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On Justifying the Hypothetical Nature of Art and the Non-Identicality within the Object World

An interactive computer installation by Peter Weibel at the Gallery Tanja Grunert, Cologne, 5. June – 1. August 1992

1. The Installation

The visitor is received into a completely dark, acute-angled triangular space of aluminium plates on a steel-girder construction. The only source of light comes from a screen measuring 5 x 3,75 m. It constitutes the open (transparent) and of a real environment which will present other, virtual worlds. The ground plan (by architect Christian Möller) for the environment is based on the front elevation of the saddle-roof type of house common in these regions and known as ‹St. Nicolas' House›. The screen is found at the ‹left hand side of the roof-slant› on which images fall via back projection from a wide-screen CAD data-projector.

The visitor will start the game as he moves into the dark space. As soon as he has touched the floor perforated by grey and coloured spots he has to make up his mind: either he stays firmly rooted in reality – if he avoids the coloured spots – or he takes a

plunge from the real environment into a virtual one by stepping onto one of the red, green or blue spots on the floor. By taking such a step he chooses one of various possible virtual worlds; by subsequently stepping on the remaining light-grey spots on the floor-mat he can navigate through his chosen virtual world and the perceptive experiences it proffers. In effect the visitor is able to leap backwards and forwards between virtual and real world, as well as several virtual worlds. Once he has stepped into a particular world-mode he can control its appearance, and the shapes and apparitions in it by continuing to walk on the light grey floor points. Thus he selects not only the codes for the various ‹world-modes›, but also plays around with the modules of these codes as he progresses. His steps will evoke changing images of these worlds that are projected in real time on the huge screen.

What are the prerequisites for these concrete images, this walk in leaps and bounds through virtual worlds provided in real time?

First, the floor, the active area of the installation, has been underlayed with a number of sensors marked on the surface: stepping on a red, green, or blue spot activates one of three virtual worlds; stepping on the remaining 29 light grey spots scattered throughout the room activates the shapes in, and appearance of each respective world on the screen. The technical operation is as follows: the sensors, individual contact mats, determine the visitor's presence and absence which they transmit to a circuit board (constructed by Bob O'Kane) which controls 32 switches in a button-box which correspond to the 32 contact-mats. The received information, in accordance with programmes initially selected by activating the coloured sensors, triggers numerical operations and algorithms in a computer (Silicon Graphics 4D/320 VGX) connected to the system. This digitally coded information is now transformed into graphic (visual) information and fed to a data-projector generating images in real time through video back projection on the large screen. Gideon

May has co-ordinated the programmes for the respective virtual words so, that once activated by the various real floor sensors, they can be manifested consecutively in one shared virtual space of the screen. Thus the installation presents itself in three parts:
1. Solid reality of the floor perforated by three coloured and 29 light grey spots which invite the ambling visitor to plunge into various virtual worlds.
2. The circuitry connecting these interfaces to the programmes determining the various worlds.
3. The images screened in video back projection reacting to the visitor directly and in real time.

Via the interfaces in the floor the installation reacts directly and interactively to the user. However, as opposed to his situation when facing the alphabetic keyboard of a typewriter, for instance, the user is unable to operate the 32 floor sensors instrumentally. Instead, he himself is being sensed by the alphabetically arranged keys of the floor contacts. The observer is being perceived by the sensors of a huge typewriter, subsequently interpreted by the computer, and represented on screen. The observer himself is turned into a tool. This device, which perverts the instrumental function of conventional writing systems nevertheless constitutes an interface which, with its 32 floor keys (3 world-modes, 26 letters, 3 additional signs) is organized like language, in that it transmits not the message, but the presence of a subject, thus not re-presenting reality, but presenting the conditions for the construction of that reality.

Thus the three virtual worlds available to the visitor via red, green, or blue spot-activation reveal in a most unusual way to our manifest experience our own distorted perception of reality. The three available worlds are the world of text, the world of space, and the world of objects. The observer can skip from one to the other. By activating one of the coloured sensors you can enter one of three possible virtual worlds, where green corresponds to the text-world, red to the world of objects, and blue the world of space. The next 29 light grey sensors then only trigger

the transformations in each chosen world, so long as no other colour-key is stepped on. Each time you step on a new colour point a different virtual world will appear.

