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### Industrial art materials

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ROCHESTER INSTITUTE OF TECHNOLOGY

A Thesis Submitted to the Faculty of  
The College of Fine and Applied Arts  
in Candidacy for the Degree of

MASTER OF FINE ARTS

"Industrial Art Materials"

by

Frank S. DeFrancis Jr.

April 8, 1983

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4-27-83

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"If all good people were clever,  
And all clever people were good,  
The world would be nicer than ever  
We thought that it possibly could.  
But somehow, tis seldom or never  
That the two hit it off as they should;  
For the good are so harsh to the clever,  
The clever so rude to the good."

Elizabeth Wordsworth

Anyone, who has ever tried to paint has become well acquainted with the fact that huge sums of money too often buy the meagerest amounts of supplies. Faced with the possibility of either breaking into art supply stores at night or learning to vent my hostilities elsewhere I traded my studio supplies for their industrial counterparts and gratefully have never looked back. The following report will document the advantages as well as the disadvantages that I have encountered in working exclusively with industrial art materials. The first half will deal the materials themselves while the second half will offer a little homespun philosophy on just how using the

materials should be approached. Also, an appendix has been included to indicate where the various industrial materials can be purchased.

PART I.  
CHAPTER I  
CANVAS

We begin then with the surface, because without it there would be nothing to paint on. Various art supply stores would have you believe that only the finest linen or cotton duck is suitable for the painter to work with. Fabric is fabric, and cotton duck does not undergo a miraculous change of identity just because an art store is selling it. Your search should begin at a fabric store or army-navy surplus dealer. Be careful as their retail price for canvas has risen sharply in the last five years and your savings may be insignificant. There is an alternative though, providing that your psyche is ready. Canvas drop cloths are an ideal surface to paint on. They are very inexpensive and extremely strong, but there are a few things to be aware of in using them. First of all, the canvas will have one or more seams present in its construction. Usually these seams are very strong and there is never a possibility of them separating: just be willing to deal with them and accept them as part of the painting. Whenever buying a drop cloth it is always wise to remove it from its plastic package at the store. This will enable you to examine its weave, its texture and whether or not it has been impreg-

nated with a chemical sizing that is used to keep the fabric strong and supple. Although it is possible to paint on a drop cloth that has been treated it is advisable to look a little further to find one that has not. If a tag is not present with the drop cloth detailing any type of chemical treatment feel the surface very carefully. If it has a smooth, almost suede-like texture, chances are that the canvas has been treated with a certain amount of chemical sizing. This will not prevent the paint from adhering to it but it may present some aesthetic problems in paint application. You may not like the way the paint brushes on, but give it a try before condemning it. Another method to acquire canvas drop cloths is to befriend a local commercial painter. If he works prolifically he will have a habit of replacing his materials annually. Often the tarps are in relatively good shape and only need to be cleaned before they are ready to be painted on. The easiest way of accomplishing this is to bring the tarps to a local laundromat and put them into one of the big heavy-duty washers. Not only will this clean the tarps it will also break the fabric down and make them much easier to stretch. Drop cloths are a very heavy grade of canvas and a rigid, sturdy stretcher system must be employed. Also it is to your advantage to thoroughly wet the canvas before, during and after stretching it. This will help it stretch tighter and also remove some of the less desirable wrinkles.

At this point I would like to express a few words of caution in approaching any industrial supplier who sells one or more of the materials discussed in this report. These people are not interested in the vast amounts of knowledge that your college education has provided you with. Be attentive and willing to listen to what they have to say. They are certified experts in their particular fields. Questions should be phrased simply and succinctly. For the most part you will not only find these individuals extremely knowledgeable, but also quite gracious and friendly, ready to offer advice or provide solutions to any of the problems that you might have. Sometimes it is quite useful to tell a small white lie and hide your identity as an artist. Fabricate some reason why you need a particular piece of information; in other words just try to be one of the boys. The term "artist" can conjure up a variety of preconceived notions or ideas that may prevent you from successfully dealing with these industrial suppliers.

