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STRIPS

by

Marlin Minks

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

JANUARY, 1985

Andrew Davidhazy

Andrew Davidhazy, Chairperson
Associate Professor of Photography
School of Photographic Arts and Sciences

Charles A. Arnold Jr.

Charles A. Arnold Jr.
Professor of Photography
School of Photographic Arts and Sciences

Jerome Cushman

Jerome Cushman
Associate Professor of Dance and Theatre
Department of Performing Arts
National Technical Institute for the Deaf

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32-54 82nd Street

Jackson Heights NY 11370

Date 1/11/85

DEDICATION

With all sincerity I wish to dedicate this thesis to Professor Andrew Davidhazy for magnanimously sharing his outstanding wealth of information and assisting me through the ordeal with his infectious enthusiasm.

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THESIS PROPOSAL

The PURPOSE OF THE THESIS is to utilize the human figure in movement as recorded over an extended period of time to create photographic panoramas of flowing, anamorphic design.

The BACKGROUND AND SCOPE OF THE THESIS encompass experiences and associations accumulated at Rochester Institute of Technology which reinforced a long standing interest in photographing the nude.

The cooperation of the eye and brain interprets the human figure as a solid mass whose form may change through movement but whose primary dimensions remain constant. This response is so rapid that movement is perceived as a continuation of isolated moments. But through the use of strip photography the flowing, endless rhythm of movement can be made visible. The figure loses dimension and proportion, the front and back may no longer be isolated from each other, extremities may become stretched or compressed. Distortion becomes the recorded reality of movement over time.

The visual impact of recording the figure in the round and laying its components side by side intrigued me. During my first year at Rochester Institute of Technology, I built a strip camera and refined it to produce technically good renditions. But I was not totally aware of the aesthetic

potential until seeing Distortions (4) by Andre Kertesz. Although these photographs were created with the use of irregular reflective surfaces, I saw many similarities to the images I was forming with the strip camera. But to me it seemed possible to expand the idea of Kertesz by including the dimension of time.

Through the strip camera image, the parts of the body can completely dissolve into flowing rhythmic values, capturing the process of change through movement, and then reconstruct as another view of the figure at a different time in space. Certain body parts can be rendered realistically or exaggerated for emphasis while allowing the rest of the figure to dissolve in a blur. The stretching or compressing of portions to create new, yet believable forms, alters the idea of the figure within restrictive boundaries. The skin may appear elastic with the body moving freely within it.

The PROCEDURES utilized to create the images include employing a 35mm camera which has been converted to continually transport the film past a fine, stationary slit. With the model revolving in front of the slit, a very narrow view is recorded at a particular moment to build an image compiled of different portions recorded at different times. If the movement of the figure coincides with that of the film, a realistic peripheral view results but the beauty and rhythm that I find so appealing results when variance exists in this synchronization.

The potential for stringent control and predictability is possible with the strip camera but the excitement of

discovery makes this undesirable for me. The subtle variations and undreamt of possibilities which can be allowed to appear on the film makes this the attitude I choose to take. Normally an entire roll of film is used for one continuous exposure, from which segments are selected to compose images. Approximately twenty prints will comprise the display.

To supplement the transformation of the figure, single or possibly combination toning will be utilized to produce shifts in hue with the corresponding changes in density of the black and white prints. To add special emphasis, subtle, selective application of color may be incorporated.

INTRODUCTION

The primary goal of photography at its inception was to record forever the reality of a transitory instance with relatively little separating the experience from the final image. The camera was simply required to register on film a facsimile of what the eye had seen. Many photographers were resigned to being impersonal servants of the machine, implementing little human interference between the event and the resulting image.

Advancements in technology eventually evolved the camera to surpass the eye in its ability to reveal the specific. Photography developed the capability of capturing events beyond which the combination of the eye and brain could detect. As technology was scaling new heights, many photographic artists were attempting to transgress externally imposed limitations and elude the timeworn conventions of technical virtuosity. They were no longer content to utilize the camera as a mere extension of the eye. Established assumptions were questioned and old boundaries strained in order to incorporate personal vision into the process. The resulting images transcended a simple reflection of the visible world to unite what was in front of the camera with who was behind it.

Through more precise equipment, versatile materials and better technical control, the photograph more than ever

before, has the capability to go beyond a mere literal report or mirror image of nature. With direction, the unseen can be manifested to create new levels of reality that become perceived only through exploiting the phenomena of the photographic process. Propositions conceived in the minds of creative artists can be implemented through sophisticated technology to delineate an otherwise imperceptible world.

Chapter 1

PROCESS

The equipment and technique utilized in this thesis are similar to those used for peripheral photography having direct scientific application for such things as recording wear on objects like piston walls to permit simultaneous inspection of their entire vertical surfaces. However, since the human body is not a perfect cylinder and the strip camera is capable of accurately recording only one specific circumference at a time, all other areas are technically adjusted to, in effect, depict the same diameter. Any body part protruding outside the specific circumference being recorded is effectively moving past the slit at a rate faster than the given speed of the selected circumference and is therefore compressed. Any part of the anatomy which is recessed effectively passes the slit slower than the given rate and will appear expanded. In an otherwise accurate record, the brain seems to accept these alterations and perceive the figure as it is expected to look.

