Graduate Student Theses, Dissertations, & Professional Papers

Graduate School

1971

Direct silkscreen printing| a new direction

Theodore Joseph Jones
The University of Montana

Recommended Citation

Jones, Theodore Joseph, "Direct silkscreen printing| a new direction" (1971). *Graduate Student Theses, Dissertations, & Professional Papers*. 2079.
https://scholarworks.umt.edu/etd/2079

DIRECT SILKSCREEN PRINTING: A NEW DIRECTION

By

Theodore Joseph Jones

B.A., Xavier University, 1962
M.A., Michigan State University, 1963

Presented in partial fulfillment of the requirements
for the degree of
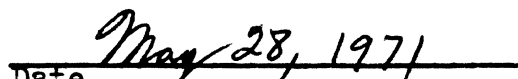
Master of Fine Arts in Art

UNIVERSITY OF MONTANA

1971

Approved by:

Donald L. Bunse
Chairman, Board of Examiners

John M. Stewart
Dean, Graduate School

Date *May 28, 1971*

TABLE OF CONTENTS

LIST OF FIGURES

iii

Figure Page

I. THE DIRECT TECHNIQUE

INTRODUCTION

With all of the options and alternatives to create a work of art, I find printmaking to my liking. In print-making, I find that screen process printing or serigraphy offers the greatest challenge, potential, and the widest range of creative possibilities. It is the one print-making process that I enjoy working with the most.

It is necessary that the potential serigraphist (the creative screen process printer) shed all conventional attitudes about printmaking, especially silkscreening, before attempting the Direct technique. This is not to say one must or should forget all about the basic fundamentals of the conventional way to create a print. These conventional techniques are the basis for all that will be done in the unorthodox, Direct silkscreen printing medium.

Direct silkscreen printing consists of the conscious application of inks, of various colors, directly to the screen in order to create an harmonious composition. It evolved out of the need to become freer and more effective in the utilization of the screen as a creative medium. It

1

also evolved out of the need to eliminate too many unimportant in-between stages of development in a print. Time and energy are now spared primarily for the production of a print. The search for directness was a main factor in the discovery and development of the Direct technique.

Another factor in the development was trying to break away from the total confinement of, and dependency on, the limited conventional stencil.

A couple of techniques in Direct screen printing were discovered by accident. One incident was not mixing inks and transparent base thoroughly. Through this accident, I discovered that inks and base did not mix on the screen. Further experiments revealed that various ratios of inks to base reacted differently. Foliage and textural effects were discovered by accidentally dropping ink on a print, drying to resemble skeletal foliage forms. This was due to the shrinkage of the thick color. These and other techniques were discovered by accident, experimentation, and hard work.

In order to understand the Direct technique more thoroughly and to gain a working knowledge of it, it will be necessary to deal with specific ways to create various images, and, at the same time, gain some insight in compositional development.

II. THEORY

The theory underlying the Direct technique is
that silkscreen process inks of various colors and vis-
cosities (mixed with transparent base in different
percentages) do not readily mix together on the silk-
screen.

Approaching the silkscreen medium on this premise,
it is possible to place large amounts of different colored
inks on the screen at the same time and not be concerned
about them mixing immediately, forming one muddy color.
Experimentation has proven that the screen process inks
in their various mixtures flow and glide over other areas
of color that are already on the screen. They also flow
around each other (while being pulled with the squeegee)
acting as part of a stencil for each other, confining the
other to a particular area on the screen and the print.

With this concept in mind, the serigraphist is
allowed to control inks without the means of conventional
stencils such as paper stencils, blockout, film, etc.
The artist utilizes this new concept to enable him to make
color flow and print in a predetermined way.

The name of the game in screen process printing
is control. Ink is forced to remain in a predetermined

3

area to create an image. This can be done through the utilization of conventional stencils, or as in the Direct technique, by placing colors next to each other directly on the surface screen, in the desired area.

This knowledge lends to the manipulation of colors, squeegee, and screen in order to create an image with direct screen printing.

On the assumption that one will not attempt the Direct silkscreen method until he or she has the basic knowledge and techniques of serigraphy, I find it unecessary to go into all definitions and descriptions of the basic tools and techniques.

