

Heideggerian Approach to the Technology of Environmental Design

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Abstract – The appearance of Meta-technology within the environmental system has led to transform its physical aspects as well as the internal structure. The environment as a live phenomenon receives its identity through the active process of human's perception, has also been constantly challenged forth by technology in various fields as culture, art and design. As the designer start to define a cognitive tool out of the physical frame, the concept of revealing is manifested in a process of Poiesis (Heidegger, 1953). Then in a poetical context of interaction between environment and designer, the technological tools will lay out in order to pass through different layers of nature. Therefore, the devised tools would bring forth those hidden features that will contribute to the field of designing with nature. This paper tries to explore the way these technological tools are being transferred to the domain of design methodology in order to maintain a sustainable environment.

Keywords: *Meta-technology*¹, *Poiesis*², *technological tool*, *sustainability*, *design process*.

1. Introduction

We are in the midst of a virtual re-contextualization, a new interrelating of the realms. A virtual common culture has been created in large part through technology. So no one can disregard the undeniable reality of our changing mental landscape and our technological flesh. The design field, taking advantage of multidisciplinary qualities and interdisciplinary activities, has always been seeking for qualifying its products in a cognitive domain, by a special concern for the theoretical background related to it. In this way, a rational interrelation among science, technology, art and philosophy has been established recently. On the basis of mentioned viewpoints, designers have tried to give a definition for the essence of truth and question the nature of technology in technical and artistic dimensions.

It is clear that technical and technological outcomes are useful in executing the designed products. Indeed, the nature of technology is essentially challenges forth in every domain on the way toward changing them. This twofold dimension of technology is certainly affecting the design process. Therefore the cognitive tools are to be investigated in order to reveal anew the concept of dwelling in the current technological epoch.

1 The term *meta-technology* was first suggested by *Carl Mitcham* in 1995, referring to the progressive development of a global electro-media culture, a new phase of technology.

2 The idea of poetry or as the Greeks thought it as *poiesis* is an understanding of the relationship between natural and human activity. *Poiesis* then is a bringing-forth.

2. Designer On the Way of Revealing

The design process is recognized today as a mode of revealing rather than the instant culmination of a creative mind. In this process the designer unveils the truth on the way towards reality. Thus, the design process requires knowledge at the initial stage to understand the mutual presence of designer as a reflective mind and the environment as a studied subject. This process is going to be clear through a transparent field visible for everyone following this route.

The process-oriented feature opposed to the modernist result-based view emphasizes on contextualism for construction of meaning. So the designer's purpose is to create a fluid situation of intersubjectivity- the state of being within subjects- leads to a domain of multiple perspectives. In the passage of time, the designer would gradually be taken into the obscure nature of boundaries between the fields, where the hidden meanings and concepts begin to appear in the process of revealing. Meanwhile, the designer disappears in between as the hidden layers are disclosed to him. The absence of conceiver coincides with the presence of conceptions creating a sense of dynamic, multidimensional existence.

That's precisely the idea of revealing *aletheia* in the process of *poiesis* mentioned by Heidegger as a virtue of thought which overturns our usual perception and leads us to experience the peculiar relation among things [2]. That's the time when he turns back to the depth of the context in order to identify the potentialities and constraints existing in the environment. Once the designer establishes a relationship with things as they are, he will be engaged with the open region into which every being comes to stand. As he is listening to things, they are lighted and cleared. But as soon as he tries to impose his mastery will the truth of being is concealed. Thus, eminently he will attain *Gelassenheit- freedom in thinking-* that enables him to approach the hidden layers of life in the environment free from dominance [3].

3. Culture of Dwelling

Once the free relationship is established between the designer and his environment, the concept of *dwelling* comes out. The notion of dwelling, according to Heidegger's ecophilosophy, is the basic capacity to achieve a form of spiritual unity between humans and the material world. This capacity for dwelling through repeated experiences and complex associations, paves the ground for making places and to give them meanings that are deepened and qualified over time [7]. Therefore, dwelling is recognized as the way human beings are on earth, the authentic way of being human, oriented in thought and action.

The human-environment interaction refers to a mutual relation of form and meaning which is always dynamic, simultaneously imagined and real, internal and external. This kind of relation does not act as a buffer or a set of filters through which we perceive our environments. Nor is it just those ideas about environment are necessarily human creations. Rather, *human* and *environment* are continually determining their very existences, giving birth to an eminent *culture*.