To describe the three worlds perceived as undergoing constant deformation and movement before their interaction with the observer you would see the following:

– an empty interior space (spatial world)
– alphabetical letters, words, whole sentences (text world)
– a table, a chair, a human face (object world)

An interior with a subject, a table and chair, where a conversation is taking place is part of our most common daily experience. The three world-modes radically disrupt the triviality of such a common experience: in these virtual worlds our familiar reality of a room with a table and chair, human faces and coherent words and phrases appears only – if at all – as lingering image. The world of reliable, constant phenomena is transformed into a world of variables. Familiar conceptions of identity and reality, the distinction between subject and object are thus put into question. Non-identity and incommensurability are becoming axiomatic. In these worlds, space, objects, and text can be moved and transformed beyond recognition by the observer following these parameters: the position of the elements in these worlds may be transmuted and moved along the co-ordinate axes X, Y, Z by the observer changing their scale, proportion, and rotation. In addition, the observer can also control certain extra functions: twirl, twist, and wave functions, textures between objects are transformed (real texture of objects changing into numerical digits, letters etc. as texture), texture can be moved between objects and wall; just as in a thermodynamic system the energy-level remains constant, so that movement may be transferred from one object to another; instead of texture we may well occasionally obtain twisted ribbon models as movement leaves behind its trace when the overdraw function is in operation, the aggregate condition of phenomena changes into opaque shapes or twisted ribbon models, dots or lines etc.

Thus space, text, and objects may do ‹things› and obey laws which definitely contravene those of our daily experience. Here, their properties may be borrowed from each other. Words become material and spatial, objects take on the texture of letters, and space may break-up into several self-identical objects. In their respective cross-referentiality and through the distortion of its usual appearance by changing just a few of its parameters these virtual worlds thus demonstrate more precisely how they are shattering our usual everyday perception of reality.

2. The Text-World

The visitor has now stepped onto a colour-point and is immersed in the world of language. The Text-World designed by Constanze Ruhm after original draughts by Peter Weibel (programmes devised by Bob O'Kane) presents a virtual space on the screen on whose floor we find the letters of the alphabet arranged as on a keyboard. Now the observer in the real environment moves on, or someone else steps onto one of the light grey points of contact connected to the 26 letters of the alphabet. Once activated, a letter in the virtual space takes off from the floor, leaving back his double; but at the same time all other letters of a particular word take off into virtual space where they combine into a word sculpture floating freely in space. The letters provide access to the language store. For example, we have so and so many words beginning with an S behind the letter S. If S is activated, the visitor will, for example, be presented with ‹Space› as a spatial, S-shaped curvature overlayed with the appendix word ‹Space›. Various words taken from computer terminology, mathematics, physics, or philosophy have been assigned to each of the 26 letters (e.g. ARBITRARY, ALL, BINARY, IDENTITY, NOW, HERE, JUSTICE, DIGIT, FREEDOM, CODE, SYMBOL, ENTROPY, e.t.c.). These transmutable word sculptures almost always render

the word itself illegible by displaying its constituent letters spatially intertwined, layered, or piled-up on top of each other. Nevertheless, many of the sculptures will refer back – via several transformations – to the meaning of the selected word: The correct order of letters having become unrecognizable, a word's significance will nonetheless appear plastically evident on the basis of individual, visually dominant letters. These word sculptures reveal significance as bearer of associative similarities. They create similarities between a letter's shape and its meaning, and dissimilarities when the system is reacting in a ‹disorderly› fashion. Hence the word ‹scanning› would be shown as a scanned sculpture. A self-referential feed-back effect links the semantics and physics of a word, its immaterial significance and its material appearance.

When a second observer activates a contact-point the word sculpture will be joined by another one. After a while, both sculptures develop into linear, legible, comprehensible words which are then linked through such verbs as ‹is›, ‹has›, ‹seems›. Thus, two real subjects acting on the keyboard of the real floor have formed a virtual sentence such as ‹identity is binary› or ‹digit seems entropy›. Thereafter the words return to their status as sculpture, before re-joining the alphabet on the virtual floor. In the Text-World, besides meaning – position, scale, and rotation of the sculptures are thus floating freely, depending on the steps taken by the observer on the 29 real keys on the floor.

