THE AVATAR'S BODY IN GAME SPACES

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The phenomenological concept of corporeality is based on the assumption that the body is the medium that constitutes space and enables experience: the fact that people have a face, which is why they encounter space head-on, and usually stand on two legs, which makes them stand upright in space, and that they have a symmetrically organized body that allows them to qualitatively differentiate between two sides, defines, according to phenomenology, their specific anthropological status. The human body can therefore rightly be referred to as the schema or "archetype" of space, in so far as it determines how space appears to the individual and thus how spatial perception or the extent to which perception is spatially structured.

The medium of the body can even be spoken of in the full sense of the word, since the body medium is in the "middle" in so far as it forms the central starting point for the experience of space; but the human body is not to be thought of as a mere mediating instance that confronts the inner realm of thought or rationality on the outside, as René Descartes' separation of *res extensa* and *res cogitans* suggests. In other words: the mediation performance assumed from the phenomenological side has absolute validity and forms the basis of perception; it is not, for example, deviant from reality because it only mediates certain aspects or makes the world accessible in perspective sections. Rather, according to the phenomenological view, the perspective is part of reality, the "being-in-the-world".

This does not mean, however, that human perception is limited to a way of being-in-the-world. — On the contrary, the body schema as the archetype of space can also be modified; and this is precisely what technical media, above all image media, make possible: they can, for example, extend or limit the range of the body. Rather, the same can be assumed for technical media as for the body: even technically mediated structures are not inferior to what they represent but show something in a special form. In other words, for media such as images in particular — phenomenologically speaking — *what* they show is of less interest than *how* they show it.

From an ontological point of view, however, a representation can have less to do with being than with what is represented, since a picture only shows visible qualities, but not the tactile or olfactory qualities of things. The "increase in being" (Gottfried Boehm) inherent in the picture, if it does, is derived solely from the form of how a content is present: the kind of artificial presence can deviate significantly from the way the picture subject appears in its actual appearance. Such a phenomenological view of images can already be found among the producers of images, especially among painters who understand their activity as an exploration of perception.

According to Maurice Merleau-Ponty, what is special about a still life by the post-impressionist Paul Cézanne's, for example, is not that he paints apples on plates with a jug of water next to them, but that he paints the plate and the water vessel in a slightly a-perspectival manner — thus showing a visual situation, in which one sees the apple on the plate and the front of the jug from the point at which the picture places the viewer through the perspective of the picture, and at the same time slightly obliquely from above onto the plate and into the opening of the jug, both of which are rather round than elliptical. Cézanne has thus painted "something", which in psychology is called "constancy of form", and this means that a person's perception is not based on a momentary mono-perspective ("photographic") view of things, but on experience of the object: and part of this experience is that plates and jugs are usually round rather than elliptical. Cézanne has therefore chosen the mode of her life-worldly experience as the form of representation of things and it is this mode — the *how* of representation — in which the still life differs from a photograph of an identical arrangement. Cézanne is thus a special case of modern art because he does not attempt to go beyond the structure of life-world experience and produce self-referential or self-critical images, as was the case in Cubism, but rather to give the experience of space a formal expression in the picture.

FIG. 1
ATURE MORTE AVEC POMMES,
PAUL CÉZANNE

But it is not only painters who can modify the how of bodily and spatial perception in the picture or — as in the latter case — try to emphasize particular aspects of it by modifying it; even the imagination allows everyone to vary the configurations of the spatial scheme of frontal direction, upright walk and left-right difference and thus to modify the "archetype" of space. Thus, through imagination, it is possible to imagine what it is like not to stand but to crawl, i.e. not to have any experience of the vertical.

In contrast to Cézanne's times, today it is no longer possible to modify the way an object looks by means of a static or merely moving picture, but rather to make it look like an object: There are images that can be varied by the viewers themselves. Simulation images can be used to visually experience what it is like to steer a train or fly an airplane and thus conquer the vertical in a full sense. While the reception of these images was initially reserved for only a few people (such as pilots or scientists), in recent decades they have found their way into our homes and especially children's rooms in the form of computer games.

Although computer games are also means of play, they are first and foremost images of a special type: Their reception requires that they are not only viewed, but that they also interact with the visual phenomena via the incorporation of an avatar and the properties of it's body. This applies primarily to those games that convey an interactive spatial image and thus — due to their interactivity or the real-time generated representation of the interaction result — provide a navigation scheme that takes over the function that the body has in real space orientation. Computer games, as simulation images, are thus media which, like the human body, structure and enable a specific spatial experience. Their basic feature is that of spatial navigation.

