

Observers and Pictures of the First, Second and n-th order

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"The mind itself presumes that it can embrace, explore and comprehend everything. Hence, it draws the conclusion that it is present in everything and that everything is present in it, in such a way that it is at the same time outwith it and maintains that there is nothing that could escape its eye."
(Nikolaus von Kues, 1401—1464)

"Consequently the real place of the mirror, and also the person in the opposite, in the contraposition, in the difference and in the negation of everything — it is, so to speak, where all other things are not, where nothing really is, where everything remains outside: but where everything is intended to come into being."
(Carolus Bovillus 1472—1553)

"May we — metaphorically speaking — rise into the heavens or may we descend into the abyss; we never really leave ourselves and we only always perceive our own thoughts."
(Denis Diderot)

"We are incarcerated inside the shell of our perceptions and are born blind to what is outside."
(Paul du Bois-Reymond, 1989)

"Yes, one certainly would be astounded at just how the colours and tones which matter most to us could go missing in our physical world of atoms, just as we were all at once astounded by the fact that what clattered out there, so dry and so hollow, rings and sings inside our head."
(Ernst Mach, 1896)

"The previous experiments only attempt to verify a view of the world which was formed in the inside of the world. This is a relatively simple task although each and every experimenter would feel obliged to contradict me here. Nevertheless, the philosophy is simple. The experiments we are talking about here would be of quite another type, as we do not have quite that exterior position to our world that we suppose we have. For example, we can cope with the problem by creating an artificial world in the computer, to which we are privileged enough to have access from the outside. Then we can see how the people in this artificial world see their world and where it differs from our way of seeing it."
(Otto E. Rössler, 1991)

The fact that we have to describe our primary situation as incarceration, as the endophysical statement made by Otto Rössler suggests, is an aspect which is to be found throughout the history of philosophy and religion with various arguments and images. In his book "Höhlenausgänge" (Cave Exits), Hans Blumenberg has traced some stations in this situational description, starting with the philosophical original — Platonic caves. Of course, even the very title of his book suggests — as does the exit from Plato — that the structure of incarceration in a windowless shell filled with pictures is aimed at discovering a door through which the outside can be reached, i.e. the real or true world. If Otto Rössler compares our situation with that of fish in an aquarium or virtual people in a virtual reality, this implicates the search for actually being able to reach an external perspective in order to at least be able to describe oneself as being incarcerated.

If only some superficial thought is given to this, incarceration as the inhabitant of a cave can only be described after one has taken a step out of it, whereby the cave itself turns out to be a construct which gives rise to the possibility of being able to exclude reality from simulation, in a second stage of fiction, as a picture within a picture to a certain extent. The critical cognition which disassociates itself from the naive viewer of the first order, places reality as a picture within the picture, as it very often can only construe the model of reality through complicated experimental arrangements — the Platonic cave, of course, counting as such. As far as empirically orientated cognition is concerned, that proceeds with experiments and mathematical assistance, the assumption of a distortive or delusive endoperspective is, to a

certain extent, the stepping stone towards an objective truth. In doing so the natural view of the world, the sphere of phenomenon accessible to the senses must be cancelled systematically, like in a Cartesian train of questioning. The endophysical perspective, as Otto Rössler has in mind, would have to be appointed as reflection of the third order: The observer not only observes a "naive" observer, but he already knows all the facts about the distortions from the systematic procedure, from the criticism of the naive observer, the emerging observer or scientist.

Could we ever "seriously" and without foundering under paradoxes, imagine that we were totally and utterly cave dwellers i.e. the naive observer of the first order or, the other way round, can cave dwellers "really" think that they are such? If not — and that may well be the case what significance does this picture of a closed world within the world that is understood to be an explanation of primary illusions, have? Similarly motivated, and of course still embodied in Newton's physics, it is already presented in Kant's transcendental idealism.

The endophysical statement is not only confronted with traditional physics, but also with a logical problem which the philosopher Hilary Putnam has presented in a scene. More humble than Plato, that is, already accepting the immanence or an internal realism with the baselessness of its assumptions, this philosophy moves within the insurmountable presupposed inner perspective. A nasty scientist, according to his cave version, operates the brains from the bodies of mankind while they sleep, placing them in a nutrient solution and connecting their neuronal inputs and outputs with a super computer. In this way brains can be duped to believe that they are still in the real world with their bodies, able to move within it and interact with other brains just as before. If these brains are unable to remember the operation and if this world is structured right to the very finest detail as the natural one, they would be unable to know, unless tipped off from the outside, that they were really brains in a tank, as even the reality of the computer and the organic brain which can be recognized by an external observer would only be accessible for the brains via simulation. If these "brains in a tank" were to think that they were brains in a tank, this statement would be subject to the conditions presupposed by the scene of a total simulation. This is termed to be a self-contradictory statement.

