

THE MACHINE WITHIN ME
A Rational Look at Picture making

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A THESIS
in
The Department
of
Fine Arts

Presented in Partial Fulfillment of the Requirements for
the Degree of Master of Arts in Art Education at
Sir George Williams University
Montreal, Canada

April, 1972

ABSTRACT

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THE MACHINE WITHIN ME

As a product of the technological age, I am trying in this paper to show a point of view of the relationship between art, logic and machine esthetic. I want to show that it is possible to think of art in the same logical way as the processing of raw material through the various stages of machining that will, in the end, produce an automobile, a coke bottle....or a painting.

I do not want, however, to disregard the element of intuition which is ever present in any act of creation of a human being. My intention is to emphasize the validity of clear thinking and logic over intuition.

I shall analyse movements which started from intellectual premises, and through the process of logic, arrived simultaneously to recognize the machine as the vehicle of new esthetics. I shall proceed to machine esthetics, the form which is dictated by it, and the composition.

As a demonstration of the process, I made six paintings and I chose one of them to show how I developed the ideas above. In this painting, "The Flight of the Black Rose", I have made a series of slides showing the step by step development of the painting, and at some stages have explained my thoughts and rationalizations that have guided me through the process of execution.

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INTRODUCTION

In this paper, I am trying to relate my work to the machine age and to show a system in picture making which derives from the process of logical analysis. To be able to explain logically what I am doing, I should start with a definition of logic in Art. As I have not been able to find such a definition, I must, therefore, use a general definition of logic and apply it to Art.

"Logic is the science and art of correct thinking.... Logic investigates, discovers and applies the laws we must follow in order to think expeditiously and correctly".⁽¹⁾ By thinking we mean ".....those mental operations that are directed toward the attainment of truth and by which we elaborate upon knowledge previously possessed".⁽²⁾

To arrive at a formally valid or correct argument, our propositions must be sequential and spring from the Form of inference; only then can we call it Formal Logic. To understand this better we must know that".....Form is the basic structure or the basic arrangements of the parts, of a complex logical unit".⁽³⁾ However, for my purpose, I wish to rephrase the above by relating Form to Art

¹
Andrew H. Bachhuber, S.J., Introduction To Logic (Appelton-Century-Crofts: New York: 1957), pp.1&2

²
Ibid., pp. 1&2

³
Ibid., p.39

instead of Logic and redefine Form as: the basic structure or the basic arrangement of the parts of a complex pictorial unit. Therefore, the pictorial unit is or could be achieved by logical elaboration upon rules and knowledge previously possessed.

The dictionary defines reason as "the faculty of thinking logically, the power of drawing conclusions from facts known or assumed and the capacity of forming judgements".⁴

Rationality is defined as "having the faculty of reasoning".⁵

Having established logic and reasoning as the processes in thinking, I want to relate them to intuition, which is another way of dealing with information.

Intuition is considered a pre-logic process and is "...employed widely and variously in our every-day speech, philosophy and science to mean a way of knowing".⁶ It is based on the primary mechanism of thought and relates to subjectivity, while logic is purely an objective process. Aristotle defines intuition as ".....the mental acts by which premises of all knowledge are revealed", or, in other⁷

⁴Webster Universal Dictionary, (Harver Publishing Inc., New York: Toronto, 1968)

⁵Ibid.,

⁶The Encyclopedia Americana, Vol. 15., (New York: Americana Corporation, 1969)

⁷Ibid.,

words it is a way of knowing directly, bypassing all inference, logic, symbols and ideas. Thus we can say that all intuition takes place in the subconscious and that it includes knowledge of feeling, sound, colour, shape and so on...

In art, I consider intuition as a means of arriving at decisions that are felt to be valid in advance of proof or justifications. Intuition, therefore, could be considered as logic on a subconscious level, since they both start from previously accumulated experience and knowledge.

In the next chapter, I relate the above defined processes in thinking to a few movements which through rationalization arrived at an esthetic closely related to that of the Machine.

ART, LOGIC AND REASON

All theories in Art in one way or another are based on logic, however, some movements had reason and order as their primary drives. The movements which I will talk about have chosen reason, physical and mathematical order over emotion, impressionism and expressionism.