## CHAPTER II

### LATEX PAINT AND SPRAY PAINT

I first began working with latex paint out of sheer necessity. The work I was doing was quite large and considerable amounts of paint were used. If you have ever done any house painting, either inside or outside, you may be well acquainted with the various properties of latex paint. No matter what price you pay for latex paint its thick, creamy texture is relatively consistent. Latex thins well with water, is easily intermixed, dries very fast and is non-toxic as opposed to its oil-based counterpart. It would be erroneous to say however that it is a completely perfect painting medium. The disadvantages are as follows: 1) latex paint can not be built up into very thick areas without it cracking; 2) because of extremely short drying times latex is much harder to mix directly on the canvas; and 3) latex paint dries to a very matte finish. ( In an attempt to counteract this I have been thinning polyurethane with mineral spirits in a 4 to 1 ratio and applying it as a glaze. Of course clear acrylic medium or glaze can be used but their cost factor makes this highly prohibitive ).

In order to work with latex paints you do not have to buy the retail priced shelf colors or have special

colors custom mixed. Generally speaking, your stock shelf colors are in the fifteen to twenty dollar range per gallon, while custom mixes can go as high as twenty-five dollars a gallon. It is advisable to begin by purchasing a good quality latex flat-white for laying an initial ground on the canvas and for cutting and mixing with other colors. Try to purchase your latex paints from a paint store as opposed to a department store. Your local paint store will not only have fresher stock and people who are familiar with their product, but it is very easy to get a commercial discount on your purchase, something that a department store does not offer.

In any paint store, hidden somewhere in back will always be a considerable cache of quarts or gallons that are either discontinued or have been improperly mixed. Once you have become a regular customer they will be more than willing to let you rummage through these stacks. Try to make a deal on specific items or the whole case lot. Some paint stores will go as low as three dollars a gallon to get rid of this unwanted stock. Insist on opening each can and make sure that they are colors that you really want. Do not be deterred by paint that is somewhat crusty or lumpy and thick; it can be thinned with water, put through a strainer and returned to its original state. The adhesive powers of a latex paint are impervious to breakdown as it ages, unless of course it is allowed to completely harden.

Cans of spray paint provide an excellent accent when juxtaposed with latex paints. The presence of both of these materials in a painting presents a contradiction in terms. The latex paint, as stated before, dries very flat while the spray paint dries to a glossy, hard lustrous shine. The two elements together give the painter a certain tension that a well-structured painting must have to succeed. Analogically speaking, the latex paint is taciturn, tranquil, even feminine, while the spray paint is garish, as its powerful bursts can quickly change the whole complexion of a painting in a very masculine manner. Spray paints are very useful when masking or stenciling techniques are employed. Drying times are rapid and multiple image production can be done quickly. Care should be taken when using spray paint as it is extremely toxic. Inexpensive, plastic or paper filter masks are not adequate. The type of respirators used by professional auto refinishers with replaceable filters are not cheap but worth the investment. Do not delude yourself into believing that you can handle a spray can's aromatic haze. A day of spraying without a respirator can result in headaches, nausea, burning eyes and trouble breathing that can all become greatly magnified over an extended period of time.

Although I do not like to endorse any particular product as this may inhibit you from experimenting, I have found that Krylon spray paint manufactured by Dupont can not be challenged. It will adhere to virtually any

surface and has a very fast drying time. It is available in a rainbow of colors and can be purchased at a variety of locations including paint stores, hardware stores, supermarkets, automotive parts stores and even quite curiously fine art supply stores.

### CHAPTER III

#### PAINT APPLICATORS : BRUSHES AND ELECTRIC SPRAYERS

Any brush properly maintained will have a relatively long life. Do not be afraid of purchasing the cheapest brush available. They can usually be found towards the front of a paint store in large plastic containers. Their characteristic shiny black bristles and neon orange or red plastic handles belie their true strength. Of course through ignorance many painters refer to them as throwaway brushes. You will seldom spend more than a dollar for one of these brushes; however they are able to withstand an unbelievable amount of abuse. Again, the lifespan of a brush varies in accordance with the way a person takes care of it.

