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Bech-Danielsen, Claus

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Ecological reflections in unbounded architecture

Claus Bech-Danielsen

*Danish Building and Urban Research, PO Box 119,
Dr Neergaards vej 15, DK-2970 Hørsholm,
Denmark*

For many years, the environmental effort in Scandinavian residential building has taken the form of construction-related improvements and technical renewal. For example, the standard in insulation has been improved and, to an increasing extent, the supply of energy is being covered by alternative energy sources. However, 'green' accounts reveal that the building and its environmental standards are not the most important factors in the residence's consumption of resources. The most crucial factors are the residents and their behaviour.

Resource consumption in the residence is thus entirely dependent on the residents' habits, on their behaviour and life style. In the final analysis, it is our culture that becomes the topic for debate, as a direct consequence of environmental problems. Question marks are being placed alongside the consumption society and concomitantly alongside the entire occidental culture.

The upshot of this is that, sooner or later, environmental problems will eventually come to influence the architectonic design, which reflects the culture and the societal values from which such modelling originates. The environmentally oriented work can, in this way, be discussed in an architectonic context. This is the aim of the present paper: to describe urban ecological endeavours in a wide cultural perspective. This ought to make it possible to look at this work in conjunction with current tendencies in contemporary design. In order to understand the present day, however, it is necessary to start at some distance from it – with the Renaissance.

The hierarchic view

In 1425, Filippo Brunelleschi (1377–1446) invented the central perspective method of pictorial representation. This revolutionised visual art. Taking his mark in geometrical theories about the faculty of sight, Brunelleschi made it possible to construct a picture that was an exact reproduction of the surroundings. No longer was art to be experienced exclusively in the form of mystical beings and religious accounts. Now it was the visible world that

would become art's proper motif and, with the aid of central perspective's mathematical models, it became possible to render visible the distance that existed between the picture's individual elements.¹ There was a challenge to the 'flat' pictures of the past, inasmuch as the distance came into view in the form of perspective depth.

What was also established here was a distance between the painter and the surroundings being represented, because in the endeavour to preserve

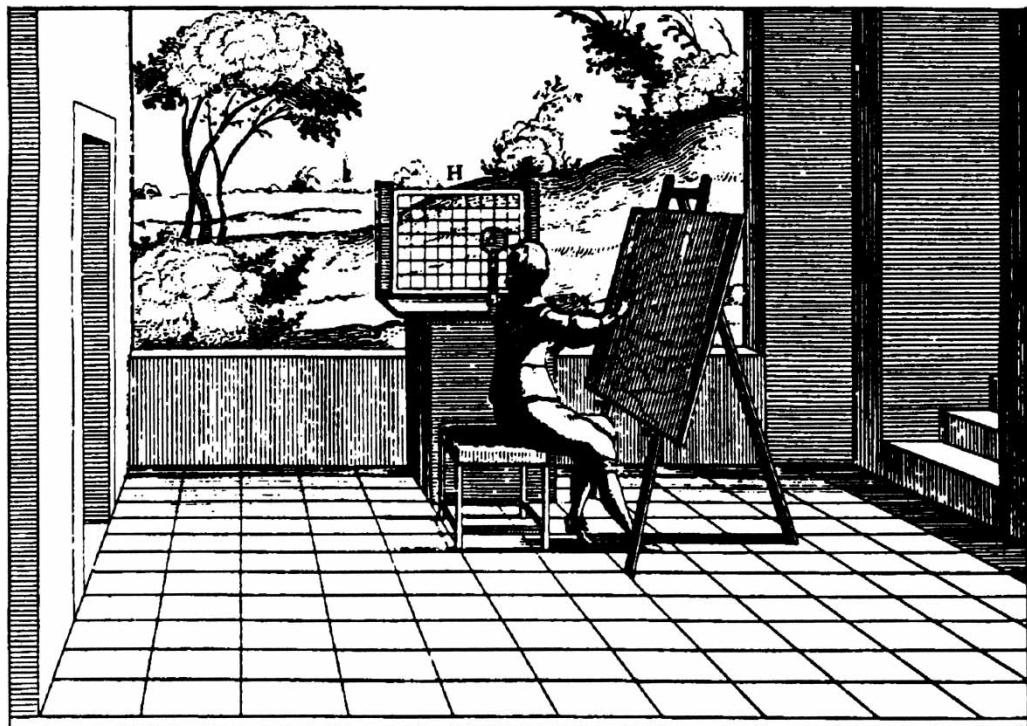
the perspective overview, artists had to be positioned at some distance from the motif. This is illustrated in the figure below (Fig.1), which demonstrates the principle in the central perspective picture: the artist contemplates the surroundings through a grid lattice. This grid lattice, which stands as a 'screen' between the artist and the surroundings, marks out a distance – a delimitation – between the artist and the motif.

