

1974

# The Photo-Image: Its Transformation and Reformation

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THE PHOTO-IMAGE:

IT'S TRANSFORMATION AND REFORMATION

(TITLE)

BY

JOHN LIM

**THESIS**

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF

Master of Arts

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY  
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May, 1974  
YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING  
THIS PART OF THE GRADUATE DEGREE CITED ABOVE

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## TABLE OF CONTENTS

List of Plates . . . . .	page ii
Acknowledgements . . . . .	page 1
Dedication . . . . .	page 2
Preface . . . . .	page 3
A Statement. . . . .	page 4
Introduction . . . . .	page 5
Chapter I - Basic photo-serigraphy process . . . . .	page 6
Chapter II - A Diary of an Experiment . . . . .	page 10
Conclusion . . . . .	page 21
Footnotes . . . . .	page 24
Selected Bibliography . . . . .	page 25

## LIST OF PLATES

Plate	Page
1. <u>Waiting for a Smile</u> , the original black and white photograph. . .	3
2. <u>Axle</u> , by Robert Rauschenberg, photo silkscreen painting . . . .	8
3. " <u>Jackie</u> ", by Andy Warhol, photo silkscreen painting . . . . .	9
4. <u>Waiting for a Smile</u> , 30 colors on white background . . . . .	18
5. <u>Waiting for a Smile</u> , 30 colors on blue background . . . . .	18
6. <u>Waiting for a Smile</u> , red on white background . . . . .	19
7. <u>Waiting for a Smile</u> , Project 2 . . . . .	22
8. <u>Waiting for a Smile</u> , Project 3 . . . . .	22
9. <u>Waiting for a Smile</u> , Project 4 . . . . .	23
10. <u>Waiting for a Smile</u> , black and white photograph of the paintings on exhibition . . . . .	23

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I am deeply indebted to many persons who, over the past few months, have shared experiences and ideas with me. To make this project possible, I wish to give special thanks to Ms. Nancy Graham, for using her photo image and her smile. I'm greatly obliged to Mr. Jake Staudt for his assistance and helpful suggestions. Also those who helped in connection with the preparation and production of the final image.

John Lim

## DEDICATION

163 screens. . . . . 90 days

50% you. . . . . Baggit

## PREFACE

This paper is primarily intended as a companion to my photo-serigraphy painting Waiting for a Smile. It is not a handbook, a how-to-do-it manual. But rather, I hope, a serious attempt to record and discuss the "photo-image, it's transformation and reformation."