Exact predetermination of a distorted image is not possible even with the consistency and accuracy of highly sophisticated motorized equipment. The camera functions are predictable and repeatable but the slightest variation in the models position causes an entirely different image to be recorded. Irregular contortions occur if the speed and direction

of the image and the film are not synchronized or if the model does not rotate on an axis in line with the slit. When the model is directed to initiate movement apart from the rotation controlled by the turntable the results become increasingly less predictable. The boundaries of the body are strained, stretched and expanded by an innovative combination of technology and accident by design. This alteration of the human body seems like an aesthetic revelation because the unaided eye has never seen it in quite this manner before. The strip camera eliminates extraneous material to isolate essential qualities of the body. Normal perspective clues do not exist. The figure as it is traditionally perceived no longer remains the primary emphasis. The concern extends beyond the original subject to become involved in its treatment. The photograph transcends a simple report to reflect an expression of an event that has transpired as a merger of scientific technology and creative application. Courting chance and exploiting the accidental creates anatomical images which have never been seen or even previsualized and can never be repeated, in line with the formalistic approach to photography as pioneered by Maholy-Nagy and Man Ray.

Working as a director prior to the exposure, the photographer can make certain preliminary selections through the viewfinder to intuitively shape the final image. It is possible to view the procedure but it is extremely difficult to dictate exactly how the scene will unfold. The mind cannot compile the information to form a mental picture of the final

product beforehand. The image is synthesized rather than extracted from nature and comes to life only in the photograph. There is little rationale in the stresses exercised by the strip camera, and although experience can produce a certain amount of predictability, the conclusive evidence is reserved for the finished print.

As opposed to the documentary photograph, many of the creative choices in strip photography lie in the course of discovery after the film has been processed. Since the formation of the image was never actually witnessed and is depicted for the first time on the contact sheets, there is a renewed thrill in searching for unique and provocative forms to reveal themselves. But the unnatural biological ambiguity of the nude as it has never been seen before can overwhelm the uninitiated viewer with its novelty. It is therefore essential to be critical with the raw material and select segments with discretion. Not all distortions are good simply because they are peculiar. Traditional assumptions can be questioned without leaving the visually naive in a state of bewilderment. This should be accomplished through aesthetic concerns rather than relying on the sheer psychological impact generated by the unconventional medium. The strip photographer's art resides as much in his ability to make the creative choice in selecting the definitive image after it is formed as in his complicity prior to the exposure.

Since an entire roll of film often comprises a single exposure the obvious inclination is to stretch traditional print

boundaries to produce long narrow photographs. The repetition of the pictorial components recurring at somewhat regular intervals as they continually repeat themselves within the elongated frame is enticing in itself. After all, this characteristic is unique to the strip camera. No other photographic instrument has the capability for such extended studies. In the late 1960's William G. Larson (5) used a Hasselblad converted for strip photography to conduct an extensive study of the nude within the exaggerated rectangle. His preliminary works emphasized relatively faithful peripheral reproduction of the model and relied upon the pictorial rhythm associated with the process for aesthetic appeal. He developed a variety of innovative techniques to mechanically vary the visual cadence as a means of controlling the mood of the image. The rhythm created by the pictorial components repeating at, more or less, regular intervals seemed to deemphasize the figural aspect in favor of exemplifying the harmonious flow between points of emphasis similar to the appearance of a musical score. The extended format at its extreme was an essential element of his images and is characteristic of much of the creative peripheral work being done with the strip camera.

While most artists and scientists who have utilized strip photography have selectively plied its formal characteristics, Professor Andrew Davidhazy at Rochester Institute of Technology has successfully challenged both its creative and technical applications. By exposing the mystique of the

process he has erased many of the preconceived attitudes which have traditionally perpetuated exclusive applications. His work exemplifies the strip camera as a creative tool of distinctly unique merit rather than simply a scientific instrument adapted for creative use, although it is capable of extended studies it is not restricted to them.

Chapter 2

SUBJECTS

The nude figure was selected as the governing theme primarily for its graphic qualities. As a subject, it is universally recognizable whether viewed in segments or in totality and never fails to evoke emotion. The nude is unquestionably the starting point but the concept is not dependent solely on subject matter. The figure remains clearly discernable although not graphically delineated. The original shape loses importance with new emphasis on form and how it occupies space. But it is impossible to completely separate content from form. The universal fantasy quality of the distorted nude with its lush, radiant expanses of flesh projects a sensuality characteristic of figure studies with a heritage going as far back as the austere prehistoric fertility figurines.

There is no attempt to use distortion to conceal the general character of the nude figure but rather to separate it into its fundamental components. The figure takes on a surreal suppleness and fluid grace. Areas which are blurred due to variance from the normal speed become subtle transitions between a new alignment of body parts. Limbs shift freely and recombine in novel relationships. Dismembered segments are

isolated out of context with the rest of the body for contemplation or reorganized as form for its own sake. It is no longer merely a nude figure but an expression of a far grander concept. The viewers are left free to engage with the image on whatever level they choose.

There is a broad historical foundation for portraying the distorted nude as pure form but three outstanding bodies of work imparted a special influence on my approach to this thesis. Bill Brandt's Perspectives of Nudes (1) which utilized an extreme wide angle lens with phenomenal depth of field in close proximity to the figure to create monstrously disproportionate figure studies. And the abundant flesh, distended bellies and pendulous breasts of Irving Penn's Earthly Bodies (7) may be considered distorted when compared to contemporary norms although any perceived distortion actually existed in the figure itself and in the photographer's selective vision and was not the result of fabrication. And, of course, Andre Kertesz's straight photographs of reflections in a fun house mirror, Distortions (4), was the driving force in the conception of this thesis. Of the three bodies of work this could be considered by far the most exotic. The extreme contortions and misshapen torsos initially caused a furor but expanded the perceptive possibilities to a degree seldom approached.

