

# THE NATURAL AND THE CONSTRUCTED ENVIRONMENT AS EDUCATORS OF THE CHILD: PAST, PRESENT AND FUTURE

1. THE ROLE OF THE NATURAL AND THE CONSTRUCTED ENVIRONMENT IN THE EVOLUTION OF THE CONSCIOUSNESS OF MANKIND: A CULTURAL- ANTHROPOLOGICAL ARGUMENT (BASED ON THE WORKS OF ERNST EGLI AND JEAN GEBSER)

## *Methodological introduction*

The following reflections are based on the relationship between man and the elements of his natural environment, such as landscape, plants animals and fellow human beings, on one side, and his constructed environment such as dwellings, temples and towns on the other. As I am primarily an architect and planner, the method of my approach follows more the process of designing a complex building, with horizontal and vertical sections, than the logical, scientific and systematic analysis of these relationships. I have noticed that the term “architecture” is beginning to appear more and more in the vocabulary of other disciplines: for instance, when businessmen describe a new model of organization or lawyers talk about the structure of a new law. Whereas I use the term “architecture” in its usual sense, I prefer to use the term “architectonic” in reference to a complex, multi-dimensional topic in the sense introduced by Kant in the *Transcendental Doctrine of Method* in his *Critique of Pure Reason* (A 832 / B 860)<sup>1</sup>.

## **1.1 Emil Egli’s History of Urban Construction (diagram 1)**

The late architect and historian of urban construction Ernst Egli, professor at the Federal Technical Institute of Zurich in the 1950’s, attempted an overview on the evolution of the various forms of living - expressed by “professions” in relationship to the forms of dwellings and cities - in his *History of Urban Construction* (*Geschichte des Städtebaus*) 1959<sup>2</sup>. His diagram distinguishes between a right and a left side emerging from a central axis. The left side is characterised by the domination of a few men who had a special position of spiritual (located on the extreme left) and/or secular leadership (located on the inner left). On the extreme right side we find the most common professions, the communal areas and private buildings. The trader and merchants are, together with the farmers, on the inner right side.

Egli notes two strong disruptions along the axis of time: one around 5’000 B.C.E, which marks the beginning of settlements and greater diversification, and one around the beginning of the Common Era.

## **1.2 Jean Gebser’s steps of consciousness in comparison with Emil Egli’s *History of Urban Construction***

I have tried to equate the five qualitative steps in the evolution of human consciousness, as defined by Jean Gebser between 1947 and 1952<sup>3</sup>, with the most important steps in Emil Egli’s *History of Urban Construction*.

### **1.2.1 An overview of the five steps and qualities of consciousness (diagram 2)**

Gebser’s first stage of consciousness is comparable with the deep sleep phase and referred to as “archaic”. This timeless way of being is dominated by the senses of touch and taste, and finds its architectural representation in the round and closed cave or nest.

The second step of consciousness, comparable with the nocturnal dream phase, is called the “magical”. In this stage, the concentrated will of the individual is focused upon ritual activities which are often accompanied by drums and dance. These typically entrancing movements often provoke ecstatic emotions. The dominant senses are those of movement and smell. Architectonically, the magical consciousness is typically represented by lines and rings or circles of megaliths on special places of energy in the landscape.

Gebser refers to the third stage of consciousness, compared with day-dreaming, the “mythical”. In this stage, the polarity and equilibrium of feelings follow the cyclical rhythms of the day, the month and the year, which are in turn strengthened through myths and the performance of correlating rituals. The important organ is the ear with its senses of hearing and equilibrium. The architectonical representations of this stage are transitional spaces, intervals

and proportions, the sequence and location of entrances and indoor qualities like atmosphere and acoustics.

