

Gerhard Mack

Making the World Appear

George Steinmann's *Metalog*

Three gigantic video projections, each five metres wide, capture the viewer's attention. A light mist is rising on the left. Forms emerge slowly from a turmoil of agitated movement, then dissolve into strips and patches. Strange architecture of the air, flinching away from persistence and resolution, then lost in the open blue of the sky. On the right, countless dark flecks shimmer in constant movement. The image shows a reversed reflection of light on water. It is black as night where it should be white with light, and stained in a bluish colour. A light wind makes the water tremble. Surface tension resists the lateral movement. The eye is disturbed by compulsive movement and by resistance to it. The reversal of light and shade makes this little nature drama feel like a scientific experiment examining mobile patterns under a microscope. The central projection shows a large dog. This is an animal that viewers associate with movement and speed, but it is sitting there motionless and relaxed, seemingly detached from the world of natural forces and the movements they trigger. It is looking out through the side of the image, but there does not seem to be anything to interest it particularly. The ears signal attention without effort. The animal has no sense of being threatened or distracted, it perceives the outside world without addressing it. It is there entirely as a matter of course, present in an utterly animal way, of the kind otherwise concerned only to the overintensive presence of things. After an endless minute and a half the dog stands up, turns around and leaves. The appearance is over, the window of timelessness closed, the seconds and minutes start to flow again.

This is the start of the monumental videowork *Metalog* developed by the Bernese artist George Steinmann for the Max Planck Institute of Molecular Cell Biology and Genetics in Dresden. The precisely calculated variations in its three image fields involve in just under fifteen minutes. They touch upon the cultures that the artist identifies and puts in touch with each other: the architecture of the building, the scientific disciplines that it houses, and art. The art is in fact an art-and-building commission, but it goes well beyond the usual mere adjunct to the building, the visual pastime for employees. Steinmann uses the conventional situation much more to make a contribution to the so-called "dialogue of the cultures", addressing the relationship between art and science first identified by C.P. Snow.

Two Cultures?

The English physicist, novelist and civil servant who coined the phrase was disturbed to notice that the scholars of science and those of the arts in the senior common room of his Cambridge college had increasingly little to say to each other. They who were to continue the tradition of artes liberals in the present saw this inability to communicate as a development that might be regrettable, but was inevitable. In 1959, in his lecture *The Two Cultures and the Scientific Revolution*, (1) which attracted a great deal of attention, Snow expressed the fear that the Western world's single, broadly-based intellectual appreciation of nature was being split. It was losing its view of the whole, which, however, ought to be addressed by the emergent accelerating specialisation in all academic disciplines. In his assessment of this development Snow adopted the attitudes of those involved: the arts and their field are a thing of the past, they tell stories as "literature" and devote themselves to memory; the science and their methods on the other hand are directed at tackling the future. This leads to an inevitable hierarchy: the arts and their topics serve education, they are aesthetic, but the science and the engineering disciplines with their attached technologies are needed to deal with the problems of life. The scientific and technological paradigm is predominant, while the aesthetic one, dreaming away about idealism, is inferior. The one culture is split in two. Arrogance and ignorance flourish on both sides of the divide. Shakespeare is considered to be culture, but the Second Law of Thermodynamics is not; this is one of Snow's examples. This division in the Western intellectual world has hardened in the decades since Snow's diagnosis. The sciences have been happy to live with it, they

enjoyed the highest level of social legitimacy, which could be translated directly into status and funding. Anyone who doubted in them was quickly labelled as a back-woodsman wanting to return to the Dark Ages, or at least to retreat to a pre-Darwinian position. The arts found themselves in a peripheral position and legitimised themselves as compensation workers, making society aware of the costs of scientific and technical modernisation. They watch as the great productivity machine that the sciences serve rolls over and flattens individuals, memories and landscapes, and try to contain the collateral damage that progress inevitably brings.

They are like the women who cleared rubble away in Germany after the Second World War, sorting through the material heaps of destruction of valuables, with Walter Benjamin's Angel of History looking back at them.