Of course, the body as the archetype remains a reference point also for the avatar and the physical constitution of space the standard of comparison for a user of simulation images; but regardless of this, simulations can also provide completely foreign ways of experiencing things such as flying, which no one should know from their own physical experience. Flying or hovering have been used as perceptual modifications in cinema films, but for the first time the simulation image offers the possibility of navigating by oneself.

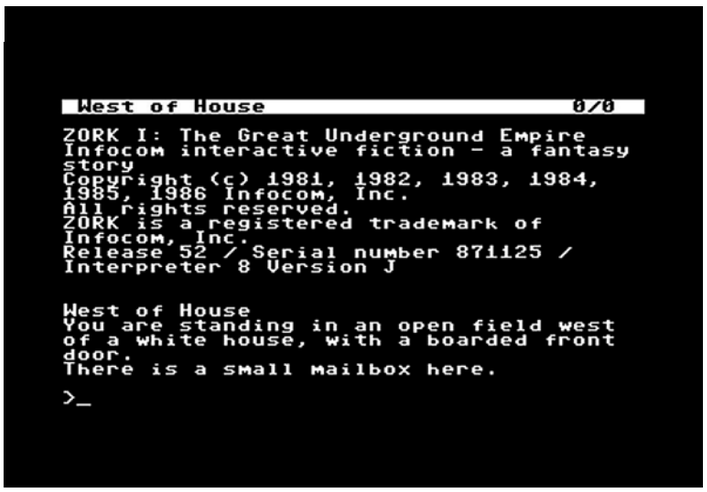

FIG. 2
ZORK (1980)

No film image, no matter how sophisticated, can create the impression in viewers that movement is induced by them. This is the principle of computer games. From a phenomenological point of view, those options are particularly important which are not in clear contrast to the extra-pictorial perception, but which are rather variations or radicalizations of the experience of the body.

A radicalization is represented, for example, by the game ZORK from 1980, which represents the body schema as such in its essence. The game, which belongs to the group of so-called text adventures, is varied solely through the input of text and is thus already a borderline case of the image: the image itself contains no pictorial representations of a space (fig. 2). In response to a description of a situation, players are asked to enter text, which consists mainly of control commands and subsequently triggers a spatial movement, which in turn can be derived from the new description of the situation. Despite this text-based approach, the game is not about conversation with a virtual counterpart, but about navigating through a virtual space (fig. 3).