The nature of the fourth stage of consciousness is “mental-rational”, comparable with the full waking state and related to a “detached” mode of thought. The dominating organs are the cerebrum and the eye, the dominating sense is that of vision. In this stage, space, as an abstract three-dimensional construct, emerges along with the notion of the importance and value of the individual. The architectural element corresponding to this awakening of ego-consciousness – with its subsequent ordering of the world around itself as the centre - is the dome. The architectural concept of “axis”, especially as it is found in the outdoor spaces of towns and palaces like parks and avenues leading to the visual experience of perspectives.

The fifth state of consciousness Gebser calls the “integral”. The awareness, the evaluation and the careful application of the other four stages are the heart of the integral consciousness. Instead of a singular perspective (one’s own), typical of the mental-rational stage, there is a sympathetic awareness of the variability of perspectives.

### **1.2.2 A comparison of the dates of the major disruptions**

Following Gebser and newer archaeological findings, I date the first major disruption to the Palaeolithic time at around 15,000 B.C.E. which marks, in the Eastern Mediterranean, a transition from archaic into magical consciousness. In Christian mythology it is represented by the fall of man and the expulsion of the paradisiacal Garden of Eden. The time around 1,500 C.E. marks the definite transition from the mythic consciousness to the mental-rational in central Europe. Of course, we can find very clear manifestations of mental-rational consciousness 1’500 years earlier - for example in the strictly perpendicular road systems in the towns and countryside of the Roman Empire as well as in non-physical systems like Roman law. And it is also true that Greek philosophy and Christianity prepared the way for the birth of self-reliant individuality. But it needed another 1500 years until, in the time of the Renaissance, the mental-rational consciousness broke irrevocably through.

Gebser, through an analysis of paintings of the early Crete Minoic period situates the transformation from magical to mythical consciousness as taking place between the end of the Neolithic and the beginning of the Copper Age. This disruption, missing in Egli’s diagram, is quite important for the main subject of this essay because it marks the transition from the matriarchic to the patriarchal structured cultures. I will discuss this point further below. Nevertheless, precise dates are in this context of less importance and are relative to the local and global contexts.

Egli places three question marks on the future of the metropolis and the agglomerations as if he felt that another strong disruption must occur, to be followed by deep and radical transformations. Gebser maintains, and in my opinion successfully proves, that the transformation from mental-rational consciousness to integral and multi-perspective consciousness has already begun in an increasing number of individuals and should lead us to a global and radical change of attitude.

### **1.3 The relationship between Nature, man and his constructive environment in the past**

When we consider, with Gebser’s concepts in mind, the basic question as to the role of Nature and the constructive environment in the education of man, we can summarize that the leading countries of today have moved from a state of unity with Nature in the archaic, to one of cooperation and interaction in the magical, to one of emancipation and extended transformation in the mythical, and to one of separation, deconstruction and finally destruction of Nature in the mental-rational Age of the present day.

#### **1.3.1 The missing type and importance of the necropolis**

Looking to this diagram now, fifty years later, two points seem to me to be in need of criticism: The first is that Egli, as a specialist in the history and typology of human settlements, doesn’t mention the necropolis in spite of the fact that the excavations of the necropolis of Sakkara in Egypt took place fifty years prior of the publication of his work. I can only under-

stand this lack as a result of the general taboo surrounding death in western societies, as a kind of “blind spot” in Egli’s perception.

