OIL MEDIUM IN PORTRAIT PAINTING

A THESIS
PRESENTED FOR A DEGREE OF MASTER OF ARTS

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OIL MEDIUM IN PORTRAIT PAINTING

Problem:

The subject of the Thesis is the production of a series of portraits which are shown in the accompanying illustrations. The text is furnished to give the author's conclusions as to how portraits should be painted, from the standpoint of mediums, pigments and technique, the permanence of the pictures being one of the chief considerations in the selection of materials and methods.

Definition:

Mechanically, painting is a scheme for the production and tying together of a series of color reflecting surfaces, composed of minute particles of colored pigment, held together by a binder.

For Oil Painting the binder is an oil, for gesso it is plaster of paris, for fresco it is mortar and for water color or tempera, an emulsion or glue, soluble in water.

History and Origin of Oil Painting:

Oil painting is a development, from early painting with other materials, which came about through the discovery of drying oils.

The use of color started in Egypt and Assyria, where no perspective, light, or shade was used in painting, which was decorative in purpose and applied with distemper on a smooth plaster or stucco surface.

In Greek and Roman times beeswax was the chief medium, although white of egg was described by Pliny as possible for the use of painters. The Greeks worked largely in line drawings and compositions, all flat, but correctly foreshortened and in simple pure color. An outgrowth of this was the Pompeian style in which more attention was paid to landscape and still life subjects for wall decoration. They painted in fresco on a thick plaster, using brilliant reds and blacks.

Byzantine art came from these Greek and Roman sources but was less pictorial and more decorative, due to the religious feeling against portraying the human figure. Most of their artistic work was done in mosaic. This development continued through Giotto and Massaccio to the Renaissance in Italy.

At this time fresco was the chief medium in Italy with tempera being used for smaller pictures and from these practices came the development of oil
painting in the last of the XVth Century. The Van Eycks have been commonly called the inventors of oil painting but it is believed that the art was known elsewhere. Before their time Cennino Cennini, in his well known book, "The Craftsman's Handbook" gives directions for the treatment of oil to be used in painting. However it's development and improvement we owe to the Van Eycks who brought it to a high degree of perfection between 1370 and 1441. From them Antonelli Da Messina took the method to Venice in 1475, and since that time it has developed into the chief color medium of the artist.

At present oil painting is fundamentally the same as then. The modern artist uses the same essential materials that Titian did, which consist of: the ground upon which the picture is to be made, the pigments, the binder in which they are ground, and the medium with which they are applied.

Taking these up in order the first essential is:

The Ground:

It is the background of the picture which is important to the artist in obtaining durability and luminosity in his work.

Canvas is the chief surface used by the majority of painters. It is made of cotton or linen upon which the ground is painted with a mixture of either chalk, clay or zinc oxide, with glue. This makes the surface tighter and less absorbent. Canvas is not permanent, lasting one hundred years at the most, and stretches and contracts with atmospheric changes. Both moisture and oil penetrate the fibers, weakening them.

A better ground is wood. It is the best ground due to it's permanency, density and firmness but it has a rather smooth surface, not enough tooth, and is slightly subject to atmospheric changes.

Lately artists are using composition boards. These are made from wood tissue under high pressure. In theory these are the perfect material and they have a good tooth and are cheap. Time is the only element to test them successfully. They are covered with a mixture of raw linseed oil and zinc oxide on front and back or can be prepared for gesso or tempera ground with a size of glue and zinc oxide.

After a survey of the grounds we come to the next essential in a picture:

Pigments:

These should be permanent to light. Varied temperatures should not change their chemical content
and union with other pigments or mediums should not produce any chemical changes. Time must have no effect on them and other influences such as gases in the air, hydrogen sulphide, and moisture, should leave them unharmed. The more simple their chemical content the better, as it leaves less chance for chemical reactions. Their color quality should be close to the essential spectrum colors to produce the greatest range of color. The colors listed below were used in the pictures produced in the thesis. The names of the pigments are given before their chemical structure, and the hues in relation to the spectrum.

<table>
<thead>
<tr>
<th>Name</th>
<th>Chemical Structure</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Pure Carbon</td>
<td>Black</td>
</tr>
<tr>
<td>Zinc White</td>
<td>Zinc Oxide</td>
<td>White</td>
</tr>
<tr>
<td>Cadmium Yellow light</td>
<td>Cadmium Sulphide</td>
<td>Yellow</td>
</tr>
<tr>
<td>Cadmium Yellow</td>
<td>Cadmium Sulphide</td>
<td>Yellow-Orange</td>
</tr>
<tr>
<td>Cadmium Red</td>
<td>Cadmium Sulphide</td>
<td>Red</td>
</tr>
<tr>
<td>Ultramarine Blue</td>
<td>Complex Silicates</td>
<td>Blue</td>
</tr>
<tr>
<td>Vivridian Green</td>
<td>Chromium Oxide</td>
<td>Green</td>
</tr>
<tr>
<td>Alizarin Crimson</td>
<td>Coal Tar Product</td>
<td>Violet Red</td>
</tr>
</tbody>
</table>

These are permanent colors and may be fixed together safely.