Even an argument like that of the Cartesian cogito cannot transcend the endoworld, but can at the very utmost, only bear witness to a certain consistency in it. Even if it were technically and physically possible to simulate such a world, as we perceive it, for a brain in a tank, one would, according to Putnam, encounter a "terminological impossibility."

Nevertheless, the brains in the tank could say that they were brains in a tank, which of course would be true for an external observer and we naturally could imagine that we were brains in a tank, but this is not logically valid. Entering a renewed vicious circle, one would be forced to preoccupy oneself with the association between logic and reality.

The impossibility of being someone quite different and at the same time being conscious of what this is like, results in great epistemological problems. Not only do these concern the possible limits of simulation but also the endophysical assumption, by making inferences to us, through analogy, of inhabitants existing in a virtual and closed world, in order to see what we necessarily cannot see.

To illustrate this at an elementary level, we, for example, are as observers of the first order, unable to consciously perceive how our visual perception comes to be at a neuronal level. But nevertheless, perhaps at some point in time some other observer will be able to recognize

every detail of how certain retino-stimulations can be computed from the brain to a visual perception. It is already possible to project images directly onto the retina using a retina scanner and laser without the intercession of monitors. However, what the second observer cannot see, even when these computing steps are simultaneously transferred visually on a monitor screen, is what I see directly, as I am not sitting in front of a monitor display during my perception; I do have perceptions which are supplementary to the sensoric input and evidently only create scenes in an 8-second rhythm. Could I myself see how and what I see? That would be similar to Escher's hands which draw themselves. Then, for example, I would have to see my brain activity on a monitor display simultaneous to what it produces while I in fact look at the monitor display showing my brain activity and what it actually produces.

What then results is not only an unending interlocked hierarchy which cannot be terminated. Implicated in this is a temporal difference, as small as it may well be, which cannot be bridged, so that the observed and the observing perception-self cannot be identical. The most minute changes to the view would probably result, through feedback, in a chaotic process which would distort the original scene, as known from the video camera aimed directly at a monitor which shows what the video camera "sees." Incarceration in caves is obviously not as simple as one would imagine it to be.

It does not have to be pointed out that self-referentiality or auto-poiesis was — as the outcome of the structure of the world, culminating in self-confidence — the logical problem that the idealistic philosophers Fichte, Schelling and Hegel preoccupied themselves with. An even more banal version of this cave, as was to be found materialistically and empirically inverted in the waning 19th century with the mathematician Bois-Reymond or the physicist Ernst Mach, based on a theory of sensation and perception as the interface between observer and the world, can be described as being idealistic or subject-concentrated. The so-called radical constructivism cannot not only be traced back to Hegel, Schopenhauer, Kant, Berkeley, Vico or New Platonism stamped with the features of Kues. The origins are to be found in Greek antiquity just as the Platonic caves. Protagoras' theorem that man is the measure of all things is only one version of the self-referential construction that gave rise to the scientific project, so that, today on this side of the philosophy, we can get caught up in it again.

Without having to further elaborate the trains of thought indicated here, one could even for once assume that people look for entrances to caves, which they then equip with the technologies available or even only imagined.

The brain scientist Gerhard Roth believes that the reason why we like retiring to caves of simulation is because "our brain is incessantly constructive and is being hampered by the sensory data to the overburdening constructivity." For this reason we are working at, or rather our brains, at aligning the sensory data through changes in our world, i.e. through technology or art to conform with our simulation machine, or to offset the coupling of the simulations to it. That is, to be able to dream or hallucinate while fully awake and conscious. But then looks could kill.

Joachim Sauter's "Der Zerseher" (Destructive Vision) works with an eye-tracking system. Here, when our eyes see a picture they destroy or disintegrate it at the same time by means of feedback. Every glance into the relation determined by the interface distorts the scene; the non-distorted, non-destroyed picture only being accessible to an external observer.