A few definitions and the re-defining of terms are included in the glossary of this text.

III. MATERIALS NEEDED FOR SILKSCREENING

The materials that are needed for the Direct silk-screen printing technique are the same as those used for conventional techniques. They are the silkscreen and screen process inks (5500 series by Naz-Dar are recommended highly). There are several brands of silkscreen inks on the market today, of which I feel Naz-Dar is the best. Even though the 5500 series of inks by Naz-Dar are recommended, there are many different types and brands that are available for the many tasks confronting the screen process printer and serigraphist (creative silkscreen printer). These inks will perform the task that would be similar to the 5500 series, but the transparent base by Naz-Dar seems to work best in direct screening.

The other materials and equipment include squeegee, general stencil, solvents, clean rags, news-papers, printing papers, masking tape, tin cans, spatulas, and plastic gloves. Cleanliness in printmaking is a must. Baggies and rubber bands should be included as covers for the colored inks that have been placed in working con-tainers. The artist may choose to use squeeze-type plastic bottles for applying colors, if the budget allows. (Figs. 1 and 2.)
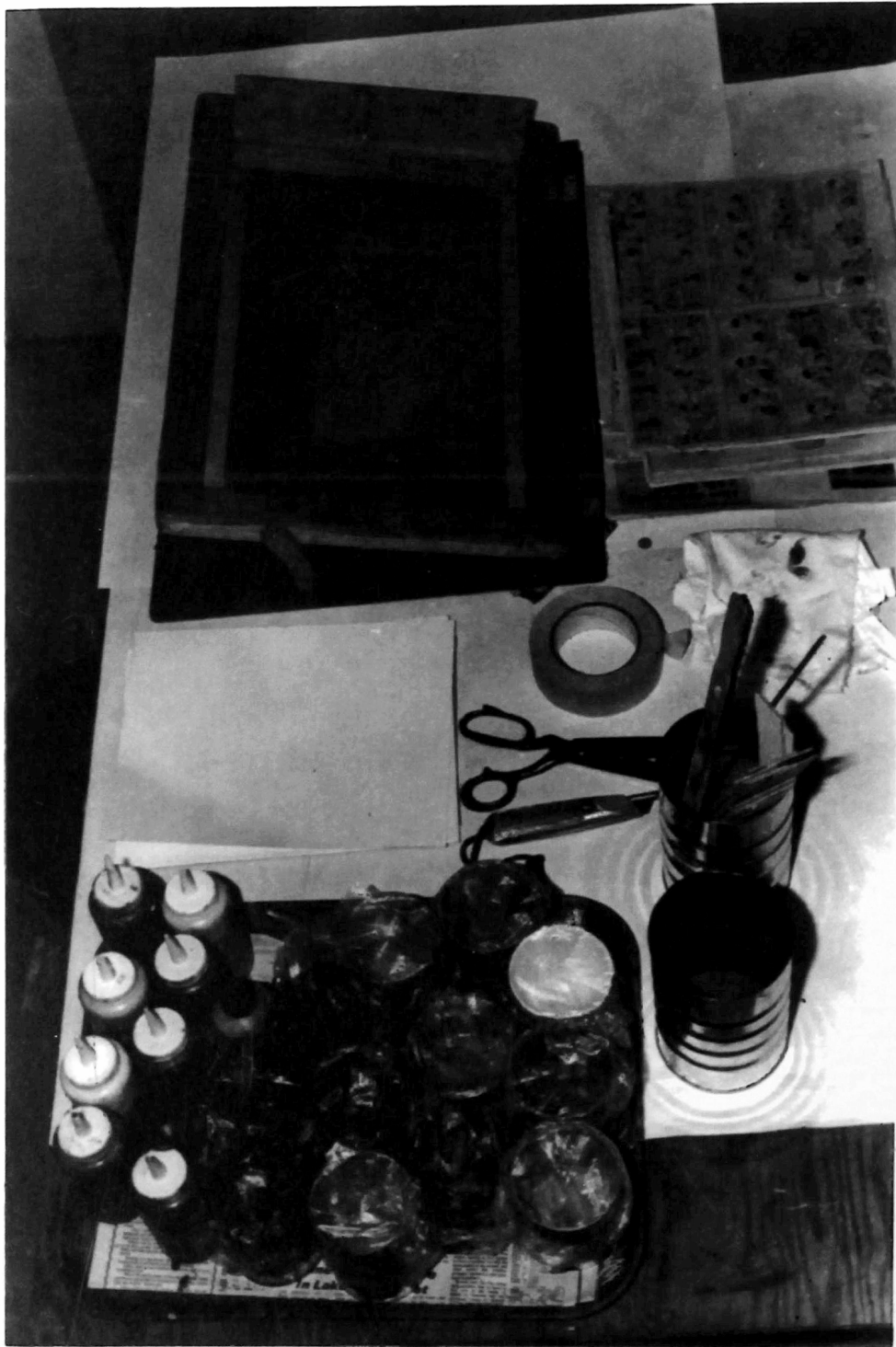
Figure 1

