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OPTICAL SCULPTURES

by

Alexander S. Syndikas

Submitted in Partial Fulfillment of the
Requirements for the Degree
MASTER OF FINE ARTS

MFA PHOTOGRAPHY PROGRAM
SCHOOL OF PHOTOGRAPHIC ARTS AND SCIENCES
ROCHESTER INSTITUTE OF TECHNOLOGY
ROCHESTER, NEW YORK
OCTOBER, 1982

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DATE: October 1982

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ACKNOWLEDGEMENTS

A work dedicated to my parents
Laurence and Robert Syndikas
my grandmother
Amalia Syndikas
my brother Anthony
Anna, Diahann and Peter
and to my beloved and dedicated wife
Jeanette.

A "Special Thanks" to
Dr. Richard D. Zakia
Professor Charles Werberig
Professor Andrew Davidhazy
Dr. Gyorgy Kepes

as well as Dr. Ronald Francis
Professor Donald G. Bujnowski
Dr. Michael Taylor

also
Ismail Abdullah, Will Barnes,
Tom Cerniglio, Jean Paul Debattice,
Carolyn Ernst, Arthur Hynes, Larry Lean,
Ferguson Neal, Carl Scarborough,
Joe Vitone, and Jennifer Wills.

"...What interests me most is neither still life nor landscape but the human figure. It is through it that I best succeed in expressing the nearly religious feeling that I have towards life. I do not insist upon the details of the face. I do not care to repeat them with anatomical exactness."

from "Notes of a Painter"
by Henri Matisse, 1908

INTRODUCTION

It has been a continuing fascination to work with the photographic medium in expressing alternative visual experiences of the world around me.

As I continued to work with the structural format of the camera, I became just as interested in what was happening on either side of the frame as well as what was being recorded. I felt I had to extend my images to capture a kind of graphic shorthand of that particular situation. In other words, I was concerned in interpreting physical movements the way I felt them, instead of the way I saw them. This began an exploration into series of multiple exposure techniques incorporated in the extended film format.

For quite some time I have been photographing the female nude. I found that the female figure continued to reflect any given set of aesthetic concern I might have been examining at the time; from three dimensional illusions to images that produce a surrealistic feeling, and so on. Consequently I felt that I had to continue using the female form as my subject matter in exploring a specific concept to my thesis.

Perhaps the greatest influence on my work has been the Futurist and Surrealist movements. The Futurist in terms of

the invention of sectional dimension where rhythm and form could be arranged and developed; and the Surrealist which employed fantastic imagery in order to shock the viewer.

With these interests in mind I wanted to create photographic illusions of the female nude extended in time. This immediately imposed problems. The mechanics of the medium had to be resolved by modifying cameras as well as the surroundings I was using to photograph my models.

My thesis examines the methodology as well as the aesthetic concerns I had in dealing with the exploration. I intend that the images themselves, as well as the installation, provide the final visual experience.

HISTORICAL REFERENCE

HISTORICAL REFERENCE

My interest of human forms in motion and illusions created by space led me to explore more fully the style of emotion. By means of distortion the viewer's feelings can be readily aroused. I am referring to distortion in terms of stretching, twisting, enlarging or otherwise deforming the customary shape and size of things. It can also be extended to include exaggerated colors, illumination, contrast control between light and dark or over-emphasizing textural and surface qualities. Such departures from what is considered 'normal' or visually 'correct' is the basis of my work.

Generally the artist's choice of one or several of these types of distortion is not so much a calculation but rather a spontaneous and largely unconscious result of one's emotional attitude toward its subject.

In photography most of these techniques of distorting the camera's image were long known and used. It was the pioneering efforts of French scientist Louis Ducos de Hauron[1] who was the first to devise a method of making distorted images by using crossed slits instead of a lens.

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[1] See Illustration Slide 1.

His "Transformise en Photographie", patented in 1888, paved the way for creative, abstracted visual imagery. Unfortunately, at that point of time, his images were not quite well received; especially since they varied from the classical rule of perspective.

His images were looked upon as trick photography, which were later published in 1896 under the title of "Photographie Amusement".

With the Futurist movement came also the invention of sectional dimension, where rhythm and form could be arranged and developed. Antonio Giulio Bragaglia,[2] a Futurist, was greatly influenced by de Hauron's photography, and in 1911 he created "Fotodinamismo Futurista", a Futurist doctrine of the destruction of form by motion and showed how the continuity of action could be made static in a dynamic graphic record. One of his most famous images[3] is that of Giacomo Balla (a Futurist painter) beside his famous painting "Dynamism of a Dog on a Leash". This image photographically mimicked the motion Balla created on canvas.

Other similar attempts of vision in motion were done by artists such as Belgium sculptor Vantongerloo, where he sculpturally captured motion inside a sphere; Archipenko made mobile sculptro-painting; Brancusi added the element of time to his static sculptures by placing them in a revolving

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[2]See Illustration Slide 2. [3]See Illustration Slide 3.

base. There were others too, like Giacometti and Calder who tried to demonstrate the biological experience and the plastic essential of motion in mobiles, splendidly interpreted as virtual volume.

Christian Schad,[4] a member of the Zurich Dada group, in 1918 produced photographic abstraction, without a camera, - objects placed on light sensitive paper produced record drawings, resembling the Cubists' collages.

This was soon followed by Man Ray, Gyorgy Kepes, and Moholy Nagy, who extended Schad's experiments by producing Rayograms, drawings and photograms respectively.[5] These techniques enriched by modulating light produced beautiful two-dimension abstractions of translucent objects, as well as subtle textural illusions created by negative printing and solarization (Sabattier effect).

With the advent of Andre Breton's Surrealist movement, the camera was considered more as a tool of imagination than a tool of visual representation. Surrealist photographers' manipulation of the image was a perfectly acceptable means of breaking down set 'norm' of reality, liberating creativity as well as personal emotions and symbolic transference.

Surrealist photographers Peter Rose Pulham and Erwin Blumenfield were known for their very erotic and emotionally abstracted images of the female form. Using complex mirror

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[4]See Illustration Slide 4.

[5]See Illustration Slides 5, 6 and 7.

arrangements and solarization they explored inner worlds, man projected in the realm of fantasy.

Raoul Ubac, perhaps one of the most important yet least known Surrealist photographer, experimented with a combination of techniques in distortion, creating assemblage of the female nude.[6] The results were remarkable images of semi-human biomorphic forms that were neither fully seen nor rationally interpreted, though it created the multi-dimensional meaning that was only found in the best of Surrealist works.