With this, central perspective gave expression to the societal and cultural changes that had con-

currently taken place in parallel with its development. What arose in the Renaissance was the desire to describe and understand the visible surroundings. Nature had been regarded as threatening and dangerous, something from which religious people had to protect themselves. With the Renaissance, the intention to gain control over this 'wild nature' came into being.

One of science's epoch-making philosophers, Francis Bacon (1561–1626) propounded, 'Nam et ipsa scientia potestas est' [Knowledge is power]. In

Figure 1. With the advent of central perspective, the picture's action was gathered together inside one single point – in the viewer's centre of projection at a distance from the picture's action. The grid lattice mounted in front of the window stands as a screen, which creates a distinct delimitation between the artist and the surrounding environment. The difference between subject and object is clearly defined. (Jean Dubreuil, *La Perspective*, 1651.)



stating this, he meant that with the help of scientific insight, humankind could procure for itself control over nature. Nature would have to be described all the way down to the minutest detail. It would have to be set into a formula, so that we could suppress its hidden mystery and its surprising character. It was imperative that nature be rendered predictable.

In these endeavours, natural science took on a crucial significance. Natural science was supposed to describe the surroundings in an unsentimental and objective way, and this implied that those who were going to make the description had to distance themselves in relation to the subject matter they were supposed to be describing. Only in this way could they omit their own subjective attitudes. The scientists separated themselves from the action and placed themselves inside one central point – a so-called ‘Archimedian point’ – around which everything else revolves. Viewed from this single point, the surroundings could be understood. But the tradeoff was – and we must not forget this – that the observer was no longer a part of the surroundings.

Scientific description demands, then, that there be a distance between the describing subject and the described object. Accordingly, natural science’s form of observation is situated entirely in accordance with that of central perspective: the surroundings are rendered the ‘object’ of the human gaze.

In the ensuing centuries, those making scientific research were carried away with describing their physical surroundings – down to the very smallest detail. In this vein, it could be said that science attained its final consummation in the middle of the nineteenth century, when it was finally possible to

prove – for the very first time – that the atom really existed. Now, the world had been described down to the smallest particle, and science had attained a climax.

This manifested itself in the further investigation of the atom. In 1913, the Danish scientist, Niels Bohr was able to demonstrate that Newtonian physics would simply not suffice in the description of atomic phenomena. Now the speed of light was to be regarded as the constant, instead of the mass, and mechanistic physics was superseded by atomic physics and quantum mechanics. Newton’s world view was toppled, and a new one had to be established.

In the discipline of painting, the Impressionist painters of the day were experimenting with depicting their surroundings in the form of light- and colour-particles. As part of these endeavours, the Impressionists often moved up very close to their subjects. With this, the distinct form that central perspective had rendered in the form of one single aggregate picture was dissolved into an ocean of sensory impressions.

These tendencies were especially well articulated in the painting procedures of the pointillistes, where Georges Seurat, for example, painted his pictures with the aid of a countless number of tiny dots of colour. Consequently, central perspective’s stringent sight lines were veiled and the motif’s clear delimitation was dissolved. As concise forms, the objects vanished. The background came forward and was treated on an equal footing with the foreground, and the distance between the picture’s individual elements became diffuse (Fig. 2).

At the same time, another one of the important

Figure 2. In the painting procedures of the pointillistes, the difference between foreground and background was blurred, and the motif's clear delimitation was dissolved. (Georges Seurat, 1887.)



Impressionist painters, Edgar Degas, was experimenting with alternative forms of depiction. For example, in his so-called monotypes, a form of graphic representation that distinguishes itself precisely by virtue of lending itself to very rapid work. This resulted in a number of sketch-like images that were not painstakingly composed by the artist beforehand. The central perspective manner of disposition, where the motif was

scrupulously arranged in relation to the artist, was replaced by a picture where the artistic subject was less of a predominating factor.

In the course of the first decades of the twentieth century, Pablo Picasso and Georges Braque were busy developing cubism, a movement that has been credited with making the final break with central perspective. The cubists recognised that in modern society, with its ever-accelerating dynamics, the subject simply could not be secured within central perspective's locked-in centre of projection. The cubists put the subject in motion and replaced central perspective's one-eyed visual reproduction in a picture with several simultaneously occurring views.

The diffuse delimitation of the form, which the Impressionists had been advocating, was thereby evolved further into the total rupture of material form. The foreground was braided together with the background, and the world was dissolved into a countless number of equally important motifs. It was, however, not so much the individual motif that was being emphasised in the picture as much as it was the motif's mutual internal relations. What became most essential in the picture were the many motifs' internal connections.

Architecture's delimitation

At the same time that central perspective was being challenged in the discipline of painting, similar activities were also underway among architects. In modernist architecture, there was a questioning of fixed-axial arrangements, and what came into being was a form of architecture that was not arranged specifically in relation to an

outside observer. The spatial elapse, so scrupulously composed by the architect, which was indigenous to central perspective, was now superseded by a dynamic spatial experience, which came into being upon the perceiver's interaction with the building.

