Apparently all thinking processes happen in two different ways. Each is claimed to be the only way in which thought processes occur in science, arts and philosophy.

The first is commonly known as the empirical way of thinking. It is limited to the study of physical phenomena. The actual concern is with facts that can be measured and justified. This intellectual concern concentrates on separate elements and isolated facts, deriving from direct practical experience. Thinking is strictly limited to technical and practical processes as they are most strongly formulated in the theories and methodologies of pragmatism and behaviourism.

The other way of thinking seeks out phenomena and experiences which describe more than just a sum of parts, paying almost no attention to separate elements which would be affected and changed through subjective vision and comprehensive images anyway. The major concern is not the reality as it is but the search for an all-round idea, for a general content, a coherent thought, or an overall concept that ties everything together. It is known as holism or Gestalt theory and has been most forcefully developed during the age of humanism in the philosophical treatises of the morphological idealism.

Kant postulates that knowledge has its origin in two basic components: intuition and thought. According to Kant all our thinking is related to imagination, which means it is related to our senses, because the only way to describe an object is through imagination. The intellect is incapable of perceiving anything, and the senses cannot think. Only through a combination of both can knowledge arise. Imagination has to precede all thinking processes since it is nothing less than a synopsis, an overall ordering principle bringing order into diversity. If we accept that thinking is an imaginative process of a higher order, then, argues Kant, it means all sciences are based on imagination.

In more recent philosophical debates, Herman Friedman replaces Kant’s concept of imagination and thought as the basic components of knowledge with the argument that the sense of sight – the vision – and the sense of touch – the haptic – are the two competing polarities, and that all intellectual activity happens either in an optical or haptic way. Friedman argues that the sense of touch is non-productive; it measures, is geometrical, and acts in congruity. The sense of sight, however, is productive; it interpolates, is integral, and acts in similarities. The sense of sight stimulates spontaneous reactions of mind; it is more vivid and more far-reaching than the sense of touch.

The sense of touch proceeds from the specific condition to the general, the sense of vision from the general to the specific. The visionary process, whose data are based on imagination, starts out with an idea, looking at an object in the most general way, to find an image from which to descend to more specific properties. In every human being there is a strong metaphysical desire to create a reality structured through images in which objects become meaningful through vision and which does not, as Max Planck believed, exist because it is measurable. Most of all, the question of imagination and ideas as an instrument of thinking and analysing has occupied artists and philosophers. Only in more recent history this pro-
cess of thinking has been undervalued because of the predominance of quantitative and materialistic criteria. It is obvious, however, that what we generally call thinking is nothing else than the application of imagination and ideas to a given set of facts and not just an abstract process but a visual and sensuous event. The way we experience the world around us depends on how we perceive it. Without a comprehensive vision the reality will appear as a mass of unrelated phenomena and meaningless facts, in other words, totally chaotic. In such a world it would be like living in a vacuum: everything would be of equal importance; nothing could attract our attention; and there would be no possibility to utilise the mind.

As the meaning of a whole sentence is different from the meaning of the sum of single words, so is the creative vision and ability to grasp the characteristic unity of a set of facts, and not just to analyse them as something which is put together by single parts. The consciousness that catches the reality through sensuous perception and imagination is the real creative process because it achieves a higher degree of order than the simplistic method of testing, recording, proving and controlling. This is why all traditional philosophy is a permanent attempt to create a well structured system of ideas in order to interpret, to perceive, to understand the world, as other sciences have done. There are three basic levels of comprehending physical phenomena: first, the exploration of pure physical facts; second, the psychological impact on our inner-self; and third, the imaginative discovery and reconstruction of phenomena in order to conceptualise them. If, for instance, designing is understood purely technically, then it results in pragmatic functionalism or in mathematical formulas. If designing is exclusively an expression of psychological experiences, then only emotional values matter, and it turns into a religious substitute. If, however, the physical reality is understood and conceptualised as an analogy to our imagination of that reality, then we pursue a morphological design concept, turning it into phenomena which, like all real concepts, can be expanded or condensed; they can be seen as polarities contradicting or complementing each other, existing as pure concepts in themselves like a piece of art. Therefore we might say, if we look at physical phenomena in a morphological sense, like Gestalten in their metamorphosis, we can manage to develop our knowledge without machine or apparatus. This imaginative process of thinking applies to all intellectual and spiritual areas of human activities though the approaches might be different in various fields. But it is always a fundamental process of conceptualising an unrelated, diverse reality through the use of images, metaphors, analogies, models, signs, symbols and allegories.

