1 Introduction

Spatial planning and time period are significant influences on the life of human beings. Space and time are abstract expressions, which first become concrete through the actions and feelings of humans. At the same time, the planned, constructed and shaped space also influenced man’s feelings and emotion. Time is a phenomenon which makes the results of human action readable and conscious. Consciousness of the self is grounded in human intelligence. Human culture, which has developed in several stages, is based on human being’s consciousness of multi-dimensionality, and the actions that result from this knowledge. Every new dimension of consciousness has caused a change in human activity. These causes, in turn, resulted in changes in the quality of culture.

The human being plans, constructs and shapes spaces with ideas, which are then demonstrated in society and culture. We are living in a society which is the result of social and cultural evolution over time. Through the process of this development, human beings have explored the third dimension, the perspective, rationale and logically-influenced dimension of consciousness. This dimension of consciousness dominates our culture and perception, and is the starting point for our life today, as influenced by the negotiation of nature and as part of human existence. With a sketch showing the meaning of space for human beings and its perception, I want to demonstrate a possibility how to solve crises in our culture. The possibility of the human being is to get back to the original, distinguishing and prevailing needs by exploring in a new, fourth dimension of consciousness.

Riverpark Kasachstan, 2008
2 Space

The term space
Art and architectural literature describes several different uses of the term space. In general and in abstract terms, the word space means a three-dimensional, non-material expansion. In concrete terms, the word space means something limited by objects. The objects surrounding the space allow different spaces to be compared and described.

Space as scope for development
Space as scope for development is an empty area, defined by the idea of ”emptiness”.

Ostbahnhof Danziger Platz, Frankfurt 2007

Landschaftspark Kasachstan, 2008
**Space as distance**
Space as distance is the relation between two objects, and their interconnection or lack thereof.

**Limited space**
Limited spaces are closed, protected spaces; the opposite of interior and exterior with existing limits. This space is recognized and defined by its limits.

**Space as form**
Space receives its form through its limits. According to state and density, “spaces” in between are created by the continuum of the space.

**Space and its perception**
The space and its three-dimensional connections are often not defined consciously, but the quality of these connections has positive and negative effects on the subjective human perception. The human being lives in spaces, where he projects his own personality. So, spaces are not only defined, they are also spaces in which to live. The experience of the space depends on the human, his or her perception and action. Spaces of perception are tangible.

**Human perception**
Human perception is the communication between the external nature of the physical world and the internal nature of the person. The environment that the person perceives appears first as a confused aggregation of different elements which have to be brought into connection. This connection is the consequence of the principles of order; the selection, the minimum, the emancipation and the habituation. The human being stores necessary survival knowledge and scales of estimation derived from the order and networks that he or she perceives in the world. The environment is not perceived in its totality, but rather after the principle of selection. The principle of balance and limitation against distractions do not harmonize with this internal order. The organism strives to perceive just the minimum of information necessary for survival in the environment. Thus, the image of the world is reduced to one dimension, which enables the perception of order.

Huangqishan City Park, Dongguan 2007  
Hafencity, Hamburg 2006
The perception of landscape as a picture constituted of nature is selected, interpreted and organized. The principle purports that, the more complex of a living being is, the higher its capacity to utilize information. The human being, as a highest order of organisms, is in the situation to be able to distinguish existential functional distinctions (like hot/cold) and also values (such as humidity 98%). Like HOIMAR VON DITFURTH (1976) describes, the habituation principle protects the person against the “chaotic drum fire of distractions”. Distractions are filtered by valence. Relevant, situation-specific perceptions are separated from permanently-available, subordinated distractions. The environment as a structural product can be understood and interpreted through the analysis of this principle. This art of interpretation is the basis for aesthetic perceptibility. Reaction to environmental distractions does not portray objects themselves, but rather the conditions of life. Perception and order are processed on a higher level of consciousness into a new, organized internally-conceived whole. The result is the final perception. Through its capacity for connection, the brain is able to judge things in advance. That means that the brain can take complete, incomplete or abstract objects and assemble them into the perception to a whole.

3 The perception of space

The perception of space depends on the sensory perception of the space by people. The person’s physiological conditions determine the quality and quantity of this perception. The most important sense for three-dimensional perception is vision. Human beings have the ability to see in three dimensions.
With his or her eyes, a human can perceive every object in his or her visual field. The person can furthermore interpret the visual perception of changes in perspective as changes in distance. Touch, smell, and hearing can also help in the definition and differentiation of spaces. These senses can perceive the sound of steps in a narrow street, changes in smell, or the changes of floor surfaces, for example.

The animated space

Human beings move in space. Humans use spaces to earn (the field), to supply (the market), and to relax and for entertainment (the park). In this way, the human beings actively use space. The space assumes character dependent on its use. The space is determined and structured depending on how the human being behaves in and uses the space. The market, for example, is differentiated from other spaces because of the special function that it performs. A place can be changed totally by the presence of people, as well as their action & behaviour in the space. For example, consider a football stadium before, during, and after the game. Through the temporal succession of human actions in a space, this rhythm becomes, as regarded over a longer period of time, history.