Binders:

The binders in oil painting are fluid substances used for the purpose of combining the colored particles of the pigments in a form which will become a solid mass attached permanently to the ground, the oil combining with oxygen to form a solid. One of the most important of these is linseed oil. This is made by extracting oil from flax seed through pressing. The finest sample is obtained through cold pressure of the seed producing an almost colorless oil. Inferior grades are obtained through grinding and warming and are dark or amber in color. This is often artificially bleached and sold for the cold pressed oil.

Linseed oil is a compound of glycerine with fatty acids, its drying properties being due to the presence of linoleic acid. When linseed oil is boiled without addition of any chemical drier it becomes thicker and dries with the properties of a varnish. It is called 'Stand Oil', which is highly weather resistant.

Linseed oil yellows with time but can be restored through exposure to the sun. The pigments in oil grow
more translucent with time since oil absorbs oxygen from the air and converts it into a leathery translucent substance called linoxine. This is called drying but is really oxidation of the oil, increasing its weight 20%. Air in motion, light, and warmth hasten this; quiet air, coolness and darkness retard it. Transparent pigments lose more of their character in oil than opaque pigments and should therefore be used as glazes on solid under-paintings, but a pigment suffering degradation in oil has its brilliancy fully preserved, if painted thinly on a bright absorbent under surface. In this respect solid whites become lower in tone, unless a minimum of medium is used, and also lose in brightness if there is a thick, dark, under-painting.

Poppy seed oil is obtained from seeds of the white poppy in much the same process used for linseed oil. It is light in color and dries quickly. Poppy seed oil has a tendency to crumble, crack, and yellow with time.

Mediums:

The above oils are also used as mediums and serve to thin the pigments for painting. Another important element in mediums is spirits of turpentine, a colorless distillation of turpentine. It is convenient for the dilution of mediums as it evaporates quickly, hastens the drying of linseed oil and helps link the layers of oil pigments by cutting into the hardened surface. As a solvent many resins are made into varnishes through it. The best grade for artists boils below 170° C.

The medium used in this thesis is one which is supposed to have been used by Rembrandt and Rubens, Stand Oil, lightened with spirits of turpentine. This makes the use of varnish unnecessary in the painting and as the stand oil is really linseed oil, it mixes perfectly with the pigments ground in oil. The turpentine cuts into each coat of pigment producing a constant union of medium and pigment throughout the painting.

For the panels composite wall board was used as it is cheap, can have any kind of a tooth the artist desires, is permanent, does not warp, and is convenient to handle.

For pigments, those mentioned above were used as transparent or opaque colors, giving wide range to the pictorial results.

The following diagrams will show the structural simplicity of the paintings.
ENLARGED CROSS SECTION OF THE PAINTINGS IN THE THESIS

Protective covering
Linseed or Stand Oil

Pigments ground in oil with Linseed Oil

Charcoal, Shellac, Alcohol

Zinc Oxide and Linseed Oil

Composition Board

The materials used were Composition Board, Linseed Oil, Pigments, Charcoal, and Fixatif which are quite permanent. The binder and medium are the same substance, linseed oil, with one rate of drying unity between paint layers and the ground.

ENLARGED CROSS SECTION OF AN AVERAGE PAINTING

Protective covering
Varnish

Pigment ground in oil with varnish medium

Charcoal, Shellac, Alcohol

Zinc or Lead Oxide, Glue

Canvas

The materials used are Canvas, Glue, Pigments, Charcoal and Fixatif, Varnish and Linseed Oil. Of these only the pigments, charcoal, fixatif and linseed oil are permanent. The other materials are unstable. Three mediums, glue, varnish and linseed oil were used with different drying rates, all differently susceptible to changes of temperature, air etc., and not the best of
unity between them. Such conditions interfere with the permanency of any painting.

This concludes the technical description of the essentials of oil painting, the ground, pigments, binder, and medium. In the next section the method of using these in painting will be presented thro a discussion of portrait Painting with photographic illustrations.
DISCUSSION OF PORTRAIT PAINTING

The painting of a portrait should progress in a very logical and orderly fashion in spite of the dictum that a work of art is not governed by rules.

Briefly, what the painter tries to do is to put on the canvas a pleasant arrangement of light and dark in a good color harmony, the subject to be painted so that attention is drawn to the head and hands rather than to the other details of the figure.