In contrast, the traditional picture which does not permit interaction with the seer can be regarded as being a model for an observer position which is undermined by scientists and new

technologies today. Here, we can look at a closed scene or a closed sequence of scenes, as in a film, which have been organized for the observer who was on the outside of this. The observer looks at or into the picture which is separated from its environment by a frame. After all, the picture was regarded as being the excellent condition of how consciousness or cognition could perceive something. To a certain extent, the senses transport information from outside onto a display on which they leave their impression in order to be received by the mind's eye, or by means of which they are translated into the language of the mind through forms of visualization (species), which is reflected in them. Even when both kinds of reflection, that is the passive-realistic and the constructive-idealistic, have been constantly criticized throughout the course of philosophical history, it is the mirror, right up to the photo plate, with which physicists prove the existence of elementary particles — a model for the ideal of objective cognition, at the same time as it remains the possibility of delusion. The polished mirror only appears to reflect, even when it reverses left and right. It is the model of an observer who hides himself behind his surface, but this always shows something else and which negates its materiality, at least for the visual senses.

Manufactured images normally not only comply with what they show, the demands of perception for the unequivocal. They, too, have been fitted into the difference of figure and background, as pictures, images and can only be recognized when distinguishable from "real" objects, and when they represent a world in the world which can be excluded and identified. This changeover by means of the structure of a frame or a detail is seen by everyone when they look through the eye of a camera or at a television picture. The scenes immediately transform into a picture, which although just as sensually received, is obviously interpreted differently as it not only distances the observer from the scene but also the scene from the picture, even when it is produced in real time.

The observer of a picture is a voyeur, as he himself steps into the background, anonymous, and remains at a distance, shaded like the audience in a theatre, in a cinema or watching TV, the way the observer follows a traditional experimental arrangement. This ideal of objectivity was not only held for science. It still even determines our perception, aesthetically speaking. We want to keep our distance to the picture even when we also feel the need that it draws us, in order to increase the intensity of the perceived in the stoic-aesthetic distance. This can be produced by the theme and the means of presenting what is shown, but also by the fact that the size of the picture tends to be enlarged, as in panorama, in large-scale picture projections or in HDTV.

What actually characterizes a picture in general, and the perception of a picture? A person suffering from a so-called delusion of reference believes, for example, that he is being personally addressed by the television announcer. Consequently, he has taken the production seriously, yet we have learned to ignore it, even when we still obviously feel the need to see a person and not an automatic talking machine. We are much rather irritated when this picture person, locked up behind the glass, reacts to our questions, for example, even when this takes place within a very closely limited software programme. We have learned to look at the screen and have learned that the living beings incarcerated in it cannot look out. Glass, a metaphor for transparency and insight produces from this that the pictures, as close as they may well be, are separated from us by an insurmountable distance.

The question arises as to who is incarcerated: the observer who cannot get away or the observed which possesses no access to the level of reality of the observer. If we break the glass there is only some machinery behind it. If we split open the skull of a person what we

see is a gall-like mass and neuronal flows of information which remind us just as little of pictures just as the digital code of the computer does.

If one moves closer to the electronic picture it disappears. If one zooms in on it, what one achieves is some form of material structures which are no longer pictures, but which can, of course, be made into pictures when placed in a real, phenomenological or institutional frame. Being able to see a picture obviously means to distance oneself, to introduce an examination or a comparison, to register a reality proviso, to suspend reaction, to let the senses continue to run to a certain extent, yet to forestall every efferent action, where possible.

If we assume, that we generally know what pictures are in contrast to non-pictures, on account of the frame and even if, when enlightened, only have to distinguish between simulations of the first order and second order, the perception of a picture always implies a paradox. To see a picture means to see something, as abstract as it may well be, that is somehow or other "there" and that is simultaneously negated in its existence as it is only the representative that is "really" there: the actor, the screen, the monitor display, the colours, the gridding, the digital code, etc. We have to know what "there" is in order to recognize that what is "there" in a picture does not quite correspond to — what the case would be — if it were "there." Perhaps we would rather have to know what not "there" is, in order to exclude the real as a part sector of the possible. This distinction becomes even more difficult the more the depiction or simulation approaches what is required to perform an examination of reality.

