife of the forests thus recreating a microcosm representing his idyllic worldview of Tlalocan.





Fig.10. The pools (west and south), the collector and the foundation of the royal apartments air views

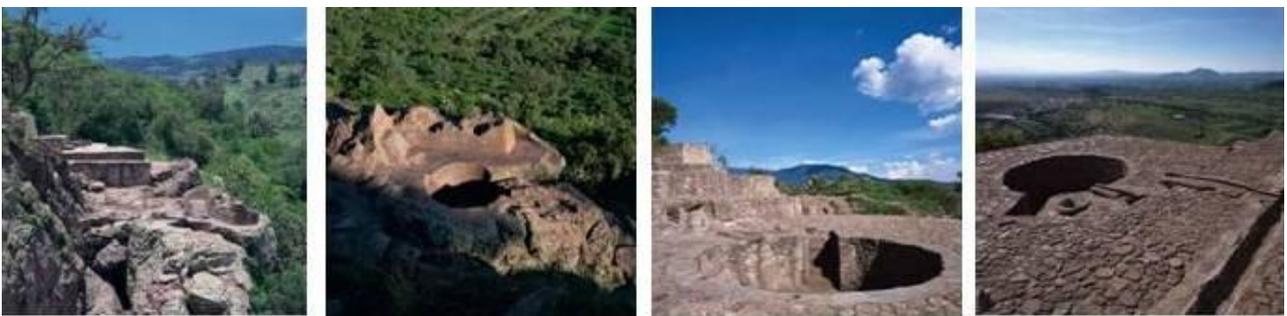


Fig. 11. The southern pool (of the King)

The western pool (of the Queen)



Fig. 12. Views of the current flora of Tezcotzincó

## 2. Thinking about landscape architecture.

The above story is the vision of a planner and landscape architect on the work of a King and his people. For many years I taught this example of landscape architecture to my students and introduce in my teaching some aesthetic categories arising from this research such as: a) Compositional conceptual scheme and subordination of elements into the overall scheme. b) Cosmogonic development of compositional discourse. c) Three-dimensional space. d) Movement as a dimension on space. e) Physical and environmental manipulation of space. f) Integration of science and art in the design. g) Polyvalent handling of vegetation. h) Total production of a landscape model represented by global composition patterns. i) Controlled geometric landscape distinctive. j) Naturalism and livability. k) Erotic sensuality and design.

However in recent years I have seen growth in the work of landscape architecture a tendency towards the reproduction of iconographic “successful” models, this worries me a lot and led me to wonder the question of why such a situation occurs both at universities and professional work and I think that it is because we have lost sight of architecture students when they go to college what they should learn in a conscious manner is to configure their brain to learn to think like an architect and it is possible that professors we have been more concerned with teaching a design technique that enable them to produce, or unfortunately play architectural aesthetic models that will undoubtedly come from creative minds but not necessarily from the knowledge, culture, worldview, expectation and needs of the people and possibilities of treating or processing the environment to solve the problems of subsistence, habitation and development of the people.

This concern has come to me when I realized that the work I have been studying, describing, characterizing and explaining as example of environmental planning, sustainable development and landscape architecture, and it is, is not the work of a planner or landscape architect but a wise man who knew how to think, like



anyone in his time, how to transform the land to create a better place to live. So while his work we should be studied his thought and learn from him. Also I think our first responsibility as professor is to teach the students to think and for that they must learn to set up their brain that, even before entering college is simply of a student in the brain of an architect. I must say I consider the human brain as a tool that is configured to think a certain way.

How to accomplish this in case of our interest? Still do not know absolutely and it is a long way to investigate but I have traveled some ways in which we could begin to move. There also explain briefly the proceeding of the King Nezhuahcoyotl if we can find relations.

The first way I raise relates to creativity. It seems crucial to make clear that creativity is believed to be an essential condition in the practice of architecture is not from a single, small gift in the world. According to experts, there are three types of creativity: biological, cultural and specific.

Biological creativity is innate in all living things. Enables an organism to survive and is expressed in the homeostatic organization of the individual described by American physiologist Walter Bradford Cannon in 1932.

Homeostasis is the ability of a multicellular organism to self-generate and regulate themselves in a self-balancing internally and externally. In the case of human beings implies that such a balance in their biological and psychological organization there is a kind of skill inherent existence that allows life in any being. In the biological aspects homeostasis implies internal adjustments necessary to stabilize your body substances to the constant changes produced endogenously (by the body) and exogenous (external factors) during development. And in the psychological aspects it means to adopt the most adequate behavior to meet their needs in relation to the specific circumstances that arise in their environment. It is this ability to achieve an inner balance that allows the survival of a human being what we call biological creativity and it exists in every one of us.