One of the most important movements in Art in the Twentieth Century is Cubism. It was born in 1907 from a mixture of ideas which originated from Cezanne and negro sculpture. In Cubism we find that the combination of geometrical simplification and faceted shapes permitted the artist to achieve ".....movement in depth, or time, or space-time, by the simultaneous presentation of multiple aspects of an object"⁸. A new systematic distortion as well as a new logical approach both by the artist and the viewer was necessary since Art had lost its photographic rationalization.

An important idea of Cubism is the "total elimination of the distinction between solid and void, hard and soft, skin and cloth"⁹. Painting a picture no longer demands a narration, instead it becomes a rather simple arrangement of geometric forms which appear to be suspended

⁸John Canaday, Mainstreams of Modern Art (New York: Holt, Rinehart & Winston, 1959), p.458

⁹Ibid., p. 458

on the picture plane. It is an artistic approach to the nature of matter, the expression of the logical idea that basically all objects are of a common structure. The language of Cubism was later enriched by the integration of forms taken from machines or from the draftman's designs of mechanical objects.

The cubistic essential concern with structure and harmony was continued and elaborated upon by the Purists. This was expressed in their manifesto of 1918 which mentions that: "Logic, born of human constants and without which nothing is human, is an instrument of control and, for he who is inventive, a guide toward discovery; it controls and corrects the sometimes capricious march of intuition and permits one to go ahead with certainty"¹⁰. This statement was part of the introduction to the Purists' manifesto. This post-cubist movement was directly opposing the irrational anti-art tendencies of Dadaism on one hand and the dream world of fantasy of Surrealism on the other. Purism was based on rationality and logic and above all the form was to be one of mechanical clarity that would symbolize the Twentieth Century as the age of the machine.

The synonymous relationship between logic and machine technology clearly appears in Mondrian's comment about the

¹⁰ Robert L. Herbert, Modern Artists on Art, (Englewood Cliffs, N.J: Prentice-Hall, Inc., 1964), p. 59-60

mechanical appearance of his art "...for the modern mentality, a work which has the appearance of a machine or a technical product" is the one with the greatest significance in our times. He also describes the artist as being "...a living machine capable of realizing in a pure manner the essence of art". "The progress of science, of technique, of machinery, of life as a whole" has helped to make him such a living machine. He tries in his art to establish that which is universal, as well as make it become "...the sum of the emotions aroused by plastic means" rather than purely pictorial ones. Robert Kudielka in his essay on the New-Objectivity explains how it has developed as a counter-movement to the German-Expressionism, "...it propagated a rejection of the current expressionistic style and return to naturalism." The idea was not a conservative one but it introduced a new stylistic element, that of raising the modern industrial landscape to the "...status of pictorial structure and not merely made to serve as a pictorial subject.... The movement must rather be viewed in the broad context of all the attempts made to re-define the position of

¹¹ Canaday, op. cit., p. 491

¹² Herbert, op. cit., p. 130

¹³ Ibid., p. 130

¹⁴ Studio International, Journal of Modern Art, (London: 1969), Vol. 177, No. 908, p. 85

natural things in an environment changed by technical progress....New Objectivity in this sense means the adequate representation of life within the framework of space dominated by the rational human intellect".¹⁵

In the description of the various Art movements, I refrained from mentioning and analysing such tendencies as computer art, machines which produce paintings or drawings and sculptures based on mathematical or scientific principles. I am not concerned with what kind of art machines can produce, but rather with the movements in which artists, through the process of rationalization, have disciplined themselves to reflect the appearance of the machine in relationship with the human figure and its environment.

In the discussed Art movements in this chapter, I tried to show that, although they were basically quite different, they all arrived at the similar realization that the Machine established an Esthetic of great significance and influence.

¹⁵Ibid., p. 85

MACHINE ESTHETICS

In our times of automation, machines are the supreme masters in our every-day life. Machines produce more machines, as well as all kinds of machine products and ready-made units. The machines dictate esthetic values and set goals in our society. For example, in an ordinary kitchen the electric appliances are the pivot upon which the structure of the cooking area revolves.