The distortion of the human form was a pronounced characteristic of the surrealist image. It was relatively easily achieved photographically in both formed images as well as technical surrealism. Herbert Bayer's haunting image of surprise self-dismemberment and Andre Kertesz's dream-like elongated female nudes are examples of the genre.[7] Later versions of female distortions were seen in Bill Brandt's "Nude on the Beach", which dealt with unusual perspectives and wide angle lens techniques. Again, the greater the emphasis of the distortion, the more dehumanization and shock value put on the viewer.

Distortion, therefore, plays a very essential role as an artistic device to shape the emotional content of the

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[6]See Illustration Slide 8.

[7]See Illustration Slides 9 and 10.

image. It can be either comic, sensual, joyful or grotesque, to name a few.

The comic observation can be seen in Toulouse-Lautrec cabaret people, with extra-ordinary wit and accuracy; Modigliani's stretching of the figure and simplification of contours, resulting in a heightening of sensuous and pleasurable qualities; the joyous characteristics of Marc Chagall's levitative figures; or the macabra and deathly features of Edvard Munch's painting.

More recently distortion in photographic imagery has been accomplished by means of streak or slit photography. Barbara Blondeau expanded the time referent of her photographs by masking the open shutter enough to obtain printable negatives; while William Larson created images of the figure in motion, maintaining detail throughout the extensive movement of both the camera and the figure. Andrew Davidhazy, searching for the ultimate in realism, devised a method of presenting three-dimensional reality as accurately as possible by means of slit photography. He exposed a continuous sequence of vertical segments from one end of the photograph to the other, adding time as a photographic dimension.

It is with these investigations of painters, photographers and scientists that I began to examine my own personal aesthetic to satisfy the context of my thesis.

AESTHETICS

AESTHETICS

It is perhaps somewhat difficult to discuss the aesthetics of my work without mentioning the events that led up to my thinking process as well as my technical involvement in trying to break away from the traditional rectangular format.

As mentioned in my historical background, I was greatly influenced by the Futurist and Surrealist Movements, in the way they were able to manipulate reality to express their emotions. It seems that the more skilled they were with their doctrines and materials the more they were able to make such worlds real, however brief. Ultimately, the creation of fantasies reflected one's perception to either obey the rules implicit in reality or as one whose mission it is to change the rules. Either he deliberately creates strange new forms which are logical and credible or he lets fantastic forms happen, regarding himself as an instrument that cooperates with the processes of creation in the universe.

One of my first workshops at R.I.T. dealt with just this same philosophy. With the use of modified streak cameras, I was able to expand the time referent of the image, creating some rather fantastic visually exciting forms of what were very mundane representational subjects.

In photographing the female nude, I found that the extended space became the extended time; typically in each series the figure performed a simple action which would be recorded from left to right across the length of the print. The actual look of the picture as a whole, meanwhile, remained intriguing and formally challenging: an extended rectangle with implied lines playing off the strict horizontal edges of the frame as the figure in the picture moved within her time-space. In a way, it reminded me of the nineteenth century investigators of the phenomenon of motion - Eadweard Muybridge, Etienne-Jules Marey and even Thomas Eakins. (Though to me, I felt mine were dramatic and surreal.)

Getting over the initial visual appearance of my images, I began to analyze just what I wanted to say, using this technique. For me, the images were still too representational, too mechanical; I had to find ways that could devoid me from the repeatable imagery the system produced.

I was using the strip camera in a stationary position on a tripod while the model revolved on a turntable at predetermined speeds. The model was positioned in such a way that the centre of rotation went through the centre of her body. The camera is aimed so that the slit covers the central axis of the turntable, and both the turntable and the film's advancing motor traveled in the same direction.

Occasionally I would interrupt the recorded image by allowing my model to move within the vertical plan, creating some form of theatrical gestures.

I remained with this procedure for quite some time to become more familiar with the mechanics of the technique and the control of the image.

Lighting was also a very important aspect in my imagery. I was limited to black backgrounds in order to control the contrast, sharpness and appearance I wanted my images to have. Any specular highlights against such a background would be rendered as streaks. These limitations posed too many restrictions on the way I wanted my figures to respond to certain feelings I was trying to convey.

This began a series of experimentations where instead of the model revolving on a central axis and the camera fixed in one position I now moved with the camera around the figure. The results were quite encouraging. There was a sense of fluidness and motion in the figures that were not apparent in my previous method.

Panning the camera whilst the film was advancing enabled a greater control on compaction or elongation of the subject matter. Gradually, as I became more and more familiar with the system and its variables, I could actually sketch out ideas which I would later execute with the model, most of which would work successfully.

I continued to photograph my models in this fashion for quite some time; each series improving on the previous one. Up to now I was using black and white films. I did not want to bring in other variables such as colour or elaborate sets. I had to resolve the problems in black and white before attempting anything else.

Once these variables were under control, I began working with another type of slit camera,[8] varying film formats and lighting situations. I also randomly changed my lenses on this camera during shooting sessions. This added another element in the images, creating a depth perception as well as an apparent in-focus, out-of-focus motion. I further exaggerated my imagery by turning the camera on its axis, creating levitative effects. These images reminded me of Marc Chagall's paintings, where there is always someone or something floating in space.[9] Here, too, I began to see remarkable similarities with Dali's portrayal of plumpy, fleshy forms which he would merge into desiccated forms.[10]

These discoveries led me to seek ways I could fabricate landscapes for my models and still retain those surreal levitative qualities. Also, I now wanted to introduce colour

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[8]See Appendix Techanical Data.

[9]See Illustration Slide 11.

[10]See Illustration Slide 12.

in these landscapes, but more in the gendre of Hieronymus Bosch and Edvard Munch's colour scheme.[11] I was particularly impressed how their colours did not resemble anything of the real world, but something more exotic and deathly. I felt that because I was dealing with similar issues of the fantasy realm I, too, should create surreal colours.

I remembered a colour process I had used some eight years ago, where I was able to exaggerate the colour hues as well as increase the film sensitivity by a factor of five.[12] Obviously, using this method of pushing film caused certain cross-curve results. But in this particular situation that did not bother me. Distorting the colours would only enhance the surreal imagery I was creating.