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IMAGE AND PERCEPTION

Probably all of us remember the story of the man in the moon which occupied our childhood fantasies, producing all sorts of images of an old man, carrying a bundle on his back, and whose face used to change depending on the clarity of the night. He helped to fulfil secret wishes, and he became the friendly companion of romantic couples. Before human intelligence managed to uncover his secret, he was the subject of so many desires and wishes that he became part of our life while existing only in our imagination.

Not only about the moon, but also about the whole firmament the human mind created a vivid fantasy. It probably took a long time to structure the wide starry sky, and to develop a coherent system within a chaotic reality long before science was capable of calculating and measuring the orbits, the gravity, the intensity and speed of light of the stars and to register all relevant data. Before that, understanding was based entirely on imaginative concepts. Instead of a set of facts, knowledge referred to a set of constellations derived from perception... The firmament was filled with figures and images, such as the Orion, Castor and Pollux, the Great Bear, and others. Those star images represented a sensuous reality in the
human consciousness. Therefore we might conclude: reality is what our imagination perceives it to be. In a general sense, an image describes a set of facts in such a way that the same visual perception is connected with the conditions as with the image itself.

METAPHORS

In everyday language we are constantly using metaphorical expressions without paying any attention to them. For instance, we talk about the foot of the mountain, the leg of a chair, the heart of the city, the mouth of the river, the long arm of the law, the head of the family and a body of knowledge. We use many words that are vivid metaphors although they exist as common expressions. In addition to the words, everyday language abounds in phrases and expressions of metaphorical character such as: straight from the horse's mouth, the tooth of time, or the tide of events, a forest of masts, the jungle of the city.

Metaphors are transformations of an actual event into a figurative expression, evoking images by substituting an abstract notion for something more descriptive and illustrative. It usually is an implicit comparison between two entities which are not alike but can be compared in an imaginative way. The comparison is mostly done through a creative leap that ties different objects together, producing a new entity in which the characteristics of both take part. The meaning of metaphors is based on comparison and similarities most often of anthropomorphical character, like the human body as a metaphor for the shape of a romanesque cathedral or the conformation of the universe. Designers use the metaphor as an instrument of thought that serves the function of clarity and vividness antedating or bypassing logical processes. “A metaphor is an intuitive perception of similarities in dissimilar,” as Aristotle defined it.

MODELS

A model is commonly understood as somebody who poses as a prototype representing an ideal form. In a more general sense a model is a structure, a pattern, along the line of which something is shaped. As an artist paints his picture after the lines of a model, a scientist builds his theory of natural events on the basis of a concept or a plan which acts as a model. This is all the more so when the complexity of something increases or the scientific sphere becomes so minute that any kind of observation would fail. In chemistry or physics, for instance, models are built to demonstrate the position of atoms in molecules, or biological models are used to represent the organic formation in which every organ has its function in relation to the whole system. Such models serve as instructions for technical intrusion with the reality. Generally a model is a theoretical complexity in itself which either brings a visual form or a conceptual order into the components of complex situations. In such a model the external form is the expression of an internal structure. It shows the way something is put together. To make a model means to find coherence in a given relationship of certain combinations and fixed dispositions. It is usually done with two types of models, visual models and thinking models. They serve as conceptual devices to structure our experience and turn them into functions or make them intentional.

By means of these two models we formulate an objective structure that turns facts into something more certain and therefore more real. It is nothing else than a formal principle which makes it possible to visualise the complexity of appearances in a more ordered way, and which in reverse is a creative approach to structured reality along the knowledge of a
model. Not the least the model is an intellectual structure setting targets for our creative activities, just like the design of model-buildings, model-cities, model-communities, and other model conditions supposedly are setting directions for subsequent actions.

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ANALOGIES

When Le Corbusier compared the edifice with a machine he saw an analogy where nobody saw one before. When Aalto compared the design of his organically shaped vases with the Finnish landscape, or his design for a theatre in Germany with a tree stump, he did the same; and when Haring designed with anthropomorphic images in mind he again did just that—seeing an analogy where nobody has seen one before. In the course of the twentieth century it has become recognised that analogy taken in the most general sense plays a far more important role in architectural design than that of simply following functional requirements or solving pure technical problems. All the constructivist designs for instance, have to be seen as a reference to the dynamic world of machines, factories and industrial components to which they are analogous. Melnikov once produced a series of designs for workers’ clubs in Moscow which are analogies to pistons, tubes, gears and bearings.