There is, however, tremendous potential for repercussion in tampering with the natural order of a subject which is as emotionally charged as the nude figure. Creative distortion may too easily be confused with horrendous physical disfigurement

or deformity. And the fact that the photograph is generally accepted as an indisputably accurate record can deceive the viewer and entice emotional involvement which compounds the reaction of discomfiture. Some of the instinctive apprehension may be derived from the overwhelming concern involving the possibility of disfigurement from an accident or the emotional trauma surrounding deformity of children at birth. The automatic impression that what the camera is recording is really a factual depiction of reality arouses our greatest fears. Many who would readily accept abstraction in paintings and drawings find alterations in the photograph disorienting because the effect is so convincingly real, and they have become accustomed to turning away from sources of psychological torment.

The thesis is not intended to rely on subject matter to confront the emotions of the viewer in order to elicit a response but rather to express a special personal vision which draws upon a shared understanding of the human experience. Narrative depiction is shunned for visual inventiveness. The figure can be recognized but its significance is ambiguously transformed to invite the viewers to project their personal experiences into it with the hope they will suppress the temptation to analyze the structure in an effort to solve the puzzle of its formation and enjoy the charm of the sometimes humorous but always provocative forms.

Chapter 3

MOTION

It is commonly accepted that nothing can move from one location to another without passing through intermediate steps. But quite often the transition occurs at such a rapid pace as to be indiscernable. As marvelous as the human eye is, it is not capable of actually seeing how something like a dropped cat twists its body in mid air to upright itself and land on its feet. The inadequacy of sight does not allow for the detection of attitudes which exist for a fraction of a second. The eyes see the total event but are incapable of defining it.

Until Eadweard Muybridge's serial photographs for Human Figure in Motion (6) in 1957 divided common movement into crisp, lucid images, there was a great deal of misconception as to exactly how these everyday events occurred. The exquisite details of transition he captured to create an atlas of human and animal forms in action changed the conventions that had been held until that time. Step by step analysis from various angles clearly delineated the basic attitudes of the body during nearly every conceivable action. A further advancement in photography's ability to suspend time and freeze action came from Dr. Harold Edgerton's development of the strobe-flash technique.

Still another imperceptible world of common occurrences was revealed. No one would ever perceive motion in quite the same manner again.

Muybridge and Edgerton taught us about motion in the daily world. Their suspended images of stop action photography halted movement and layed it open for examination but their photographs belied the very sensation of motion they were attempting to depict. Experience has taught us to interpret certain techniques as symbols for movement in much the same way as someone who does not read has come to recognize a red hexagonal sign as a symbol for stop. Indicators allow us to recognize what we see. And even though movement as recorded over time with a slow shutter is little more than an undefined mass void of detail, it has come to simulate and represent motion in a still photograph. The spectacle is more symbolic than actual yet it maintains a semblance of the sensation experienced in the original event.

Although a photograph ordinarily depicts an event in a single frame, multiple individual images linking the various stages of a single occasion can often depict action which cannot be captured with the solitary click of the shutter. Several images, commonly read from left to right, can combine to sequentially reveal an event. As the viewer scans the serial photographs, the images depicting the progress compile a singular unified impression, although no one has ever actually perceived it in quite that manner.

Stop action, blurring and serial images all challenge

the problem of effectively depicting the sensation of motion in a photograph which does not move. But separately they are capable of capturing only select aspects. The strip photograph can be likened to a combination of all these techniques. A single picture compiled of multiple individual frozen images subtly united by areas of blur to form a solitary continuously unfolding scene in its entirety. The blur reinforces the illusion of motion while the contrasting sharpness and detail of the frozen segments become the definition and emphasis of the photograph. The body fades in motion to become a thin transparent veil joining isolated series of continually changing surfaces only vaguely reminiscent of the original subject. But no matter how randomly the features are arranged the photographs look so convincingly real they can easily be regarded as factual. Only a familiarity with human anatomy provides evidence of deception. The strip camera possesses a greater potential for capturing the definition of movement while maintaining the visual energy which existed in the original event than any other still imaging technique.

TIME

All photographs involve time, if only the duration of the exposure. But the challenge is to utilize the still photograph to convey the essence of time no matter how brief or extended. This concern has traditionally been approached as the when of pushing the shutter release. In the Decisive Moment (3), Henri Cartier-Bresson proclaimed that "inside movement there is one moment at which the elements in motion are in balance". The effort was to suspend time and transfix forever that precise and transitory instant, to capture in a fraction of a second the essence of the occasion.

The strip photograph is not concerned that an event happened at a certain moment. Instead of dividing time into thin slices, strip photography expands the concept to encompass time as a dimension of the image. The normal two dimension replication of the photograph is reduced to the single dimension of height, while the width exists as a chronogram of elapsed time. Not time in the context of the duration of exposure for the film, but time as it relates to the progress of the changing image. Each vertical segment is exposed seperately, consecutively from one end to the other, to compile a dramatic tableau of the occasion. The time it takes to expose each slice of anatomy is less than the total time it takes to expose the whole thing. Therefore, the moving figure will be in a different position at each instant during the exposure. The process becomes a

visual chronical of the figure as it moves past the slit, with the photograph being the recorded history. The strip image makes it possible to view in a glance that which took an extended period to compile.