I began using props in my sets; lavishly coloured silk materials added that extra dimension in my landscape. I also incorporated mirrors and mylar silver reflective material, both under and around the model. This provided a cubical structure where the multiplicity of reflection-illusion interacted with the model, creating some rather beautiful deformations. The lights were strategically placed in the set so that they could be turned on or off independently to where the model was being placed or moved. This enabled a better contrast control situation on the

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[11] See Illustration Slides 13 and 14.

[12] See Appendix IB Technical Data.

model as well as enhancing the kinesthetics of the performance.

I would often look at my images and wish they were actually three-dimensional sculptures rather than mere illusions in space. I thought of using plexiglass, incorporating an image onto it and then shaping it the way I wanted that image to occupy a space. But plexiglass was not fragile; I wanted to have the element of fragility and brittleness. Glass had those qualities; the sense of brittleness went along with the sound of glass. I suppose it was a state of mind for me, and how I felt about my work.

I had to be very selective about the imagery. There was a risk element involved in what I was trying to do. It either complemented the rest of the work, or it would just clutter the exhibition. I went about testing various silk screening methods and materials to enable the image to register clearly on the glass surface.

My first attempts in slumping (sagging) the sheet glass were disastrous. I had tried placing the glass on pre-shaped clay moulds, but it just did not have the fluidity the images required. I then tried another method by slumping screened glass over stainless-steel wires.[13] The process required the glass to be placed over the wire supports in such a way, so that at high temperatures, the interaction between the melting glass and gravity would cause the glass to sag into graceful

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[13]See Illustration Slides 15, 16, 17 and 18.

folds.[14] I much preferred this method because both forms and content worked well. The multiplicity of the shape, the curvilinear aspect, the concavity and convexity, enhanced the sensual qualities that the image portrayed.

There is a degree of subtlety that can be achieved with this type of imagery on glass. This process still lets you know the body of a woman is within the image, although not that explicit anymore. There is a kind of fleshy sensuality in the whole piece. It is not very well defined but, at the same time, it has that flow and that roundness which has a quality of its own. Though one does not see actual sections of the body, the way it appears on the piece of glass will be enhanced by the shape of the glass. It is not a matter of representation and abstraction, rather a matter of the way in which one integrates a photographic image with the shape of the glass.

There was one other element I wanted to include in my exhibition, and that was to create an integration between the tactile and visual sensations. I remembered the works of Ives Klein's "Antropometria" series[15] where he covered his model in paint and then pressed them against large sheets of canvas, leaving full-size body impressions.

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[14]See Appendix, Technical Data, Glass III A; also Illustration Slides 19 and 20.

[15]See Illustration Slides 21 and 22.

This suggested a similar project using the photographic medium. Body impressions would retain the tactile qualities of the skin and could be integrated with projected images; both on the same light sensitive mural paper. This, too, would be a full-size scale series which could play off the other large prints in the gallery. The scale and method of making these large mural prints posed some problems, though in the end it proved to be a very exciting and important transition in the exhibition.

In evaluating which prints were to appear in my thesis installation, I had to consider several factors: not to be overwhelmed by the mechanics of the display; the realization of the original concept; the integration between my colour and black and white images; as well as the way I would place my glass sculptures within gallery space. The final decision was reached with my thesis board, as well as my own personal judgment.

TECHNIQUE

TECHNIQUE

The Peripheral Photography method I employed to record my first series of slit camera images was relatively simple. The film was transported through the camera continuously in the normal manner. Exposures were made through a narrow slit masked off inside the camera, known as the Multi-Purpose Strip Camera. The camera remained stationary and the subject was made to rotate so that it presents a different surface to the open slit whilst the film was moving. The speed of the image and the surface of the subject at the slit was made to match the film speed.[16] As the subject turned, its surface was optically "stripped" and recorded onto the moving film.

I began working on my thesis using the modified motorized rewinding 35mm slit camera and Kodak Tri-X film rated at 400 ASA.[17] My model was placed on the motorized turntable which was set at one revolution per five seconds. The camera was mounted on a tripod and a series of tests were made at different rewinding speeds to determine the extent of distortion I wanted to create. The faster the

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[16] See Appendix, Strip Photography.

[17] See Appendix, Technical Data IV.

rewind, the more elongated my images were. The only disadvantage this camera had was that it only took the regular 36 exposure cassettes. This meant that the shooting sessions were constantly interrupted for reloading.

Fortunately, I was able to use a modified Oscilloscope Recording Camera which housed a 100-foot film reel, enabling continuous exposing for a period of fifty minutes.[18] The camera also had a range of interchangeable lenses and three slit sizes. This gave me greater freedom to manipulate my image without having to comply to any restrictions.

After the initial period of experimentation with this format I started creating elaborate sets including Mylar backgrounds, kinetic lights and coloured objects. It was about the same time I started working with my modified colour film process.[19] The material I used was Kodak's discontinued E-4 Ektachrome transparency film EHB 160, developed as a negative. The positive/negative process required the C-22 colour chemistry, which was also discontinued.

I had been trying various combinations of film and chemistry processes, even the latest E-6 and C-41, but could never match the qualities I was getting with the E-4/C-22 combination. It suited my aesthetics, creating unusual hues

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[18] See Appendix, Peripheral Strip Photography.

[19] See Appendix, Technical Data IB.

of green, magenta and yellow. The colours were similar to those used by Bosch, El Greco, and Munch in their paintings. These were the colours I hoped to portray in my images.[20]

The main problem with the E-4 film was that I could only find it in 36 exposure cassettes, which meant that I had to physically splice each film together onto one large roll to fit in the camera. Once the film was exposed I had to recut it to 36 exposure lengths to fit in my developing tanks for processing. It was a lengthy ordeal, but the results made it all worthwhile.

I was able to push the film sensitivity to 2000. This process also enhanced the grain pattern, which complemented the resulting image, especially when it was enlarged to the exhibition size since the grain became more like Seurat's "Pointalistic" technique.

The high film sensitivity was also the results of lengthy experimental periods where I had to try varying the temperature and chemistry of the C-22 process. In the end, I found that by increasing the developing temperature to 85^{o}F, pre-hardening the emulsion, and raising the alkalinity of the developer, an increase in sensitivity occurred. I also had to replace my C-22 bleach with the Ektaprint 2 series bleach-fix and eliminated the fixing step in the C-22 process. The positive/negative film did not

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[20]See Appendix, Slides of Installation - Wall 1, I6, I7, I8, I9, I10.

have the orange mask which is normally present in colour negative films, consequently a higher saturated and grainer image resulted.

