On Structural Studies

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If an artist needs to write explanations about his work, there is something wrong with the work. This opinion is widely spread and it is possibly true to a certain extent in the area of the fine arts, where a long tradition of professional criticism exists. In the area of the experimental – or avant-garde – film the situation is different, as there exists no comparable tradition. Here the artists themselves have to work out categories to judge their work. Therefore it is necessary to write about the films to help in their understanding.

Since the beginning, our work in film was concentrated on the medium. Rohfilm was the first film where this concern was obviously expressed, although in a way of emotional explosion against the film-system and its narrow limits of expression. It was also an effort to overcome the influence of the aesthetic of the New American Cinema, of Brakhage, whose work was the main influence in the beginning.

Most important for further development were the Fluxus-Films as a collection of very short films, each concentrated only on one subject and each a statement about film. The simplicity of the films, the renunciation of any creative transformation of the material, was an essential step towards a new aesthetic. Of course credit also goes to Warhol. But at that time his films existed only in literature; there was no possibility of seeing them.

The first step to a more controlled work in this sense was Work in Progress Teil A, 1969, which was composed of six single films of 3 to 10 minutes length. Each film was made separately, dealing with one special problem: 1. Commercial film, 2. Printing process, 3. Illusion of perception, 4. Reality, 5. Time, 6. Illusion of movement. The films were put together not as a continuous statement, but as reactions to each other. Then the ‘Portraits’ were started (1970), also not as a planned series; it grew parallel to the other work. It is still continued as a statement about film technique as a basis for film aesthetic. Another approach to this problem was Work in Progress Teil C, 1971, which is constructed only with pieces of found films: Hollywood, Documentary contemporary and historical, home movies, TV news. It shows the different appearance of film, also as a counterpart to our own work.

The first series of two-screen films, 1971, is concentrated on the interaction
between two parallel images, on movement by change of light inside the images and from one image to the other. A new series of two-screen films, which is in production, deals with the angles. Here the two images explain each other by their difference.

To a certain extent Structural Studies is a condensation of the work done so far. It includes the experience of the earlier work, and demonstrates this by combining old and new films in a new statement about structure: which is not seen as an individual constructing system of a film, but in the technical and perceptual laws that are basic for the functioning of film. These are singled out and visualized. The theme of the film is the analysis of the phenomena of the perception of movement. The short single films each deal with one problem.

What is new in the film is the confrontation of abstract demonstration material and real image material each shot in the same technique. Here the possibilities and the limits of technique are shown, and the importance of the image material becomes obvious. To get control over the expression of the image is of major interest in all the work to come.

Like all the earlier films mentioned here Structural Studies is an open construction. It can be continued or changed without any danger of losing its essence.

### Succession of films in Structural Studies

<table>
<thead>
<tr>
<th>Description</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>1. Black square on white ground 50°</td>
<td>I. Illusion of natural movement and deceptive movement.</td>
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<tr>
<td>b&amp;w</td>
<td>After-image: in the blank-film appears the after-image of the black square.</td>
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<tr>
<td>2. Blank-film 23° b&amp;w</td>
<td>In the following black leader appears the after-image of the blank film.</td>
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<tr>
<td>3. Black-film 42° b&amp;w</td>
<td>Phi-phenomenon: 'The second characteristic underlying the perception of apparent movement is the so-called phi-phenomenon. This was studied experimentally and reported by Wertheimer 1912... Wertheimer studied the effects of presenting fixed short lines of light, separated in space, the second being presented some time after the first. If the interval between the two exposures is short ((\frac{1}{2}) sec.) the two stimuli will appear as two and as simultaneous; and if the interval is relatively long ((\frac{1}{4})) the lines are again seen as two but successive. At some interval whose duration is between those two</td>
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<tr>
<td>4. Two fixed points with different position in the image are presented one after the other in short distances.</td>
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<tr>
<td>a. 10 frames each interrupted by 3 black frames</td>
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<tr>
<td>b. 5 frames each interrupted by 3 white frames</td>
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</tr>
<tr>
<td>c. 5 frames each</td>
<td></td>
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<tr>
<td>d. 1 frame each</td>
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<tr>
<td>e. one black point, one white point 10 frames each, interrupted by 3 black frames</td>
<td></td>
</tr>
<tr>
<td>f. one white point on black, one black point on white ground 5 frames each</td>
<td></td>
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<tr>
<td>g. like f but 10 frames each 60° b&amp;w</td>
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5. White pieces of paper are laid subsequently on a grey paper and shot with single-frame 2.5" b&w

The same with black pieces on white paper
2" b&w

6. Abstract forms are painted on blank-film differing frame by frame
7" b&w

6a. A piece of film-leader with numbers and handwritten notes
8" colour

7. Animated drawing: a man walks to a house
1.5" b&w

8. Two pieces of a documentary of a trotting race, showing two different trotters with one after the other
18" b&w

9. Ventilator at different speed
19" b&w

black leader 15"

10. Flicker = One and a half min. of part III from Work in Progress Teil A, 1969. One image is shown, interrupted by 3 black frames in the continuous sequence of 3 frames image, 3 frames black
80" b&w

11. ‘Kurt Schwitters I’ from Portraits, 1972: two different portrait photos of Kurt Schwitters are presented one after the other:
   a. 1 frame each
   b. 2 frames each
   c. 3 frames each
   d. 1 frame each interrupted by 1 black frame
   e. 2 frames each interrupted by 2 black frames
   f. 3 frames each interrupted by 3 black frames
73" b&w

12. ‘Kurt Schwitters II’ from Portraits, 1972: The two photos and the black frames are presented in a variation from 1 to 4 frames per

variation of 4: illusion of movement.

same as 5.