The space as a mood

Every space has a mood that defines the atmosphere felt there. The figurative and animated space or, in other words, the form and content of the space, affect the human being. People link memories, expectations and associations to spaces. Each human being has particular spaces that they love and hate, independent of other spatial features, because of these
memories, expectations & associations. These spaces can be defined as “lived” space. In lived space, you can manufacture mental or personal relationships.

The structure of municipal engineering

Municipal engineering involves creating the spatial structure of a town by choosing and positioning objects. Municipal engineering offers proposals for the organisation and formation of human living space. The city is our “socially-technical biota”. Every municipal engineering project is based on an ideal, an objective. An overarching style has not existed for a long time, despite the fact that a variety of ideals have been entertained. Through discussions about catastrophic social circumstances, an image of a city which deals with the emotional needs of every inhabitant was developed. This extension ended in the functionalised city of the post-war period. ALEXANDER MITSCERLICH (1965), however, strongly disagreed with this idea: he stated that the perfectly-functional buildings of the city are inhospitable. They don’t offer a suitable home; it is no homeland.

Places with characteristics – the concept of home

The term home has many meanings. In the 19th century, the term home was used primarily in a politically-right context. But, within the context of the development of the first political construction programs, it became synonymous with relief of the needs of the proletariat; their moral stabilisation, linking, and being set into a social background. Home, as a term, can be an expression for feelings like security, but also for narrowness and provinciality. Home has a temporal dimension. It is the place where the person comes from (past), but also where one lives today (present). Home is connected with the term place. This place is
“our little world”. The human being perceives this place as correct and good. Here the person has roots. At this domestic place, there are both familiar and foreign elements. This place signifies provides private territory, but also publicness and anonymity. Here the estimate of the development of the personal needs can be found. This interaction of familiar and foreign elements has to be sensual perceived. The balance of these familiar and foreign elements is a defining quality of home.

Places without symbols, which lack structure or defining characteristics, which offer no orientation or anchorage, can be described as non-places. They are interchangeable. These places are neither recognizably foreign nor recognizably familiar. Therefore our demand should be that we need places with character, spaces that make clear statements, and which address our senses. The place and the space have to be distinguishable from other places and spaces. They must show signs and features with which they offer a feeling of homeland. Municipal engineering can offer the most important features that contribute spatial impressions: the silhouette, room structure, graduation and interaction, development of space by built form and vegetation, proportions of space, all of which are defined by type of limitation, compactness, and transparency. Surface type influences a space’s atmosphere, by materials, texture and colour, as well as contact between that surface and other surfaces, such as plant material, stone, and water.

Cultural Square, Shanghai 2004
Software Park, Dalian 2004

RTW, Warschau 2007
Riverpark Changchu, 2005

Places with references
Places must have the ability to be referenced. A person says: “My flat is in my street, in my district, in my city.” The integration of a district of a city into its surrounding environment, its link to the city as a whole, has to be made clear in formal terms. A portion of a city
district’s identity, for example, is derived from the fact that it is part of the city. The city has to find a formal language for defining its character that can be translated respectively in each district. But, the other way around, the quarter is part of the city by creating typical space-related characteristics. These typical space-related shapes can be created without copying, through incorporation of existing structural features. New spaces can incorporate & reference the history of the place, but they should also reflect the present situation.

4  Culture, consciousness, and contemporary period

Culture
The human being lives, acts and experiences life in his or her society and culture. The planning and constructing of spaces and places must create the possibility for the expression of these cultural needs. Culture comes as a result of the interaction between human beings and the environment. Human communities developed originally from the need for interdependence for the maximization of subsistence & procreation possibilities. Culture developed from the communities through the interaction of humans with one another. This intellectual and material progress, as well as the formation of the ethics over the course of these development steps, describes the history of our culture. Goethe designates culture as the stamped form, that develops living.”

Three constant elements of modern culture that can be found in oriental theory include:
1st  View of life as religion and philosophy
2nd  Science
3rd  Art

The ethical, logical and the aesthetic conscience are instances of cultural development. They are the essence for the cultural process that consists of single achievements like human and intellectual work.

Consciousness
To grasp the structure of the consciousness of a primitive human being requires lots of imagination. Gebser describes this consciousness as one-dimensional, and we understand it as a status similar to sleeping. Later development led to the ability to conceive of things in two dimensions. Human beings still did not yet have the ability to grasp the third dimension and describe space. Their view of life was pictographic; the pictures were myths. Each human being of the collective thought in terms of “we” and did not know the term “I”.

The philosophers of the later age began to think about the idea of even more dimensions. The ideas of Gebser, who conceived the idea of four dimensions, are not purely theoretical. Instead, they address phenomena that have been discussed and addressed since the beginning of this century. Einstein, Freud, Jung, Planck and Heisenberg are among the most important thinkers in this field.
Spirit of the age
Cultural decay appears in all fields. We notice destructiveness in all art forms, in religion and in the common person’s view of life. Our view of life creates spiritual and ethical ideals. It creates and forms ideas of culture. The human being acts on these ideas of culture, thereby creating the spirit of the age. Despite the fact that the spirit of the age seems to be a modern phenomenon, it is an important component of every culture. Time and spirit are combined into an historical characteristic, which changes with the context of time.