I would now like to turn my attention to the discussion of electric airless sprayers. The Wagner Power Painter is an example of this type of machine. To better understand its operation please consult the accompanying diagram on page 11.

The airless sprayer can be an indispensable tool in the artist's studio. The sprayer eliminates the time-consuming operation of priming a canvas with a brush. In approximately ten minutes a six foot by five foot surface can receive a uniform, opaque coating of paint. Because

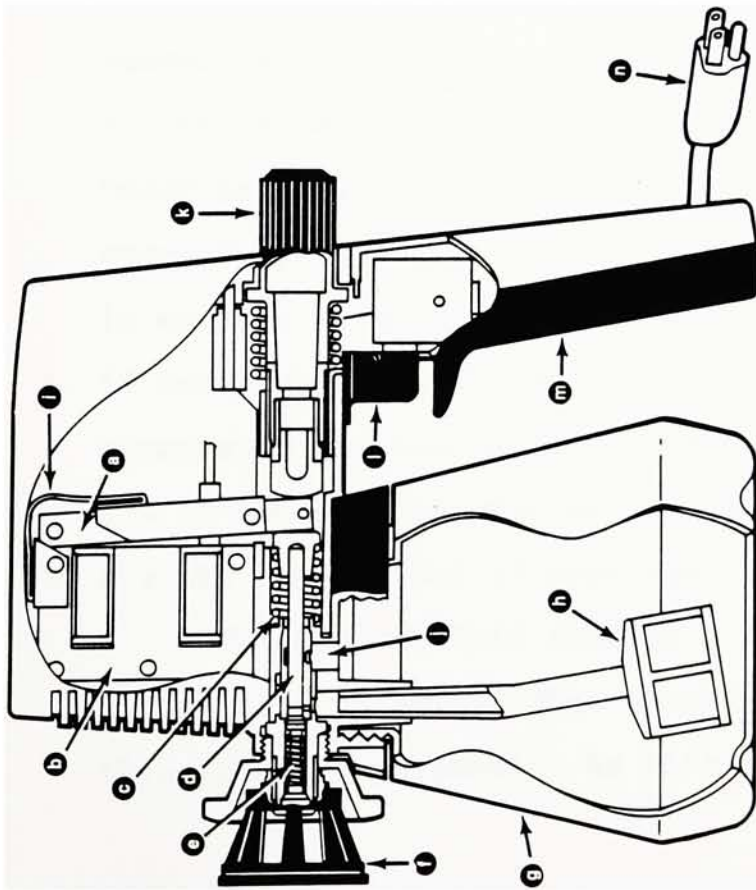
# What you can do with the Heavy Duty Series 200 Power Painter Outfit

This outfit includes everything you need for big homeowner jobs such as interior and exterior house painting and staining, and is also well-suited for smaller jobs such as garages, decks, fences, outdoor furniture, boats and a wide variety of other utility and maintenance painting and staining jobs.

The HEAVY DUTY Series 200 Power Painter will apply any type of exterior or interior paint (except textured paint), including enamels and

latex, and can apply varnish, shell lacquers and siding stains, too. It also spray insecticides, herbicide liquid fertilizers, detergents and terproofing materials.

The HEAVY DUTY Power Painter has sufficient power to draw paint directly out of a can through a five-foot suction tube, a very important feature for larger painting jobs (see "Outfit Components and Uses," page 6, for details).



## How the Power Painter works

The electromagnetic motor activates an armature which pushes a piston forward. When the piston is pushed back by the piston spring, paint flows up the suction tube into the paint chamber due to the partial vacuum in the chamber. When the armature pushes the piston forward, it forces the paint through the spray tip, causing atomization. By turning the control knob, the piston stroke is changed, resulting in increased or decreased volume.

- a** Armature
- b** Electromagnetic Motor
- c** Piston Spring
- d** Piston
- e** Atomizer Valve
- f** Spray Tip w/Safety Guard
- g** Container
- h** Filter
- i** Leaf Spring
- j** Overflow Bypass
- k** Control Knob
- l** Switch
- m** Handle
- n** 3-Wire (Grounded) Plug

## Specifications:

**HEAVY DUTY Series 200 Power Painter**

**Weight:** 3.5 lbs.

**Capacity:** Up to 10.75 oz. per minute, adjustable to fit job and material.

**Power requirement:** 85 watts on regular 110- or 120-volt household circuit.

**Safety features:** Spray tip has non-removable safety guard. Unit is Underwriters Laboratories (UL) listed and meets Consumer Product Safety Commission (CPSC) requirements.