Figure 2

Figure 3

IV.   THE IMPORTANCE OF TRANSPARENT BASE

Transparent base is one of the most important ingredients in direct silkscreen printing (Fig. 3). It is the means to create white and open areas in a print. It is very important also because it allows colors to flow freely across the silkscreen simultaneously together without fusing and mixing. The transparent base works as a blockout when applied directly to the screen (Fig. 11). It allows no color to penetrate in that specific area. Finally, transparent base enables the artist to create depth in the silkscreened composition.

V. PREPARATION AND MIXTURE OF SCREEN
PROCESS INKS FOR DIRECT
SILKSCREEN PRINTING

The preparation and mixture of silkscreen inks should be completed the day before printing, because it is essential that the inks settle and blend together thoroughly with the transparent base. Another reason is that it is an energy- and time-consuming effort.

A mixture of colors and percentages of transparent base is a must for a direct method such as this. The amount of transparent base used in inks is determined by the artist and the effects desired in a particular composition. The range of colored ink and base that I employ are two (2) parts transparent base to one (1) part ink for the least amount of base used, and twelve (12) to one(1) for the most base used. Continuous experimentation by the serigraphist will reveal other suitable ratios of transparent base to ink.

VI. THE SPECTRUM OF COLORS NECESSARY TO
DEVELOP RICH PRINTS USING THE
DIRECT TECHNIQUE

The spectrum of colors that are used in my direct prints are fire red, primrose yellow, ultramarine blue, colbalt blue, brown, white, and black. All secondary and intermediate colors are obtained from these, enabling the artist to have a wide range of colors on his palette. In utilizing the Direct technique, I find it necessary to have four or more values of colors varying in transparency (Fig. 3). My palette consists of four values of black; four of blue; four of brown, orange, yellow, whites, and ochre; and four values of green.

Again, I repeat that transparent base and its utilization with colored inks is essential in the Direct method of silkscreening.

VII. PRELIMINARIES OF THE DIRECT
TECHNIQUE

In Direct silkscreen printing the manipulation of space, color, form, line, and texture are dealt with. The serigraphist must be conscious of and utilize the elements and principles of art, because they are basic to art and the printmaking processes. Therefore, in order to develop a silkscreen print, whether it be by means of a conventional technique or the Direct, the artist must have a thorough knowledge and understanding of the basic tools and the techniques of the medium, and the facility to use them.

Before starting a print, silkscreen or otherwise, one must make the necessary preparation that will guarantee a continuous and smooth-flowing printing session. The tools and materials needed should be in the printmaker's immediate reach (Fig. 1). Due to the fact that ninety-nine percent of the time the creative screen printer works alone, he must develop a system of working that makes it easy and convenient to handle the many tasks and problems of silkscreen printing.

VIII. DEVELOPMENT OF LANDSCAPE AND
FIGURE COMPOSITIONS UTILIZING THE
DIRECT SILKSCREEN TECHNIQUE

In the development of a landscape composition,
the artist must arbitrarily consider the colors that he
intends to utilize. He should think in terms of the
amount of space that will be designated as sky; areas in
which bird forms will be placed; the amount of space for
water, foliage, mountains, and figure impressions. As a
matter of fact, all images and their arrangements in the
composition must be considered (Fig. 9 and Fig. 18).