My own approach to the history of architecture is with emphasis on the polarity of birth and death with their respective processes of “incarnation” and “excarination”.<sup>4</sup> I refer to Otto Bollnow’s book *Man and Space* (Mensch und Raum)<sup>5</sup>, which advocates the introduction of these theological notions into the field of anthropology. Every day, a little birth and a little death take place – for example, with the rising and the setting of the sun or the awakening and falling asleep it entails. Other kinds of “deaths” happen in the course of our lives: when we lose a loved one, such as a parent or friend; when we have a grave accident or illness; when we fall victim to a psychological crisis or loss of meaning. During the process of recovering from these low phases, as the pleasure and forces of life return, we can experience another kind of birth, a rebirth. On the larger, temporal scale, we can also talk about birth, death and re-birth in the rise and fall of a civilization. The disruptions in the evolution of man are initiated by a kind of death of one well familiar and intimate stage of consciousness and the birth of an unknown and frightening one. Overlooking this cycle of birth, death and rebirth, it is not surprising that the German palaeontologist Max Raphael concludes in his book *The Magic of Rebirth in Neolithic, to the history of Religion and Symbols* (Wiedergeburtsmagie in der Altsteinzeit, zur Geschichte der Religion und Symbole)<sup>6</sup> that, of the various spiritual notions of the Neolithic, the belief in rebirth turns out to be the most resilient of all. (As a convinced materialist and communist, Raphael uses instead of “belief” the term of “ideology”.)

Returning briefly to Egli’s diagram, I find that a further, vital distinction needs to be made: that between the profession of the master-builder – which I place on the right side of the diagram near the craftsmen – and that of the architect – which I place on the left side near the priest. I concur with Egli in his distinction between a right and a left side as beginning with the basic concepts of “nest” and “cave”, with the single addition of “grave” beside its kindred notion “cave”.

### **1.3.2 The missing gender-aspect of Egli’s diagram (diagrams 1 B & 3)**

The second point I would like to highlight is the gender-aspect of this diagram. In the German original of fifty years ago, it would seem as though the professional world had always been and would always be strictly masculine. When a girl or young woman of the present day studying architecture looks at this diagram with the original German terminology, she must feel completely excluded from the active professional world.

So I redesigned and reformulated this diagram in German from a woman’s point of view, which, in itself, was not really difficult. It is obvious that far fewer women in historical times stood on the left side – on the side of power and dominance. I also tried a gender transformation in English, which is much less dramatic, due to the fact that English distinguishes between masculine and feminine professions much less than the German (see diagram 1B).

Let us then try to characterize the five steps of evolution with respect to gender on diagram 3:

Starting in the archaic age we can see that there was a continual struggle of all mankind in the face of the overwhelming forces of Nature on one hand, and a deep sense of unity towards the Gods and a spiritually alive and creative Nature on the other.

In the magical period some individuals (left side) played a superior role, cooperating through many kinds of magical practices with Gods and interacting with Nature. Some used this power to dominate their respective groups (left side). Over time, some of the undertakings of these spiritual leaders became common cultural practices of whole groups. By the domestication of wild animals they made a first important step toward emancipation from Nature. Until this time, the cultures had been dominated by matriarchic systems, which are for obvious reasons more related to Nature as their patriarchal counterparts.

In the mythic period man started to emancipate himself from Nature with a greater efficacy and success by cultivating plants and developing techniques of food preservation. In regards to this period one could speak of cooperation without domination neither of man over Nature

nor of Nature over man. During this time a great part of the natural landscapes all over the world were transformed into the cultural landscapes worthy of our admiration today.

In the last period, the “Modern Age” since the Renaissance, man started to study, to understand, to control and to reproduce the chemical and physical forces taking place in all natural processes which gave him the dominant position in the world, a position, which had been previously held by Nature and the Gods.

Looking back over the entire span of time, it can be noted that the cultures and their respective social and spatial systems have been, since the beginning of the Copper Age, more and more patriarchal in structure. So the most important change I would make to this diagram would be to shift the habitat of the metropolis and agglomeration from the right, the “nest-side” to the left, the “cave-“ and “grave-side”.