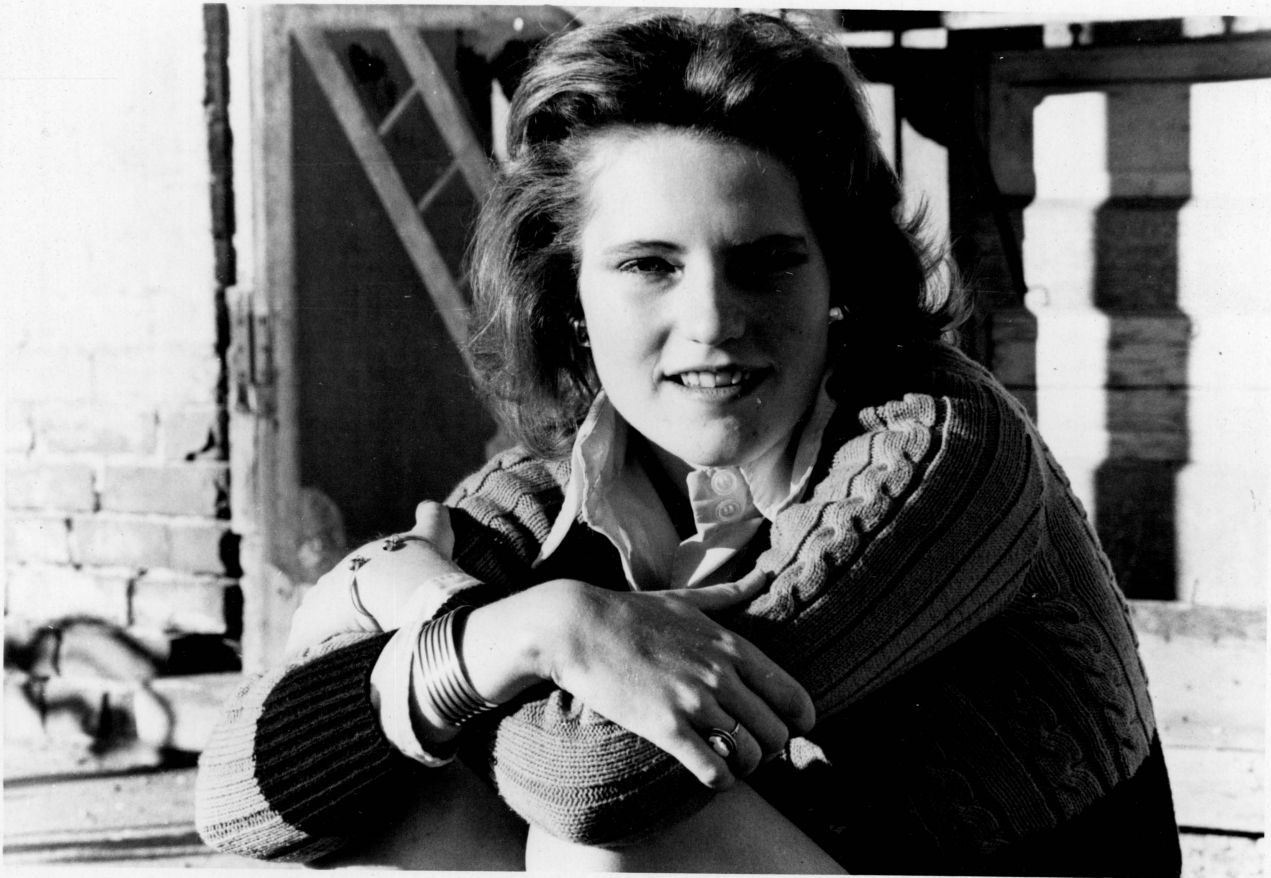


Plate 1. Waiting for a Smile

This is the original black and white image before its transformation.



## A STATEMENT

I have always been attracted by the visual qualities through the eye of a camera. It has conditioned me to see and accept the photo images as a surrogate reality. On the flat surface of a photograph, volume and space are suggested only through the interplay of in-focus and out-of-focus elements. Reality, however, is not photographic. The camera is semi-scientific and creates artistic truths rather than absolute values, illusions rather than facts. It sees with one eye rather than two and with a limited field of vision and focus. It's tactile involvement is limited and therefore lessens the emotional involvement. The photo-image itself without any transformation or reformation can only be an abstraction of reality.

I use the photo images in most of my works, from drawings to sculptures. It is the limitless color properties of the photographic process from which I gain continuing inspiration. The images that keep on appearing in my works are like small vignettes of my life being recorded and presented through this media. The paintings (Waiting for a Smile) though huge in size, represent one of these vignettes.

## INTRODUCTION

Photography is a way of producing images. The photographic image is generally recognized by its acute definition of the subject and its remarkable delineation of fine details. Often, one thinks of the photographic image as a mere copy of nature. But the photo-image goes beyond that. It is a report about a subject as the photographer sees it. The image depends primarily upon the photographer's point of view and on his ability to translate his personal ideas and feelings into visual images by means of the photographic process.

There are many photographic processes available to take the resulting images far beyond the purely representational, and if the photographic worker believes such techniques provide him with a route to self-expression, then it becomes a form of fine art. One such technique is photo-serigraphy, which I will discuss in Chapter I. Chapter II is my working diary - the recording of my attempt beyond the photo-image. The primary objective of this paper is to show how the photo-image can be transformed and reformed.