In their essay on "Purism, Le Corbusier and Ozenfant mention that "...the machine has applied with a rigor greater than ever the physical laws of the world's structure....respect for the laws of physics and of economy....objects obey the same laws as the products of natural selection and that, consequently, there thus reigns a total harmony bringing together the only two things that interest the human being: himself and what he makes".¹⁶ It is easy therefore, to conceive that, in the confusion of the world of objects which surrounds us, mechanical things seem the only ones invested with man's idea of perfection, coordination and sense. This clarity and perfect harmony of parts and rigidity of surface are an inspiration for the artist searching for similar qualities in the picture image.

¹⁶Herbert, op. cit., p. 64

In my painting "The Flight of the Black Rose", the Aircepede is derived from the absurd late 19th century idea about an aerial velocipede. An aerial velocipede is a flying machine automated by pedalling. Throughout the ages man has been using tools, as well as being a tool himself to other men. However, during and after the industrial revolution man was integrated in the machine itself and became part of it, as in the case of my velocipede. In the last century's concept of a flying apparatus, man was fitted-in as a part of it and his only function was that of a motor to turn the propeller. The Aircepede in my painting does not show the presence of a woman but only of parts of her and her real identity is presented as a toy-like robot.

The reduction of the human figure to geometrical shapes and machine-like beings could be traced back to the ideas of O. Schlemmer, noted down in his diary in 1915 "...The square of the rib cage, the circle of the abdomen, cylinder of the neck, cylinders of arms and calves, ball of the joints....ball of the head, the eyes, triangle of the nose...."¹⁷ A similar approach to the human figure as part of a mechanical landscape was presented by Leger in his paintings, "The City", "Breakfast", etc...There the human figure, in comparison with O. Schlemmer's

¹⁷Studio International, op. cit., p. 85

is conventionalized into mechanical molds and the parts of the human body are painted in piston-like form.

The concept of man being a toy, an instrument that can be manipulated, wound-up or even made to fly, only adds to the anonymity of mankind in its search for pleasure and escape. The people of our times are "...slaves to joys of conspicuous consumption, victims to the adventures of the big city, experienced in many kinds of games, prefer to occupy themselves with toys..."¹⁸ and willfully seem to refrain from realizing that the gadgets they use are the real master. Man cannot live anymore without the Machine and must adapt himself to rules, logic and esthetics of technology.

¹⁸Studio International, op. cit., Vol 176, No. 906, p.252

FORM

On the theory that in a mechanical age, art form should take a mechanical character, Leger says "... technique must be more and more exact, the execution must be perfect....I prefer a mediocre painting perfectly executed to a picture beautiful in intention but not executed. Nowadays a work of art must bear comparison with any manufactured object. Only the picture which is an object can sustain that comparison and challenge time."

Since the use of masking tape by the artist and the replacement of the brushes by the roller, the mechanics of painting have changed completely and the precision suggested by Leger was greatly surpassed.

It appears to me that every artist finds a style or way of expression most congenial to his temperament and background. My personal preference towards precise execution and craftsmanship was brought about by earlier training in the two schools of art which I attended. The first school, in Bulgaria, had an attitude of stressing the style of objective accuracy. The student was encouraged to make accurate life drawings and paintings as part of his basic skills and development of craftsmanship. The interest in the imitation of reality was brought about by the academic concern for narration and was designed to

play the role of transmitting information and ideas. The second school, in China, emphasized self-discipline, articulation of detail and the highly finished surface.

All this background had already pre-disposed me towards organizing my subject matter in an impersonal and detached manner. The North-American reality, with its machine technology, amplified my inclination towards efficiency and clarity in my plastic language.

I am fascinated by geometric forms and their relationship to the roundness of the human body out of which grow particular harmonies and rhythms. I try to make these visually sensual and provocative. At times this relationship seems to have an accidental quality, although my real intention is to organize the images into a coherent compositional unit.

COMPOSITION

In order to visualize my ideas I start with a number of drawings on tracing paper. I re-arrange and overlap the images until I get a satisfactory compositional solution.

The composition involves the task of transmitting an idea into physical order, ie., division of surface, form relationship, colour scheme etc. A painting should be a total relation of simplified, related and architectured shapes and forms. The choice of format for a painting is rather arbitrary, although we have to consider the fact that, very elongated surfaces pass beyond the normal field of vision. Therefore, the canvas proportions should give the impression of totality. The selection of slightly oblong proportions corresponds to the visual cone, which is not circular but slightly oval, and helps to grasp the whole painting at a glance.