With this, there was a confrontation with a notion of space that had been the dominant one ever since the time of the Renaissance. In all these years, architecture had been elaborated in accordance with central perspective's one-eyed form of contemplation. The architecture had been perceived and arranged in relation to one certain point – the prince's centre of projection, from where there were perspective overview and sensory control over the architectonic space. The architecture was hierarchic: there was something in the centre, while something else was peripheral. And, as was the case in the art of painting, what were accordingly established in architecture, a foreground and a background.

This manifested itself, for example, in the ornamental gardens of the Renaissance, where fixed-axes avenues functioned as perspective sightlines, which allowed no room for any doubt in the visitor's mind as to from where the garden was to be properly viewed. And with the clipped hedges and the encircling walls, the garden's delimitation was clear and distinctly defined. There was a clear distinction between what was inside the garden – culture – and what lay outside – nature (Fig. 3).

In the art of building, this same notion of space manifested itself. The buildings' individual rooms were clearly delimited; they were self-contained entities, which could be perceived as being isolated



Figure 3. The fixed-axes avenues in the Renaissance gardens functioned as perspective sightlines, which allowed no room for doubt in the visitor's mind as to where the garden was supposed to be viewed from. And the encircling hedges and walls ensured a clear delimitation of the garden. The boundary between the inner and the outer was clearly defined.

with respect to one another. Consequently, both the door and the gateway came to be very important architectonic elements, inasmuch as they marked out – in an almost ritualistic way – the spot where one was moving from one room into another. You were not left in any doubt: the room's delimitation was clearly marked out by massive walls. And the architecture unfolded itself inside the thick walls. The emphasis was placed on the physical boundary.

In the nineteenth century, there were several tentative efforts towards the formulation of a different kind of spatial perception. Industrial society imposed new demands on building construction, partly in the form of larger dimensions in storehouses and market halls and partly in the form of new building types, such as railway stations and convention halls. Amongst other things, this led to the erection of the industrial exhibitions' huge glass palaces, the Crystal Palace being the most famous of these. What emerged inside the glass buildings was a new relationship between outside and inside. The clearly delimited and well-defined

space that had been in vogue ever since the time of the Renaissance was now being dissolved. The space's very dimensions rendered it inaccessible to overview. And the new constructions and the glass's transparency rendered the room's space unbounded and diffuse. The Renaissance's space vanished – literally – into thin air.

It was an analogous spatial perception that Mies van der Rohe was promoting in his proposal for a high-rise project in glass in Berlin, dating from 1919–21, where all the outer walls were made of glass. The massive façade and the interior walls, which had traditionally made their appearance in the form of thick and heavy walls, were no longer to be found. The boundary between interior and exterior was dissolved, and the architectonic space became diffuse and indefinable. No longer was the architecture constituted in the form of the encircling walls, since it was now the building's interior that the architecture was displaying. The focus had shifted from the exterior surfaces to the interior space (Fig. 4).

This shift in the paradigm for spatial perception

was illustrated by Toyo Ito in the mediatheque in Sendai, which was supposed to be ready for opening in time for the new year 2000. During the entire month of the holiday season, the glass-panelled building would be decorated on the outside by a veritable sea of electric lights. The building would accordingly make its appearance in the form of the exterior Christmas decoration – as a massive block of light. On New Year's Eve, at the stroke of midnight, all the exterior lights would be switched off, and at the same moment, all the lights inside the building would be switched on, behind the mediatheque's glass façade. Accordingly, you would no longer be able to see the building's exterior surfaces, since the building's interior would be gleaming its way out into the surroundings. With one single touch – the pressing of a light switch – Toyo Ito was rendering intelligible the entire paradigmatic shift in spatial perception that had been implemented by twentieth century architecture – from the contemplation of the architecture's outer bordering surfaces to the focus on its interior spaces.

Figure 4. In twentieth century architecture, the space's clear delimitation disappeared. The perception of the interior and the exterior spaces merged. 'Palais Des Beaux-Arts' in Lille by Jean Marc Ibos and Myrto Vitart.



When we reached the borderline

With the Renaissance, a dualistic conception of the world was introduced. The world was divided up into mind and body. From that point, spiritual values were to be found in the divine universe, at a distance from the earthly surroundings.²

In the centuries that followed, occidental culture expanded its breadth in the surrounding world, inasmuch as it colonised on the spiritual plane as well as in the earthly surroundings. In the spiritual universe, colonisation took place in the form of

science's descriptions of nature: the anthropocentric human beings placed themselves in the centre of the universe. Human beings put themselves in the place of God and purported to describe nature down to the smallest detail. There was knowledge and insight in those areas that had previously been reserved as the exclusive domain of faith. The human being described the indescribable – science superseded faith – and God slowly lost significance.