My black-and-white negative series also had to be modified for the final printing stage. They appeared too detailed and not dramatic enough for my aesthetics. I had to alter the tonal background as well as some details on the figure. The method I adapted was to contact print the original 35mm negative onto Kodak High Speed Duplicating film 2575, and develop it in Dektol 1:1 for 2 minutes with continuous agitation.[21] The resulting negatives were devoid of unnecessary details, producing higher contrast and enhanced grain size. The negatives were then enlarged onto Ilfospeed Semi-matt grade 3 mural paper, measuring 40"X10".[22]

When it came to deal with my glass sculptures I had to confront two major problems: to be able to screen my sheet glass retaining sufficient details in the image, and to control the slumping procedure in order to prevent the glass from cracking or even exploding.

To screen the images, I used Dynex 12xx Polyester mesh and sensitized it with Diazo direct printing emulsion.[23] Achieving the correct film positives was another important step. I wanted to retain some of the tonal qualities,

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[21]See Appendix, Technical Data IC.

[22]See Appendix, Slides of Installation I13, I14.

[23]See Appendix, Technical Data, Printing IIA.

though at the same time I did not want to use a mechanical halftone screen.

I began experimenting with random dot method, using various developers. Using Dektol with Kodalith Ortho Type 3 film proved to be disastrous; the image was very flat and not chuncky enough for the Dynex 12xx mesh. Finally, I came up with Kodak Fine Line developer diluted 1:1 for 3 minutes, with only agitation for the first 30 seconds.[24] The random dot patterns were sufficiently gathered to render the details for the mesh size. I used the MB series black enamel from L. Reusche & Co. in New Jersey. A highly toxic substance, fairly coarse, heat resistance to 1300°F, high enough to slump the glass.

The biggest factor in working with glass is proper control of annealing temperatures.[25] Before any glass can be slumped it must go through the annealing stages, occurring at 925°F to prevent cracking or even exploding due to rapid expansion or contraction procedures. I usually raise my kiln temperature in 100°F units per hour and then hold it at 925°F for 2 hours. After that I immediately increase it to 1300°F for the sagging to take place. Once the desired effect is achieved, I open the kiln door to reduce the temperature to 1000°F. The cam control is then set to 900°F for another hour and then reduced by 100°F

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[24] See Appendix, Technical Data, Film ID.

[25] See Appendix, Technical Data, Annealing.

every hour after that till room temperature.[26] It's a fairly lengthy procedure, but one that has high rewards.

My final project for this thesis was to print those large mural prints measuring 8 by 4 feet. What I used were aluminum roof guttering troughs measuring 4 feet long by 5 inches deep. On either end I adhered caps with a silicone sealer, and extended a plastic rod from one end to the other so that the photographic paper would remain immersed whilst being developed. It usually took two persons to print the image, but its advantage was that it did not require too much space or chemistry. The process required four troughs, one each for the developer, stop bath, fixer and hypo clearing agent.

The image was produced by enlarging the negative via a 2-1/4 Rollie Slide projector onto the mural paper taped against a black wall. Under red safelight condition, the exposed paper was placed on the floor for the second stage of this process. To achieve the textural effects on the paper I covered my model with vaseline and then positioned and rolled her over the exposed paper. The impressions left by the vaseline protected the paper from the action of the developer. After the paper is developed and fixed a positive impression is apparent. I then washed off all the vaseline with soapy warm water and re-exposed the paper to light.

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[26]See Appendix, Technical Data, Glass IIIA.

The unexposed areas where the vaseline prevented development resulted in a kinesthesis colour modulation of the body impression.

I felt these images brought the visual and tactile sensations closer together. What was also equally important for me with these images was the ritualistic performance I experienced whilst making them. It was the final act in my photographic presentation.

GALLERY PRESENTATION

GALLERY PRESENTATION

Once I had completed the printing and glass pieces for my thesis, the next most important decision came in the way I would choose to display the work. A whole day was spent on the first stage in editing. All the prints were laid out side-by-side. Slowly certain patterns evolved. It was decided that I should try to keep the colour prints together, to perhaps energize their combined visual effects, and integrate the black-and-whites with the large mural prints. A general framework was more or less sketched out to facilitate this process.

The next stage in the presentation was actually the configuration of the gallery walls. I wanted to create an exciting visual environment that would complement the prints on the walls, as well as those glass sculptures, whether on pedestals or simply on the floor space. I wanted the walls to create an open space. With the help of many colleagues we opened the gallery space, placed the images approximately and then slowly began shrinking the space. After some three hours or so a floor plan was decided upon.[27]

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[27]See Appendix, Gallery Plan.

The next step was to sequence the show. The sequencing of the prints was obviously very important, and quite a great deal of time was spent on this. I decided not to mount my prints because of their format; each print, whether colour or black-and-white, measured 40" long by 10" height. Apart from the first panel[28] it was decided to place the prints either next to, or above, another to complement the theme it evoked. This method worked out quite well as some prints needed to be grouped in three's and four's, while others were able to stand alone, enhancing the free flowing space I wanted to retain.

The second wall predominantly for the black-and-white prints, added that visual punctuation.[29] Towards the end of this wall I began juxtaposing the colour images, to heighten the viewer's emotional response.[30] I wanted to eliminate any hard edges or corners of the wall; consequently curved prints were introduced to alleviate this problem. These prints functioned as a hybrid between the colour and black-and-white series.[31] The third wall was predominantly a colour panel. It reflected a fantasy, dream-like realm where the visual cohesiveness was broken by a series of levitative experiences creating a metaphysical dimension.[32]

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[28]See Appendix, Slides of Installation, I6 thru I10.

[29]Ibid., I11 thru I14. [30]Ibid., I15.

[31]Ibid., I16. [32]Ibid., I17 and I18.

The fourth wall was the only panel that directly integrated colour on black-and-white images as one statement. The bright demanding colours were used to support the more aggressive black-and-white structural images.[33] The fifth wall was totally devoted to a large mural print. The highly sensuous images transcended the visual and tactile qualities of the female nude; there was an obvious play on perspective where the optical image blended in with the direct body impressions of the nude.[34]

The sixth wall was a large diptych also associating the optical with the tactile qualities but added a levitative surreal sensation,[35] which balanced so well with the adjacent colour panels in both content and size. The last two prints were the final punctuation to the show. They contrasted the 'real' to the 'surreal' landscape.[36] Perhaps, a point in time where the viewer can reflect upon the work not only on what he saw, but on what he wants to see.