Every society develops a picture of the world through its actions on and within the environment in which it is located. The roots of this image lie in the unconscious portrayal of the human spirit. This spirit is developed through the interaction of a person’s words and actions with current cultural influences. The spirit of the age is the instrument through which reality is established. The spirit is developed through discussion and interaction of acknowledged authorities like politicians, scientists or artists into a plausible and logical norm. Through it, the reality of a person steps into light. Through changes in the spirit of an age, like, for example, the introduction of a new culture into a person’s own culture, society and people are changed as well. The current age of spirit engenders completing tasks with more content in shorter times, thereby trading calm for further cultural development and modernity. Science and art, which have no ethical superstructure and which degenerate the end-in-itself, seem to be responsible for that. They have lost the key for the culture.
As a result, now almost no one will be able to follow the fast paced change in the spirit of our current age. For this reason, humans have a lack of perspective. The typical human being suffers from a pathologic distraction based on his higher sense of orientation – the sense of direction has been lost. What follows are chaotic states as a negative response to the question of the meaning of life. The searching for the meaning has come up short. Therefore, we are living in a period with a low level, urgent need for cultural regeneration. Ethics should be the constituting element for the regeneration for our culture and spirituality. This is the only way to reach the fourth dimension

5 Japanese gardens

More than 3000 years ago the way to the forth dimension has been taken by the East Asian culture. I will try to explain their effects by the example of the Japanese garden. The East Asian philosophy has been influenced by the TAO, the law of cause and effect, coming up and passing; this is expressed in the garden as balance of contrasts, rhythm and harmony. The garden is a three-dimensional picture that gets vivid through a certain spiritual charisma. The garden wants to produce, not reflect atmosphere. The visitor should get a deeper understanding for nature, by recognizing the huge in the small and the small in the huge. Sun, stones, water and plants are connected as harmonic contrasts. By this process the garden becomes a vivid organism. Strange and bizarre forms of plants accord to human characters. Fluttering branches are signs for wandering thoughts; rounded paths and bridges in zigzag forms are forcing to walk slowly and to look at the garden. The inspection of the garden should lead to an inner relationship between human beings and the spirit of the garden. The human being gets part of the garden and feels its existence, and recognizes the worth of every living. The garden provides a feeling of silence; its atmosphere catches the visitor. The garden shows Shinto’s view of life regarding the trust and fear of the origin. This can also be seen by regarding the strict rules for the construction of a garden, where only special plants can be used, where small rivers and paths can only be placed in special directions to symbolise the existence of human beings, its connection to nature and its life in nature. Balance and harmony of motives of the nature are the aesthetic secrets of the Japanese art of gardening. The human being is searching the nature, which is expressed in the garden by the isolation, the deep, sensitive and melancholic way of art. The simple is connected with the matured, which was created by usage. The garden is simple and monochrome. The new and shiny is excluded. The powerful symbols of the nature express
in their external form the internal, the important as economical suggested. The viewer can choose the final, the inner interpretation of a sign. Here the integral consciousness, the forth dimension becomes reality. By broadening its horizon in the year 1867 view of life is getting less in the japans’ conscious. Japan tries to follow the technocratic epoch, from nature to the three-dimensional, rational world. This also influences the design of public spaces like parks and others.

Sophien Terrassen, Hamburg 2007

Hirschgarten, Erfurt 2007
Point of view: Where does our future lie?

Maybe our future lies in the hugeness of a "virtual world", in which humans’ consciousness is shrinking to the possibilities of their computers. The resting in front of the screen reduces the need for movement, impressions of senses, as well as the experience and the acting in space and time. Essential contrasts, asymmetry is being replaced by the cold and always correct logic of the computer. The destroyed nature is being replaced by digital realities. Loss is compensated by fake impulses, like the real one? Is the imaginary meaning more important? The complex skills of consciousness are reduced. Consciousness means to see, the harmony of senses gets lost. Is everything possible, if you just do it? Speed, consume and selective science influence our society today. Superficiality replaces deepness. In these "new" possibilities the user is searching for leading images. But the user lost its sense of orientation and it will never find them. Here, a kind of resignation, that does not accept ideas of moral any more, can appear. The resigned spirit does not ask any more questions. It is not anymore interested in enlightenment. It knows the consequences of its actions, but it cannot change them, because it joins the apparently irrevocable and escapes this knowledge by joining its dream of escape. It’s not the time for resignation. We are responsible for our present and contribute decisively for our future. We have to learn to see our culture as a whole thing, how it has developed from a one to a three- dimensionality, linear, rational- geometric, consequent, of the natural principles and not of an aesthetic-ethnical conscious. We live in a time of upheaval and we should ask whether, we want to harden in the third dimension or if we have the courage and the endurance to do intellectual work to step up to the truly lived fourth dimension. And that we think about our needs and that we are able to define them in a new way to be ready for future, which has to be planed. The expansion of our consciousness, the entire of human beings and nature, the transparency of the origin, present and future as well as the time as intensity can help us during this process.

References


Additional readings

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