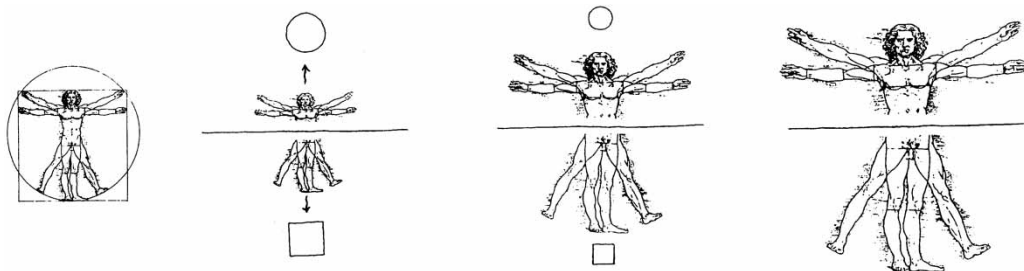
Considered in this perspective, an epoch reached its point of culmination when Friedrich Nietzsche (1844–1900) declared, at the end of the nineteenth century, that it was not God who had created mankind, but vice-versa. Mankind had described everything. Intellectual understanding had replaced religious faith and humanity had consummated the colonisation of the spiritual space.

As we all know, Western culture also managed to colonise itself in and throughout the earthly surroundings. This transpired chiefly during the time of the great explorers' expeditions, when the European lands were constantly questing for new territories that could be conquered and incorporated into the occidental world. It was also on this plane that colonisation reached its culmina-

tion. After some time, Western culture could no longer find – in an entirely physical sense – undiscovered territories to colonise. In order to expand our territory, we had to travel to the moon. The kings of the animal world were relegated to the zoos, and now we experience 'wild nature' primarily in carefully measured natural reservations that are under very close surveillance. The nature that came into view in the dualistic conception of the world is not to be found any longer. People have put themselves in God's place, and God has taken the work of creation – Nature – to the grave (Fig. 5).

In the spiritual universe as well as in the earthly surroundings, our environment had become annexed to our world. However, according to a dualistic way of understanding the world, things exist only by virtue of their polar oppositions. What happened, consequently, was that our own world also vanished, since it no longer was in possession of any surroundings to which it could be regarded as standing in a relation. What also happened, paradoxically enough, was that the scientific world view came to erase its own foundations at the very same time as it was fulfilling its own specific goals. The

Figure 5. With the advent of dualism, the world was divided into the celestial and the earthly; and humans, equally split into mind and body, placed themselves at the centre of the world. With their intellect, humans expanded into the celestial universe while physically expanding into the earthly environment. Sooner or later, they had to reach a point where all their surroundings were colonised.



culture of the West had reached the borderline and in the very same instant, it lost its contents.

This is why we are forced to work out a new frame of understanding. For if it is correct to assert that comprehension – in the scientific world view – had reached its boundaries and that ‘external nature’ could no longer be perceived, then it is reasonable to assume that we are compelled to look for a new world view which might shed light on a different kind of nature. It is imperative that we come up with a new view of nature.³

This was precisely what modern artists were doing at the beginning of the twentieth century. In 1913, the poet and art critic, Apollinaire, wrote about the cubists: ‘... even though the young painters are still observing nature, they are not imitating it and they carefully avoid reproducing scenes of nature ...’. On the other hand, they are looking for ‘... traces of the non-human, which are nowhere to be found in external nature’.⁴

External nature, as it had come to be regarded in science’s dualistic conception of the world, no longer existed. And for this reason, people were looking around for another kind of nature. The well-established view of nature and its focus on external nature were rejected and eyes were opened to a nature of internal character.

This also manifested itself in ‘abstract’ art, where Wassily Kandinsky was the first completely to forego the delineation of the visible environment. He aspired towards a goal of a spiritual character in his paintings, which gave expression to an interior universe.

Artists, then, were turning their gaze inward. For example, they started to focus on their own media

of representation. Such intentions are reflected especially clearly in the work of the Dutch painter, Piet Mondrian, who reduced the picture to its fundamental elements – the vertical and horizontal lines and the three primary colours. The painting was not depicting an external reality. It was rather examining its own premises.

Analogous endeavours were taking place in the field of architecture. On a par with Mondrian’s search for the picture’s basic ground elements, the Russian constructivists were looking around for the beautiful in architecture’s basic building blocks: the constructions and the materials. And at the Bauhaus School in Germany, the modernists were proclaiming that the building had to be created from within, as an expression of the life that was being lived behind the façade. As in the art of painting, where the early Impressionists had already rendered the life taking place inside the city’s walls in preference to portraying the surrounding nature, the architects were also turning their gaze inward and looking for beauty inside humanity’s very own sphere.

In the context of these endeavours, modernism can be regarded as the manifestation of a reaction against the historicism of the foregoing period. In architecture as well, the loss of the meaning-bearing foundation had begun to find its expression. In the understanding of the world until this time, the architectonic design had transpired on the basis of symmetric and geometrically ideal forms, which mirrored the divine universe. Now that God had been ousted, it no longer made any sense to refer to ‘the elevated truth’ and architecture was reduced to being an outer camouflage of the building’s façade (Fig. 6).