Another area that I felt was crucial to the installations were the glass sculptures. The way they were placed and lighted was a major factor in their success.[37] I wanted to create the illusion that the prints were transcending from the walls to occupy the gallery space, even to the gentle touch sensation with the floor.[38]

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[33] Ibid., I19 and I20. [34] Ibid., I21

[35] Ibid., I22, I23, I24. [36] Ibid., I25.

[37] Ibid., I26, I27, I28. [38] Ibid., I29 and I30.

CONCLUSION

CONCLUSION

Distorted images of the human female form were recorded on 40 inch by 10 inch color prints and in black-and-white on thin sculptured glass 3 feet by 8-10 inches. Body prints were also recorded life-size on photographic paper to an 8 foot by 4 foot size. The various images were carefully arranged and sequenced in the Photo Gallery to convey a synthesis of rhythm, motion, space and color. This resulted in an appreciation and understanding of how photographic images can be altered and displayed to evoke new visions and experiences.

APPENDIX

BOARD MEMBERS:

Chairperson: Dr. Richard D. Zakia
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THESIS PROPOSAL

Alexander S. Syndikas
Master of Fine Arts Program
Rochester Institute of Technology
February, 1982

THESIS PROPOSAL

PURPOSE

It is the intent of my Thesis to create, photographically, human forms in motion as vibrating objects projected into space. Synthesis of human dynamism will be integrated with kinetic art as well as utilizing the transparent qualities of materials such as glass, plastic, mirror and light to create the greatest possible number of spatial vistas.

BACKGROUND AND SCOPE

Optical Sculptures, for me, immediately associate my growing involvement with diverse forms of art: photography, design, light, pulsating objects and music. Perhaps the greatest influence on my own work has been my brother, Anthony. As an emotional and dynamic painter/sculptor, his subjects center around the human figure and features, with special detail given to the exploration of the senses. With emphasis on recurrent symbols and favorite motifs, he continually explores the joys and sorrows of man.

It is with his philosophy in mind that I am attempting to photographically capture movements and gestures of the

human body. Perhaps more as a kind of graphic shorthand of objects and bodies projected into space.

At the turn of the century, for reasons that are self evident in its history, photography remained more as an ancillary medium of record rather than a primary mode of the imagination. Painters, poets and sculptors may have been permitted to investigate unknown realms, though photography was confined to the observable reality, barred from any emotional exploration that were transforming the other arts.

It was the pioneering efforts of Louis Ducos de Hauron, who was the first to devise a method of making distorted images by using crossed slits instead of a lens. Patented in 1888, his 'Transformisme en Photographie' paved the way for creative, abstracted visual imagery.

With the Futurist Movement, came also the invention of sectional dimension, where rhythm and form could be arranged and developed. Photographer Antonio Giulio Bragaglia worked out his 'Fotodinamismo Futurists' in 1911 by making time exposures of moving objects. In 1918 a Zurich Dadaist photographer Christian Schad produced a series of photograms which abstracted reality without the use of a camera. One could say an esthetic version of Fox Talbot's photogenic drawings.

Perhaps a more recent exploration of photographic abstraction is what has aroused my interests in this subject. The work of Andre Kertesz's Female nudes, belonging to the

same period as Dali's Dreamscapes, Picasso's Girl before the Mirror and Matisse's Pink Nude had obvious affinities with the changes that occurred in the visualization of the figure in the early 30's.

I was particularly interested in the way Kertesz transformed the female body to express eroticsm, though at the same time a sense of humor, controlling the medium as an instrument of his emotion.

What I hope to achieve in my thesis is a similar control of the human form in motion and, then, integrate it three-dimensionally with other forms of both static and kinetic imagery to further entice the observer to a tactile sense of reality.

PROCEDURE

As the intention of my thesis will be to explore photographically human forms as an expression of spatial vistas, my initial work will be in modifying various camera formats and lenses to extend and blend images onto film. Most photographic sessions will be in studio situations controlled by artificial and natural light sources. Outdoor situations will also be considered, as well as modifying film emulsion and chemical developments to extend contrast and film sensitivity.

I will be considering both color and black-and-white film types for the first stage of my work, later integrating

the images with kinetic art and other materials. Some of these materials I wish to investigate will be glass, mirror, projected light beams and silk-screened textiles.

What I wish to do as the final stage in my thesis will be to utilize all the space within the gallery walls. The presentation will take on a three-dimensional concept by means of integrating photography and kinetic art into installation pieces of optical sculptures, focusing on the theme of motion.

My thesis written report will be drawn from my thoughts and influences acquired from my diary and experimental notes. It will be submitted shortly after the completion of my exhibition, scheduled for early September, to allow for any additional observations and/or personal reflection from my exhibited work.

TECHNICAL DATA

TECHNICAL DATA

1. FILM

A. Kodak Tri-X Panchromatic Film
36 exposures, bulk 100 feet, 35mm., 400 ASA

1. Processing
D-76 straight 68 degrees F, 8 minutes 10 seconds
agitation per minute
acid stop bath
hypo, 8 minutes

B. Kodak Ektachrome EHB 160 E-4
36 exposures, 2000 ASA

1. Processing
C-22 chemistry at 85 F

Pre Hardner	4 minutes
Developer	16 minutes
Stop bath	4 minutes
Bleach fix	8 minutes (Ektaprint 2 chemistry)
Stabilizer	4 minutes (C-41 chemistry)

C. Kodak High Speed Duplicating Film, Type 2575

1. Processing
D-19, 1:3, 2 minutes constant agitation
acid stop bath
hypo, 8 minutes

D. Kodak Kodalith Ortho Type 3 (for screen printing positives)

1. Processing
Fine Line Developer 1:1, 2 minutes with agitation
1st 45 seconds
acid stop bath
hypo, 8 minutes

II. PRINTING

A. Screen Printing

1. Dynex 12xx Polyester screening mesh
2. Star - Direct Photo Emulsion (straight)
3. Exposure - Carbon Arc 35 amp Light source
4. Developer - Water soluable
5. Screening Enamel - Reusche MS series black