What we term a likeness depends upon the painter's ability to produce the essential facts of the subject in his painting. One factor is correct proportion of the sitter, height of head to the body, size of body. In the face we feel this likeness for the most part thru a correct interpretation of the underlying structure of the head, in relation to the surface forms as eyebrows, nose cartilage and the various muscle shapes. It is not so much the correct drawing of an eye or mouth but the big mass of planes expressing these forms. George Bellows painting is a very good example of this and his portraits show definitely the big structure of a head. For this reason, portraits of middle aged men have much more character than children or young girls, and it is easier to get the older person's portrait as the muscle shapes are not so subtle and are not hidden by a firm smooth skin.

The accompanying illustration, No. 1, is a drawing prepared as the first stage in painting a portrait. The next important step is to obtain the tone and color relationship. Since pigments are not as pure or as dark or as light as the colors of the spectrum, the painter must often make an adjustment and not simply copy colors as he sees them. Thus a relationship of colors or tones is obtained with reference to each. This is done by selecting a tone or color on the sitter and adjusting all other colors and values to this; in what proportion they are darker or lighter and whether they incline toward a cool or warm tone in contrast with the selected color. One tries to get these important relationships at the start. When they are generally correct we can go further into the painting with more subtle tones, but never losing sight of the general relationship. To illustrate this the successive stages in painting a portrait are here shown thru photographs.
Stages in Painting a Portrait

Charcoal:

It has been found that covering the canvas with a solid tone of charcoal and then taking out the lights and leaving the darks will facilitate planning the composition and developing the values. In this way drawing is seen in terms of masses and not lines. The illustration No. 1, shows the canvas with the charcoal drawing made with the above treatment. Detail is ignored except in the placing of the features.
First Painting:

The first painting is for the purpose of covering the canvas with flat tones but getting the different areas in the correct tone and color. The hands have been left in charcoal. (See Illustration No. 2.)
Second stage in the Painting:

The values are now more studied and refined. The hands are in a rather flat treatment of values and shapes. A little more modeling of form appears in the chin, in the shoulder on the left and on the chest and neck. Cast shadows are studied for value and drawing as they are important in expressing of form. The one at the elbow of the right arm is not expressing the arm shape yet and the deep values on the nose are too dark. (See illustration No.3.)
Final Printing:

The picture is now completed. The fur is modelled and the texture is more definite. The hand forms a more interesting shape with the fingers shorter and two of them brought together. Dark values around the face are eliminated and the drawing of the eyes, mouth, and nose is more refined. Interest is given to the background through the broken tones of color and the edges of the fingers are in better relation to it.
ILLUSTRATION NO. 4
PHOTOGRAPHIC ILLUSTRATIONS OF THE PORTRAITS

The portraits which make up the thesis could not satisfactorily be brought together and shown. Photographs of these are included with an explanation of the main points of each picture on the opposite page.
PORTRAIT OF CLARENCE LAYLIN

A portrait where the mass of the costume is treated as a silhouette. This brings attention to the face and hands as light spots. The flesh is painted in warm tones, a contrast to the cool values of the general picture. The hand is well simplified, a necessary adjustment in portraiture in order to avoid too much attention to the individual fingers. The mass of the figure on the right is balanced by the dark drapery on the left.
PORTRAIT OF MISS BETSY NYDER

A head of a young girl. The background is a dark green complementing the scarlet collar and cuffs on a dark blue dress. The color scheme is completed by the burnt orange color of the chair. The white pages of the book help the flesh tone through the contrast of cold color with warm color.
PORTRAIT OF WILL KANNELS

This again, is an example of treating the costume as a general silhouette against a light background of warm tone. The head in partial shadow results in an important contrast with the background. The hands are treated simply and carry through the movement of the arms.
PORTRAIT OF LARRY SNYDER

This is a portrait showing decisive, definite features, more pronounced in men than in women. A cool grey background helps the tanned flesh notes, which are echoed in the tan suit.
PORTRAIT OF DIANE

A picture with color emphasis due to the subject's red hair. This was complemented by a green dress, and a grey green background divided by a black area. The latter is useful as a contrast for the face and hair.
PORTRAIT OF AN ELDERLY MAN

A character study with emphasis on the head alone. A dark blue background and a dark blue coat, left the face and beard to form a single light unit.
PORTRAIT OF F. J. SCHWARTZ

This portrait is an example of a dark background and dark suit in contrast to the light head. A handkerchief in the coat pocket helps the light and dark spotting of the picture.
PORTRAIT OF MARIAN OLSEN

This is the head of a little girl with a lively background of pinks, light yellows and green. The costume is yellow with a white collar. These light tones add interesting contrast to her hair and eyes.
Conclusion:

The preceding text and photographic illustrations show the use of the oil medium in portrait painting through the nine finished portraits which are part of the number submitted as the thesis problem.