Next to the format of the surface, one should consider the kinetic properties of the vertical lines which suggest trees; they also look like standing men or symbolize life. At the same time, a vertical line can suggest the downward movement of a falling object resulting from the gravitational pull.

Horizontal lines give an impression of stillness, stability and repose, or sleeping or dead men. The eyes'

natural movement is sideways. The eye tires more easily when following a vertical progression, therefore, a picture of longer vertical dimensions, as in "The Flight of the Black Rose", has more dynamic qualities than a horizontal one.

Sometimes, traditionally, these two types of canvas shapes are called portrait and landscape shapes. The portrait shape is understood to have higher vertical dimensions due to the vertical arrangement of the volumes of the head, the neck and the torso. The landscape shape, on the other hand, with the ever present horizon line, whether depicted or not, tends to be quieter and more relaxing.

The landscape shapes were logical choices for the paintings on slides 36 and 39, Invitation No. 2 and Reflection, since they represent girls in repose and suggest a rather pensive mood.

The square format, because of its equal sides, lacks one of the fundamental plastic necessities, that of rhythm. One of the ways to activate the square into a more dynamic shape is to place it in a diagonal position. In the case of slide 35, Invitation No. 1, it develops into a horizontal-vertical axis and undergoes the modification from a square to a diamond and thus, loses its stability.

"The Flight of the Black Rose" is built around a vertical axis, suggesting the idea of ascendance. The various shapes and lines are brought together in innumerable ways so that each particular relationship generates a different sensation of space and direction. The great density of overlapping shapes in the Aircepede are contrasted with the empty areas in front and below it.

Circles are the most commonly used shapes. Their manipulation, position, size and colour are the most vital factors in creating varieties of spacial sensations. These various circular shapes, with their absolute neutrality give the impression of suspension in space.

While manipulating shapes and colours, I rely frequently on relating "two by two" various elements of the composition. In this numerical concern the circle is one of the shapes I most commonly use.

The diagonal lines on the wings and the flying object in the front, are the only unstable elements in the composition which suggest direction and movement forward.

Once the composition is predetermined, I use mechanical means, such as an opaque or slide projector, to blow up the preliminary drawing and determine the size of the figure in relationship to the size of the canvas. Sometimes, I increase or decrease the various elements of the drawing to "tighten up" the composition. For example,

the size relationship of the legs and bubble in the pencil drawings differs from those in the actual painting. Compare slides 1 and 2. The circle at the base of the upper leg is underlapped by the bubble as in the original sketch.

Now, I would like to proceed with the metamorphosis of "The Flight of the Black Rose" from its primary stages to its completion.

PROCESS ANALYSIS

I would like to present an approach in which the control achieved by logical solutions goes hand in hand with intuitive choice of colours and shapes. My overall intention is to build-up a painting in which the various shapes on the picture plane fit together as integral parts of a complex mechanical apparatus.

SLIDE 2

The size of the elements of the composition in relation to the size of the picture plane is one of extreme importance. For example, a small dot in the middle of the canvas has a different figure-ground relationship than that of a big solid circle. If I had wanted the Aircepede to recede in space, I would have needed to make the whole composition in the picture very small. By making it large and letting it grow out of the canvas, it makes the viewer participate in the action just as in a close-up shot.

With the help of an opaque projector, I blow up the image and determine the sizes of the various parts of the composition. As soon as the image is blown up and determined, I trace it down on the board already prepared with gesso.

SLIDE 3

The application of the first colour in my paintings is usually the one which determines certain key space-relationships between the elements in the picture. The choice of colour is very random since there are no other existing colours except the whiteness of the background. In this painting, my first intention is to build up a receding space behind the figure. Having decided upon blue, which creates a spacial depth, I mask-out the area

of the figure. The colour is applied on the bottom of the painting and this sets up a plane with a horizon line.

SLIDE 4

Having in mind that I want to keep the whole composition in neutral and limited colour harmony, I apply light gray on the rest of the background. The combination of light gray and blue immediately gives a rather spacial dimension to the surrounding space and the whole figure has the appearance of floating on this background.