With regard to cultural creativity will say, in principle, I assume the primary notion of culture (there are many notions) as the lifestyle of an individual or group of individuals. Therefore, from these sense, every human being has necessarily a culture. It means all of us we have a way to interact with our physical and social environment learned of our ancestors, our elders and our contemporaries that allows us to belong, be expressed and stay in our group or society. I call this cultural creativity. Whether if It is an independent social group or away from the overall process of civilization for some reason, or most cosmopolitan society "developed", culture or way of life that share occurs in each of their individual a perception of reality tempered by an informed perspective and/or formed from environmental wisdom and knowledge accumulated by the company, that leads him to make decisions about environmental and social survival, according to their capacity for analysis and learning of that knowledge sharing with the others. This call in the individual, become aware of their cultural creativity.

So that every human group, and every individual belongs to one is developing what we normally call their worldview, their customs, beliefs or philosophy. Stages represented by its experience of the world and humans, it is transmitted to each individual in the group so circumstantial and that enables you to practice life, that is instructed in the use of knowledge and cultural creativity.

This cultural creativity, then lies in the correlative building society and make their own individual person as such, from birth to death, accompanies form throughout his life and can change, evolve, transform and enrich themselves according to the interests, decisions and efforts of each individual. The level of awareness that the person has of the existence and use of cultural creativity that owns it is the sole responsibility.

This brings us to the specific creativity. In this regard recall that, as we know from ancient times all human activity preceded by the primal fact of having carried out a specific action to solve a basic need. In such a way that to the extent that humans have been able to recognize and codify the actions, increasingly complex we have taken from the "stone age" to "cyber age" professions that we have invented exercise of "a certain way" to solve "certain problems" specific in nature. Such is the case of landscape architecture, like so many others that are studied in universities.

What happens in the universe of professions is that humanity has built itself as "thinking being" reflecting and theorizing about the techniques and methods that practiced initially by trial and error, then by complex method prospecting problems, prior definition of procedures and use of technology to meet their needs and aspirations. Such reflection and theorizing over time of human practices has enabled the knowledge produce by mankind can be compiled, explained and taught to those who want to learn to exercise some of these practices in a specific way.

Thus, at some point in human history have been created and developed the professions that make up the specific content knowledge to be acquired to exercise them. This has worked in universities. More over the activity carried out by professionals in reality it is building the world in which we interact and so is taking shape in society a relative culture on that specific activity. In the case say that humanity shares an



architectural and landscape culture with ancient roots and branches that cross today look towards a future that seems, for now, endless.

Oriol Bohigas says in his seminal book of 1978 "the creation of useful forms is inherent to human progress" we might add here that sustain critical and conscious reflection, and learning about the real usefulness of these forms, in other words in how real people use and appropriate qualities and meanings of these forms, architectural and landscape in this case, and the processes by which they were produced is what is really at the substance of what we call progress.

In this regard and in relation to landscape architecture, we know that the discipline required for the exercise, according to the specific problem to solve to integrate into their production process intellectual and physical knowledge by the science of the earth, environmental science, human science, environmental planning, urban planning, architecture and technologies. All of which is learned and implemented through a design methodology and a technique for producing architectural and landscape forms, to the extent that it exercises over and over again in each problem is solved produces a feedback set in landscape architect's mind his own idea of the activity that occupies, how is it constructed as an individual and their relative importance to society.

So at this point I will say that it takes creativity to practice landscape architecture but it is a specific creativity that comes with the culture of Landscape Architecture. What first draws knowledge and awareness of what this profession "is", after of the experience of "making it" in practice and at the end of the depth of which each individual is able to build their thinking about her.

I think it is a fundamental topic in the teaching of landscape architects to help student build their landscape architectural thinking objectively and away from the myths of spontaneous creativity or "enlightened". He also says Oriol Bohigas, full of reason "there is no inventions from scratch". Thus in this, landscape architecture and any activity that human beings spend their time. In the end it is all part of human works as Borges said, and as such is perfectly accessible to others as we are all biologically constituted as homeostatic living through our creativity. We all belong to a group of people which have acquired cultural creativity we exercise daily to "life process". And we are all able to acquire specific creativity produced by those who do landscape architecture in the world today and those who think about teaching and studying at universities.