If mankind has a future on this planet, we must radically transform our educational, economic and political systems from the dominant forms and orders of the left side to the cooperative forms and orders of the right side. The supreme teacher of concrete cooperative and sustainable systems is Nature, with its all-inclusive science, ecology. For example, instead of our “technicised” agriculture, we need new concepts of cooperation between Nature, man and his constructive environment, to be found in the general direction of “permaculture”. Periodic inquiries made in Germany with children of different ages show that, consistently since the 1980’s, the fear of the destruction of Nature and our environment by mankind is three times higher than the fear of catastrophes provoked by Nature such as earthquakes<sup>7</sup>. It may be that for a while at least, the tsunami-catastrophe of December 2004 will change this state of affairs. The initial worldwide shock and consequent compassion gave me hope that adults around the world take this as an opportunity to change their attitude towards Nature - not to one of fear and trepidation, but one of renewed respect and interest. We need a reevaluation of traditional forms of farming – for example, by paying fair prices or by supporting projects like the educational project “School on a Farm”, which I will briefly discuss at the end of my presentation.

## 2. THE STRUCTURAL RELATIONSHIP BETWEEN MAN AND NATURE: A STATIC MODEL OF MAN AS A REPRESENTATION OF THE “KINGDOMS” OF NATURE (DIAGRAM 4)

If we categorize Nature according to its basic elements, we can distinguish between nine “kingdoms” or “systems”. If we assume that man has evolved analogously to his environment, it is justified to distinguish a corresponding set of nine elements or systems within man. The ancient hermetic law of correspondence reads: “As above, so below; as below, so above.”

### **2.1 Man as a universe in himself (microcosm)**

In analogy to the “atomic systems” in the environment, man has an energetic system, which I prefer to refer to as his “energetic-body”. Ancient Chinese Medicine, for example, is founded upon an extensive knowledge of this “energetic-body”.

The mineral kingdom corresponds to the material body, specifically the skeleton, but also to all the other material systems of our body.

The plant-kingdom corresponds to the “ethereal body”, a concept which refers to the totality of the subtle centres which channel the dynamic life-processes of the material body, and which stands in close relationship to the activity of respiration, a fundamental characteristic of all organic plant life.

The animal kingdom corresponds to the “astral body”, referring to the centre of all our psychological processes – in short, of our soul.

### **2.2 The central position of man as an individual**

Man as the fifth kingdom in Nature stands in the middle of this diagram as the central meeting and crossing point of microcosm and macrocosm. This central position, on the microcosmic scale, corresponds to the self-organization of an individual as “I”. There are two categories of

notions: The notion “I” is one category and all the other notions belong to the other category. The notion “I” is the only one which is by definition not sharable with other individuals. If I say “I” it has a completely different meaning as when you or another individual says “I”. From this point of view, man becomes capable of understanding and realising himself as a universe – a microcosm. Yet, far from arguing for an egocentric view of the world, I contend that the individual self-organization – the “I” – has completed only half of its intended journey towards an integral relation to its environment.

### **2.3 Man as a point in universe (macrocosm)**

At this fifth system, that of man as an individual, most of the static models end. As this seems to me incomplete, I introduce here four further systems of Nature and, analogically, four further systems of man:

In accordance to the communal systems of different groups of plants and animals, I propose the notion of a “Communal Self”. This concept is supported by the fact that, in spite of the large number of varying family-models, it seems that the common core is an intimate sphere as experienced within the couple (the singular “you”) and the small, inner circle of friends and family (“we”). The different types of and the changes to dwellings worldwide can be interpreted as a physical representation or panoptical embodiment of the various forms of what I refer to as the “Communal Self”. In more recent times the beginning of the feeling of intimacy with its need of special demarcation (i.e. bedroom) is a condition of man as an individual. To this last point I refer to Virginia Woolf and her famous 1928 lectures under the title “A Room of One’s Own”<sup>8</sup>.

The next set of systems in Nature is the ecological, the eco-systems, including selected elements of all the preceding kingdoms and systems. In reference to man, I propose the notion of a “Social Self” in analogy to the term “the societies of plants”. This Self includes not only the systems of larger groups of people, like a nation, an army or a race - represented by the constructive environment of different types of town - but also all the phenomena of less organized, temporary masses in sports arenas, in concert halls and so on. The introduction and distinction of something like a “Social Self” is supported by the philosophical work of Elias Canetti *Mass and Might* (Masse und Macht)<sup>9</sup>. With the distinction of the three Selves Individual, Communal and Social Self, I feel supported by Peter Sloterdijk’s recently completed *Spheres* (Sphären)<sup>10</sup>.