B. Black and White Enlargements

Ilfo speed, RC Semi-matte grade 3

1. Development

D-72 1:1, 2 minutes constant agitation

acid stop bath

Rapid fixer, 5 minutes

C. Color Printing

Kodak Ektaprint RC 78 F

1. Development

Kreonite machine processing system

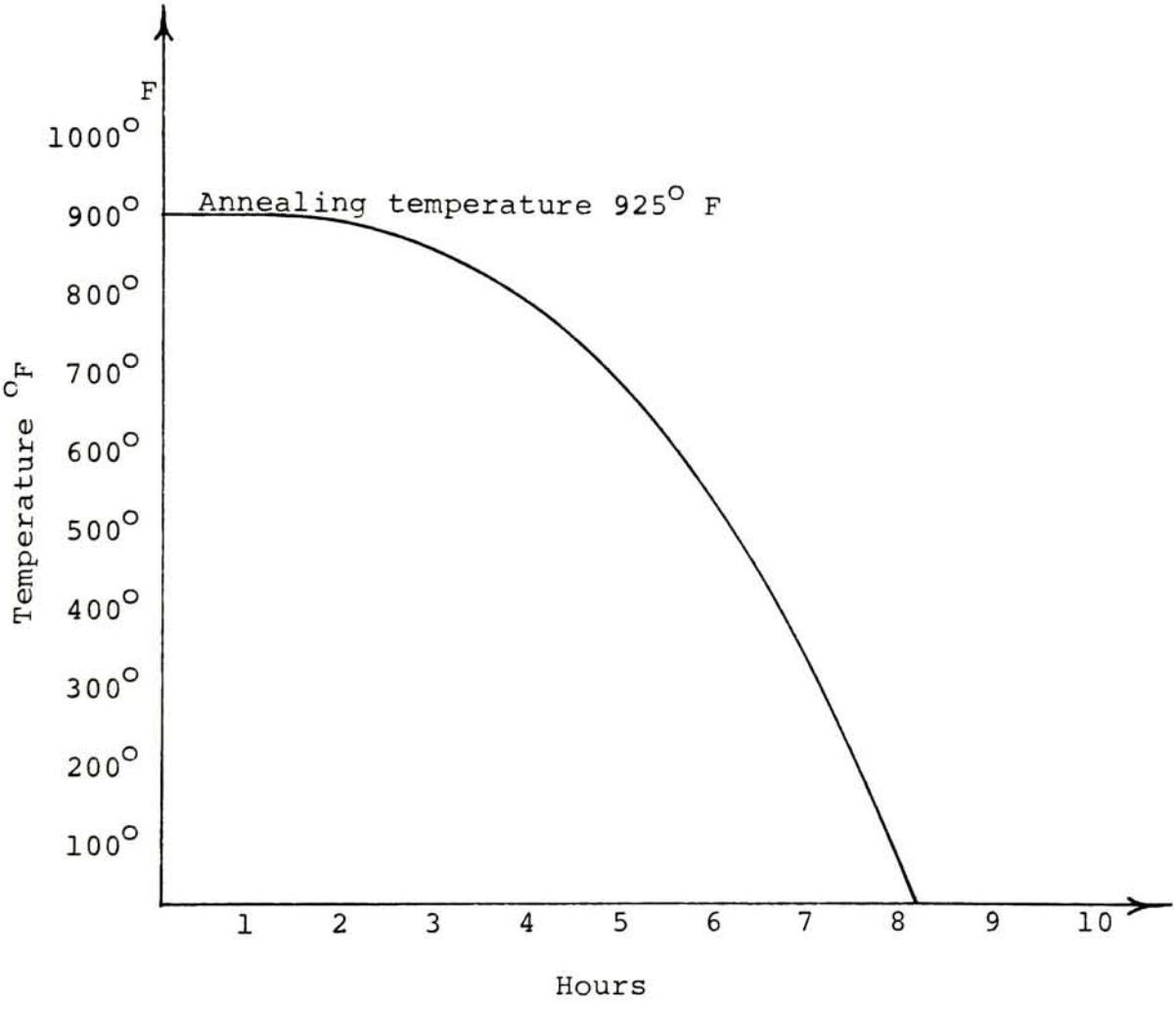
2. Stabilizer, 2 minutes

III. GLASS

A. Slumping Procedure

1. 0 - 900 F in 100 units per hour
2. 925 F Annealing temperature for 2 hours (see diagram)
3. 1300 F Sagging temperature time controlled as desired.
4. 1300 F - 1000 F to terminate sagging
5. 925 F Second state annealing, 2 hours (see diagram)
6. 925 F- Room temperature, in 100 units per hour.

ANNEALING



Annealing glass from one inch to very thin takes from 7 to 9 hours. The process is indicated in the chart. The cycle averages out to be about 110 F. decreases per hour. DO NOT OPEN THE DOOR DURING THE ANNEALING CYCLE.

PERIPHERAL STRIP PHOTOGRAPHY

NEED TO KNOW:

1. Subject height
2. Subject circumference
3. Image (or subject) height
4. Time it takes subject to turn once
5. Slit width

This allows us to calculate the time required for one revolution of the rewind knob and the exposure time. Calculations are based on the requirement the subject proportion needs to be maintained in the reproduction.

$$1.\quad \frac{\text{Known Subject height}}{\text{Subject circumference}} = \frac{\text{Measured Image height (mm)}}{\text{Image length to be found}}$$