Chapter 4

TECHNICAL

The strip camera is most commonly thought of as a scientific instrument with technical application in racetrack photofinishes, aerial photomapping, high speed ballistics tracking, peripheral photography, panoramas and more. But its adoption by the artist certainly cannot be restricted simply because of its tremendous practical accomplishments. Guidelines do not exist to restrict the borrowing of a tool developed primarily for scientific application to graphically delineate conceptions of the creative mind. As Bill Brandt put it; "Photography has no rules. It is not a sport. It is the result that counts, no matter how it is achieved." (2)

Although strip photography has been developed into an exact science, it is not essential to this thesis to get hopelessly involved with sophisticated equipment. This is not intended as a definitive study in technique. The final image is the prime concern. How it is achieved is important only insofar as it can be utilized to communicate what is conceived and does not inhibit personal vision. But a certain familiarity with the process becomes invaluable when it aids in extending the creative possibilities.

It is essential to be versed in the fundamentals of the craft if only to know its restrictions in the hope of breaking or at least bending them. This becomes more imperative as the process becomes increasingly technical. Image delineation in painting and drawing is limited primarily by the resourcefulness of the artist, but in photography the parameters of the technique set the guidelines. An intense involvement in the process is indispensable in challenging these barriers. But the pitfall is in becoming enchanted with beautiful gadgets and allowing technology to dictate aesthetics.

The first and foremost concern of the graduate committee at my proposal meeting was that the thesis may get bogged down in the technical aspects inherent to the process. I, of course, was confident that could never happen and somehow convinced them. But it is sometimes difficult to differentiate between idle procrastination and progressive development of a concept. Admittedly, a great deal of time and effort was expended on designing, fabricating and refining the equipment used. It is impossible to say if the emphasis was excessive.

Three distinctly different motorized camera designs based on a concept developed by Professor Andrew Davidhazy at Rochester Institute of Technology were built and extensively tested. The effort gave a fundamental insight into the process and an affinity with the equipment. But the mechanical novelty of the strip camera can be mesmerizing. It utilizes a technique which is unfamiliar to most to reveal a world which is not perceptible to the naked eye. The sheer unconventionality of the process

inhibits any effort which would restrict it to the status of a mere tool rather than comprising the entire creative process.

Even though the peripheral image depends on the strip camera for its formation, it has no greater reliance on technology than does any other photograph. And the fact that the technology is unique does not make it more complex. The strip camera actually has more resemblance to a normal camera with a focal plane shutter than one might expect.

The belief that the conventional camera yields an instantaneous exposure is inaccurate but acceptable if you take into consideration the almost insignificant period of time involved. In reality the focal plane shutter makes an exposure sequentially over time as a slit moves across the stationary film, exposing narrow portions as it goes. Normally this is accomplished in a fraction of a second and what is recorded is accepted as an instantaneous indisputably accurate record. The scanned image acts as a credible surrogate for the direct experience.

In the strip camera, the thin vertical slit comprising the shutter remains stationary and permanently open while the film is continuously transported behind it. As with the focal plane shutter, the image is formed sequentially over time in narrow bands. But since the film is moving during the exposure, it seems that nothing but streaks would be produced on the film and under most conditions that would be the case. But when the image of the subject moves past the slit in a path perpendicular to it, at a speed and in a direction equal to

that of the film transportation, the image is perceived by the film as being stationary. The camera optically peels off the likeness and rolls it onto the film almost as if the surface were removed and laid out flat so that all sides were visible at once. The resulting record can be considered a, more or less, literal report.

Excellent sophisticated strip cameras are available commercially from numerous sources, but they tend to be expensive and overly specialized. They are certainly capable of producing the best possible negatives, but an advanced level of technical sophistication is not necessarily required for the best possible picture. Strip photography as applied to creative figure distortion can be accomplished with meagre, improvised equipment.

Converting a standard 35mm camera for strip capabilities can be amazingly simple and require no permanent alteration of the original functions, thereby making it possible to switch back and forth between normal use and strip photography. The only essential adaptation is a substitute shutter consisting of a piece of opaque material with a narrow slit cut in it fastened over the camera's film plane window. With the camera's conventional shutter locked open this becomes the functioning shutter. The film is loaded normally and with the lens cap in place, the entire roll is advanced through the camera unexposed. The shutter speed selector dial is then set on B or T and locked open. To effect the exposure, the camera's rewind button is depressed and using the rewind crank, the film is slowly

transported past the open slit, back into the film cassette. Nothing more is required to make the camera capable of producing basic strip photographs.

The strip shutter is constructed from orthochromatic lith film exposed and developed for maximum density. A piece of the processed film only slightly larger than the film plane window is required. With a sharp razor blade, a ruler and a great deal of care, a slit approximately one millimeter wide is cut across the short dimension of the film, leaving just enough border above and below the ends of the slit to hold the piece together. It is not essential for the slit to be exactly centered or perfectly vertical or even a straight line. These variations will alter the way in which the image is recorded but a study in creative distortion allows for leniency which would not exist in a more scientific study. However, to insure even exposure of the negative, the walls of the slit were made parallel as any variance in the width would have resulted in exposure variations undesirable to this particular study.