Our perceptive organs are known to be limited and there are a lot of things we cannot perceive with them. Even in this way we live in a cave as a biological organism. In order to open windows there, we can expand our perceptive organs with instruments or build apparatus to snap up information and translate it for us into a compatible language, to acquire knowledge of something which has been withheld from us biological beings with sensory peripheral conditions. We are used to handling realities and believing in them from the sciences, realities which we either primarily cannot experience or which are merely translated as an input for a sense but which are not verifiable for other senses. Here, too, the synaesthetic moment of examination is missing to a great extent.

One could ask oneself which conditions would have to be present for something not to be able to be perceived as a picture, after all, it is also possible for us to transfigure a "real" scene into a picture, whereby we then would have to create certain mental frames. Of course, pictures which are produced as such are normally "poorer," that is to say less compact and less defined than the sensory experiences in the material environment, which are always synaesthetic. As already said, the same holds true for scientific pictures which indicate that that what appears to be filtered or perhaps even distorted by the measuring or recording instruments, does exist.

Pictures, here even in the wider sense as scenes, have generally no continuity to usual experience and their expectation capacity. But that is really only a matter of their interpretation, whereby pictures themselves can only be recognized as such by interpretation which again is what they have in common with a scientific argumentation which advocates with a complexity-reducing "accepted." The continuity or consistency of experience as an index for its actual reality was Descartes's argument which Leibniz then assumed. The experienced phenomena must be "lively, varied and harmonic in themselves." They should permit "long chains of observations" and should be in unison with the habitual way of things," should be self-explicatory from their preceding phenomena and should enable future happenings to be predicted. However, as was clear to both philosophers, such criteria cannot ultimately prove the reference of an experience to something outwith their representation, as

then it would be possible to at least imagine that dreams, hallucinations or simulations would suffice all these conditions. Furthermore, they do not exactly explain how one can adjust the focus for something seen into a picture perception or vice-versa, something which takes place as suddenly as the changing figure in a rocking picture which can be perceived in this way and then in that, but where one can never "see" both together as is the case in quantum mechanics. Even when distinguishing between pictures and realities, a subconscious neuronal programme appears to be effective, which makes the experience evident, in accordance with an internal ruling, even when this obvious "insistence on unambiguity" (Ernst Pöppel) may not conform to reality and certainly not with the purely sensory information; yet only indicating the self-referential mechanism of the brain as in the case of constancy phenomena.

Pictures can be adequately defined both by the distance from the observer and through the difference to the world, as an excludable world in the world, without having to make any reference content for this. If "pictures" include the observer, as in VR technology, with his being integrated in their world, to a certain extent, as a personified being, so that he can move sensomotorically from the self perspective in their scenes just as in the natural environment, then they will be interpreted by perception as environment even when the observer naturally knows that they are really only a world within the world. In virtual reality there are pictures, too, which however can have the characteristics of being doors through which one can step into another scene. But this electronic environment has a strange feature that conforms with the natural environment scanned by our sensors and their projection in the brain: It can only be realized as environment when all the observer's movements that are of significance for the simulation are observed themselves, when the observer is a prisoner of the electronic panoptical prison. Incarcerated is the brain, our environmental simulator, by means of the feedback to the sensory input, by which it is forced to select those simulations which suit him. It would also appear that our consciousness is also imprisoned in the illusion that everything that is seen, is on the outside. Even when we know that everything visible is produced in the brain, we are unable to distinguish the corresponding neuronal operations of picture production from perceptive pictures. The distinction environment-self can only be derived from the knowledge of an observer — the observer observes — but cannot be realized as perception.

But how, for example, should one prove to an observer of the first order, at the level of perception, that a rocking figure either consists of two pictures which are incompatible for our perceptive system, or of one structure which can be alternatively interpreted, when the neuronal tendency towards the unequivocal cannot be bridged? Similarly difficult is the question as to whether the splitting into waves or particles should be regarded as being two ways of existence for a material object, dependent on the measuring procedure, but which we merely cannot see, or whether the modules of the physical world are actually only probable and indeterminate as, for example, the medical psychologist Ernst Pöppel believes: "With its insistence upon certainty, it [the human information processing] overrules the probabilistic and indeterminate nature of the most primitive and archaic components of the universe." Of course we can be deluded by pictures which pretend to depict something realistically, because they are formally adapted to the reality expectations of our neuronal simulator. Nevertheless, we still recognize them to be pictures as soon as our brain has switched over to picture in its tendency towards the unequivocal. Linked to this switch over is obviously the fact that they refer to something in the real world or represent something fictitious.