SLIDE 5

Regardless of the colour, I want the value of the somber part in the figure to be darker than that of the background, and the brighter part to be lighter than those of the background. This way, the integration between the elements of the picture will be more total. That is why I give a dark, almost black, tone to the circles at the base of the leg and the inside of the doll.

SLIDE 6

Next I mask the area around the doll, preparing it for the red colour on the bubble of the next slide.

SLIDE 7

Considering the complexity of the composition, I want to

establish a focal point and decide to have the bubble and the doll the only elements in warm colours.

SLIDE 8

The red wasn't satisfactory so I made it darker and more purplish. This, I feel, relates better with the existing colours at this stage of the painting.

SLIDE 9

The contrasting lighter red border, which contains the purple bubble, optically suggests the concave quality of the purple area. This concave quality of the bubble could later be emphasized by modelling in oils.

SLIDE 10

The bubble is now connected with a downward red rod which in turn is connected to the shaft. This rod serves to further integrate the individual elements within the unit.

SLIDE 11

The dark blue on the lower wing does not relate to the dark circles behind the base of the legs and has the tendency to advance much more than I intended.

SLIDE 12

I made the colour of the wing lighter.

SLIDE 13

At this point, I am still not very satisfied with the tone and so leave it and go to the upper wing. The very light colour which I painted on the upper wing relates well in value to the darker grey background and the red.

SLIDE 14

The dark blue in the circles behind the legs seems quite isolated. To build a relationship, therefore, I add a similar blue directly below.

As was previously mentioned in section "Composition", my concern here is to relate colours of the same family, so that the dark colour of the boots is exactly the same as those in the circles, only slightly darker in value. You will note here too, that there is a re-emphasis on a "two by two" basis, which will be further employed as a formal compositional device.

SLIDE 15

This slide shows dark accents on the figure of the doll, as shown in the collar, shoulder and thigh portion of the boot.

SLIDE 16

I make the legs cool green, which does not harmonize with

any existing colour, keeping in mind that either I have to put similar green in one more place, or, when I start modelling in oils, to warm them up.

SLIDE 17

The dark purple colour of the glove is laid down.

SLIDE 18

The green on the sleeve of the robot doll is of similar hue to that on the legs. This was done primarily to relate the sleeve to the stockinged legs. It is not meant to imply however, that the pedalling legs are extensions of the thighs of the doll. In fact, they are not. If I had planned them to be, then the green on the sleeve would have been repeated on the upper leg of the doll.

SLIDES 19 and 20

I now work on the washer of the propeller at the top of the picture, the connection to the shaft of the pedal at the bottom, and the big cogwheel of the pedals.

SLIDE 21

The body of the doll takes on a "flesh-like" appearance.

SLIDE 22

A few major changes happen on the wings. I make the lower one slightly lighter in value than the background, and to emphasize the flatness and the unity between them, I draw a line under the lower wing and behind both of them. I apply colour to the hair, pedals and the shaft.

SLIDE 23

Now the whole, with the exception of the propeller, is painted over and for the first time without the interference of the white, I can see the true relationship between all colours. The general appearance does not please me, however, as I find the composition lacks unity. However, knowing that, very often, a unity is achieved with the oil laid over the acrylics, I decide to go to the second stage and start modelling in oil. I shade the lower part of the bubble to strengthen the concave illusion.

SLIDE 24

When modelling an area already under-painted with acrylics, I try to use a minimal amount of tones to achieve the three dimensional illusion. Usually the acrylic tone is somewhat in the middle in value, between the lightest and the darkest tones in oil, which eventually

are blended together to achieve a hard-looking and shiny surface. I give a representational appearance to the cogs in the doll.

SLIDE 25

The whole body, the face and the hair of the doll are modelled to a degree of life-like sweetness and pornographic appeal. I try to keep the provocative ambiguity between the flesh looking surface of the body and the cool and hard-looking insides of the mechanical apparatus.

SLIDES 26 to 29

No structural changes appear, but I continue modelling certain areas of the painting, such as the main gear, the legs, the sleeve; and add colours to the propeller.