The most direct method by which to fasten the slit shutter into the camera body is by opening the camera back and taping it over the film plane window, between the film guide rails, with black photo tape. This however, places the slit in direct contact with the film which I found to be unsatisfactory. The Nikormat FTN used in this study has a convenient alternative solution. There is a groove between the focal plane shutter and the window which allows the constructed slit to be slipped in and held securely with no assistance (Illustration 1). This

places the slit shutter approximately one millimeter from the film, which, in this instance, seems ideal.

The distance the slit lies from the film plane determines its actual width as perceived by the film, which directly affects efficiency, exposure time, image quality and amount of blur in portions of the subject not at the circumference being photographed. The closer the slit is positioned, the narrower the projected width. And since the effective shutter speed of the slit camera is determined by the amount of time it takes a given portion of film to pass from one edge of the slit to the other, the exposure time given the film decreases with a narrower slit. Producing a faster shutter speed, as with the conventional camera, increases the stopping ability which in turn is a factor in improving image sharpness. This becomes most prominent in areas that lie outside the absolute circumference being photographed since the image in these areas is actually moving on the film. Also, shutter efficiency is higher with a narrow slit in close proximity to the film combined with a small aperture.

While a narrow slit aids in improving sharpness and efficiency, it produces a corresponding sacrifice in evenness of exposure. Density streaks on the image are an indication of uneven transportation of the film during exposure and are most apparent with a perfectly sharp image. Increasing the distance between the slit and the focal plane softens the projected edges of the slit, which, in turn, moderates the transition between the strips compiling the image but only

with a corresponding decrease in overall image sharpness. Uniformity can be improved more efficiently by extending the length of the rewind crank to provide more leverage over a larger circumference to pull the film more smoothly through the camera (Illustration 1). Or, if you are willing to risk an enticing affair with technology, the entire process can be motorized.

Automating the transportation of the film need be no more complicated than replacing the hand crank on the rewind knob with a gear and connecting a variable speed motor to rewind the film. A small, lightweight electrical motor like those used in robotics which is geared down to approximately the speed required will generally have sufficient torque for smooth operation.

Since these motors are typically designed for use with 12 VDC, a universal AC/DC adapter is required to convert common 110 VAC. Besides allowing the motor to operate on household current, the adapters five-way voltage selector can further function as an adjustment for the motors speed. It also contains a polarity setting to establish the direction of rotation.

To transfer the power, a small timing gear is fitted on the motor. The cameras rewind crank is removed and replaced with a quarter inch shaft so that a second timing gear can be mounted on it. A timing belt joins the two to complete the connection (Illustration 2). The gear sizes are selected to provide the precise maximum speed desired when the adapter is

set at 12 volts. The other settings will progressively reduce the motors speed but only with some corresponding reduction in torque which should prove to be insignificant.

The initial consideration when developing a motorized version was to produce a system which would reduce variability and smoothly transport the film. But mechanizing the system can create nearly as many new problems as it solves. Most prominent are the unsharpness caused by the vibrations inherent to electrical motors and density variation streaks resulting from the infinitesimal jerking of the pulley and belt system. And although these were satisfactorily resolved with rubber suspension for the motor and felt pressure strips to increase film tension, the highly mechanized approach did not improve quality, nor did it greatly extend the creative possibilities. The independent camera succeeded in little more than further alienating the artist from physical contact with his art.

Actually the very basic strip camera with a simple extended hand crank may be the best solution for this particular approach. The hand crank allows for objectivity toward what is happening with the model in front of the camera and with practice, becomes a smooth and predictable system. Film transportation speed can be adjusted continually and evenly to best emphasize each particular movement. But probably more important is the psychological gratification of intimate involvement with the entire creative process.

To accommodate the required movement of the figure past the slit, a turntable was constructed from a revolving department

store display platform. The original small motor may have been adequate for a stationary display centered on the very small platform, but the intent was to allow the model to move freely, both horizontally and vertically. This necessitated extending the platform and substituting a larger, high torque motor to provide the required power.

The speed of the turntable was adjusted to the maximum estimated speed a person could rotate comfortably for a period of time without developing motion sickness. A slower turntable speed would require a corresponding reduction in film transportation speed, which has the undesirable effect of producing a slower shutter speed.

Since the camera's optics reverse the image before it reaches the film, the turntable must rotate in the direction opposite to that of the film rewind knob. Or, with the film moving from right to left past the slit shutter, the front surface of the subject must move from left to right or rotate counterclockwise. If the subject passed the slit in the opposite direction, the resulting image would be blurry and appear transposed.

Chapter 5

MATERIALS

The conscious artistic control which is sacrificed to achieve an air of spontaneity and surprise can be recouped through the editing of the images, the choice of materials and the presentation.

A high speed black and white panchromatic film was implemented as another transformation of reality, replacing the original hues of the figure with tones. The coarse texture of the grain softened detail and simplified the figure to the extent that adequate definition existed to distinguish shape but avoided delineating individual characteristics. With the loss of distinctive features, information is withheld. The greater potential for victimizing the subject lies in a record which too closely reflects reality.

The final act of creating the photograph took place after the exposure, film processing, editing and printing of the image was completed. Toning and hand coloring were selectively introduced to the fundamental form of the technically altered figure to add discrete pastel hues reminiscent of the original skin. The remembered color associations were replaced with personally selected colors which are not intended as an imitation of nature but, rather, an artifice in further transposing and modulating the forms.