To begin with, the serigraphist should have a
general working area on the screen. This area may be
circular, rectangular, square, or any shape the artist
chooses to work within, as long as it allows enough room
for printing. This general stencil or working area will
predetermine the overall dimensions of the print only.
It has nothing to do with the control of images or color
combinations (Fig. 4).

It will take approximately fifteen minutes to
create a small landscape that is seven inches in diameter.
Seven minutes is needed for the application of inks and
printing. Eight minutes goes into the thorough cleaning

12

Figure 4

of the silkscreen and squeegee after each print.

Development of the Images

Bird images. To produce bird images, dip spatula
into the ink, let most of the ink drip off, letting the
remainder that is on the spatula come to a drip. Once
the small amount of ink hanging from the spatula is
attained, touch the screen with it, moving downward
(toward body) and then upward (away from body) as if you
are making a check (✔) mark (Fig. 6).

Mountains and hills. They are produced by placing
pure screen process ink down the edge of screen (right or
left side [Fig. 5]), then a mixture of transparent base
and colored inks (5 to 1) is placed next to this, slightly
behind the pure ink, overalpping it about an inch (Fig 5).
Mountains and hills are brought about because the ink has
a tendency to repeat in the composition after about
approximately three inches of pulling across the surface
of the screen (Figs. 7-9).

Clouds effects, whites and blank areas. In order
to produce cloud effects, white or blank areas in a com-
position, first place transparent base directly on the
screen, in the area desired. The next step would be to
squeegee other inks (sky area etc.) over the transparent
base. The other color or colors will flow around, and
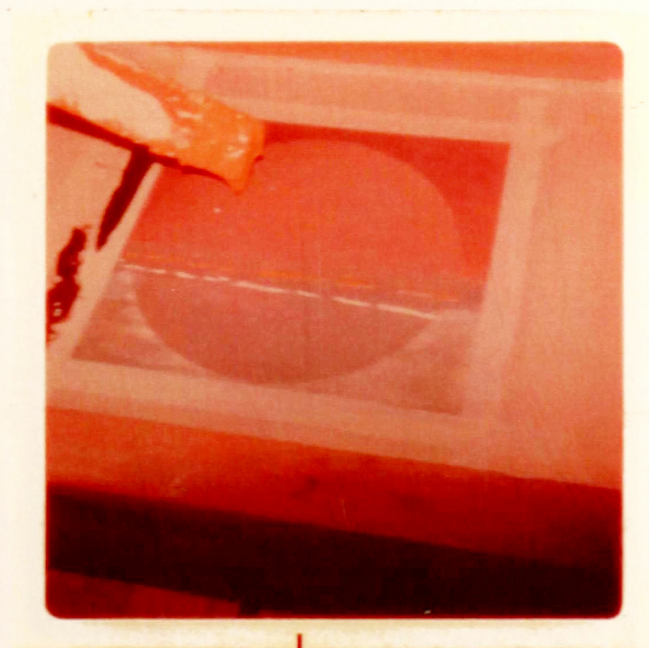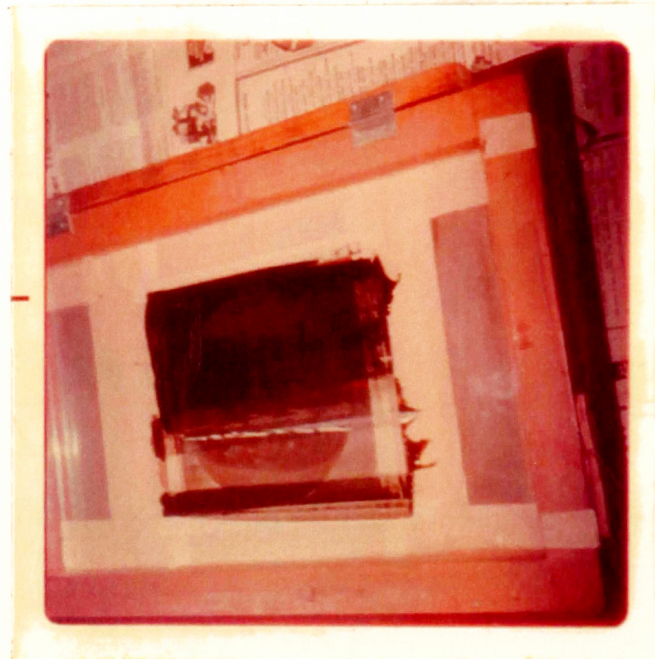
Figure 5