3. The Space-World

The world of space and architecture (devised by Christian Möller after an original concept by Peter Weibel and programmed by Dieter Beck) is based on an empty, smooth, interior space complying to the rules of linear perspective. As soon as you enter virtual space via one of the coloured floor-points its five constituent smooth planes break up into self-identical segments. These planar spatial elements have been assigned to

ten different possible groups of combinations which the observer may activate via the light grey floor-points. These erupt regularly but with different speeds, or combine in accordance with an incidental algorithm so that eventually 20 different new spatial configurations may be enacted. Movement occurs only by means of scaling the individual elements, marked in cool hues of black and blue, along one axis. Their movement and dispersal in space is controlled by programmatic algorithms which are, once activated, self-regulatory. Dozens of algorithms transform space itself in its many variations into an image of space.

As he moves on, the observer initially glimpses a self-furnishing interior setting itself up from its own constituents: the various, differently scaled, spatial elements temporarily appear seemingly as opened drawers or a cupboard. The incessant declension of spatial segments into continually changing interiors by the computer will generate various aesthetic formations evoking all sorts of aesthetic experiences. Thus the impression of a self-furnishing interior may briefly give way to that of an urban skyline by night. However, in the virtual Space-World these associative architectural impressions are but fleeting. An interior continually breaking up and deformed will primarily present itself as negative sculpture: a sculptural formation bulging from the planar expanses according to how the observer is moving. As you explore this virtual space from your position in real space longer and more thoroughly, the impression gained is one of a room under pretentious self-display at different speeds, a self-referential space articulating itself as object and image. Walls move and erect themselves beyond gravity. The resulting manifestations may take the form of concrete, familiar shapes such as interior room furniture, as well as abstract, fractal spatial modules. Increasingly, the observer gains the impression of being surrounded and confined. The further he explores the space, the more mercilessly the latter will close-in on him. There is no physical escape from this once empty and subsequently bro-

ken-up interior. What initially had aesthetic appeal is turning increasingly sinister: the Space-World is closing-in on the observer without him being able to really come to grips with it.

4. The Object-World

In the virtual world of objects (designed and part-programmed by Akke Wagenaar after original concepts by Peter Weibel) their perspective and nonidentity are consequently revealed. Again the observer has entered the Object-World via a real, coloured floor-point. Now fast-moving and rotating objects that are at first unfamiliar cross the screen. They advance, crossing each others' paths, and collide with the walls of the space, exchanging their own colour and texture for that of the wall. They change scale rapidly, before mutating into discernible shapes. Now a chair, table, and a face will appear, but looking quite unlike what you consider they should be like. Instead we glimpse a chair fused to six tables, a table fusing with two chairs and some facial expression split in the middle by its own profile: that profile then stretched flat reproduces both profile and face on the other end of the split apparition. The stretch profile itself is split down further, twice, by its own double, so that now a maximum of five faces or profiles appear simultaneously. The principle behind this formation: splitting-up the face will not only subdivide, but also reproduce the face.

This recognizable but irritatingly split, doubled, and fused ensemble of table, chair, and human face exposes the Object-World. As soon as he steps on the light grey floor-points the observer will set it off. He is now activating the rotation and perspective deformation of the objects around several axes, as well as controlling their collisions with the walls, the exchange of colour and texture between objects and walls, and the various scales and courses of the crossing paths of their trajectories. All the aspects of the objects' appearance like proportion, perspective position, materiality, colour, and texture can thus be con-

trolled by the observer. As he continues to move in his real environment, and as more and more observers will tread on the contact-points, so the impression of the Object-World will get increasingly confused.

The chair pierced by six tables warps, bends, withdraws, and expands; the table pierced by two chairs twists, bends, and bows, then temporarily changes into a(n) (analyst's) couch in hot pursuit of the split/doubled) facial object or vice versa.

The irritating visions of this fast-moving ensemble of objects fused to one another and split/doubled facial expressions reaches its climax during the final phase of the programme taking effect after a given time. The eyes, so far uncharacteristic, suddenly burst out from the face, emitting red and green beams. Hereby they are made apparent not so much as eyes, but as quasi-gaze.

In the same way as the abstract architecture of the interior was advancing on the spectator, the spectacle of the human face now collides with the observer's gaze, its sight clearly meeting his gaze. The object's vision which is not simply being observed by the spectator, but is clearly looking back on him, seriously irritates our vision and the framework for our image. To the observer the transformation of the image-frame or the borders of the space by the colliding objects now seems consequential in retrospect. The floating, rotating, and continually distorted objects are veering between two states: the soft state of signs, and the hard state of objects, they veer between the world of language and the world of architecture, semantics and physics. The split subject (the facial object) is applying its own nonidentity to the world of objects (as the schizoid split provides the basis for the subject).