This thesis for honors recognition has been approved for the
Department of Art.

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RESEARCH AND WORK WITH NATURAL PIGMENTS IN WATER COLOR

A Thesis submitted to the Department of Art of Carroll College in partial fulfillment of the requirements for Honors with the B.A. Degree.

by Peggy Baraby
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The purpose of this project was to produce pigments from natural sources; i.e., flowers, berries, nuts, leaves, fruits and vegetables, and then to use these pigments to paint a series of water colors.

My interest in this area came about as the result of the need to paint one evening when I was at home and my paints were at school. Out of desperation, I tried using instant coffee and tea as water colors. The variation in color that could be obtained from just these two products was impressive. They ranged from the lightest beige to a deep rich brown. The results that occurred from utilizing coffee and tea as water colors were pleasing and stimulated my interest in further experimentation in this area.

I started in the spring of 1971 to search for information on dye plants, and to begin my collection of raw materials. The main source of information was from publications intended for people who are doing fabric dyeing. Many weavers make their own dyes from natural products and dye their yarn before weaving with it. I could not find much information pertaining to the use of these products in water colors, but the information I did obtain started me out in the right direction and served as a good basis to build on.
I dried some of the plants I collected in the spring and summer, but the majority of them I prepared with various methods. I soaked some in cold water for 24 hours then boiled them; some were put in the blender and then boiled; some were boiled and then left to soak overnight and boiled again. Trying all these methods, I discovered that the most satisfactory method was just to cover with a small amount of water and boil slowly for about 10 minutes. This was then strained and bottled.

At this time I did not make any color samples or do any painting with these pigments. This was a mistake, because by the time I was ready to start painting in the late fall, all of these previously prepared colors had lost their brightness and had become a fairly uniform brown and contained such a variety of molds that I was afraid to even open them up.

The secret (that I learned the hard way) to painting with these natural pigments is to use them right away. Some would keep a day or two, but not much longer, as they developed mold and the color deteriorated within a short time. I did freeze some of the colors, and this proved very successful.

Despite this setback, I was able to obtain a good variety of colors from the things that I had dried, produce available in the
stores and plants that were still collectable outdoors. All of the raw materials were collected around Helena, Montana, or at the local supermarket, with the following exceptions; the bracken came from Washington, the black walnuts from Oregon and the indigo which I had to order from the Wide World of Herbs, LTD Montreal, Canada.

Almost everything that I tried produced some pigment. The only thing I was really disappointed in was carrots. They looked like they would produce a beautiful yellow-orange, and I tried various methods of preparing them, but the pigment seemed to remain in the pulp and I was unable to get a usable color from them.

All of the pigments in the color samples in the following pages were produced simply by the boiling and straining process. I was able to produce 39 color samples, and by mixing these pigments could arrive at any color I desired, with the exception of a true red.

Using each of these pigments in their pure form and also in combination with each other, I created a series of sixty-three paintings. In these paintings I used a variety of techniques, styles and subject matter. From this group, eighteen paintings were finally chosen to represent my work. In this representative group an attempt was made to include a majority of the pigments, while also representing the different techniques, styles and subject
matter.

I then took colored Polaroid photographs of these paintings, but the quality of the color in these photos does not realistically represent the color in the original paintings.

The original paintings are to be exhibited in the lobby of O'Connell Hall the week of April 24, 1972.
COLOR SAMPLES
COLOR SAMPLES

SAFFRON
SAFFRON (stigmas of the crocus)
YELLOW ONION SKIN
CHRYSANTHEMUM FLOWERS (yellow)
CHRYSANTHEMUM LEAVES (yellow green)
JONQUIL
POINSETTIA LEAVES
SPINICH
GREEN TEA LEAVES
MARIGOLD FLOWERS
RED ONION SKINS
CHRYSANTHEMUM LEAVES (gray green)
DELPHINIUM FLOWERS (blue)
INSIDE OF YELLOW ONION
INSIDE OF RED ONION (lite green pigment)
INSIDE OF RED ONION (darker green pigment)
LICHEN, GRANDFATHERS BEARD (light bright green)
LICHEN, GRANDFATHERS BEARD (dark olive green)
ORIENTAL POPPY CENTER
POINSETTIA BRACT
PINE CONE
BRACKEN
JUNIPER BERRIES
WALNUT SHELLS
TEA (instant)
COFFEE (instant)
BLACK WALNUT
STRAWBERRIES
CRANBERRIES
RASPBERRIES
CONCORD GRAPE
ELDERBERRIES
BLACKBERRIES
BLUEBERRIES
AMERICAN BEAUTY ROSE
RED CABBAGE
BLUE INDIGO (shaded towards purple)
BLUE INDIGO (shaded towards ultramarine)
SAFFRON