The next system is comprised of earth as a whole and, in my understanding, as a highly differentiated organism – a being with fields and points of diverse forces. That’s why I refer to it as “Gaia”. Earth has, in addition to the classical elements water, air, fire, and earth (including humus and the Chinese element of wood), its own dynamic forces. That in elder times priests could feel and interpret the elemental forces of the Earth and, apparently, some dowisers can still do it today, leads me to postulate an “Elementary” or an “Earth-Self” as another system of man.

Finally all the planets, stars and galaxies form the cosmic system – the universe. Accordingly I postulate as a ninth system of man a “Cosmic Self”, which serves as the base of communication with ideas, spirits and Gods, the domain of the universe.

### **2.4 The matrix, as a system of orientation**

I understand this matrix as a system of orientation towards a deeper understanding of the main phases of life with its different stages and structures of consciousness, of the localisation of important general orders and laws, the arts, the sciences and so on. The biographical aspect leads us to the third part and to main topic of this presentation:

3. THE IMPORTANCE OF NATURE IN THE INDIVIDUAL DEVELOPMENT OF A CHILD: A PHYSIO-PSYCHOLOGICAL ARGUMENT (BASED ON ERNST HAECKEL, FREDERIK ADAMA VAN SCHELLEN AND JOSEPH CHILTON PEARCE)

### **3.1 The basic Law of Biogenetics**

The German biologist Ernest Haeckel, inspired by Charles Darwin, showed that all individuals, in a certain way and in a very condensed time, repeat all the stages of evolution proceeding their own. His basic Law of Biogenetics (1866) states that all living beings pass through stages of development resembling their ancestors. Recent neurobiological experiments lead to the conclusion that elements of these early stages reside throughout all the following transformations. Following this chain of thought, Joseph Chilton Pearce, the wonderful American teacher and inspired scientist – and for me one of the most important mentors of our days – speaks for example of the “reptile-brain” of men<sup>11</sup>, the oldest and smallest part of our brain, which leads our most instinctive and non-reflected processes.

### **3.2 The application of the principle of the Law of Biogenetics upon the stages of the transformation of consciousness**

Like Van Schelten showed already in 1937<sup>12</sup>, I am also convinced that, in analogy to Haeckel’s Law of Biogenetics, we can postulate that every child follows generally the same transformations of consciousness through which their ancestors have passed. Using the terms of Gebser, we in modern societies all pass through an archaic, a magical, a mystical and a mental-rational stage of consciousness from the time of early childhood until we adulthood. Pearce develops and supports this concept in his two books *The Crack in the Cosmic Egg* and *The Magical Child*<sup>13</sup>. The title of the former underlines his conviction that most of our biographies start with the traumatic experiences of the mental-rational view of educators (including parents) and their devaluation through more or less violent acts of the way children try to explore and to maintain a living and creative connection with the cosmic in the world through doing, dreaming, and various forms of what we refer to as simply “playing”. If one takes this hypothesis as a starting point, it not only enables a great and new vision but also reveals the needs for a thorough reevaluation of the educational process including how and where it takes place. Pearce for instance experienced that he could help urban young people suffering from depression and the loss of all sense of security and self-reliance by teaching them some basic abilities and techniques to survive in Nature as mankind did thousands of years ago. He placed emphasis on building a comprehensive and emotionally intense relationship with the stars, the elements, as well as the plant- and animal-kingdoms. I suspect, and I am not alone with this suspicion, that the ability to “recall” these techniques and relationships will become more and more difficult for children who grow up in a metropolitan surrounding, completely controlled by rational and functional systems, invented, shaped and produced by human beings, and by virtual realities designed for the kids of the “Teletubbi-generation”. Schools indoctrinate our youth as early as possible in the mental-rational constructions of our economical and social urban areas and still we wonder why the pillars of innovation – creative potency and fantasy – in almost all small children doesn’t appear or gets lost in the first years of school. With increasing frequency we see children who need therapies because they show serious symptoms of psychological decease. In the public primary school of Zurich about 50 % of the pupils need at least once during their education regular assistance and/or therapy<sup>14</sup>.