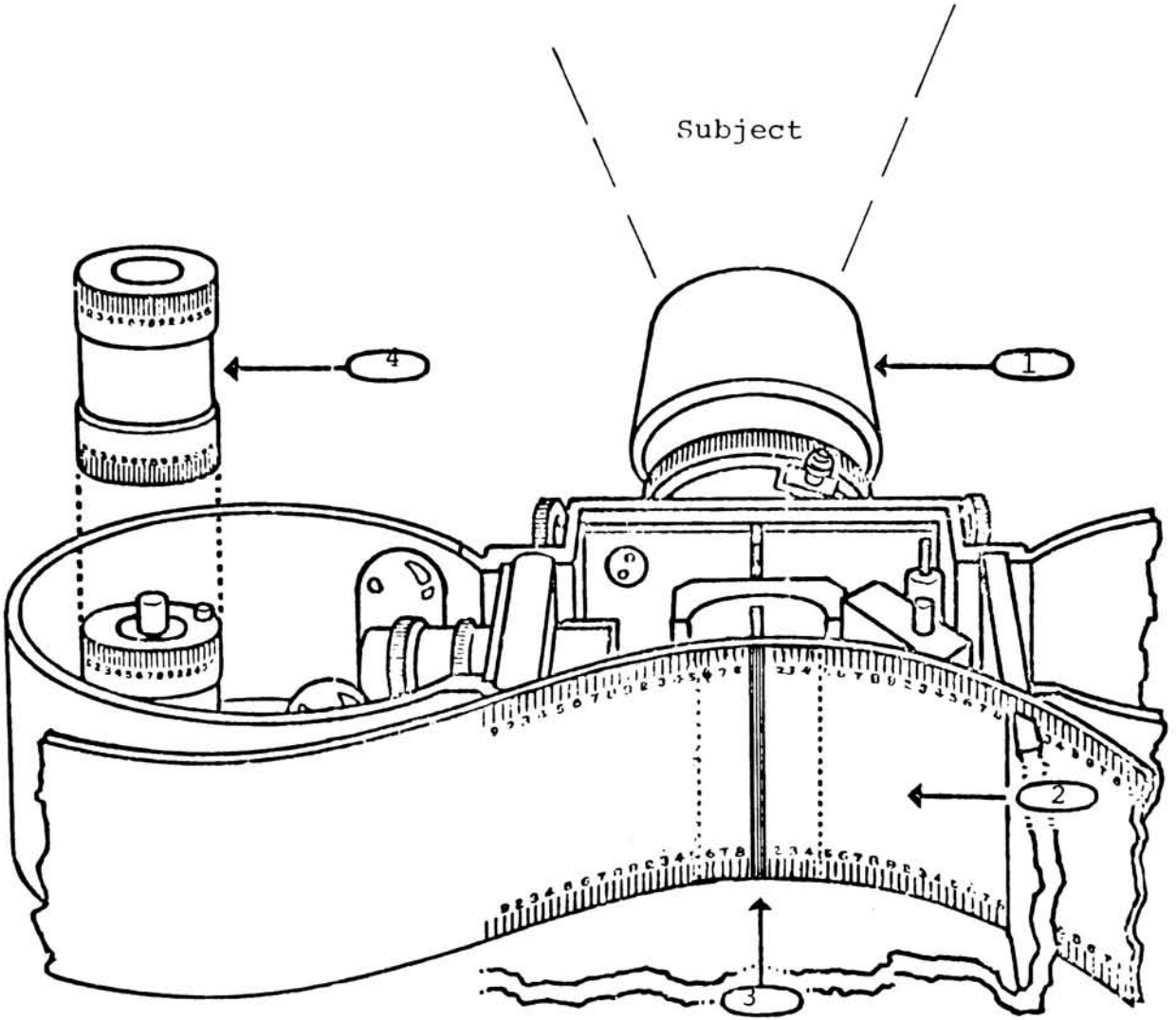
The consequence of 1. is that every time the subject or camera turns once a length of film equal to image length must be drawn past the slit in the camera, thus the speed or rate at which film must move is:

$$2.\quad \text{speed or rate of film movement} = \frac{\text{Image length}}{\text{Time it takes subject to turn once}}$$

The time required to turn the rewind knob once in order to achieve a certain speed or rate of film movement is:

$$3.\quad \text{Time for one revolution of rewind knob} = \frac{50}{\text{speed or rate of film}}$$

The 50 is a constant which is an average since the spool diameter changes with time. It is the average number of millimeters drawn per revolution of rewind knob.



Multi-Purpose Strip Camera
(Devised from an Oscilloscope Recording Camera)

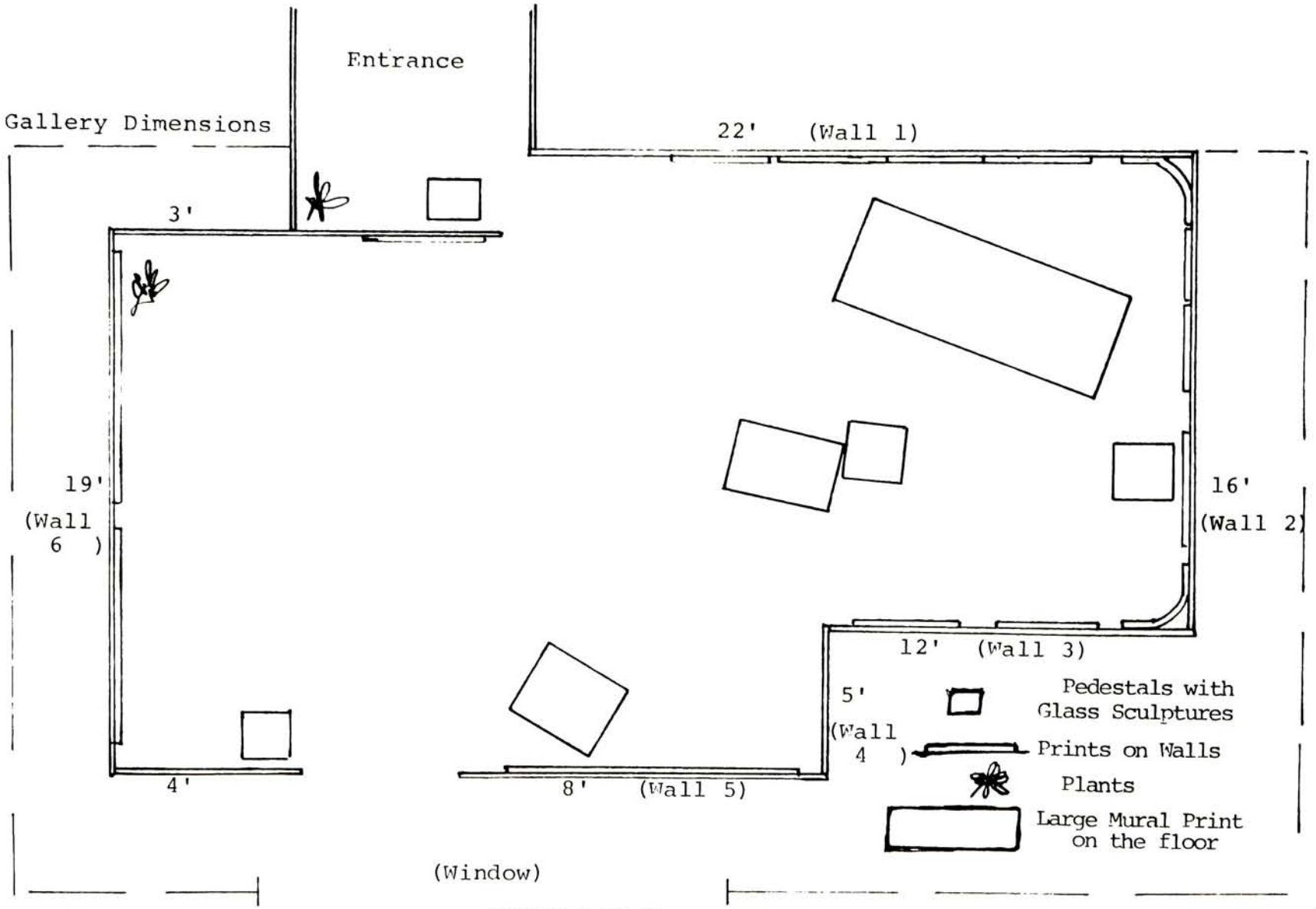
The exposure time (which determines the f stop required for a particular ASA film) is given by