The prominent grain of the black and white film, the print toning and the hand coloring had a significant influence on the final appearance of the body of work. Their combined use was not coincidental or a compromise, but aimed at the harmonious unified goal of altering the human anatomy to produce somewhat ambiguous forms of sensuous intimacy. These are not intended to be photographs of the figure as much as they are about the figure.

CONCLUSION

Although the initial concept was to create panoramas of the human figure as it moved over a period of time, the ultimate product does not explicitly reflect that. Since the selection of the image was not made until after its formation, there was sufficient opportunity to deviate from the original intent. The proposed allowance for discovery permitted previously inconceivable worlds to reveal themselves and entice further investigation of unforeseen possibilities.

The most important deviation was in the proposed format for the images. It is appropriate to be faithful to the process, an image produced with a strip camera should look like a strip photograph, but not to the extent that obvious technical characteristics dominate aesthetic concerns. All photographs present a cropped view of the world but the exaggerated format inherent to strip photography seemed to excessively particularize the technique and draw considerable attention to itself. The traditional rectangular format was utilized as a more neutral frame to better communicate the essence of the subject.

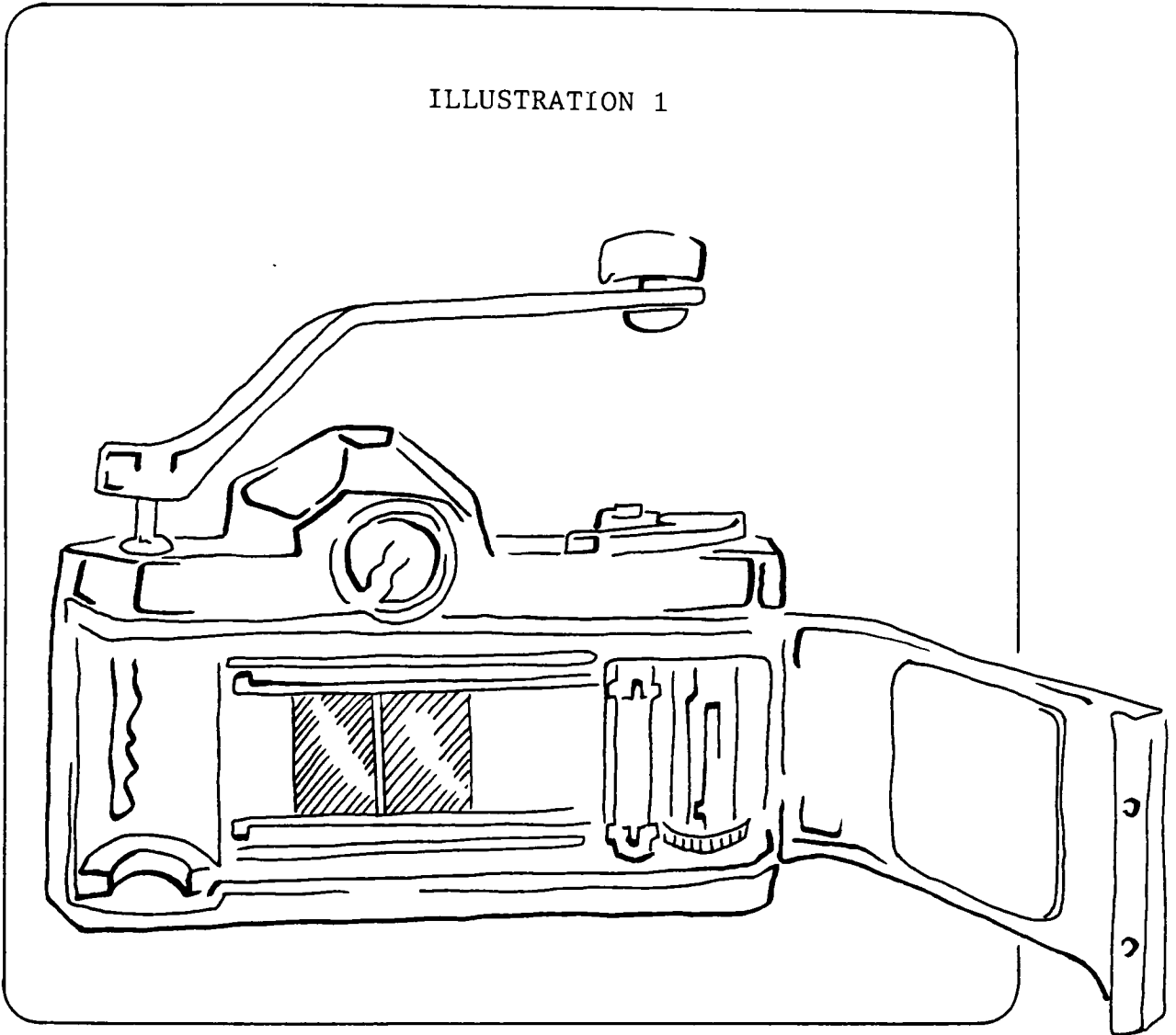
Even though movement and time are fundamental to the process of constructing the strip photograph, they are not necessarily obvious characteristics of the selected image. As the study developed, the photographs progressively deviated

from telling a story or chronically depicting an event. The apparent movement became more a transformation from condition to condition than a change from place to place.