### **3.3 The parabola as a symbol of the steps of the transformation of consciousness (diagram 5)**

The stages in the evolution of human consciousness seemed until now to be something which begins at zero and goes, in spite of being disrupted between one stage and the next, higher and higher until a “cosmic infinity”. In fact, the process of incarnation – the association or even the connection with the material world – also means a gradual loss of unity and communion with the spiritual origins and cosmic consciousness of mankind and early childhood respectively. That’s why I have turned the first four stages of consciousness upside down and used the parabola as a symbol for the evolution of consciousness in the course of life. The turning point is in the mental-rational stage, where our current Western capitalistic civilisation is situated. With an increase in integral consciousness – with the outgrowth of the mental-rational and its subsequent transformation in another stage of consciousness – we can trace the way back to our spiritual origins and also, stage by stage, gain the key to a new understanding and cooperation with Nature.

## **4. SUMMARY AND CONCLUSIONS**

- 1) In the evolution of man, Nature and the Gods of the natural order were the dominating and the most important reference systems for men. It has only been a few centuries since the constructive environments started to take over this role for an increasing number of people.
- 2) Because man has always been a part of Nature, and because his evolution has taken place over millions of years, inseparably connected with the evolution of the universe and the Earth, the differentiated structure of the world as our macrocosms finds its close analogy in a microcosmic structure of man. As a working hypothesis I propose the inclusion of four more aspects of the Self, i.e. Communal, Social, Elemental and Cosmic Self, which transcend the ego, i.e. the Individual Self.
- 3) It seems that human beings are not born with at most contemporary stage of consciousness – that of their parents and their surrounding culture – but instead pass through the all the precedent stages of consciousness, i.e. archaic, magical, mythical and mental-rational, during childhood.
- 4) We can conclude, based on the three preceding points, that natural and constructed environments with strong interaction with Nature are fundamentally the most responsive interface to accommodate the steps from the archaic through the magical and the mystical to the mental-rational\* stage and structure of consciousness.

\*On this level at the age of about 15-16 the transition to the abstract and functional systems of a modern city can be mastered by a young man or woman with the abilities and self-confidence necessary. This is also an explanation for the fact that most young couples – at the latest when the second child arrives – want to abandon the cities and look for a house to call their own on the countryside where they can move around freely, despite the lengthened daily commute. Obviously they give the highest priority to seeking and obtaining the best conditions for the growth and development – ultimately the incarnation – of their children. I know that Switzerland is a well privileged country many small towns, an efficient and extensive public transport-system, relatively short distances to natural landscapes and a very high average income. In a metropolis with extensive industrial and suburban districts where space and Nature is a rare and expensive resource, I advocate the installation of “islands of nature”, a special kind of park, in direct contact with elementary schools. I read recently that in Mexico City prototypes of this new kind of park were being realised. In addition, I see potential for a new educational role to be played by selected farms and farmers, forest rangers and gamekeepers. For some of them such a chance could mean their survival.

## 5. CURRENTLY ENCOURAGING EXAMPLES IN SWITZERLAND

I don't want to end my presentation without telling you about three encouraging projects from my country. Despite of the relatively privileged situation there are quite astonishing projects taking place in the direction of integrating Nature and natural environments into education.