It is in this light that one ought to regard Sullivan's renowned declaration – form follows function. Modernism's slogan was not meant to imply that aesthetics should be abandoned. On the contrary, it signalled a call to be on the lookout for a different kind of aesthetics. The principle of design – the architectonic idea – was now to be found in the specific assignment and not, as was hitherto the case, in some celestial concept-catalogue situated at a distance from the architectonic reality.

And in this vein, modernism can be regarded as a break with Platonic dualism and as an incipient movement in the direction of a more Aristotelian holistic conception, within which there is no other idea than that which can be experienced directly in the visible surroundings. 'God is in the detail', exclaimed Mies van der Rohe, as an expression of his view that the meaningful and the meaning-bearing were not to be sought at a distance from architectonic reality. The meaningful idea was to be found in the architecture; the idea inhabited the architecture.

The unbounded

Natural science and the positivist form of contemplation have been all-predominating since the Renaissance. But at the beginning of the twentieth century, the German philosopher, Edmund Husserl, espoused a new theory of knowledge, phenomenology. Phenomenology's empirical investigations were aimed at rehabilitating sensory experience. It was Husserl's intention that object and subject would be unified in the act of cognition. The objects were not to be regarded in isolation and the sharply differentiating borderline between object and subject, which had been such a salient feature of science's dualistic picture of the world, was broken down.

This line of development was carried further by, among others, Maurice Merleau-Ponty. He maintained that it is possible completely to break down the distance between subject and object, seeing that between them 'there is a primordial connection, a kind of affinity (. . .). This presupposes that my hand, while simultaneously being felt from within, is also accessible from the outside, and that it can be touched, for example, by my other hand. The hand assumes its position among other things that it touches, and in a certain sense, it becomes one of them itself'.⁵ We sense and we are sensed in one and the same movement. For this reason, Merleau-Ponty does not believe that subject and object can be conceived as being detachable from one another. In the process of sensing, subject and object meet one another, and the sensing agent becomes one with the sensed.

Phenomenology is accordingly characterised by not regarding things in isolation but rather in seeing

Figure 6. Modernism's buildings were supposed to be created from within as an expression of the function and the life that was being lived behind the façade. Modernism's architects were turning their gaze inward and looking for the beauty within humanity's very own sphere. 'Bellavista' by Arne Jacobsen.

them in their mutual connections. In this account, phenomenology has features in common with twentieth century art and architecture where similarly, it is the mutual relations that have come into focus. Much like the cubists, who focused on the relation between the many objects in preference to focusing on the individual object, modernism's architects did not focus so much on the individual, well-defined room, but rather on the rooms' mutual internal relations. The classical and clearly delimited space was broken down, as Frank Lloyd Wright started to do at the end of the nineteenth century, and as Le Corbusier brought to a point of culmination in the following century. In his Villa La Roche, the delimitation of the individual rooms has been dissolved in this way. The rooms can no longer be experienced in isolation with respect to one another, and what arises is a dynamic elapse of spaces that are inextricably connected – vertically as well as horizontally. The space's boundaries have been dissolved (Fig. 7).

Classical architecture, as it was unfolded in massive walls, was replaced by an architecture where the mass was downplayed in the drama. The

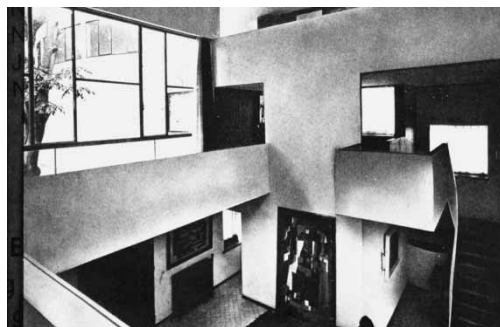
white walls and the large glass sections were among the means employed by the early modernists to engender a visual annulment of gravity's law. Ever since that time, there has been an ongoing experimentation with other materials and constructions that convey these same intentions. Consequently, diffuse and transparent materials are used very frequently in present-day architecture.

Architecture's boundaries have been broken down and in this context, architecture is aligned with other tendencies in twentieth century art. In his paintings, René Magritte carried on a discussion of the delimitation between image and reality. In his installations, Joseph Beuys created a universe where reality and image are one and the same. And in his 'land art', Robert Smithson, who was breaking down the boundary between reality and image in an analogous way, confronted the classical delineation of a frontier between culture and nature.

This is also the boundary with which urban ecologists are working. Urban ecologists are challenging a world view within which culture sees itself in an antithetical relation to nature, a world picture where nature is that which is 'out there' – that which is on the other side of the fence and that which is below the navel. In this picture of the world, there is a distinct difference – as well as a conspicuous contrast – between culture and nature (Fig. 8).