SLIDE 30

I introduce the black rose. The black rose does not symbolize any concrete idea. I do not want to carry any symbolism, although the flower in its unrealistic colour, held by the sweet-faced robot, might be interpreted differently by various people. My reason for introducing the synthetic black rose is to create a rather barren relationship between two man-made objects. (i.e., The doll and the rose.)

SLIDE 31

I put the dark line around the wings to increase the contrast and to give them somewhat of a graphic quality and thickness.

At this point, I carefully scrutinized the whole composition and find the following flaws:

- a) the size of the propeller is too small and its colour unrelating to other parts of the Air-cepede.
- b) the whole composition appears motionless and the space in front of it is non-functional. The composition, therefore, seems relatively too heavy on the right.
- c) the background is too simple and flat and not linked up with the rather complex structure of the foreground.

SLIDES 32 to 34

To balance the composition and to activate the space on the left hand side, I introduce a small flying object half disappearing from the picture plane. It's colour scheme is the same as the one in the bubble. It has red ribbons which are drifting behind it. I change the colour of the circles at the base of the legs to purple so as to have it the same as on the flying object. I

increase the size of the propeller and lighten it up to a similar tone to that of the wings. Now I am satisfied with the colour relationships as almost every colour has a counter part. To increase the importance of the flying object and to shift somewhat the attention of the viewer from the rather complex Aircepede to the more simply flying object, I lighten the background around the latter, in the lower left hand corner of the picture. As a counter-part to the above, I darken the background on the upper right hand side of the painting behind the wings and the bubble.

At this point, I consider the painting finished, as my faculties are exhausted with constant rationalizations in search of logical solutions. I feel that I have not left anything to chance. My intuitive decisions in choice of colour and shapes have been double checked, to comply with my conception of complete integration between idea, form and execution.

SLIDE 35 - "Invitation No. 1".

SLIDE 36 - "Invitation No. 2".

SLIDE 37 - "Hitch-Hiking".

SLIDE 38 - "Skiers".

SLIDE 39 - "Reflection".

These five paintings preceeding "The Flight of the Black Rose", were done in the same way. In them, however, I did not have the strain of recording each step of the process, which made me self-conscious in the case of the "Black Rose". In many ways, I consider them far more successful in illustrating my ideas about the mechancis of painting. I consider them self-explanatory in my intention to render mechanical beauty with precise execution.

CONCLUSION

In my paintings, I have tried to achieve the technical perfection of machine-produced objects. I wanted to be as impersonal as technological products are. I wanted the human figures in my paintings to have the cold appearance of toy-like humanoids and to be as emotionless as the geometric figures around them. Whether I have machine-like constructions, hitchhiking girls ready to be picked up by anyone who fancies them, skiers less interested in the sport itself than in the sex appeal of their shiny garments, or just armour-like clothed girls with the smiles of awaiting whores, my attitude is one of artistic detachment and not of social comment. With all my biases I would not like to generalize what Art should be or how it should be done. In this essay, my intention was to present a personal point of view in relation to other Art theories, which dealt with the place of the human figure in an environment changed by machine technology.

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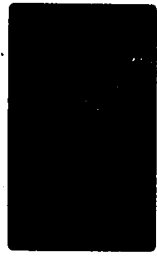
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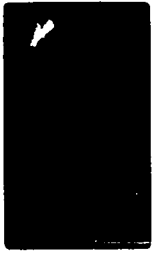
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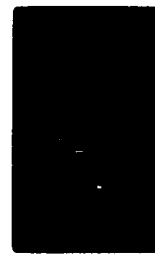
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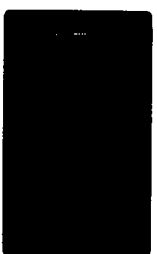
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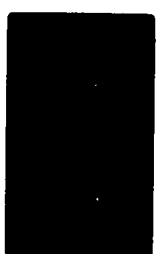
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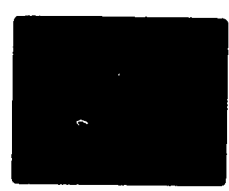
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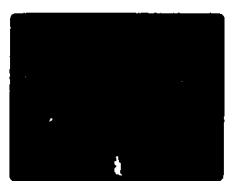
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