4. $$\text{Exposure Time} = \frac{\text{slit width}}{\text{speed or rate of film movement}}$$

Note: Image length is in millimeters.

VISUAL REFERENCES

Umberto Boccioni	Sculptor/Painter
Hieronymus Bosch	Painter
Antonio Giulio Bragaglia	Photographer
Constantin Brancusi	Sculptor
Bill Brandt	Photographer
Marc Chagall	Painter
Salvador Dali	Painter
Willem De Kooning	Painter
El Greco	Painter
Gyorgy Kepes	Photographer/Painter
Andre Kertesz	Photographer
Ives Klein	Painter
William Larson	Photographer
Henri Matisse	Painter
George Mattieu	Sculptor/Painter
Edvard Munch	Painter
Man Ray	Photographer/Painter
George Seurat	Painter
Anthony Syndikas	Painter
Raoul Ubac	Photographer
Maurice Vlaminck	Painter
Todd Walker	Photographer



GALLERY PLAN

INVITATION

OPTICAL SCULPTURES

A Photographic Thesis Exhibition
by
ALEXANDER S. SYNDIKAS

Photo Gallery, 3rd floor, College of Graphic Arts and Photography
Rochester Institute of Technology, Rochester, New York.

Exhibition hours: Sunday, September 12th to Friday, September 17th. 10am-5pm.

POSTER ANNOUNCEMENT

Alex Syndikas shows the long, short, and wide of his subjects in a photo show at RIT.

□ **STRETCHING HIS IDEAS:** **Alexander Syndikas**'s photographs in his senior thesis exhibition, opening Sunday in the College of Graphic Arts and Photography at the Rochester Institute of Technology, might remind you of newspaper photos you captured on Silly Putty as a child and stretched. They might also remind you of nightmares. The 40 images show nudes in images distorted when Syndikas moves his camera around a model and records the image in a long strip. Other works, the largest 42 inches high and 8½ feet wide, display impressions made by models rolling over prints on photographic paper. The exhibition will be open Sunday through Friday, Sept. 17, in the photo gallery on the third floor of the College of Graphic Arts and Photography, from 10 a.m. to 5 p.m. daily.

TIMES UNION

Friday, Sept. 10, 1982

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SLIDES OF ILLUSTRATIONS

(I1 through I130)


S.1
S.2
S. 3
S.4
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SLIDES OF INSTALLATION

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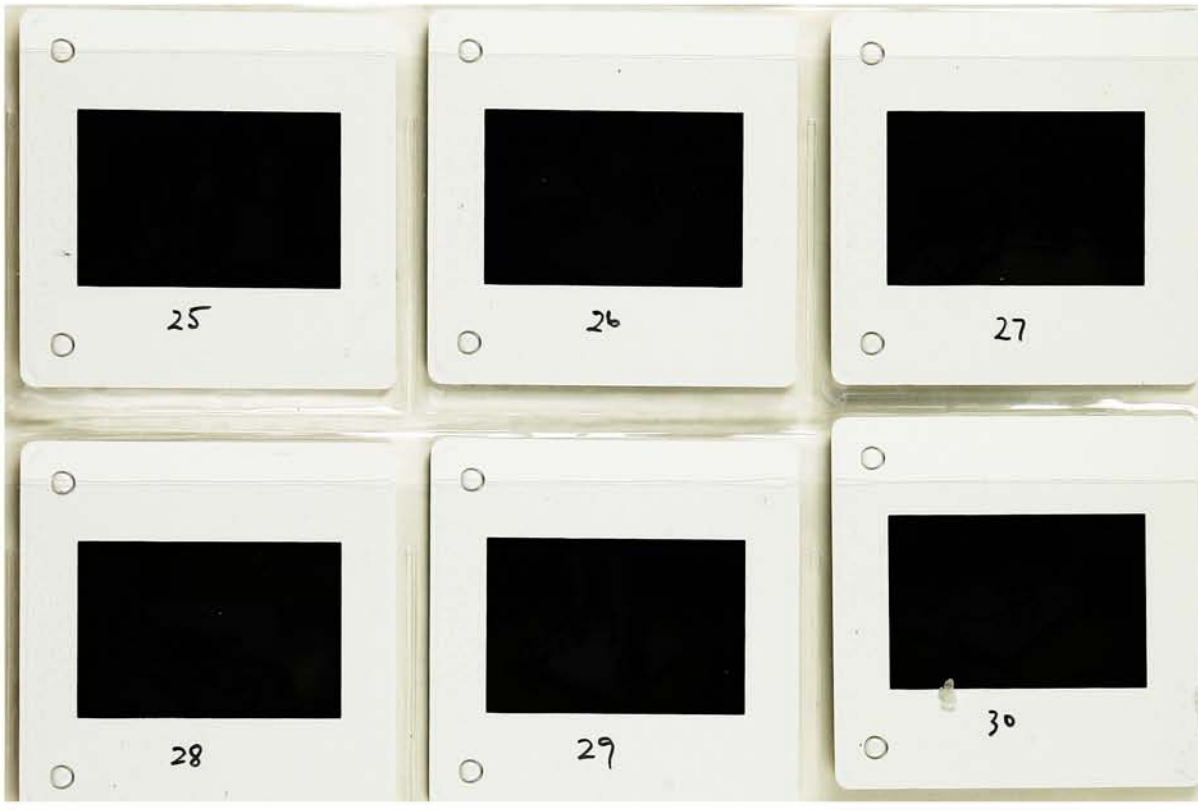
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