## CHAPTER I

### The basic photo-serigraphy process

Photo-serigraphy, or the so-called photo silk screen process has always been a favorite medium for graphic artists. But it wasn't until the beginning of this century that anyone actually began to combine photography with the unique look of the silk screen.

In recent years the photographic stencil has done more to bring the silk screen process into the world of painting than any other stencil technique. Artists such as Robert Rauschenberg (plate 2) and Andy Warhol (plate 3) have already proved the aesthetic compatibility of the silk screen process and painting.

The basic principle behind the photographic screen process is rather simple. A chemically light-sensitive gelatin is placed either directly on the screen or on a temporary support of polyester film such as Mylan. Then a positive design rendered on a clear sheet of Mylan or a photographic positive is placed over the gelatin film and both are exposed to light. The light passing through the clear, non-opaque part of the design causes the gelatin to harden; the gelatin areas below the opaque areas of the design remain soft and are eventually washed away with water. Thus, that which was opaque in the original becomes an open area on the screen, and the rest becomes the blackout stencil.<sup>1</sup>

There are two basic methods of creating a photographic stencil.<sup>2</sup> One is the direct method, the other is the transfer method. In the direct method the screen itself is sensitized with a liquid solution, exposed, developed, and washed out so that the stencil is created directly on the screen. The transfer method involves the same steps as the direct method except that the photographic gelatin layer is sensitized, exposed, developed and washed out while on a temporary support of plastic. The gelatin film is then transferred to the screen, dried, and the plastic backing removed.

There are several variations of the methods just described but it would be impossible for me to discuss all the possible techniques in this paper. There are many patented photo-stencil films on the market today that would make the transfer method much easier and faster than the direct method. But in the transfer method, the stencil films used are very expensive compared to the liquid used in the direct method. I chose to use the direct method for my thesis project, Waiting for a Smile, simply because it is less expensive.