**Capability:** Sprays numerous materials, including latex, oil- and alkyd-based paints and siding stains.

the sprayer operates on an airless principle only paint is atomized and released through the spray tip, therefore tighter spray patterns are obtainable and there is less waste than in a conventional compressed air unit. Also, because the paint is pumped at a high rate of pressure it becomes more firmly embedded in the weave of the canvas insuring a much greater bond. Relative to economic concerns, a technically sound unit such as the Wagner can be purchased for about a hundred dollars, a small investment considering the many hours of needless work that it can eliminate.

An airless sprayer need not be used only as a preparatory tool to prime the canvas. With some care the sprayer can become an integral part of the painting process. It is able to provide a swift resolution when total elimination of a particular area is warranted. Very thin washes can be applied, one on top of the other. And because of its versatility a variety of mediums from oil and alkyd-based paints, to latex, to varnishes and lacquers can be sprayed by it. There are not many moving parts and it is easy to break the sprayer down and make your own repairs if necessary. They are not nearly as finicky as their compressed air counterparts and will stand up to quite a bit of abuse. The sprayer is a tool whose only limitations are the limitations of your own creativity.

To conclude this chapter I would now like to mention a few items of safety that should be observed when using this type of equipment. As with any type of spray operation

proper protective equipment should be worn and correct spraying procedures should be followed. And, because an airless sprayer atomizes paint at such a high rate of pressure, paint injection is possible and it is not wise to point the unit at yourself or anyone else. Paint injection can lead to serious injury or even amputation.

## CHAPTER IV

### DRAWING PAPERS

The final chapter of this survey on materials will deal with industrial paper stocks and to what extent they can be useful to the artist. The best way to become acquainted with these papers is to consult a commercial paper supplier. In the Rochester area a good commercial paper supplier is Alling and Cory, located downtown on Verona Street. Generally speaking two distinct types of paper stocks are available, fine graphic papers which are used for various printing processes, and industrial grade papers, used for shipping and packaging. This chapter will only deal with the latter of the two.

A successful approach is to visit a number of commercial suppliers, and ask to see the various paper stocks that they carry. Usually they will present you with several samples, detail their current availability and how much they cost. The following list is by no means complete but does offer a survey of some of the more popular paper stocks.

We will begin with brown paper, traditionally used for wrapping and packaging. It is available in three different weights, fifty, sixty and seventy. The greater the number, the heavier the grade of paper. Brown paper can be purchased

on three, four, five or six foot rolls and also in thirty inch by forty inch sheets. One important fact to be considered is that industrial papers are sold by weight, not quantity. This of course will effect how much paper you purchase. For example, fifty pounds of sixty weight, thirty inch by forty inch brown paper will yield approximately eight-hundred sheets. Another item to consider is that most companies have a minimum charge of fifty dollars if you want the paper delivered. Brown paper is very flexible, highly absorbent and quite strong. Also, it is very easy to make larger sheets of paper by piecing sections together and adhering them with Elmer's Professional Carpenter's Wood Glue. Because brown paper is a cellulose pulp product it works well with this type of glue, which is normally used in woodworking joinery.

All of your industrial papers are made with cellulose pulp and their respective byproducts. If you are looking for rag content forget it. The least expensive of these papers is called bogus paper. The name itself is quite curious, indeed evoking an image of paper that is not really paper. Bogus paper is a very crude version of newsprint. Its surface is slightly irregular and it is common to find large flecks of pulp imbedded in it. As with brown paper it can be purchased in two or three different weights, however it is only available in sheets. Although it is quite absorbent and may be useful in exploring several water color techniques its strength is somewhat questionable.