(stigmas of the crocus)
YELLOW ONION SKIN

CHRYSANTHEMUM FLOWERS (yellow)
CHRYSANTHEMUM LEAVES

JONQUIL
POINSETTIA LEAVES

SPINACH
GREEN TEA LEAVES

MARIGOLD FLOWERS
RED ONION SKINS

CHRYSANTHEMUM LEAVES
DELPHINIUM FLOWERS (blue)

INSIDE OF YELLOW ONION
INSIDE RED ONION

INSIDE RED ONION
LICHEN
GRANDFATHERS BEARD
(light bright green)

LICHEN
GRANDFATHERS BEARD
(dark olive green)
JUNIPER BERRIES

WALNUT SHELLS
TEA (Instant)

COFFEE (instant)
BLACK WALNUT

STRAWBERRIES
CONCORD GRAPE

ELDERBERRIES
AMERICAN BEAUTY ROSE

RED CABBAGE
PHOTOGRAPHS OF PAINTINGS
PHOTOGRAPHS OF REPRESENTATIVE PAINTINGS

FRAGILE MOMENT - wet on wet, india ink & dry brush
saffron & berries

FLORALSCAPE - resist, wet on wet & dry brush
saffron, indigo & greens

BOUQUET - resist, wet on wet
yellows, indigo & blueberries

ANEMONE - resist, wash & india ink
rasberries

MOOD INDIGO - wet on wet & dry brush
indigo, berries & saffron

A BLUE & CHILLY SILENCE - wet on wet, dry brush & ink
indigo, browns & greens

"I SIT AND LOOK OUT" Walt Whitman
- wet on wet with salt
black walnut & indigo

LAMENT FOR THE POPPIES - resist, wet on wet, ink & dry brush
greens, yellows & browns

VOYAGEUR - resist, wet on wet, india ink & dry brush
tea

DIONYSUS' RETURN - wet on wet
tea & indigo

DERELICT - resist, wet on wet
coffee, black walnut & indigo

VOID - wet on wet & dry brush
coffee, black walnut & greens
PORTRAIT - wet on dry
  indigo mixed with brown

CONVERGENCE - wet on wet, resist & indigo ink

PROGRESS - resist, wet on wet & indigo ink
  browns & greens

MISTY MORNING - wet on wet & dry brush
  indigo & browns

CATACLYSM - resist, wet on wet & indigo ink
  yellows & browns

"IT WAS NOT DEATH, FOR I STOOD UP" Emily Dickinson
  - resist, wet on wet & indigo ink
  onion & saffron
FRAGILE MOMENT
wet on wet, india ink &
dry brush
saffron & berries

FLORALSCAPE
resist, wet on wet &
dry brush
saffron, indigo & greens
BOUQUET

resist, wet on wet
yellows, indigo & blueberries

ANEMONE

resist, wash & india ink
rasberries
MOOD INDIGO
wet on wet & dry brush
indigo, berries & saffron

A BLUE & CHILLY SILENCE
wet on wet, dry brush & ink
indigo, browns & greens
"I SIT AND LOOK OUT"
Walt Whitman

wet on wet with salt
black walnut & indigo

LAMENT FOR THE POPPIES

resist, wet on wet, ink &
dry brush
greens, yellows & browns
VOYAGEUR

resist, wet on wet, india ink & dry brush tea

DIONYSUS' RETURN

wet on wet tea & indigo
DERELICT
resist, wet on wet
coffee, black walnut & indigo

VOID
wet on wet & dry brush
coffee, black walnut & greens
PORTRAIT
wet on dry
indigo mixed with brown

CONVERGENCE
resist, wet on wet & india ink
downs & grays
PROGRESS?

resist, wet on wet & india ink
browns & greens

MISTY MORNING

wet on wet & dry brush
indigo & browns
CATACLYSM

resist, wet on wet & ink yellows & browns

"IT WAS NOT DEATH, FOR I STOOD UP"
Emily Dickinson

resist, wet on wet & ink onion and saffron
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