At present, urban ecologists are looking for a nature that exists inside the culture's own boundaries. They are sowing grass on the city's roofs. They are moving goats into the city's yards. And they are allowing 'wild' nature to grow in the city's parks. Urban ecologists are reacting to the traditional

Figure 7. Le Corbusier's 'Villa La Roche' – modernism's fluid sense of space. The spaces are not clearly delimited; they interplay dynamically.





understanding of the city as the urbane and controlled, which stands there in defiant contrast to the wild and pastoral surroundings, and they are accordingly challenging a world view within which culture regards itself as standing in a relation of mutual opposition to nature. The clear boundary between culture and nature is being phased out.

To be sure, the classical idea about the city as a centre-oriented construction, which is demarcated in relation to the surrounding landscape, is still deeply rooted inside many of us. But alas, this urban picture has been lost forever. This fact manifests itself in the modern metropolises, whose delimitation with respect to the surrounding landscape is being veiled by the suburbs' green character and the landscape-like elements' penetration into the cities. And it similarly finds expression in the surrounding landscape, which accommodates the meeting between the high-voltage masts' straight lines and the river's organically winding stream. Urbanity has found its entrance into the landscape, and vice versa (Fig. 9).

In a more profound understanding of urban

ecology, what comes to light is that the discipline has features in common with other important societal developmental movements of the day. In their transgression of the traditional boundaries and in their way of phasing out the established boundaries, there are features that link today's different tendencies together. With the vehicle of new urban structures, the network-society is confronting the classical conception of well-bounded cities. Globalisation is breaking down the borders of national states. IT-technology is disrupting the boundaries of the home. And so forth. We're very busy developing an 'unbounded culture'.

The borderlines are being phased out; the differences are being rubbed out. What is emerging then is an opportunity for a new view of nature to unfold itself – a view of nature that will focus not on culture in contrast to nature but will focus on culture's and nature's mutual interconnectedness. This is the prerequisite for getting a science-dominated and abstract culture to rediscover its own roots in nature. As modern people, we have to acknowledge that we are, ever so certainly, conscious cultural beings. But when we get to the bottom of it all, we are also nature itself. Everything can be regarded as urbanity and culture, of course, but only in the sense that everything can also be regarded as landscape and nature. Culture and nature are two sides of the same coin.

Both/and

As the Austrian philosopher Ludwig Wittgenstein (1889–1951) asserted, 'We are the world'. And this being the case, the artist can no longer be regarded as an independent Creator who forms his personally

Figure 8. Ecological construction on the outskirts of Hanover. The buildings mesh with the surroundings, and the clear boundary between building construction and surrounding – between culture and nature – is being phased out.

Figure 9. Emscher Park near Düsseldorf – heavy industry's plant converted into a nature park – articulates the meeting between the substantial facility for heavy industry and the planting's organic forms.



distinctive images at a distance from the motif. The world is not to be found exclusively inside our consciousness, and nature cannot unilaterally be regarded as being our image of it. This goes both ways.

'Does Africa know a song of me?' asks Karen Blixen in her book, 'Out of Africa', as she intimates that as much as we form the landscape, the landscape simultaneously forms itself inside of us. We are not autonomous subjects who, in detachment from the surroundings, create our signature images in the landscape. The landscape, at the same time, plays its part in forming us! We place our footprints in nature, but nature also lays down its trails in us. Maybe Africa does know a song of Karen Blixen.

In the twentieth century, the person no longer existed as a biased subject standing at a distance from the surrounding objects. And accordingly, the surroundings were not regarded in the form of pure objects devoid of essential content. Subject and object are two sides of the same coin.

This already found expression in the work of the early modernists. For example, the American architect, Louis Kahn, was reflecting on the building as being something more than a physical container when he asked: 'What does the building want to be?' And among some of the more renowned architects of the present day, the German architect Günter Behnisch has similarly proclaimed that he is aspiring to express 'the things' will' rather than his own thought. The designing subject is becoming



less predominant and the architectonic idea is being sought in an interplay with the surroundings (Fig. 10). This finds a perfectly concrete expression in Toyo Ito's project, the 'Tower of the Winds', in Yokohama. Here, the architecture, in an altogether literal sense, is assuming the form of the surroundings, since the building's lighting reflects the windy weather's influence on the building.

As modern people, we influence our surrounding environment – and vice versa. We contain within ourselves both subject and object. This is a salient feature of our own times. Kandinsky had pointed out already the need for a new conception of space, where we would no longer be describing the surroundings on the basis of dualistic either/or considerations. It was Kandinsky's intention to create a new kind of conception of space, which would allow room for things to be 'both/and'.

Therefore it was almost a hundred years ago that designers began to develop a form of contemplation which accords with urban ecological demands. Urban ecology's well-known slogan – think globally, act locally – certainly seems to suggest that urban

ecology cannot be developed in the light of an either/or approach. Urban ecology cannot be a question of either thinking globally or taking action locally. Global thinking must constantly be present within local action: we must both think globally and act locally.