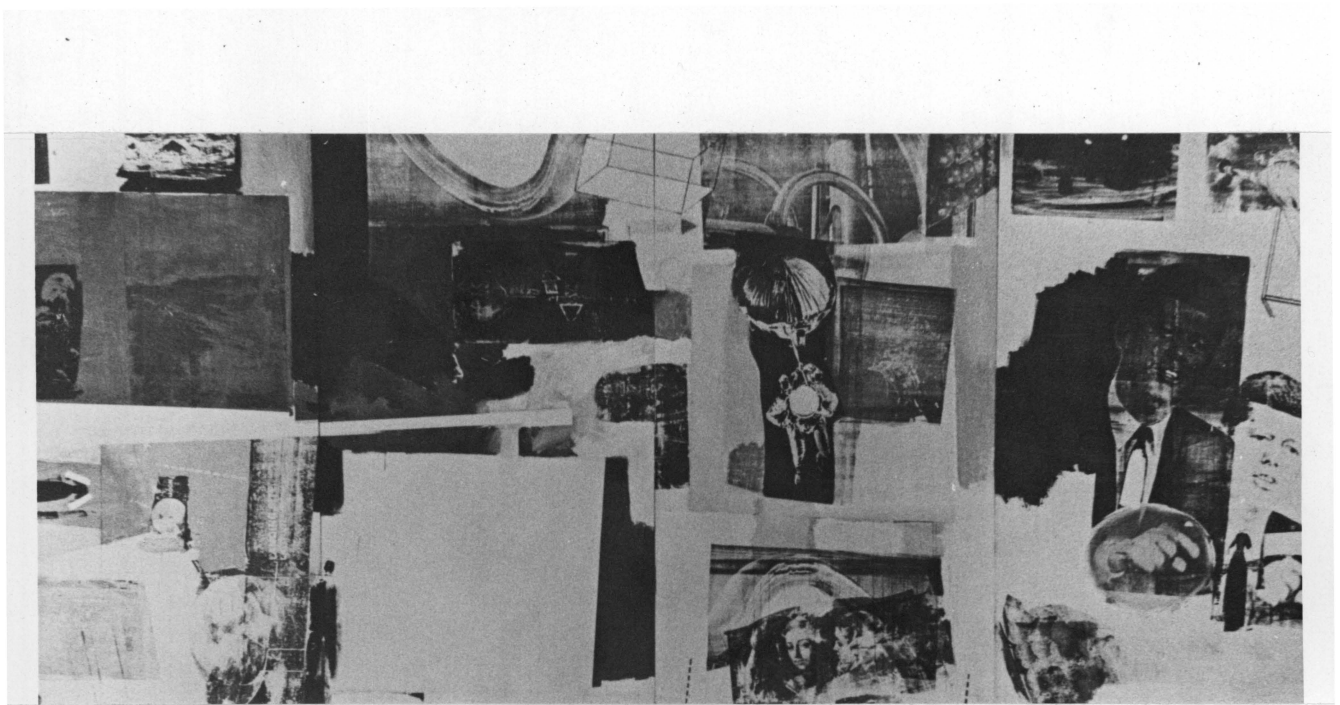


Plate 2. Axle, 108 by 240 inches, by Robert Rauschenberg, 1964.  
Medium: oil on canvas with photo silk screen stencils.