Another fundamental topic it is referred to the ways of learning. I think we should try to acknowledging the way our students and ourselves learn. Clearly not all learn the same way and has been studied that according to the way we learn is the way we understand and express ourselves. I said that the acquisition and development of creativity as the foundation has a specific learning activity, therefore and because the practice of landscape architecture is essentially an intellectual activity, it is important to introduce here a note about how it happen learning in our brains.

Will include a brief note here on this issue as there is a vast literature on the subject and invite teachers to delve into it. The experience of authors like David Kolb and Catalina Alonso has led them to consider that there are four different types of learning: active, reflective, theoretical and pragmatic. In their experience everyone has a profile "favorite" of learning. I would say our cultural creativity has been gained from the exercise of this profile is the one we received in our education or is at once the one that best suits our biological and psychological skills.

Learning profiles have three primary psychological elements that make up: an affective component, it is feeling. A cognitive component, it is to know. And a behavioral component, it is doing. These components configure or structure the particular way in which person builds their own learning process, by which also produces their own learning strategies. This process affects all activities of an individual because the integration of components and the profile shape their attitudes, skills, understanding and level of depth learning. Hence the important of know your profile and do an exercise in introspection to recognize how you learn and how you express yourself. From there you will have to purchase a particular understanding of landscape architecture as an activity and human experience, and from there, surely you have to exercise it as your own means of expression. I make a brief description of the profiles:

a) The active profile. Form this page you learn when there is a direct and obvious link between a problem and an opportunity to address. When using specific techniques to do something with practical advantages. When you experience and practice with tools for effective feedback or under reliable supervision. When you have an immediate opportunity to apply learning.

b) The profile reflective. From this profile is learned in situations when you can see, think, reflect about an activity. When you can think before you act and assimilate before commenting or participating. Where the individual can take distance from the events and listening to or watching before acting. Where you can exchange experience with other within a clear framework. Where you can reach conclusions or decisions without pressure or time requirements.



c) The theoretical profile. From this profile is learning when the person is offered a part of a system, model, concept or theory. When you have time to explore methodically the associations and relationships among ideas and/or events. When you have the opportunity to question and test the basic assumptions or logic behind something, through questions and answers or by checking the consistency of some event, for example. When you feel pressure to pass test intellectually challenging in your analysis or teaching people that requires complex answers. When you are in structured situations with a clear purpose. When you come in contact with text or conversations logical, well structured and informed. When you can analyze and then generalize the reasons for success or failure.

d) The profile pragmatic. From this page you learn when you face new experiences, problems or opportunities which can include anything other than what is already known. When there is interest, drama, crisis, to bring about changes for various chores. When a person is allowed to generate ideas without political constraints, structural or viability. When left alone facing a difficult task to consider, which means you face a challenge with inadequate resources and under difficult conditions. When "try" things is the most appropriate.

When you know the profile to learning to use it, you should know that there is a "cycle" of learning that goes through four stages: concrete experience, reflective observation, abstract conceptualization and active experimentation. We all learn by the profile of our abilities and stage from which we can face the knowledge. There is a possibility that an individual scroll through the four stages in the learning process to traverse or partially. In the case you need to clarify in your mind what is your own process.

Let's say something about stages:

1) The concrete experience is based on the personal involvement eminently emotional. The person who learns from this stage tends to favor the feelings and creative abilities on a systematic approach to problems and situations. Learning in this stage is characterized by learning from specific experience related to people and their feelings. I would add that this people learn by commonly called intuition or empathy.

2) Reflective observation characterizes people who discussed ideas from various viewpoints, are careful in their assessments, persevering and trials intended to express "objective". From here we analyze the thoughts and feelings to form opinions based on learning the meaning of things from different perspectives.

3) The abstract conceptualization is learning stage involving the use of logical and systematic approach to understanding the problems and situations. Excludes the feelings of the individual may have in relation of what is studied and is based on trust that the person has on systematic planning processes, development or theories and "formulas" to solve problems, and their intellectual or understanding. From my point of view, these people build on a particular practice, thinking, concepts or theories, which then will allow the transmission of knowledge of the practice.

4) The active experimentation stage is closing the "cycle" and its quality is that the person learns thoroughly "something" just until you run it and experience how this "something" actually works. In this phase learning is obtained by evaluating the individual makes about things made by their results. The person who reaches this stage have the ability, first, to make things, then to risk them and through that influence people and in different situations through specific actions.