It is often said that the constitution of aestheticism is induced by easing action, which means that the observer of a picture is not involved in his scene as a personified subject of material interest and that, as Leibniz said, the real scene is complex and cannot be predicted as a whole in all its levels and perspectives — not completely — and by its indeterminable peripheral

conditions. The scene of a construed picture is always "poorer." It can principally escape the notice of the observer as a type of Laplacean demon. For example, when Rössler imagines virtual people in an artificial world as guinea pigs, then this virtual reality would have to be parallel to this one as far as its depth and its transfinite exactness are concerned, if one was to make sound analogies to our world: "The world must be built just as exactly, so as to lose nothing when one moves from one state to the next." Accordingly one would need a dissipative structure for this, a "molecularly dynamic simulated world" as the interface distortions exist "only for an observer, who is constructed exactly from quite a lot of quite small particles with reversible dynamics." Such a virtual reality would then no longer be a picture, as far as one could construct such, but rather a parallel world. It would then be just as compact and complex as our world, and probably uncontrollable in the individual parts. It is similar to the experiment of building intelligent robots which can senso-motorically explore their world on account of certain programmes and thus construct such a world. Analogies can then be made referring to certain mechanisms of the world picture structure but the robot world picture is then also only a corner of a possible system and no longer a model for the human world picture generation.

The second feature of a picture can probably not be principally changed even when one expands the frame of the picture, as in virtual reality, to surround the observer being then realized in the form of the data suit. However, the interface with the picture does change, as the principle of virtual reality is based on canceling the distinction between picture/environment and on realizing the picture as environment. Traditional pictures are, as said, worlds within the world, pictures of virtual reality presuppose the stopping down of the world which is the reason why one has to put on a diving suit, and the relevant sensory organs are now only structurally interlinked to the computer. The interface becomes the second skin. It no longer finds itself in front of and separated from a senso-motorically accessible body space like a keyboard or a mouse. But even when one could simulate the synaesthetic compactness of a "real" experience by direct and specific brain stimulation, then, as long as the brain is still organic its operation must be maintained by substances which cannot be simulated, just as the immaterial world of computers can, merely on the basis of current or some other materialized hardware.

There are picture representatives here, too, even when they need not be made from stone, screen, or flesh. If a picture is always only a world within a world, supported by something which cannot be integrated in the picture, then, as said, the frame or the interface can be displaced in order to make the comparison of picture and environment or the difference between picture and representative impossible for the observer's cognitive system. The observer can enter the picture like a "real" scene when his actions have been fed back to the picture.

When the observer, as we hear today with the presence of technologies like VR, can no longer observe a scene from the outside which is independent of his person and his actions, but can influence this scene by interacting with it, then an interesting philosophical question arises: Is it possible to show the observer how his presence interacts with the scene without giving him the possibility of being able to see himself again as an external observer and at the same time as an observer integrated in the scene, even when the perspectives of the external observer do not have to be objective, but which only emerge from a higher-staged reality. When an observer-objective world is staged for an observer via an experimental arrangement, be it for artistic or scientific purposes, then this would have to be possible without having to resort back to eventual worlds of imagination within the realized world. If the observer can take in both perspectives at the same time, or at an interval, a comparison would be possible which

would also create a gap for him, consequently breaking the immanence. At least Otto Rössler's endophysical statement maintains just that as Niklas Luhmann's system-theoretical statement does, that this isn't possible, as the observer-objective world would have to be parallelized and this would contradict the term of a world even when one can take in different perspectives in a world which one could, for example, subdivide into levels or orders.

Peter Weibel has tried to represent the contra-intuitive endo-perspective pictorially by alienating the usual situation of an observer who perceives his environment, but who can only partly see. The starting point is a drawing the philosopher Ernst Mach made of himself. He is an observer in the world which only sees what he sees when he performs the "self observation¹," and which the reflection philosophy made a lot of fuss about absolutely nothing over, as Mach thinks. Of course, he represents himself as someone who looks into the world whose eyes, that is the interface, just as certain parts of his body which is lying on a sofa, remain invisible. Depending on the traditional two-dimensional picture, Mach was only able to realize his paradox self-portrait from the view of one eye. If one shuts one eye, one sees a part of the nose, maybe even the eyebrows or the beard, whereas when looking with both eyes this framing is faded out, which is why we do not have the impression that this picture evokes of looking out of a frame. In addition to this, the picture is presented from the perspective of the drawing and not the drawn observer. As an observer, we assume an external position just as the drawing self-observer does.