A much heavier version of bogus paper is chipboard, which has the feel and texture of a thin cardboard while being gray in color. It too is quite inexpensive and in thirty inch by forty inch sheets a fifty pound lot will cost approximately twenty dollars and contain about seventy sheets. This by coincidence brings us to a discussion of cardboard. Although it is possible to salvage large quantities of cardboard from appliance and furniture stores, the excessive number of staples and the printed lettering may not be desirable. You can purchase cardboard two ways, either with one side smooth and the internal ribbing exposed or with two smooth sides. Of course the latter is going to be much stronger and is better suited for various painting and drawing operations. Cardboard is available in four foot by eight foot sheets at a cost of about two dollars a sheet.

Finally, I would just like to mention briefly two other products distributed by the industrial paper supplier that may be quite useful to the studio artist. The first is a form of acetate that is much heavier and more scratch resistant than the type carried by most fine art supply stores. Because of its weight and rigid characteristics this acetate would work quite well as an economical way of presenting and preserving the more delicate drawings and watercolors in a portfolio. It is available in thirty by forty inch sheets and if you use a large quantity of acetate the savings could be quite significant. The

second product is plastic "bubble" wrap which is commonly used by museums to wrap and protect art work for shipping. Again, as with the acetate, if your work needs this type of protection while being transported a bulk purchase of this "bubble" wrap would indeed be a necessity.

## PART II.

### CHAPTER V

#### THE INDUSTRIAL ARTIST'S ATTITUDE

In the second half of this report I have tried, in a brief, honest and candid manner to look at what I have been thinking and producing over approximately the last twenty-four months. In some ways I am using it as a sounding board to air many of my own personal thoughts. But, before I digress and become a fanatic waving my own little banner, I believe a few comments are in order on how to approach working with industrial art materials.

These materials are not "normal art supplies", and as a result a bit of experimentation should be anticipated. The ability to let go time and time again of your inhibitions must be developed. Run right up to the edge of the cliff and jump off and continue to do this until jumping becomes second nature. You have to work with a detached attitude and must not harbor any feelings about your work being precious or important. A good way to achieve this is to destroy a piece every so often. The sheer physical nature of this can remove many psychological blocks and promote positive artistic growth. Because of the economics involved, you can accumulate a large supply of industrial materials, which will enable you to explore and push many ideas to

the absolute breaking point. The only way an artist can gain information is by working. The more prolific he is the greater his supply of information will be. Additionally, do not be afraid to take the industrial materials out of their traditional context. Although they can be quite brutal and masculine, they are also capable of being very delicate and feminine. Try combining these two modes of thought and you could end up with some rather surprising results.

In conclusion, I would like to express one final note concerning industrial art materials. Do not feel that they are merely a substitute for fine art materials, more precisely, they are an alternative. When I turned to industrial art materials it was a conscious decision on my part dictated not only by economic, but also aesthetic concerns. Although industrial materials are inexpensive do not choose them solely for this reason. Remember, they have advantages as well as disadvantages that can only be experienced through trial and error. It is also a good idea to consult the technical information available concerning the traditional as well as the nontraditional approaches to the fine arts. You can only make the best possible choice for yourself when you have compared and evaluated both sides of the issue.

## CHAPTER VI

### SOME PERSONAL THOUGHTS

I must confess that in preparing to write this thesis report I could not understand why anything I had to say was important enough to be written down. Frankly, even now I still hold this to be true. This is not meant as a slur against the thesis process. It is necessary to be able to organize your thoughts into a coherent pattern on paper. But here a problem arises as to whether or not anyone but yourself will benefit from this information. For any artist today to feel that he has something unique and new to say is simply ludicrous. Because of the sensual bombardment that we are exposed to every day information is constantly available to anyone. Even the most simple mind can synthesize this information and develop some rather intelligent ideas or theories. This leads us to a curious question. Just what is the role of the artist in today's society? Is he an intuitive genius capable of giving us a vision that is possible through no other experience, or is he simply a producer of something inanimate, an objectmaker. Personally, I subscribe to the second opinion because the act of painting is more important than the finished painting itself. Of course, by way of logical progression, if the act is important