What is George Steinmann's position in this confrontation that he recalls with *Metalog*? First he makes two into three. His large projection does not confront the sciences and the arts with each other: instead, art is surrounded by architecture and biology to form a deep-filled sandwich. And the involved fields lose their sense of clear distinction. It goes without saying that this architecture by Heikkinen-Komonen in cooperation with HENN Architects meets all the high functional demands that a scientific institution makes on its spaces. But it does more than simply translate function into a built structure; it enters into a dialogue with its surroundings, with its proximity to the Elbe, with the urban location. The details also provide analogies with the users' activities, the staircase evokes the figure of the double helix, for example. And so this architecture is an engineering achievement, but also has an artistic aspect, something the discipline has been allowed to claim ever since Vitruvius, after all, until the Bauhaus it was regularly considered the "mother of the arts", picking up everything relinquished by others and magisterially fusing them into unity. It even finds itself infected by what Snow sees to be the opposing cultural field. And so it is no coincidence that the left-hand projection field, which Steinmann allots to architecture in a diagram relating to the *Metalog*, begins with mist constantly changing and dissolving its form. In a comparable way, the field of biology, which is allotted the right-hand projection screen in the diagram, loses its status of analytical superiority within its field. Steinmann shifts a simple reflection of light in the first image so close to an image viewed through a microscope that the object and analysis blend with each other almost indistinguishably. And he stresses this ambiguous status by means of the poetic appearance of the image. Scarcely anyone will be able to resist the seductive beauty of light reflected on the water. Giving oneself up to an impression also involves losing distance: it is more like a fusion of object and viewer than an analytical image. But beauty is an imprecise category, at the mercy of the viewer's subjectivity and his sensibilities; while it is accepted in nature and art it constitutes a conspicuously alien view when occurring in the sciences, in the elegance of a proof, for example. Thus the duality of the cultures is overcome here and replaced by the ambivalence of perception.

Three Forms of Perception

In a second step, George Steinmann brings the theoretical adversaries down to the plane of activities. As an artist he sees himself as someone who is perceiving: an expert specialising in modes of perception and describing the ways in which they function, trying to record the objective quality and actions of the disciplines as precisely as possible. Three forms of perception can be distinguished at first, in the three realms of architecture, art and science. Scientific insights are measurable insights. As a rule they demonstrate a chain of observation, hypothesis, experiment and theory, relying on statements that can be generalised from and examined, in other words they have to be open to proof. Society's thrust towards industrial exploitation of research, involving the investment of large capital sums, makes it immediately clear how important it is for these results to be reliable. So ever since their modern constitution by Kepler and Galilei the sciences have relied on observation. A process or a situation is broken down into its component parts, the variables isolated and kept as constant as possible up to the quantity being researched. The results are valid for the specific and isolated situation. Perception is focused to the extreme, and the

phenomena it is being applied to are detached from their contexts. So on the one hand the world, as offered to our everyday perception, is highly particularised, and on the other hand this also applies to the results that are achieved by scientific perception methods to a specialisation dynamic, they become experts in increasingly small fields. This requires linking strategies to combine individual results as well as sets of questions and methods, into a larger patchwork and make more general statements. These communication forms very rapidly gain in significance within a research field, but also between disciplines; physics, chemistry and molecular biology, for example. Thus scientific research is very focused, but it is also broadened out into a very wide field, so that it can identify usable connections and solution strategies in possibly alien fields. Crucially methodological interaction requirement is increasingly emerging as a structural characteristic of the cognition object itself. The sections and sequences that molecular biologists and geneticists isolate, for example, show clearly that the interaction of proteins contribute much more to the difference between a human being and a worm than the number of genes, for instance. The interaction of proteins, more than the material base, determines why certain cells regenerate themselves and other do not, why cells in a certain combination form organs and others not.

Architecture's modes of perception embrace a large number of traditional and new media: these include not just sketches, plans and models (right up to 1:1 mock-ups), 3D simulations, urban design and material performance studies, but increasingly video and films as well, as media that also include time as dimension of the building situation. They also include the search of analogies to the design concept alien to the field, like for example molecular cell biology structures. And of course they include the completed building. They all serve to examine the architectural task in hand, the location and its surroundings, the material and intellectual conditions, under which a project is realised. One aim is to enable the building to perform its essential functions, but then also to design the urban or landscape texture in which it stands: to condense this, to make it more precise, to contour it, to correct it and so ultimately to initiate an urban dialogue that enriches the users' lives. Here, the artist, much more than the scientist, constantly interacts with specialists from many fields, whom he needs to implement his idea of the building. He is at least as much a communicator motivator and organiser as a designer of ideas. His perceptions move in many directions, and must always keep an eye on his own ideas.

Art, to a certain extent, is situated between, but also behind, the two fields we have touched on, science and architecture. It is, according to Kant's maxim, free of everyday functional purposes that these have to satisfy. It addresses perception itself. Put simply, in our Western societies, since it was liberated from its representative role serving the aristocracy and religion, art has had to show how we perceive our world. For whatever is measurable in certain fields, perception remains a subjective phenomenon that can neither be finally fixed nor generalised according to certain laws – if we ignore socially determined prescriptions about perception, as laid down by etiquette or dictatorship. This feature distinguishes art from both architecture and the so-called exact sciences. And so perception is much more an object of experience than of theory in a scientific sense. Art has the task of inventing so that we can have experiences that make us aware of modes of perception, of their possibilities and their limits.