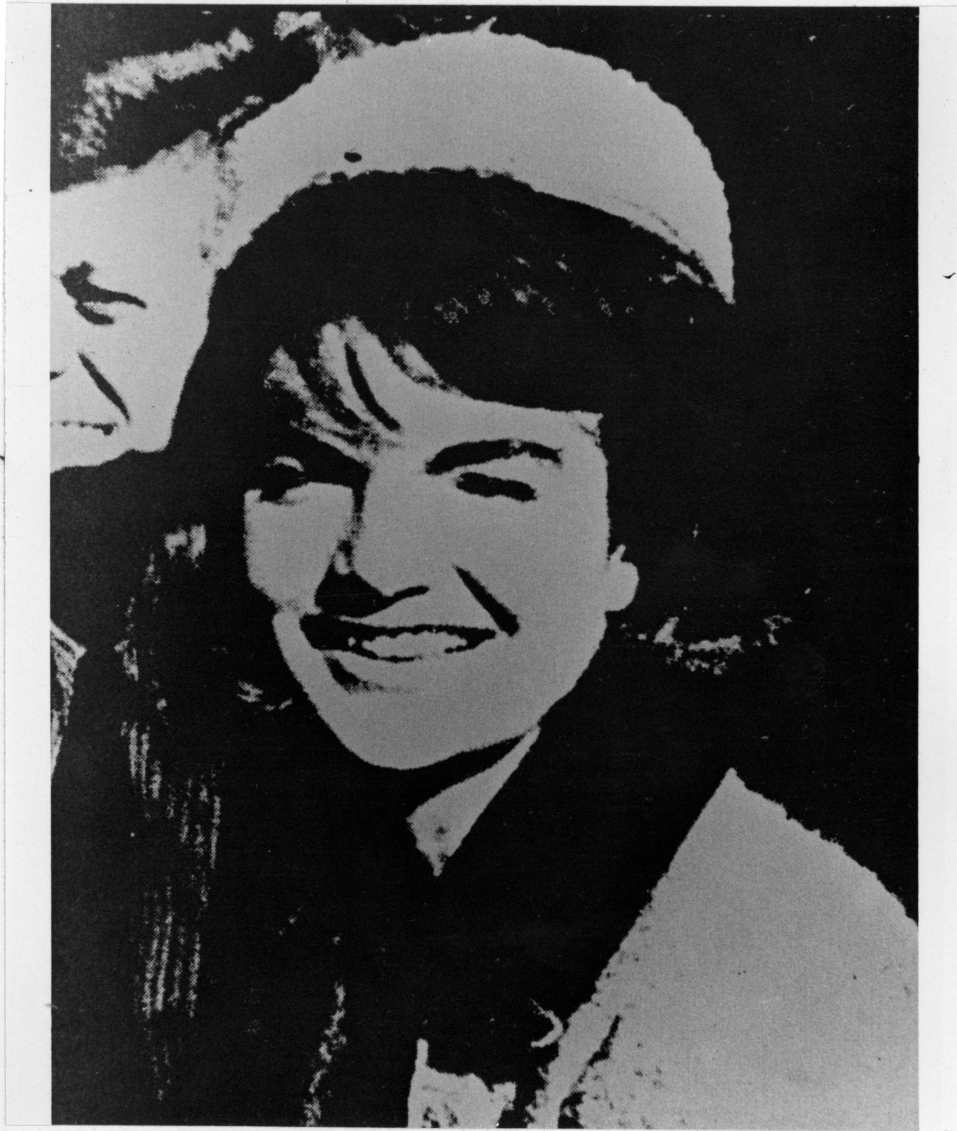


Plate 3. "Jackie", 20 by 16 inches, by Andy Warhol, 1964.  
Medium: acrylic silk screen enamel on canvas.

## CHAPTER II

### A diary of an experiment

December 12, 1973

Finally decided to work on the project I've been thinking about for the past six months.

I met with my graduate committee this afternoon - got their approval on the project.

The project: a photo-serigraphy painting  
size: around 5 feet by 8 feet

December 13. . . . 31, 1973

Been looking for the right photo-image. Took more than 200 pictures in the last two weeks. Spent most of my days in the dark room, developing and printing. Almost all the films used are black and white, mostly Tri X pan and Plus X pan films.

January 3, 1974

Found my photo image today...of course it is a girl. I love to work with images of people. The more I look at the picture, the more I like it. It is a continuous tone black and white negative with deep shadows, lots of contrast and unbelievable background.

My first step is to enlarge the image to high contrast ortho film - "making my positives for the screen."

Because most of the material I need to make the positive are not available in Charleston, I had to get most of the material in Chicago. These included: two boxes of 11 by 14 inch Kodak film, type III, two

boxes of A and B developer for the Ortho film, fixer - for fixing the Ortho film.

January 7, 1974

Got most of the materials I need to make my positives over the weekend. Basing on the size of the Ortho film, or limited by the size of the film (11 by 14 inch), I finally decide on the exact size of the painting - 4 feet 7 inches by 7 feet.

The positives will be made up of 60 sheets of Ortho film - using 30 sheets for each value separation:

1	6	11	16	21	26
2	7	12	17	22	27
3	8	13	18	23	28
4	9	14	19	24	29
5	10	15	20	25	30

January 8. . . . 12, 1974

Spend the last few days thinking about how I would attack my first problem. The problem: to enlarge the image from a 35mm negative to a 4 feet 7 inches by 7 feet positive that consist of 30 sheets of Ortho film.

January 14, 1974

Using the Art History room as my one-nite dark room, mainly because it has a large wall, long distance from the front of the room



to the back and a slide projector, I started to work.

The process has to be done in total darkness or under a limited amount of safe light--red. The room is now equipped with 3-15 watt red safe-lights, a slide projector at the back of the room and the front wall taped to the exact size of the positive.

I ran three different test strips before the actual positive was enlarged. The ortho films were taped together on the base side and then taped to the wall. Based on the test strips, the first positive was enlarged from 20 feet for 6 seconds, making it the overexposed positive.

The second enlargement was done using a 2 second exposure, making it the perfect-exposed positive.

The whole process was done in about 4 hours. But in the dark, it seemed like 10 hours.