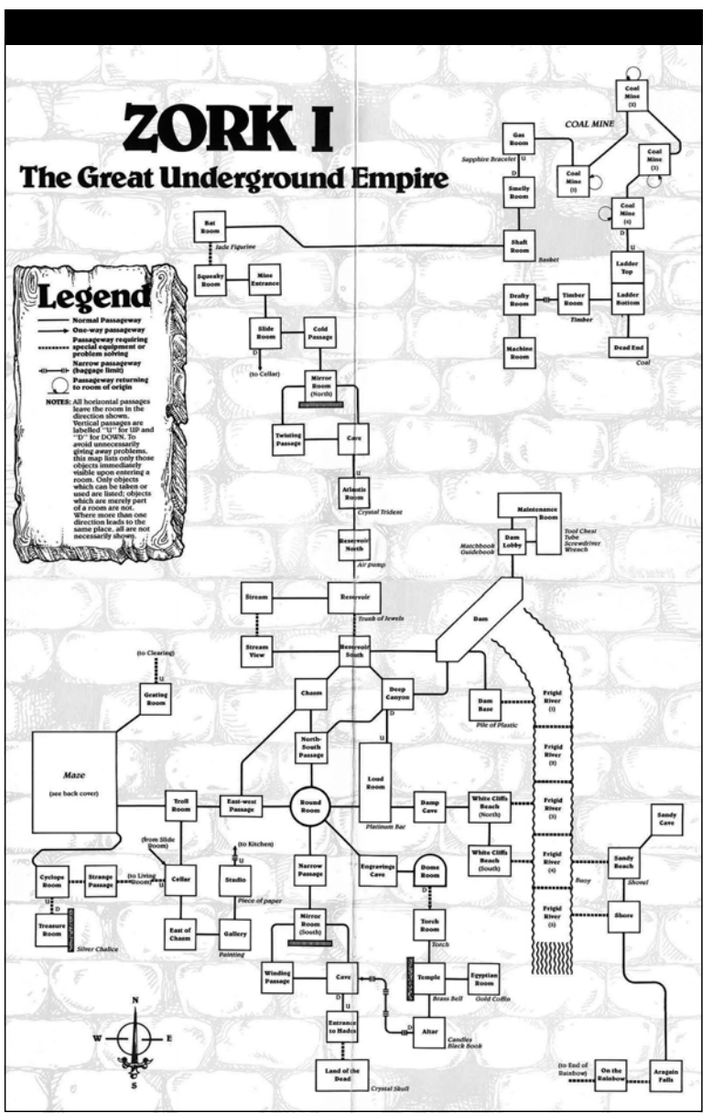

FIG. 3
MAP OF *ZORK*

In the computer game, the continuous movement as it is made possible by the medium of the avatar's body (or in this case: location) is reduced to essential movements: In fact, topological navigation comes close to a phenomenological description of the human body, in so far as it is characterised by continuous movement, but, according to the phenomenology of the body, this also occurs between excellent directions along cardinal axes to the front or to the side. The only difference is that a movement can be repeated identically in the text adventure, whereas in the real world it can only be repeated differentially and results in similar but not identical movements of place. Only the statistical means of lifeworld movements would produce a space that can be called a "hodological space" by Kurt Lewin's environmental psychology. The text-adventure ZORK therefore allows the space of decisions to be experienced as a pure hodological space. In this space it is no longer relevant how the users of the space get from one point to another, but only how they decide to go. At most, the aim of the game can be to traverse the labyrinth in the shortest possible way and to make the topology of the space itself the object of spatial action.

Contrary to the hodo-topological spatial experience or movement, games of the First Person Shooter type largely approach the physical scheme of the human being, even though these also make a phenomenological reduction and, like text adventure, are based on spatial navigation possibilities that are topologically limited. They are different in terms of their visuality: Whereas in ZORK a black screen with bright

letters could be seen, in games like DOOM a perspective view of space is given, i.e. players interact with an "egological" view (fig. 4). Accordingly, both genre names are derived from the subjective viewpoint that is the style of this spatial image, whose *how* consists in the central perspective and representational representation of its *what*.

FIG. 4
DOOM (1993)

In contrast to a text adventure, a first-person shooter has a flowing or continuous spectrum of movement, so that in terms of navigation it is in one case an "analogue" screen game, in the other a "digital" one, although both are digital games in the technical sense. Nelson Goodman in *Languages of Art* from 1968 had already distinguished between "analog" and "digital" in the sense of density and discontinuity of a representation. This understanding can also be applied to interactive images: In the case of ZORK there are distinct, clearly distinct options (either "north" or "south" or "west" or "east"), in the ego-shooter, on the other hand, there is the continuous, grazing movement, in only vaguely defined directions. Accordingly, a compass is usually displayed in the game image or the game has its own map mode, with which or in which the primarily only approximately determinable directions can be subsequently concretised—and transferred into a "digital" determination. The experience of the "analogue" simulation picture ego-shooter can therefore come very close to the experience of space in the real world, as even people can only approach the points of the compass and GPS despite the aids they use, precisely because their being is physical.

The difference between the "real life" situation and that in the game is therefore not, as in the case of the text adventure, the difference between "analogue" and "digital", but rather the limitations and extensions of analogue spatial behaviour. To illustrate these variations two ego-shooters can be compared: One is the already mentioned DOOM from 1993 and its successor QUAKE from 1996 and its sequels (fig. 5), both of which contributed significantly to the commercial establishment of the genre.