In the final analysis, such a conception of space, where everything appears as two sides of the same coin, will inevitably lead to a rediscovery that culture and nature are also inextricably connected. The culture builds itself up from a root in nature – a reality that the occidental culture has been ignoring for hundreds of years. Coping with this abstraction is ecology's true claim.

Image and reality

As mentioned above, in the course of this century, there has been a settling of accounts with that reification which has been taking place as an implicit tendency in the scientific picture of the world. And we have been guided back into a universe which can recall the mediaeval period's pre-scientific world picture to mind. However, Merleau-Ponty's phenomenology does suggest another possibility. The reality we are now becoming aware of is not an originality created by God but rather a reality that is undergoing change at all times. And what is more, it is we ourselves who are creating the change.

We are creating new pictures all the time, and – as has been mentioned – seeing that we are living in a period of time when reality and picture 'hang together', the changing pictures play right into reality: the pictures are offering us a new vision – a new perspective – of the surroundings, which

Figure 10. Günter Benisch is looking for the form in the salient character of each individual assignment. For this reason, he gives expression to his view that the things contain an immanent idea. The Hysolar Institute, a research centre located near Stuttgart.

Figure 11. We are our own Creators – we create reality through the sheer existence of our pictures. (René Magritte.)

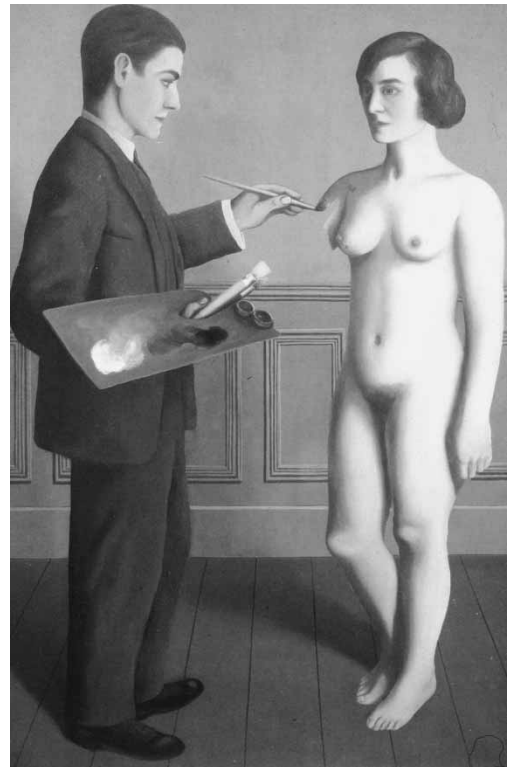
consequently come into view in a new light. In the pictures, new realities unfold themselves.

In this way, we are creating reality through the sheer existence of our pictures – we are our own Creators. Or, in the words of the renowned installation artist, Joseph Beuys: 'Everybody is his own artist'. The human being creates his/her own life in ensemble with the surrounding environment (Fig. 11).

This implies that we bear on our own shoulders the responsibility for the creation of the world we are living in – which is exactly what the environmental problems so intensely suggest. With the role of a free creator, there is an appurtenant responsibility: the artist does not 'merely' create pictures, and fine architecture is not exclusively a matter of pretty façades. Since we are creating reality through the sheer existence of our pictures, the design must be built upon considerations of an ethical character.

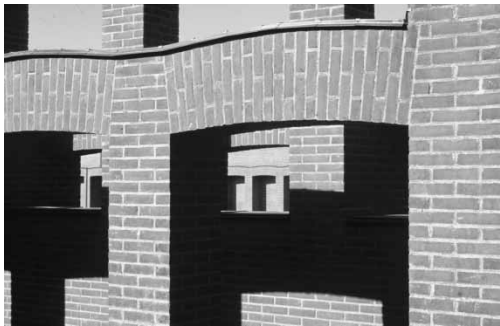
This is precisely what manifested itself in twentieth century architecture. At the beginning of the twentieth century, the architects were busy exerting themselves to create 'the good city', with a focus on mental hygiene, health care and social commitment. At the end of the same century, catchwords like sustainability, accessibility, etc., could be added to this roster of programmatic purposes.

Architecture, then, is linked up with ethical demands. Even in the classical period, architecture stood for an ethical view, inasmuch as the order and the harmony referred, together with the geometric ideal forms, to the divine universe – and concomitantly, when all was said and done, to an ethical set of rules. With the loss of faith, however, we



forfeited religion's ethical set of rules. Now it's up to us.

As we move our way forward into an epoch where picture and reality hang together, new possibilities for designers and architects are cropping up. Their applied arts are indeed connected with the artistic picture as well as with a utility in concrete reality. For this very reason, the designer's and the architect's spheres of activity constitute direct



expressions of our contemporary form of culture (Fig. 12).