January 15. . . . 19, 1974

Spent the last five days in the dark room developing the positives. Hoping they would come out as nice as the test strips, they didn't. Some of them were fogged by light because the Art History room wasn't light tight. Others were either overexposed or underexposed, or not opaque enough to be used as a good positive.

\$60 of materials was wasted and God knows how many hours of work were also wasted. I am really upset, but I am not going to give up now.

January 21. . . . 24, 1974

Trying to solve the problem. If I could control the light from the slide projector, I can control the enlargement. I think I have found the solution.

Got more supplies and I am ready to attack the problem again.

Same time, same place. But this time the room was all black and almost light tight. A disc with a small opening was placed over the projector lens to control the light - to give the enlargement a longer exposure - to get a more opaque image on the positives.

The exposure time was: 18 seconds for the overexposed positives, 10 seconds for the perfect-exposed positives.

January 26. . . . 30, 1974

In the dark room again, but this time the positives came out almost perfect.

Step no. 1 is completed.

February 1, 1974

Order screening supplies from Advance Process Supply Co. today. I planned to build five screens for printing.

February 2. . . . 16, 1974

Spend the last two weeks building the canvases (3) and mixed the colors (30). The positives were put back together and numbered from 1 to 30 with tapes - it was like putting a big puzzle back together.

That was fun, but the idea of having to do 60 screens almost kept me from continuing to complete this project.

February 17. . . . 24, 1974

Some of the supplies arrived, but the others were lost in the mail. Waited a week, can't stand it any longer. Spend the weekend in Chicago, and on Monday picked up all the other materials that I need.

February 26. . . . March 2, 1974

Started working again, built five screening frames, two squeegees, mixed the photo-emulsion, and even worked out a simple way to register the screens for screening using masking tapes to tape off each section for screening.

March 4, 1974

Got a screening helper today - Barb Walsh - the so-called Baggit. Also made my first test screen today. I am ready to screen, screen and screen.....

March 5. . . . April 2, 1974

From March 5 to April 2, I spend at least ten hours everyday in the studio.

The following are samples of some of the days that I spent in the studio:

Day A (to prepare a screen, or to make a direct photo-screen)

1. both sides of the screen fabric is to be thoroughly scrubbed with a stiff nylon brush with "prep solution" from Advance.

Then rinse out with cold water.

2. Wash again with sponge and soap to clean out the "prep solution".  
Then rinse out thoroughly with cold water.
3. Treat the fabric with 5% acetic acid with nylon brush. Then  
rinse out with cold water. (This is a very important step  
because the acetic acid neutralizes all the foreign chemicals  
and later causes the photo-emulsion to adhere to the fabric.)
4. Fan dry the screens.
5. The next step is to coat the screens with the sensitized  
emulsion which I mixed up earlier. Metal scoop coaters are  
available from Advance, but I find that using a 14-ply illus-  
tration board strip works out better. I usually coat the screens  
twice, because it is recommended for fine detail and halftone  
works.
6. Then the screens have to be dry flat in a dimly lit, dry and  
dust-free room for about an hour.
7. The next step is to expose positive and screen. I used a light  
box powered by four 20 watt flourescent lights. The positive is  
taped to the surface of the light box, then the screen is placed  
on top for exposure. There must be absolute and uniform contact  
between positive and dry, coated screen. My average exposure  
time is 12 minutes for each screen.
8. The next step is to wash out the exposed screen. Using hose  
and spray nozzle, the water temperature is controlled to about

110F., wash out the image with soft spray from the inside of the screen first, then constantly rotate screen while washing out. Then finally rinse both sides of screen with cool water to harden the emulsion.

9. Fan dry the screens.

10. Make the final inspection for pinholes and other defects. I used a water-soluble red block-out solution for my block-outs. Let the block-outs dry and the screens are now complete and ready to print.

I have prepared 163 screens through out the whole project, doing five screens each time.