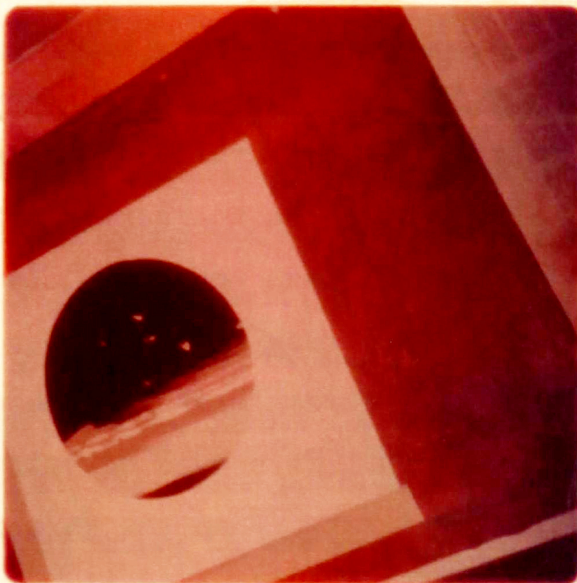Figure 6

Figure 7

Figure 8

Figure 9

glide over the area where transparent base is placed. White open areas or cloud effects are produced (Figs. 9 and 18).

Another technique used that will produce a similar effect of cloud impressions would be to splash water in the desired area of the composition and then squeegee. The image is created because of the principle of oil and water not mixing.

Foliage, tree, and island impressions. To accomplish various foliage, trees, islands, and textural effects, apply ink directly on the screen after colors of sky and land effects have been achieved. Let the ink set for a couple of seconds, press into the mass of ink with squeegee, and then lift screen slowly. The print will probably stick to screen. It should be pulled off of the screen bottom end first. When the screen is raised in vertical position, this would actually be the top of the composition.

The mixture of color for these tectural impressions should consist of three parts (3) transparent base to one (1) part ink. The shrinkage of this mixture will create the impressions of skeletal tree, foliage, and island forms. All textural effects are developed in the same manner (Fig. 15).

Impression of human figures. To accomplish a
composition of human figure impressions, first apply dabs
of colored inks directly on the silkscreen (Figs. 10 and
13). These colors should vary in warmness and coolness,
in value, intensity, size, etc. Apply transparent base
on top and in between the various colors already on the
screen. The next step is to apply color along the top
of the screen (Figs. 10 and 13), usually without trans-
parent base, then pull squeegee across the screen,
causing the opaque color to flow around and over the many
colors that were applied previously (Fig. 11).

The serigraphist can achieve a greater sense of
depth in a figure composition by merely placing some
subdued or grayed color in the top portion of the print,
and warm and intense colors in the lower portion. Tex-
tures added in the lower portion of the composition, and
a small amount added in the middle section, always enhance
the creative print (Fig. 17).

In all prints, colors may be added after previous
colors are thoroughly dry. This technique can add
greater dimension to a print, or it can be used to eradi-
cate any unwanted colors (Figs. 12 and 14).