We are living in a period, then, when both the architects' and designers' works possess a special topicality, and this fact furnishes architects and designers with favourable circumstances for conveying their skills out into people's lives. The demand posed here, however, is that architects and designers must not succumb to the temptation of worshipping themselves and their skills in an attitude of aesthetic snobbery and artistic smugness. They must not become so blinded by their own creations in glass and steel that they fail to pay heed to environmental problems. Whenever this happens, we run the risk of winding up in a reprise of historicism's architecture – in pictures that are not rooted in any reality; we end up in form without content.

This problem also manifests itself in many areas of ecological construction. A glance at the current periodicals can give the impression that, to an ever-increasing extent, environmental considerations are gaining influence on architects' projects: thuja and

larchwood impart the impression of healthy homes with favourable indoor climate conditions, and large glass façades signal the use of passive solar heating. But behind the thuja panelling's environmentally friendly outer appearance, what frequently lurks is an utterly conventional building, erected in concrete. And question marks have often been placed alongside the glass façades' environmental effects.⁶ Ecology is being represented in the form of an image – an image that has no roots in a genuine ecological content. The environmental work is taking place on the façade – on 'the surface'.

The perception of architecture as a superficial venture manifests itself in many places. In Denmark, a number of action plans concerning architectural policy have been hammered out on the political level. These plans place architecture on the agenda of society and serve to cast a light on architectonic quality as an important theme in the effort to engender a high quality of life and to promote the general welfare. But upon closer examination, quite a number of these papers give expression to a narrow-minded prioritisation of architecture's purely visual qualities, with an emphasis being placed on how the city has to be beautiful. In doing so, there is an aspiration toward the image of the good city – an image that does not necessarily chime with reality. In this way, the aesthetics are smeared over the city like some prettifying varnish.

As a reaction against these kinds of tendencies, the architecture biennale in Venice 2000 was launched under the suggestive title, *Less aesthetics, more ethics*. Architecture has wound up in rootless images and the biennale's plea – to put ethics before aesthetics – must (as was the case with

Figure 12.
Architecture's concatenation of the utilitarian and the artistic gives a special topicality to the result. For many years now, artists have been moving closer and closer to the architectonic universe. Work of the Danish artist, Per Kirkeby.

Sullivan's doctrine for modernism) not be regarded as a call to write off aesthetics. On the contrary, we are once again on the hunt for aesthetic foundations. We are looking for a fundamental meaning.

The architecture biennale in Venice took on the task of conjoining architecture's images with a basic content. If this is going to succeed at all, we must keep it firmly in view that design and architecture are, after all, applied arts.

As we already know, applied art contains a utilitarian aspect as well as an artistic aspect. As two sides of the same coin, the utilitarian and the artistic mesh into one another – inextricably. And it is in this interlacing that architectonic quality arises and it is here that architecture arrives at its meaning. Architecture has to be both functional and beautiful. It must be both sustainable and eventful. Architecture's pictures have to be rooted in specific concrete reality. Only in this way can it become meaningful.

Notes

1. That which was being represented was a pictorial illusion, which reproduced a three-dimensional reality on a two-dimensional canvas. The painting is not reality; it is a representation of reality.
2. Ergo the visible surroundings remained 'God forsaken' as the profane and earthly. Nature came to be reified: it contained no value in itself and consequently, it could be used freely as an object for human exploitation. This view of nature has been the dominant one ever since and, of course, this poses a problem in an environmental perspective.
3. The word 'nature' stems from the Latin *nascor*, which means to be born, to come into the world, to emerge,

to originate, to appear. The word 'culture' similarly descends from the Latin *colo*, which means to cultivate and care for the earth and the surroundings. The etymological roots of the words accordingly indicate that culture comes into being and arises as a part of mankind's cultivation of nature. Every culture, then, builds upon a foundation in nature. However, there are considerable differences with respect to what form of nature different cultures base themselves upon. Every culture, in point of fact, contains its own particular conception of nature, and different cultures cultivate different forms of nature, depending on their own particular conceptions of nature.

If a culture loses sight of its natural foundation and perishes as a result, a new culture can evolve only when people discover a new form of nature to cultivate – when a new view of nature has been established. (The foregoing description comes from: Claus Bech-Danielsen, *Ecological Reflections in Architecture*, Chapter 2, PhD thesis, to be published during 2003.)

4. Lise Bek, *Reality in the Mirror of Art (Virkeligheden i kunstens spejl)* (Aarhus University), p. 227.
5. Maurice Merleau-Ponty, *Le visible et l'invisible* (Paris, Gallimard, 1964), p. 176.
6. The utilisation of passive solar heat is a concept at the heart of Danish urban renewal. When buildings are renovated, existing balconies are glass-covered to utilise passive solar heat in the adjacent flats; at the same time such flats will profit from a sheltered outdoor space that can be used for part of the year. However, residents do not always use the glass-covered outdoor spaces the way they were intended. They put electric heaters on their balconies, in order to use them throughout the year, so that the anticipated energy savings fail to materialise, and the actual outcome is increased energy consumption.