One more aspect I would like to mention with this intention of helping students to configure their brain of architect is the subject of the invention. Given that the landscape architect is a developer of spatial forms is expected of him who owns a limitless capacity for invention. I agree with this expectation, I think every architect "mature" which has acquired a vast architectural culture and learned to use a technique of projecting structured in a conscious process of creation has an unlimited capacity for invention, of course he will be compelled to exercise only when confronted by his own interest or for the needs and aspirations of the "other" to a specific problem of habitable space. Now I will clarify what I mean by invention and try to bring a new perspective, aided by some other authors.

According to José Ortega y Gasset dwelling is unprecedented by humans. I understand that for him human beings we are ontologically (thinking about physical existence) a limited life to the possibilities of pragmatic field. I would say a pragmatic field is in my opinion the living space that human being produced or constructed as a result of its action on the physical reality of the world. This means that humans are not found in nature as such ideal conditions just for "live" as most of the animals which find their habitat in the region of the world they occupy. Human beings actually occupy all world regions to build their "habitat" with technological resources cities are the typical example of this. Therefore what supports the development of human life is the ability of humanity itself has taken to transform and adapt the natural conditions of the land to its desire to inhabit specific ways. We call this environment. From this perspective I fully share the life of human beings is a multiple articulation of pragmatic fields and priority of building comes from the deepest desires that people have to live a certain way and not another or any randomly.



Another thinker, Martin Heidegger, he refers to architecture as poetry of the use of space. He said this is made by modeling the spatiality of something when it is ready for use. So I think that in landscape architecture exist not only the human need to carry out life in living space and all the experience that humans have accumulated after centuries to shape the land to inhabit, as well as specific knowledge in that field landscape architects have produced. There are also the qualities of the space will be transformed, these are of various kinds: natural, environmental, cultural, historical, urban, architectural, and cannot be ignored when thinking about its transformation, on the contrary it is these unique qualities of each space indicates that it is "ready for use" and exhibited in its materiality. This specific materiality of each space guides us on the use of technology, media and processes to coordinate the various pragmatic fields through modeling and transformation of that materiality. Throughout, as Heidegger would say, of the poetic experience of the individual on the area, throughout the poetic invention of the landscape architect. So I would say in the process of formal invention of the landscape architect his responsible is manifested in the time he sees an opportunity to transform the world, and his limits at the time he is holding his purposes to the achievement inescapable habitability.

According to Arthur Koestler in our perceptions of the world there is a phenomenon of inconsistency from the biological and cultural perceptual called bisociation, this explains why at times, to a specific space that we intend to "use", "feel" like something is wrong, something is missing or something on the materiality of that space is not right therefore requires an intervention. This is where the landscape architect finds the opportunity. However, the need to transform the space is not a necessity without purpose or direction. I said about human aspiration is to enable the physical space to inhabit. To meet this "purpose" and resolve the bisociation required, then a new construction. How landscape architect thinks the transformation of space expose his talents and limits as a creator. So following Koestler and summing up the above, I would say that creativity and invention are the result of maturation of the landscape architect in three stages: Biological maturation, it is expressed by the architect in his ability to adapt himself to his working environment, always changing where he acts circumstantially. Cultural maturation, it is the result of care and lifelong learning work by various means the architect carried out in relation to the world and his work. It is expressed in the evolution of his understanding and building of his idea and practice of landscape architecture. Personal maturity, this allows the architect to visualize his activity as a continuous process of synthesis and change that produces adaptations and transformations that humanity needs to make the planet habitable. That is, the maturation process of the architect gives to him access to knowledge and wisdom. This qualities manifest at the time to "catch" an architect, his ability to transcend its biological and cultural boundaries to become formally an inventor.

Finally I want to point another issue nodal in the formation of architecture students, is the practice of the review and critique of the concept of landscape architecture. I see repeatedly landscape architecture is taught and learned from a perspective focused on to worship and play a kind of "archetypal idea" of landscape architecture whose influence "inspires" a series of "prototypes", or what I call "iconography of architectural aesthetics", also widely evidence in the architecture of buildings which seems caused by a "mastermind" that "illuminates" the most famous architects and "dictates" them the forms should be created, the forms that everyone "should" follow. I think through this procedure has been emptied of meaning the landscape architecture. Far from what one might believe, this unthinking repetition of an aesthetic model or "style", as doing in present It is not consolidated it in the collective imagination and lasts, but it sells out quickly makes it "kitsch" and banality, disposable, fashionable, whose final destination is to be replaced by the "following".

So, in my experience, I have said there are many schools more focused on the architectural object than in the individual being that is forming as an architect. Then I invite you don't try to find the landscape architecture model but better build landscape architect's mind which it is the substance that produced landscape architecture in the world.



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