If the show had been presented immediately following the completion of classes, while I was still on campus, the final presentation would have undoubtedly varied less significantly from the original proposal. Although never losing sight of the educational goals, upon leaving school the consuming desire became finding a sufficient outlet utilizing my education to eke out an existence and begin paying back the extensive educational loans. I would like to say that I was able to take full advantage of the extended time to work diligently toward completing the thesis, but, it could be more appropriately described as a practical postponement. The problems of relocating and developing a business made education and art seem like an unattainable luxury. But rather than suffering from the interruption, the prolonged period allowed for extensive contemplation and reflection which, fortunately, proved to be beneficial by permitting the natural logical evolutionary development of the study.

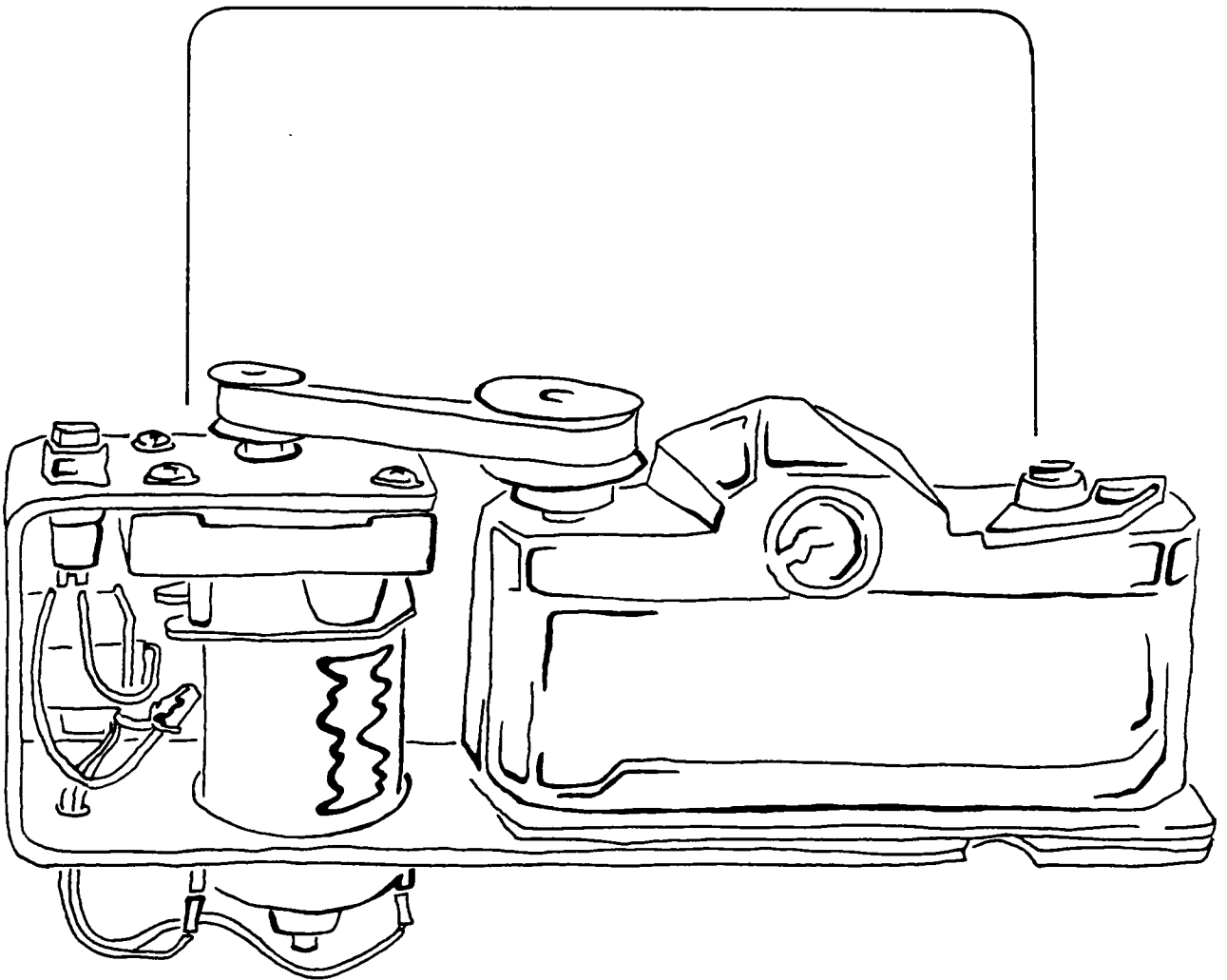
The original air of spontaneity and the surprise of discovery which motivated the approach to the thesis did not fade with familiarity. The body of work clearly outlines significant progress beyond the preliminary concept, but it seems to be merely an indication of the potential which could be possible through further extending the study.