Day B: (work day or screening day)

Before each screening day, I have to tape all the canvases for registration and prepare the colors. Three of the seven screenings were done on canvases and the other four were done on paper. Because each screening has to be hand registered, the screens have to be cleaned each time. That causes a lot of waiting and also each color has to be dry before the next color is printed.

We average 35 screenings each workday, using five screens each time. The average workday is about six hours long.

Day C: (cleaning the screens)

This is a process by itself. Each time I cleaned the screens I ran into a new problem. After cleaning 163 screens, I think I

have solved the problems. The solution: First, be sure to remove all inks from fabric by scrubbing with a stiff nylon brush and proper paint remover. Rinse out with hot water, then scrub again with brush and "prep-solution". Rinse out again with hot water, then apply IDC-3 (emulsion remover from Advance) with a brush to both sides of screen. Let solution stand for about 5-7 minutes, then rinse off screens with hot water, the emulsion should quickly and easily disappear from screens.

April 3, 1974

Finally I finish my first color screening today. This is the mid-point of my project. I am so pleased with the result that I decide to quit on one of the paintings and called it Project 1. Project 2 and 3 are to be continued for second color screening.

The following are photographs of my paintings after the first color screening:



Plate 4. Project 1. Waiting for a Smile, 30 colors on white background.



Plste 5. Project 2. Waiting for a Smile, 30 colors on blue background.





Plate 6. Project 3. Waiting for a Smile, red on white background.

April 5, 1974

Retape my screens today to insure further use of them. Just realized that there are endless variations and combinations of colors to my paintings. This is just the beginning.....

April 6, 1974

Decide to screen on a new canvas - to try out a new combination of colors - and called it Project 4.

April 8. . . . .30, 1974

A month of screening days. Spend endless hours screening in the studio on the second color - black. The paintings look better after each screen.



Project 2, 3, and 4 are finally finished on May 2, 1974 after 163 screens and 90 days of trying. It seems like a new idea grown old and then becomes new again. At least, after much experimentation I was able to perfect a photo-image.

## CONCLUSION

May 2, 1974 marked the conclusion of this project. It was the last day, the finishing day after 90 days of continuous screening. The final images finished somewhat different than what I had anticipated. They were large and luxuriant. The final images were more exciting with the large grainy effect. This was the direct result of the enlargement from a small negative. The intricate background combined with the wide range of colors became a very forceful abstract design. Through the process, the central image was transformed into a reality, emerging from an abstraction of colors and forms.

In photography, it is often not the technique used but the subject matter that "makes" a picture. However, in this project, I was more interested in the technique than the subject matter. The direct photo-screening process proved to be time consuming but very rewarding. The major problems I confronted were limited working area and equipment. The process suggested unlimited possibilities and experimentation. The paintings, Waiting for a Smile, are only the beginning.....



Plate 7. Project 2. Waiting for a Smile, 55 by 84 inches.



Plate 8. Project 3. Waiting for a Smile, 55 by 84 inches.





Plate 9. Project 4. Waiting for a Smile, 55 by 55 inches.



Plate 10. The paintings, Waiting for a Smile, exhibited at Paul Sargent Gallery, June, 1974.

## FOOTNOTES

1. Biegeleisen, J.I., and Cohn, Arthur Max, Silk Screen Techniques, New York, New York, Dover Publications Inc., 1968. pp.215-240
2. Cbieffo, Clifford T., Silk Screen as a Fine Art, New York, New York, Van Nostrand Reinhold Company, 1967. pp. 147-156

## SELECTED BIBLIOGRAPHY

1. Anvil, Kenneth W., Serigraphy, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1965.
2. Biegeleisen, J.I., and Cohn, Arthur Max, Silk Screen Techniques, New York, New York, Dover Publications Inc., 1968.
3. Cbieffo, Clifford T., Silk Screen as a Fine Art, New York, New York, Van Nostrand Reinhold Company, 1967.
4. Marsh, Roger, Silk Screen Printing for the Artist, New York, New York, Transatlantic Arts Inc., 1968.