It is precisely this quality of art that George Steinmann brings out in his work *Metalog*. He transforms the different ways of perception of architecture, science and art into an interface where the disciplines touch, and he translates their cognition and working methods into the dimensions of artistic perception. To a certain extent he approaches them like the pure fool of the Parsifal story, knowing nothing of their perils and struggles and placing himself outside their specific interests. This allows him to be astonished, to insist on alien qualities and to look for bridges that make approaches across the gulf possible. He leaves concepts and explanations on the side and always starts with the utterly concrete position at which experience is always directed. And he avoids conclusive statements that are alien to experience

as a front-open behaviour mode. Instead he finds general forms in which the disciplines can express themselves and change their shapes as experience finds some space for itself.

These include a lack of focus, reflections, reversal and associative links. They organise the highly complex flow of images on the three adjacent projection fields.

Images in a Dynamic Steady State.

The rising mist in the first shot, to quote an example, is followed by out-of-focus water-drops on a glass pane, while in the central area a pipette starts to place drops of liquid on paper. The paper does not slip, the pipette is the only thing that is moving. In contrast, the outer projections show, doubtly and in synch, the same camera movement across the skin of the building; here the facade becomes like a background for the viewer, leading upwards like a film-strip behind the situation in the lab, while the pipette works its way slowly and unsteadily forward, drop by drop. (2) Scarcely has the eye become accustomed to this opposing set of movements when the words "Solid Emptiness" move into the middle from the left-hand screen and link these two fields. Later blades of grass in the wind are placed in mirror image on the right-hand side and in the middle, so that the plant in its natural surroundings becomes a bizarre living ornament, reminiscent of the of the floral abstractions of Art nouveau, while the left-hand screen shows magnified images of out-of-focus screws. Angles of view, positions and combinations change all the time, and weave the motif fields of the three projections into a dense tissue of images that can only be resolved by destroying its texture. Thus for example, while we follow the camera up and down over the façade, another image shows water from above, wanders into the centre position with this motif and at the same time it is super-imposed, in its former position, with interior lab shots.

The motifs that George Steinmann shows are directly linked with the building. He followed the construction process through all its stages, for example working for days with a film crew filming materials like cables, pipes and struts that are built into walls and ceilings and can no longer be seen in the finished building, but are revealed again in the *Metalog*. Ants, a water flea and water are reminiscent of nature in the outside world, and especially of the Elbe, which flows past a hundred meters away. Fittings, screws, connections, equipment tell the story of many visits to the Max Planck Institute's labs. Each of the shots that flow silently by can be categorised as either architecture or science, but becoming art makes them mobile, brings them closer to each other, allows them to react to each other associatively. Here microstructures, shown speeded up, soon look as similar as a piece of ground with water trembling over it in the wind. Or cables remind viewers of images of horsetail. The real and the imaginary are combined, giving the subjects, which are very ordinary as such, an aura of mystery that is precisely what architects and scientists try to keep to a minimum in their quest for precision, in other words for certainty. So filigree reflections on water, filmed in reverse, fade imperceptibly into a teeming mass of ants in close-up, itself reminiscent of microscopic images of bacteria. A camera tracking down a water-pipe evokes entry into a germ tract. Steinmann transfers things into artificial images and makes them into motifs in a large visual composition that seems like an improvisation that is free but follows certain rules, as he has done often enough before in the world of sound as a jazz musician and performer.

Steinmann chooses not to use sound here, and he does this entirely to enhance concentration. His first intention was to use a "room of silence" for his purpose. This would have invited employees to withdraw temporarily from their labs and collect themselves meditatively, but this option was not realised when the architects offered roof terraces.

Metalog now sets out to sharpen the eye for perception; the work is a precise instrument for training the senses, not an idle distraction. Here art sees itself as a genuine cognitive faculty, operating on the plane of science and technology.

With *Metalog* art becomes directly integrating energy. The artificial composition of the images creates a fluid state in which the otherwise separate disciplines come together in the viewer's perception to form a higher unity, a new whole, showing qualities other than their own.

Thus Steinmann is offering the viewer an insight on the plane of experience that has been postulated in philosophical discourse (3) as a cultural task even since the nineties: a sophisticated view of science and the arts with their particular fields as two equally valid ways of assimilating the world, bringing them together to make a common culture that needs

both in order to be able to survive. In Steinmann's work, the result of this combination is beauty, silence, concentration, taking time to pause and to be open in a relaxed, one could also say friendly, way to things that are happening all around. The world is no longer a functional exploitation network but restored to its quality as appearance. The projection started with a dog, and ends with a woman at the centre. When she goes, she leaves behind an aura of energy drawn from the backlighting that has been focused on her. There is no need to fear that things are being played down: as the dog at the beginning was a homage to Andrej Tarkovsky's film *Stalker*, in which the Russian director made views of life collide, the woman is nothing but a shadow to the view, a reminder of the limitations of human perception and cognition, as defined by idealistic Western philosophy ever since Plato's allegory of the cave. History is not leading to a goal, time has more than merely a linear dimension, the very last shot is given back to the dog.