### 5.1 The toy-less kindergarten in the forest

In at least eight regions of Switzerland there are so-called “forest kindergartens” without the traditional classrooms and toys. In warm and cold seasons alike, the group walks from a meeting place – sometimes in a house like in this picture (see picture collection 1); in this case a home for blind people – to the nearest forest, where they spend either a whole or a half-day. The weather and the temperature is not the deciding factor as to whether to go out or to stay indoors, but rather only to decide what kind of clothes the children are to wear. They all have a small backpack with some food and clothes with them. They don't have any play or learning toys with them! The forest gives them all they need.

Forest kindergartens, first founded in Scandinavia, have become something of a trend and now can be found in almost all European countries. On a German website you can find more than 400 addresses from Germany alone! So, it is no longer necessary to speak of a pilot project, but rather of a real and powerful movement!

### 5.2 School on a farm

This project is made possible by an intensive cooperation between private farming federations and public education institutions. Interested teachers are offered to stay and work in an agreed upon rhythm on a farm. Farmers who are motivated and have undertaken special pedagogical training and can make the necessary accommodations on their farm pick up the pupils in the early morning at the nearest train or bus station. The group of children is accompanied by a teacher and one or two parents. Before the actual visit, a double-preparation takes place: first by the teachers and the farmers and second by the students. After the project, teachers and farmers meet for a careful oral and written evaluation. The farmer gets about 300 SFr. a day, which is quite interesting, compared with his significantly lower income through traditional farming.

### **5.3 School-practicum in forestry**

When students reach the age of puberty, some forestry rangers offer practicum courses for classes. This needs, because of the safety and insurance issues, more experience as well as more adequate professional equipment on the part of the rangers as compared to the farmers.

Fulfilling the need of exploring and adventuring, these practical courses are mostly in well selected areas in the alpine regions. They are organised in the form of camps of at least one or, optimally, two weeks. Often these camps culminate - as a kind of initiation - by climbing one of the twenty highest mountains of Switzerland at over 4000 m above sea level.

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<sup>1</sup> Kant, Immanuel, Kritik der reinen Vernunft, Königsfeld, 1781

<sup>2</sup> Ernst, Ernst Arnold, Geschichte des Städtebaus, Band I, Zürich 1959

<sup>3</sup> Gebser, Jean, Ursprung und Gegenwart (The Ever Present Origine), Stuttgart, 1949/53, revised 1965

<sup>4</sup> Maurer, Urs, Geburt und Tod als Inspirationsquelle in der abendländischenn Architektur, (Birth and Death as two Polar Sources of Inspiration in the Western Architecture, Zürich, 2001

<sup>5</sup> Bollnow, Otto Friedrich, Stuttgart 1963

<sup>6</sup> Raphael, Max, Wiedergeburtsmagie in der Altsteinzeit, zur Geschichte der Religion und religiöser Symbole, Frankfurt, 1978

<sup>7</sup> Gebhard, Ulrich, Kind und Natur, Die Bedeutung der Natur für die psychische Entwicklung (Child and Nature, The Meaning of Nature for the Psychic Developpement), Wiesbaden 2001

<sup>8</sup> Woolf , Virginia, A Room for Onc'e Own", London 1929

<sup>9</sup> Canetti, Elias, Masse und Macht, Düsseldorf 1960

<sup>10</sup> Sloterdijk, Peter, Sphären I-III, Frankfurt am Main, 1998, 99,2004

<sup>7</sup> Pearce, Joseph Chilton, Evolution's End, San Francisco, 1992; translated in German: Der nächste Schritt der Menschheit, Freiamt, 1994

<sup>12</sup> Van Schelten, Frederik Adama, „Die Geistige Wiederholung“, Der Weg des Einzelnen und seiner Ahnen, Bern, 1937 and 1952

<sup>13</sup> Pearce, Joseph Chilton, The Crack in the Cosmic Egg, New York 1971; Magical Child, New York 1985  
German Edition: Die Magische Welt des Kindes, Düsseldorf 1978

<sup>14</sup> Furrer, Zwicker, Neue Zürcher Zeitung (New Newspaper of Zurich), 20. Dec.2004