Hence, the idea of cultivating nature involves man in a harmonized process of improving the environment as well as his dwelling places [4]. The term *cultivate* brings the notion of self-development by which one acquires the culture. As long as

man changes the land to make a dwelling place, *culture* is established. It is through cultural action that man makes sense of his existence and the environment he inhabits. The kind of dwelling which uncovers the opportunities and constraints embedded in nature, giving rise to a sociospatial environment that leads human back to his original roots and localities.

Therefore, the designer is resided in a cultural sphere, going through design process along with nature. In this manner the invisible patterns hidden in nature are being revealed as he set up eco-cultural conceptions in his mind. These perceptions are partially emerged through topographical, geographical and environmental concerns as physical aspects of the context, will eventually attribute to the very essence of dwelling places. Thus, the designer is capable of bringing out those hidden layers concealed in every environment and moves it on towards the purity and perfection of the world of design.

In this respect, the designer should consider the essence of culture in three aspects of values and aspirations, the processes and mediums, through which he develops, receives and transmits these values and aspirations and the tangible and intangible manifestations of these values and aspirations in the real world [1]. On the essential level of cultural values, the designer is united with the domain of meditative thinking in which the essential quality of *revealing* unfolds. Such meditative thinking requires the spirit of silence, a holistic listening and consequent attunement to the total context of existence.

It is just through the second stage conceived as an in-between space that he starts to internalize the cultural values by transfiguring them from qualitative existence into quantitative, physical entities ready to be represented and inhabited. That's thought to be the real commitment of a designer identifying the cultural-environmental differentiations. So, evidently the central factor of dwelling is culture and every planning principle must include cultural knowledge. The design principles and rules do not necessarily comply with sustainable design unless the culture could accept the state of revealing those patterns and paradigms concealed in nature.

But, in what manner is the designer able to cultivate his environment? How could he unfold the truth of dwelling conveying all the meanings and values rested in nature? That seems to be *technology* as a phenomenon that has contributed to the process of *poesies* through bringing out the very existence of dwelling on earth.

4. Technology as a Way of Revealing

Since the necessity of technology is realized in a new position, those cultural values pertained to nature are being revealed. Despite the fact that technology is a way of revealing natural existences, it simultaneously *challenges* culture, nature or even human's cognitive domain. Thus, the twofold character of technology has influences on physical and conceptual fields, whether we passionately affirm or deny it.

Therefore, in accordance with current point of view to the problem of technology, there appears a necessity for uncovering the essence of an entity that has emerged from within. In this respect, Heidegger had a journey to the abyss of origins in order to discover the very essence of technology. Heidegger produces a genealogy of the word technology, tracing it to the Greek *technikon*, and *techne*, which he says is used for the activities and skills of the craftsman, as well as for the arts of the mind and the

fine arts. As such, says Heidegger, *techne* belongs to bringing-forth, to *poiesis*. Thus, *techne* is a mode of revealing; a knowing that is also a doing [2]. What is actually decisive in *techne* does not lie at all in making and manipulating or in the using of means, but rather in the revealing. It is as revealing, and not as manufacturing, that *techne* is a bringing-forth.

But the most essential point is that the concept of *techne* does not depend on art or craft or any technological products of our epoch; rather it comply with an advance knowledge and wisdom as an intuitional power to get hold of the present being-conjoining truth with reality. Therefore, thinking about the essence of technology that basically tries to conceal its identity from the domain of knowledge, is to go through the sphere of contemporary science that is originated from the past, looking into the future of civilizations for further developments.

So as the human dwells in a new epoch of technological advances, a transformation occurs in his environmental relations and spatial perception. This act of qualitative change relates to the essence of technology as a tendency to *transform* everything even a river to a standing reserve. Besides, the commanding-forth of technology is not primarily the environmentally degrading aspects of its technique, but rather the fact that technology involves the culture it is progressed in. The truth is that technological progress is never purely technical; the value of technological change is dependent upon its value for culture in general.