ILLUSTRATION 1



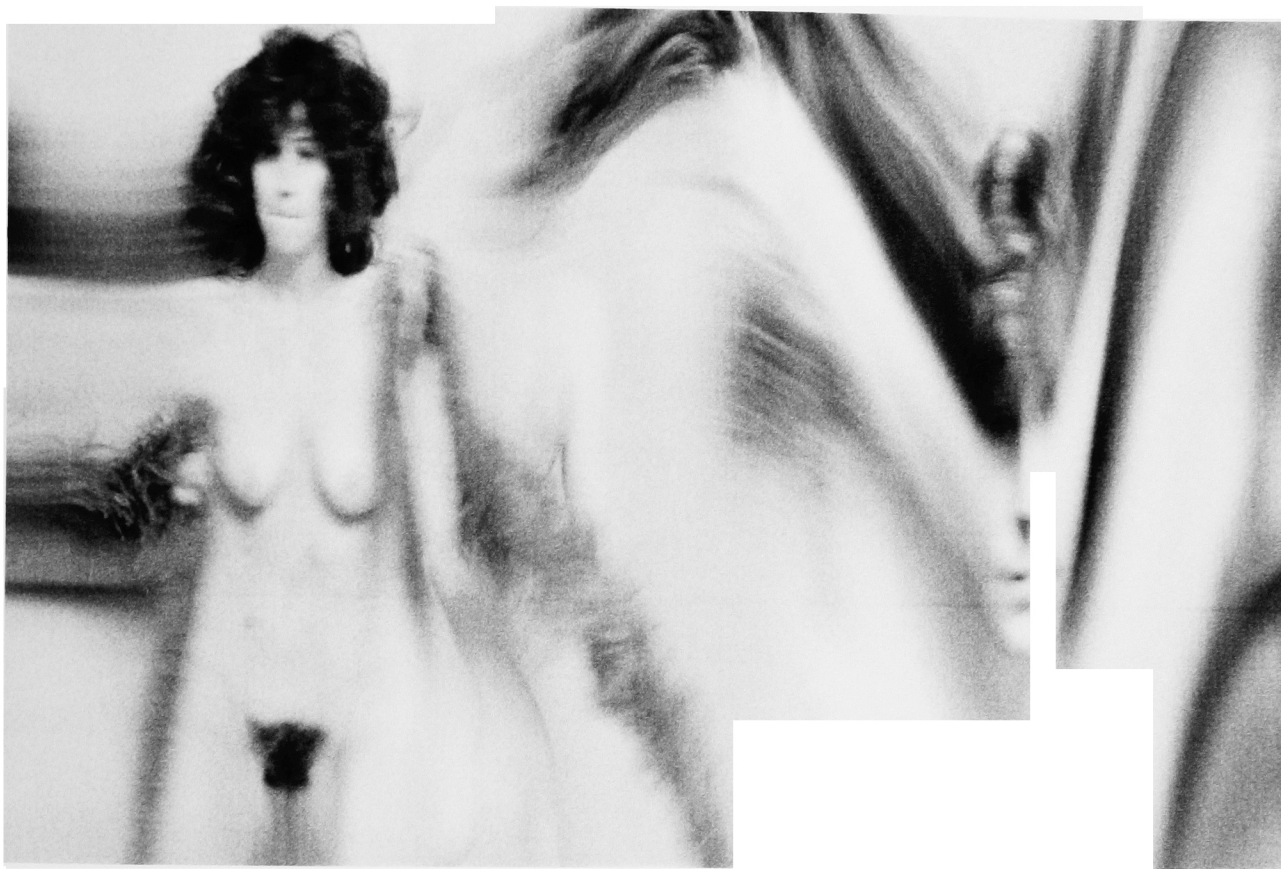
An extension of the rewind crank aids in transporting the film more smoothly past the slit shutter mounted over the film plane window.

ILLUSTRATION 2



A small 12 VDC motor can effectively transport the film using a belt and pulley system while allowing control of the speed and direction with a universal DC adapter.













REFERENCES

1. Brandt, Bill, Perspectives of the Nude, New York, 1961.
2. Brandt, Bill, Shadow of Light, New York, 1977, p. 24.
3. Bresson, Henri Cartier-, The Decisive Moment, New York, 1952, Introduction.
4. Kertesz, Andre, Distortions, New York, 1976.
5. Larson, William G., "Portfolio I, The Human Figure in Motion", Modern Photography, 1971, p. 78.
6. Muybridge, Eadweard, Human Figure in Motion, New York, 1957
7. Penn, Irving, Earthly Bodies, New York, 1980.

BIBLIOGRAPHY

- Brandt, Bill. Perspective of the Nude. New York: Amphoto 1961.
- _____. Shadow of Light. New York: De Capo Press, 1977.
- Bresson, Henri Cartier-. The Decisive Moment. New York: Simon and Schuster, 1952.
- Campbell, William G. Form and Style in Thesis Writing. Boston: Houghton Mifflin Company, 1969.
- Coleman, A.D. The Grotesque in Photography. New York: Summit Press, 1977.
- Davidhazy, Andrew. "Streak Photography; an exploratory experiment for future display techniques". Masters Thesis, Rochester Institute of Technology, Rochester, New York, 1969.
- Davidhazy, Andrew. "Strip Photography", Photographic Journal. 124:20-21, January, 1984.
- DeDienes, Andre. Nude Variations. Garden City, New York: Amphoto Photographic Book Publishing Company, 1977.
- Doisneau, Robert. Photographic Annual. New York: Ziff Publishing Company, 1969, p. 177.
- Kertesz, Andre. Distortions. New York: Alfred Knopf, 1976.
- Larson, William G. "Photographic Reality", Mundus Artium. Spring, 1970, p. 18-22.
- _____. "Portfolio I, The Human Figure in Motion", Modern Photography. April, 1971, p. 78-81.
- _____. "Study of the Nude", Camera. April, 1969.
- Muybridge, Eaward. Animal Locomotion. New York: De Capo Press, 1969.
- _____. Human Figure in Motion. New York: Dover Press, 1957.
- Penn, Irving. Earthly Bodies. Marlborough Gallery, New York: Conde Nast Publications, Inc. 1980.
- Silk, George. Life. Oct. 31, 1960, p. 177.