Figure 10

Figure 11

Figure 12

Figure 13

Figure 14
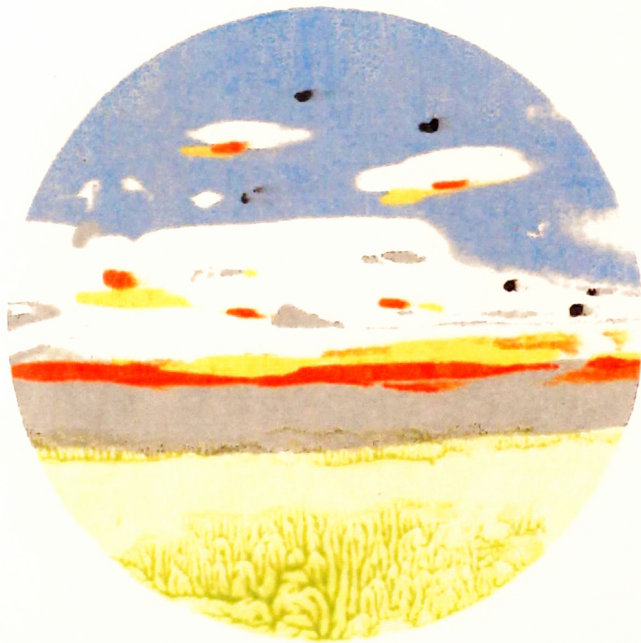
Figure 15

Figure 16

Figure 17

Figure 18

Figure 19

Figure 20

IX。 CONCLUSION

In concluding this text, I feel that it is only
fitting to acknowledge the disadvantages and cite some
advantages of the Direct technique。 As in all of the
printing processes, there are advantages and disadvan-
tages, and the Direct method of silkscreen printing is no
different.

One of the few disadvantages is that a limited
number of identical prints are produced。 It has been
proven through experimentation that only three prints can
be produced consecutively, of which the first is worthy
to be labeled as a decent print。 Another disadvantage is
that inks and base are discarded after each individual
print。 This can become expensive。 Thirdly, the screen
must be cleaned after each direct print, but this con-
sumes less time than the preparation of many stencils。

To cite the brighter side of the technique, the
advantages seem to outweigh the disadvantages。 One of the
advantages is an infinite number of colors may be printed
at the same time, eliminating the ordeal of producing a
multitude of stencils, at the exclusion of building up
layers of ink。 Through this technique, images can be
created directly on the screen, making it a rapid means

of producing a composition. At the same time, these images can be changed immediately without any great tasks.

The greatest advantage of all is that the screen can now be used as a more creative tool to bring about certain compositional effects. The creative possibilities of this technique outweigh all of the disadvantages associated with it, making it my favorite creative device in my reservoir of printmaking processes.

Finally, I must state that the development of the Direct silkscreen technique evolved from many sources, books, and experiences digested over the years, enabling the artist to experiment with knowledge, with an age-old process in a new and creative way.

GLOSSARY

Direct silkscreen printing. The conscious application of inks of various colors and viscosities (mixed with percentages of transparent base) directly to the screen, and the control of these inks without the means of a stencil, in order to create an harmonious screened composition.

Extender base. Should not be confused with transparent base. To give added mileage without affecting, materially, the viscosity of the ink to which it is added.

General stencil. An open area on the silkscreen through which the serigraphist prints, when using the Direct silkscreen technique.

Ink. Special processed colors, with the characteristics of paint, that are used to print images in screen process printing.

Screen process printing. The printing of images by means of stencils. It involves the principle of printing through a plate.

Serigraphist. The creative screen process printer.

Serigraphy. The art of creative screen process printing.

Transparent base. An oil base substance that is used for transparencies and to extend the inks. It enables inks to flow around and glide over other inks, without mixing, in the Direct screen technique.

BIBLIOGRAPHY

Biegeleisen, J. I., and M. A. Cohn. Silk Screen Stencil
    as a Fine Art. New York: McGraw-Hill Book
    Company, Inc., 1942.

Cogoli, John E. Photo-Offset Fundamentals. 2d ed.
    Bloomington: McKnight and McKnight Publishing
    Company, 1967.

Heller, Jules. Printmaking Today. New York: Henry Holt
    and Company, Inc., 1958.

Kosloff, Albert. Screen Process Printing. 2d ed.
    Cincinnati: The Signs of the Times Publishing
    Company, 1958.

Peterdi, Gabor. Printmaking. New York: The Macmillan
    Company, 1959.