then the end result will naturally be important also. Growth will only occur for a painter if he is willing to work very hard and become accustomed to the idea of repetitive failure. Every painting does not have magic in it, in fact very few do. It may sound very old and redundant but an artist can only learn from the mistakes that he makes. It is too bad that we are allowed to see only the successful paintings of Matisse, Picasso and Cezanne. A show consisting only of their failures could be most enlightening. A painter should not concern himself with whether or not society will accept what he is doing. It can be a grave mistake to approach your work in this fashion. Make yourself available to other skills or occupations so that your painting will not be expected to support you. This will also keep you from allowing your work in the studio to consume your entire existence. Experience life to the fullest because society does not grant credence to one-dimensional individuals.

## APPENDIX

### CANVAS

Wm. C. Forster Corp. 85 Aldrich Rd. Fairport .....	223-4755
Kermis & Co. 1010 North St. ....	467-5038
Tent City 280 Lyell Ave. ....	254-2494
The Stitchery 410 North Goodman Ave. ....	482-3317

### LATEX PAINT AND SPRAY PAINT

Devoe & Raynolds Paint and Decorating Center 170 Jefferson Rd. ....	424-3767
Glidden Paint & Wallcovering Store 566 South Clinton Ave. ....	271-1363
Hadlock House of Paint 384 Jefferson Rd. ....	424-2244
Moran's Decorating Centers 3760 W. Henrietta Rd. ....	359-2710
Pinnacle Paint Co. 182 Monroe Ave. ....	546-5646
Sandler's Discount Wallpaper & Paint Co. 70 Liberty Pole Way .....	454-5628

### SPRAY PAINT EQUIPMENT

Cook Iron Store 128 St. Paul St. ....	454-5840
Rochester Fire & Safety Inc. 83 Howell St. ....	546-6765
S B Roby Co. 2005 Brighton-Henrietta Twn. Ln. Rd. ....	424-2210

Ultimate Distributing Corp.	
39 Charlotte Rd. ....	454-3410

## INDUSTRIAL PAPERS

Alling & Cory	
25 Verona St. ....	454-1880

Precision Packaging Products	
146 Halstead Rd. ....	482-9974

Rochester Paper Co. Inc.	
1 McKee Rd. ....	328-8000

## SELECTED BIBLIOGRAPHY

The following material was very useful for me in deciding certain philosophical as well as technical issues when I chose to work with industrial art materials. Also, when visiting any industrial supplier try to obtain from him all current information pertaining to his particular product.

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## ILLUSTRATIONS

1. Untitled, 60" x 72", latex and enamel on canvas.
2. Untitled, 60" x 108", latex, oil and enamel on canvas.
3. Number 3 from the camouflage series, 60" x 66", latex and oil on canvas.
4. Number 5 from the camouflage series, 60" x 72", latex on canvas.
5. Number 7 from the camouflage series, 60" x 60", latex and oil on canvas.
6. "My Ugly Friend", 64" x 64", latex, oil, enamel and graphite on canvas.
7. "Another Abstract Situation, Only This Time The Legendary Green Orb Is In Attendance", 72" x 120", latex, spray paint, oil, enamel and oil pastel on canvas.
8. Untitled, 60" x 72", latex, enamel and graphite on canvas.
9. "Three Little Girls at Play", 72" x 120", latex, enamel and spray paint on canvas.
10. Untitled, 82" x 82", latex, enamel and oil on canvas.
11. "Bye, Bye", 60" x 72", latex and enamel on canvas.
12. "Camouflage Relapse", 56" x 60", latex and enamel on canvas.

13. "Women Contemplating The Engineering Dynamics Of Their Respective Breasts", 60" x 72", latex, spray paint and graphite on canvas.
14. "Upon Thee I Gaze", 60" x 72", latex, spray paint and enamel on canvas.
15. Untitled, 60" x 72", latex, spray paint and graphite on canvas.
16. Number 1 from the heroic men series, 66" x 66", latex and spray paint on canvas.
17. Number 3 from the heroic men series, 54" x 108", latex and spray paint on canvas.
- 18.-20. "Eight Columns and The Spaces They Occupy", each column 10" x 10" x 84", latex on particle board construction.