Abbildung aus Ernst Mach: Die Analyse der Empfindungen, 1906



Peter Weibel: Computerunterstützte perspektivische Krümmung der Machzeichnung, 1991

What at first glance appears to be the realistic perspective drawing is not really construed from the position of the first observer due to another representative form. In order to avoid the complications which arise, Mach has, for example, added a window as a world in the world — but not the drawing he is in the process of making, so as to realize himself as an observer of his observer perspective. The hand with the crayon hangs in the air in nothingness. What would the picture in the picture have to look like? Would the drawer be identical to the drawn, then his glance would either be directed towards the page or to the space. However, he would not be able to register both, at least not very clearly. But even if this were possible, the page would shade a part of the perceptive space because it is situated in it. Then the same would be on the picture in the picture as is on the picture, and of course, the picture in the picture would have to include a further identical picture, etc. Besides this impossibility of representing the unequivocal and closedness of our experience, we are unable, as Mach's drawing suggests, to clearly see the foreground and the background, for example, the nose and the eyebrows in the foreground. This observer-objective view proves to be a construct. It is composed of many perspectives which can only be perceived in sequence.

Above all, Mach wanted to demonstrate that something will always be faded but in a view, that is — the observer as a whole — through which the interface between the outside and the inside passes. Without the aid of supportive media we cannot look forwards and backwards at the same time and similarly the view to the inside is also denied us. What is behind the eyes and behind the head remains hidden to the eyes, or one expands this, for example, by one or more video cameras which — depending on the head and eye movements — record and replay what is happening behind or what cannot be seen at the back of his head for the observer, on one or more monitor displays in front of him. But, if one continues this scene each monitor display showing more in the sense of cybernetics of a second order, than the observer can see directly, at the same time conceals an aspect of what he could see if there were no monitor display. As a result, in terms of the tendency towards the unequivocal, it is difficult to simultaneously follow the different scenes on several monitor displays. A larger computing capacity would probably not be able to change this very much. It could possibly process several perspectives parallelly, but nevertheless would have to establish a perhaps statically calculated average. Maybe the simultaneousness of different perspectives would be possible for a pure eye, which has to move in the world, not situate itself there. But just this would appear to be the case for a self-referential system like the implemented brain in a macroscopic body.

One can only represent the endoperspective in a traditional picture as fiction, and from the perspective of an exo-observer. How does Peter Weibel attempt to solve this problem not on the level of a theory but on that of a picture i.e. for the perception? Paradoxically, he now represents the endoperspective as a space inverted in itself, whereas one would normally assume that the perspectively divided space should rather, correspond to this, as it is our socially coded normal perceptive space, even if only in the representation. Actually one should assume that the space could perhaps look for an observer with another perceptive system or perhaps for a hypothetical exo-observer, the way we would experience it in the utmost and most extreme alcoholic state i.e. when the usual mechanism of the reality structure is considerably disturbed. However, Peter Weibel maintains that the space could be represented "as the interface of an internal observer." This again would mean that the internal observer would be observed by an external observer, namely the one watching the picture "in the electronic age." In order to be able to recognize at all that the space is distorted, one would have to compare it with the observer's space which Weibel characterizes as being external. This again is only possible when the representation presumes that we are, to a great extent, external observers ourselves whose perceptive system is irritated by the distorted' space, being unable to orient in it, in line with internal rules of physical movement which demand the unequivocal. It may be maintained that such a picture could possibly look as if this is not ordered by the one-eyed perspective but that this corresponds to the subconscious visual perceptive process of, for example, the saccadic jumps from one focus to the other. In this case, the picture would represent the basic perceptive level of the endoperspective which is otherwise inaccessible to us and which has not yet been closed to form a shape. The subject of the picture appears not to take up the intended aim. Of course, the problem is also that this picture is not interactive, that the viewer is not a part of the picture. One can certainly produce complex reciprocities on such a picture, just as Velasquez did in his *Meninas*, but the picture cannot really include the observer, the Viewer and the producers: one point always remains empty.