Persistence of vision demonstrated in the wheels.

same as 8.

Illusion of movement only by intermittent light.

Demonstration of 4 with chosen real image material: in a sequence of 3 images, 3 black frames, a continuous movement of the heads is achieved.

same as 11.

Here two different kinds of artificial movement are seen at the same time.
image. At the same time the fingers of the one shooting the film and arranging the fotos on the table are seen over the images, changing their position at different intervals from those of the images.

161″ b&w

13. A Japanese postcard of a girl who twinkles with her eye, if the postcard is turned at a certain angle

31″ b&w

14. ‘Walk-Film’ = about 2 minutes of part VI of Work in Progress Teil A, 1969. Each frame of a short film-strip (33 frames long), showing a walking man, is reproduced as still photo. These still photos are shot in single-frame as reanimation and variation of the original movement. Even if the single images are interrupted by 10 black or white frames (1 frame per image, 10 frames per black/white shot), the movement is seen as continuous.

145″ b&w

15. Several short pieces of a colour documentary of a riding competition

16″ colour

Black leader 15″

The effect is based on the phenomenon of 4.

Illusion of natural movement.

The perfect illusion of reality as contrast and supplement to the statements made by the films from 1–14.

II. Filmic movement by shooting and projecting.

Frame stability test of the camera.

Frame stability in the projector.

Movement of the film-strip through the projector.

Frame-stability of the projector.

III. Filmic movement by camera-operations (focus variation, light variation, distance variation).

The square seems to move from back to front.
21. Like 20, but shot with single frame at different focus positions
   77" b&w

22. The same as 21, but with real images (photos of landscapes)
   110"

23. The same as 20, but with real images (also the same photos as 22)
   44" b&w

24. The same as 21, but a real life view in colour. Artificial movement and real movement combine
   100" colour

25. About one minute of Scharf/Unscharf, 1972, which consists of loop prints of slightly different landscape views, shot in single frame: 1 frame in focus, one frame out of focus. In contrast to 24, the out of focus position remains always the same. The result is an image, moving in itself
   67" b&w

Black leader 15"

26. Black square on white, shot with a zoom moved through the total range from wide angle to tele. The zooming speed differs from very slow to very fast
   39" b&w

27. A static real life view (park avenue with trees on both sides) is taken in the same technique
   45" b&w

Black leader 15"

28. One minute of Doppelprojektion I, 1972, showing a view through a window from inside a room, which is lighted by lamps.
   a. left side of the two-screen film, fading-in automatically with changing aperture
      30" b&w
   b. right side of the two-screen film, fading out automatically with changing aperture
      30" b&w

Very strong movement because of the quick changing of the size of the square.

The kind of movement, created by the change of focus, which is demonstrated in 20 and 21, remains basically the same for the following films: 22 to 25.

But the expression of the films differs according to even the slightest difference in the technique used: e.g., the number of frames taken at each shot, or whether the focus range changes or is steady.

But the most important difference between the films is caused by the chosen image material. This makes it obvious that a pure structural film - a film on structure - can only be the test film.

The movement is much stronger than in the change of focus. It creates even the illusion of deep space in the image from back to front.

The two films, 26 and 27, together are another example of what has been said above.

Movement by change of light. Also the light movement in these films creates a space illusion: the image itself seems to move from back to front and back because the outside has different light from the inside. By fading in or out, different areas of the picture come out in the right exposure while other parts are over- or under-exposed.

The changing aperture brings about a change of depth of space: the space is extremely narrow, if the aperture is nearly closed.
29. One minute of *Doppelprojektion II*, 1972, which shows a static view of a wide meadow, shot with open aperture (2.5).

- a. left side of the two-screen film, fading-in automatically
  
  30" b&w

- b. right side of the two-screen film fading-out automatically
  
  30" b&w

30. One minute of *Doppelprojektion III*, 1972, showing automatic fades of pure light.

- a. left side of the two-screen film fading-in
  
  30" b&w

- b. right side of the two-screen film fading out
  
  30" b&w

Black leader 15"

31. Multi-exposure: two levels with different colour photos faded in and out at different speeds, and two levels faded in and out with pure light in different speed

114" colour

32. *Work in Progress Teil B*, 1970. A sequence of picture postcards each in colour and black and white. Each b&w postcard is superimposed on the respective postcard in colour

170" colour

33. Test-reel for *Stills*, 1973

80" colour

Here the image remains flat. As the aperture remains open, the image builds only for a very short time. The movement remains on the surface, coming from the sides to the centre of the image.

Movement without any direction. 28–30 is another example of what is said under 22–25.

Another example of movement by light variation. The same as 31. The change of colour brings about a movement inside the image.

Demonstrates that *Stills* is also developed from the same basic questions about the medium, although it looks different at first glance.

Of course, the above is not everything that can be said about the films. Much is omitted, for example any discussion of the length of the films, or of their difference in their appearance in the original and the new context, which is particularly important for the two-screen films. The description does not take the place of the film; it is only an initial aid for getting into the film.

Cologne 1975