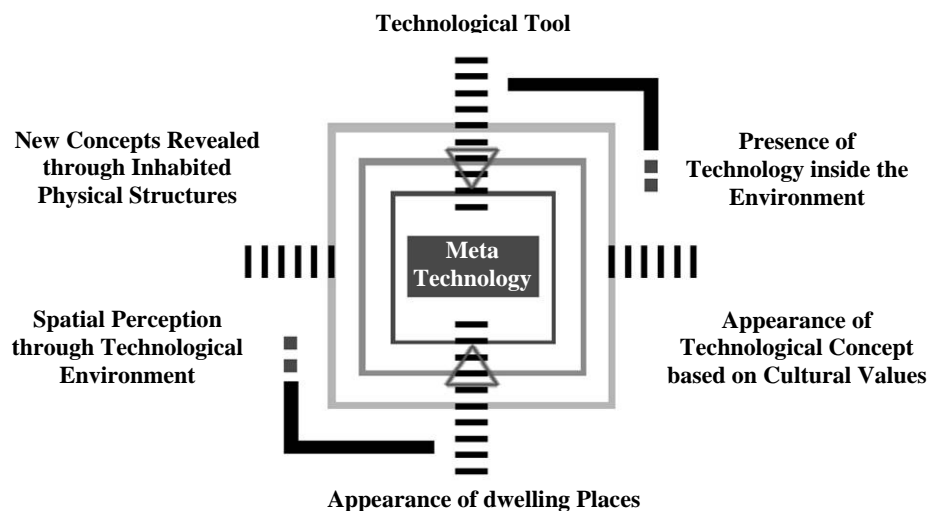


Fig.1 The progression of meta-technological tool

Therefore, man in the technological era is reborn in the environment in which he has brought forth. The environment then is a basis for generating meta-technology on the way towards devising new technological means. The man of meta-technology aspires to turn back to the context to be involved with interdisciplinary domains. He is seeking for the postmodern technology passing through pre-modern techniques and modern philosophy. He is then entering recurring sequences where the technological tool has moved into the natural environment. (Fig. 1)

Over continual, conceptual and physical events ascribed to the cultural domain, the dwelling places are appeared through which man's spatial perception is attained. As long as the physical structures are inhabited, new concepts are emerged by which

advanced technological tools lead their way to the real world. The mentioned process has a continual sustainability only if the essence of technology challenges constantly the interaction between cultural values and natural environment.

In this regard, the advanced culture might be gained through assembling, synthesizing, recreating or restoring what is thought to be the basic cultural values interrelated with environment. For instance, in a research city garden it is required to summon a group of researchers from diverse cultural background to assemble in an integrated environment. Moreover, in regional planning it's not sufficient to have the concept of a city garden; rather it's the culture that is decisive in its formation. Whenever the culture is present in an environment, the city garden has come to exist even in the middle of a desert. Gardens and the irrigation system, as natural artifacts, in harmony with economy and technology, as the virtual network of relations, tend to construct a framework in which the hidden patterns come to life. Tabas, Mahan and Bam are among the best examples of these Persian city gardens. (Fig. 2, 3)



Fig.2 The garden city of Mahan in the middle of the desert

Since the concept of the site and the principle of settlement are considered, the environment and culture become the essence of environmental design. It is through the assessment of physical relations, formal definition and interiorization of environmental complexity that technology comes to being.

Therefore, computerized soft wares, simulation methods or modeling systems as technological tools are not simply managed physically; but culture has an integral role in identifying layers of thought, concepts and meanings resulted in altering qualitative values to quantitative tools.



Fig.3 The city of Bam surrounded by gardens

In the era of meta-technology it is necessary to set off from the physical structure of the natural environment towards the depth of the internal relations. The mutual relation is then established through bridging the boundary between the knowledge of science and technology and the wisdom gained through the process of intuitional revealing. Therefore, technology and environment are the inner and outer existence of a phenomenon that is the dwelling places.

So as the world of percepts containing the individual objects, images and sensations of the inhabitant is totally dependent on the conceptual domain of cultural beliefs, notions and opinions, the essence of technology in the contemporary era is a way of revealing the unvarying images and concepts among those ever-changing ones.

5. Concluding remarks

One of the outcomes of information technology is the growing homogenization that is countered by accelerating fragmentation; people are brought increasingly together at the same time as they are driven apart. Then, bridges must be built among cultural resources, people's intelligence, their emotional experiences, their historical memories and their spiritual orientations. So as technology is a special way for communicating with other things, it projects as an intermediate space ready to channel information knowledge among these fields.

Consequently, nature and technology interrelate with each other as though they are inseparable entities. Then, nature as an internal identity and technology as an external agent lose their validity. Technology either being positive or challenging forth is present internally in nature waiting to be revealed through people's contemplation and cultivation.

6. References

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