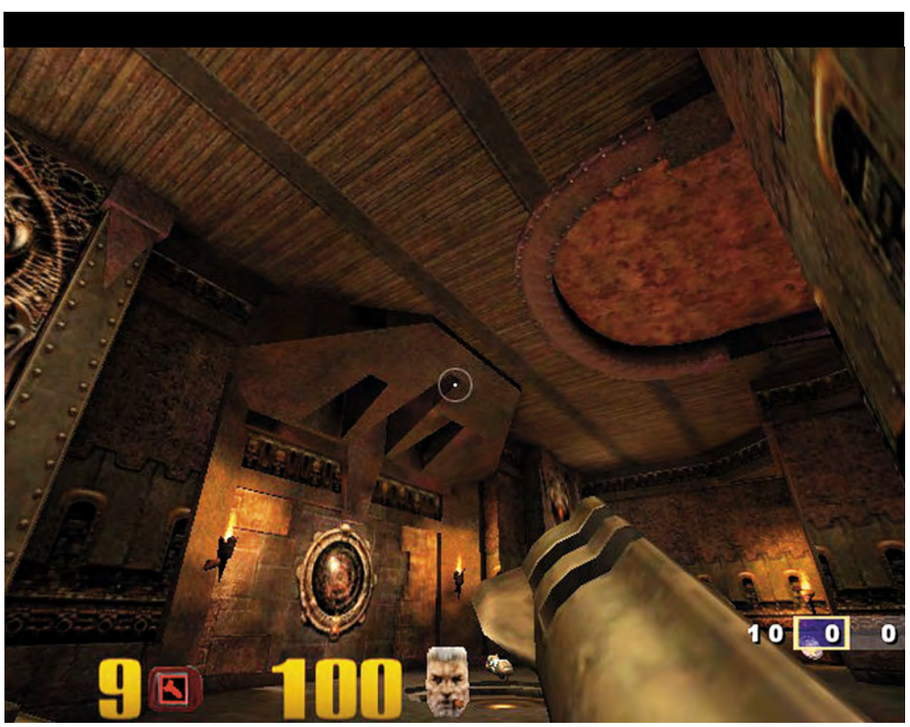

FIG. 5
QUAKE ARENA III (1999)

Only in QUAKE was it possible to perform a movement in all three visible dimensions of space. In contrast to this, DOOM was designed in such a way that the user could only navigate with the avatar's body or location along the horizontal axes of movement, even if the space was already three-dimensional or in depth perspective as a picture view. In this way, the image movement in DOOM was reduced to the two axes of the plane, whereby the primary lateral movement could be carried out in two ways: as a rotation around the vertical axis of the virtual body (clockwise or anti-clockwise to the right or left) and as a direct lateral movement. The latter in particular, as an excellent movement, is the secondary one in the game. This takes into account the fact that people also turn primarily in their everyday lives in order to take a different direction and do not move directly sideways to get to the right or left. Thus, the keys used in DOOM to move sideways are not located in the area of the other four keys on the input interface, where the relevant movement commands are given using the cursor keys [↑], [↓], [←] und [→]. The last two "mean" spatially then not "directly left" or "directly right" but the respective rotary movement. The direct sideways movement, on the other hand, is performed using the [,] keys for "left" and [.] for "right".

All in all, the movement spectrum of DOOM is thus limited to navigation in the surface, which is paradoxical in that a surface has no extension and is therefore not space. At least this applies to the Euclidean conception of space. With the Non-Euclidean geometry, however, the paradox can be resolved: For example, with his *Theorema Egregium* the mathematician Carl F. Gauss in 1827 claimed, that the surface of the earth itself can certainly be regarded as a space, since it is not completely flat due to its curvature. In Euclidean geometry, the surface is a special case of space: a two-dimensional space. Thus, phenomenologically speaking, the spatiality of the human life-world is composed like an early ego-shooter game like DOOM in which the possibilities of movement of a planar being are simulated and only navigation in the plane is possible. The third dimension is only given here as a fiction: Even if the view of the room is given in "3D" and upright figures as well as walls and ceilings can be seen, the first person shooter cannot raise his gaze and look at the ceiling from the front or even look into the sky.

The vertical change of view was only possible in QUAKE, which in turn required a change in the input: body and eye, which were still identical in DOOM insofar as they were moved at the same time, had to be controlled separately from now on: Thus in QUAKE the body of the avatar is still controlled with the left hand via the keys [W], [A], [S] and [D] in the topologically limited space of the surface, whereas the head is moved with the right hand via the computer mouse, insofar as the back and forth movement with the input device (which itself is moved in the surface) causes an up or down movement in the picture.

For the movement, this Cartesian division of head and body or body and eye resulted in the fact that the lateral movement is no longer regulated by the keyboard alone, but primarily by the turning of the gaze, in so far as the previously marginalised evasive movement, which leads directly to the left or right, is now transferred to the central area of body control, but the rotational movements around the vertical axis now result from the combination of the turning of the gaze (lateral movement of the computer mouse) and movement along the Z-axis of the picture space—i.e. in the dimension of its depth. In return, the evasive movement is raised to a tactical principle. These changes increase the demands on the players to act and spatially orient themselves in the image space of an ego-shooter. This means that even if the simulation supposedly approaches the physical scheme of the life-world experience, the game image varies considerably due to the interaction, thus forming not only an own style of representation but also an own spatial experience.