The presentation of the video work and the *in situ* picture installation show how compellingly George Steinmann has committed his art to communication. Ironically the new Max Planck Institute in Dresden does not have a single wall that the triptych video could be projected on. It is perfectly adapted for touring, as it comes in form of highly transportable DVD discs; it was intended from the outset to be shown outside the building and implant the institute's attitude towards communication in other fields, for example when the video is shown in art institutions or at conferences in art colleges. This has happened in 2002, the year the new building opened, at a symposium at the Hochschule der Künste HKB in Bern. The fact that here again there is a role reversal, that a scientific research institution is lending out a work of art that in its turn has the current state of the science as its theme, fits in perfectly with the demand for more communication between the disciplines that George Steinmann is so concerned about.

Within the building itself, Steinmann demonstrates his dialogical interactive approach to accentuate the atrium by a large mural as an internal component of *Metalog*. The architects shifted the foyer to the centre of the building and opened it up through the full height. The heart of the research institute is not the labs, which are accommodated in the side wings, but the central meeting-place that the employees cross.

This has a café encouraging informal conversations, and a canteen that becomes open air at the back, an open reading room and a library with mini-cells for quiet work. There is no doubt that the message of this architecture is communication on all planes. On a second level, and almost imperceptibly, the parallel internal walls on the wing sides of the atrium emphasize the axial symmetry of the design and allude to the reflecting and doubling that are to be found in molecular processes as well. George Steinmann addresses these in the *Metalog* mural as in his video work. He uses an original photograph to reflect a microscopic image of a lichen, and splits this double image down into 24 strips that are arranged on the two end walls in a way that right and left have to intermesh in the viewer's eye to create the whole image. This, however, can scarcely be achieved. The two walls can only be brought together with an eye movement, it is not possible to do so with a single look. And the individual picture strips, which are laminated on anodized aluminium and adjusted to match the concrete shuttering grid, are 60 centimetres high and 3.88 metres wide. The sequence of twelve elements on each side rises to a height of 20.64 metres. Viewers recognise the pictorial principle, and at the same time see that there is a limit placed on making it into an image for themselves. The doubling, reflection and colour reversal of the motif that George Steinmann uses are simple processes in themselves; but they accumulate in such a way as to create a high level of visual complexity. Correspondingly it is scarcely possible to create a definitive image, perception comes to a standstill when faced with the understanding that the inter-action of the elements on both sides is indispensable - thus achieving something on a structural plane that is a life principle for the lichen chosen as subject: the lichen exists as a symbiosis of algae and fungi that can only survive if they collaborate in a social alliance. This fits in with the Dresden Max Planck Institute for Molecular Cell Biology and Genetics' self-perception.

An Art of Contextualization

The contextualization achieved by *Meta/log* places the work entirely within George Steinmann's previous oeuvre: from his earliest days as a painter this artist and formerly practising building site craftsman has focused on the space in which art becomes open to experience. He always tries to identify something that is present as a matter of course and has thus disappeared from view: whether he turns a monochrome panel with builder's scaffolding into a metaphor for art as a building site, or cleans the attic storey of a 142-year-old building in the Bümpliz district of Berne for a fortnight before showing a video installation on the chimney, or extracts the minerals from the water of eleven mineral springs, from 1989 and 2000, and processes them into pigments. His art functions to serve cognition. It looks for stoppages and strives to restore them to a steady state. Most famously and perhaps most lastingly so far, this has been done in the Tallinn Art Hall. Its building, erected in 1934 in the Neues Bauen tradition, but badly bombed in 1945, was in urgent need of renovation. George Steinmann took this renovation upon himself. Refurbishing the building in the subsequent period took place of work on objects; the act of restoration became an exemplary intervention, intended to sharpen and change perceptions of the situation. Many contributions by artists have concerned themselves with the natural sciences for some time now whether illustratively by representation, or suggesting models by imitation, or ironically by creating analogies. The specific processual character of his work, his active contribution to making social paralysis fluid again, is not the least of the factors that gives a profile to George Steinmann's position among them.

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Essay published in the book: Gentle Bridges: Architecture, Art and Science.

The Max Planck Institute of Molecular Cell Biology and Genetics Dresden.

Birkhäuser – Publishers for Architecture, Basel, Berlin, Boston. 2003. ISBN 3-7643-6750-4

- 1 Paperback edition, ed. and intr. by Stefan Collini, Cambridge University Press 1993.
- 2 George Steinmann has reconstructed this process for himself and has by injection coloured several hundred sheets with plant juice and antisepticum.
- 3 At an early stage by the Konstanz philosopher Jürgen Mittelstrass, for example in: *Glanz und Elend der Geisteswissenschaften*, Oldenburg 1989.