It has been said that scientific discovery consists in seeing analogies where everybody else sees just bare facts. Take, for instance, the human body: a surgeon perceives it mainly as a system of bones, muscles, organs and a circulatory system. A football coach appreciates the performance capacity of the body, the lover has a romantic notion about it, a businessman calculates the working power, a general the fighting strength, and so on. Architects, like Cattaneo, Haring, Soleri and others perceive the human body as a Gestalt which is analogous to their plans either for buildings or cities. They draw an inference by analogy from one to the other. The analogy establishes a similarity, or the existence of some similar principles, between two events which are otherwise completely different. Kant considered the analogy as something indispensable to extend knowledge. In employing the method of analogy it should be possible to develop new concepts and to discover new relationships.

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SIGNS, SYMBOLS AND ALLEGORIES

Almost all our communication is based on signs, signals, symbols and allegories which structure not only most aspects of our daily routine but also are most often carriers of religious and metaphysical systems. Riding in a motorcar, for example, is only possible because of the regulating effect of traffic signals, signs and symbols, and it would be a most daring and deadly adventure without them. The modern scientific world is full of complicated symbolic codes and systems of synthetic signs and symbols which are more advantageous because they are unambiguous, distinct, and shorter than regular language. But beyond the objective world, symbols also represent a metaphysical world as magical illuminations and cult symbols in various religions, such as the wheel of life in Buddhism, the fish as a symbol of Christianity, and the phoenix as a sign of regeneration in ancient mythology.

While signs point to something that they represent, as words are artificial signs for ideas and thoughts, symbols are a penetration of mind and image characterised by mystery, depth and inexhaustible interpretation. To express and visualise something abstract, transcendental or spiritual either symbols or allegories are used. The transition between symbols and allegories is flexible and cannot be strictly separated. Allegory is regarded as a
dimension of controlled indirectness and double meaning. The original meaning of the term suggests the direction of its development, it comes from the Greek word “alios” and “agorein” which means an “other speaking” and suggests a more deceptive and oblique language. The method of allegory is represented in art whenever it emphasises thematic content and ideas rather than events and facts. The abiding impression left by the allegorical mode is one of indirect, ambiguous and sometimes even emblematic symbolism which inevitably calls for interpretation. The allegory arouses in the contemplator a response to levels of meaning, and provides the designer with a tool that goes beyond pragmatic representation. Particularly art and mythology make wide use of allegories, both in subject matter and in its imagery. Quite often personifications are employed to visualise abstract ideas and events, such as death as reaper, justice as the blindfolded woman, the goddess of luck sitting on a flying wheel; even in allegories like “John Bull” as the representative of the British nation, “Michael” for the Germans, “Marianne” for the French, and good old “Uncle Sam” who stands for America.

The allegorical mode however has not only been of major importance in the past as representing the Cosmos in the ancient world or speculating on the nature of the Universe in the Middle Ages, it also plays a significant role in modern literature, exhibiting incomprehensible and unconceivable dimensions rooted in the depth of the unconscious as in Beckett’s “Waiting for Godot” or in Kafka’s novels.

What all that means – thinking and designing in images, metaphors, models, analogies, symbols and allegories – is nothing more than a transition from purely pragmatic approaches to a more creative mode of thinking. It means a process of thinking in qualitative values rather than quantitative data, a process that is based on synthesis rather than analysis. Not that analytical methods are opposed but more in the direction that analysis and synthesis alternate as naturally as breathing in and breathing out, as Goethe put it. It is meant to be a transition in the process of thinking from a metrical space to the visionary space of coherent systems, from the concepts of homology to the concepts of morphology. All of the different modes described are part of a morphological concept which is understood as a study of formations and transformations whether of thoughts, facts, objects or conditions as they present themselves to sentient experiences.

This approach is not meant to act as a substitute for the quantitative sciences which break down forms, as we know them into functions to make them controllable, but it is meant to counteract the increasing influence of those sciences that claim a monopoly of understanding.

Therefore, the city-images as they are shown in this anthology are not analysed according to function and other measurable criteria – a method which is usually applied – but they are interpreted on a conceptual level demonstrating ideas, images, metaphors and analogies. The interpretations are conceived in a morphological sense, wide open to subjective speculation and transformation. The book shows the more transcendental aspect, the underlying perception that goes beyond the actual design. In other terms, it shows the common design principle which is similar in dissimilar conditions. There are three levels of reality exposed: the factual reality – the object; the perceptual reality – the analogy; and the conceptual reality – the idea, shown as the plan – the image – the word.