

News of the arts

Mineral colours

For 20 years the art world has neglected the use of mineral pigments in the production of colours. Could the use of mineral powders be given new momentum? Maurice K-Seguin, an associate professor at Quebec's Laval University, and painter Paulette Tourangeau argue in its favour.

The advantage of natural pigments over chemical products is their durability, a quality which makes them central to a research effort in which the two of us, professor and painter, have been engaged for over two years.

We turned to our libraries to obtain the information we needed in order to begin our study. Old texts mention the types of earth and stone that are most suitable in making oil paint. Among the stones referred to are orpiment, realgar, malachite, azurite, cinnabar, hematite, chrysocolla, and lapis-lazuli.

The earths that can be used include all the iron oxides, which range in colour from yellow to red to brown.

These initial sources of information also identify the equipment needed to make paint, including two kinds of mortar, one bronze and the other porcelain, for crushing the various materials and a glass grinding sheet for mixing the oil and pigment.

Documents on Quebec confirmed our initial sources of information and enabled us to locate the raw materials that were available locally. Pierre Boucher, in his *Histoire véritable et naturelle*, speaks briefly of the iron oxides used by the Amerindians and the early colonists in New France, especially in the Quebec City area. A more recent book, *Le Canada à l'exposition universelle de 1855*, by J.C. Taché, provides similar indications.

Oral tradition also made its contribution: in the old days, we are told, people used yellow or red ochres and ferruginous schist from Sillery, for example, to paint the interiors of their houses or their furniture. Moreover, modern mineralogy has added bauxite, talc, chalk and graphite to our list of pigments.

We collected such pigments as were available locally using three different techniques: taking surface earth, digging below the surface and cutting into the variously-coloured strata of oxide, and scraping oxides from the surfaces of weathered rocks.

Mineral powders

Once the earths have been extracted from their place of origin, they must be subjected to several preparatory steps before they can conveniently be used. They must be washed and filtered twice and the coloured liquid allowed to stand until the mixture reaches a state of equilibrium

and the solid material has settled out. Then the water is siphoned off and the residue is dried in an open-air oven at between 80 and 150 degrees Celsius. Finally, the granules are pulverized by means of manual or mechanical grinding. Rocks and minerals require only this operation.

The production of paint is now possible. The procedure consists of mixing the pigment, which has been reduced to a powder, with linseed oil. A glass grinding sheet is used for this purpose; a quantity of raw linseed oil is poured on the sheet and pigment is added proportionately. The two substances are blended with a spatula. The process is continued by means of a flat-bottomed glass pestle, moved concentrically; the operator must take care to have the coloured paste well spread between the two surfaces as he grinds. During the grinding the paste may become translucent; more pigment must then be added to make it opaque. The degree of pigment dispersion may be assessed by spreading a thin layer of this paste on a metal strip to detect any granules that have not yet been sufficiently ground. The pigment is ready for use on a canvas when a perfectly smooth and creamy consistency has been achieved.

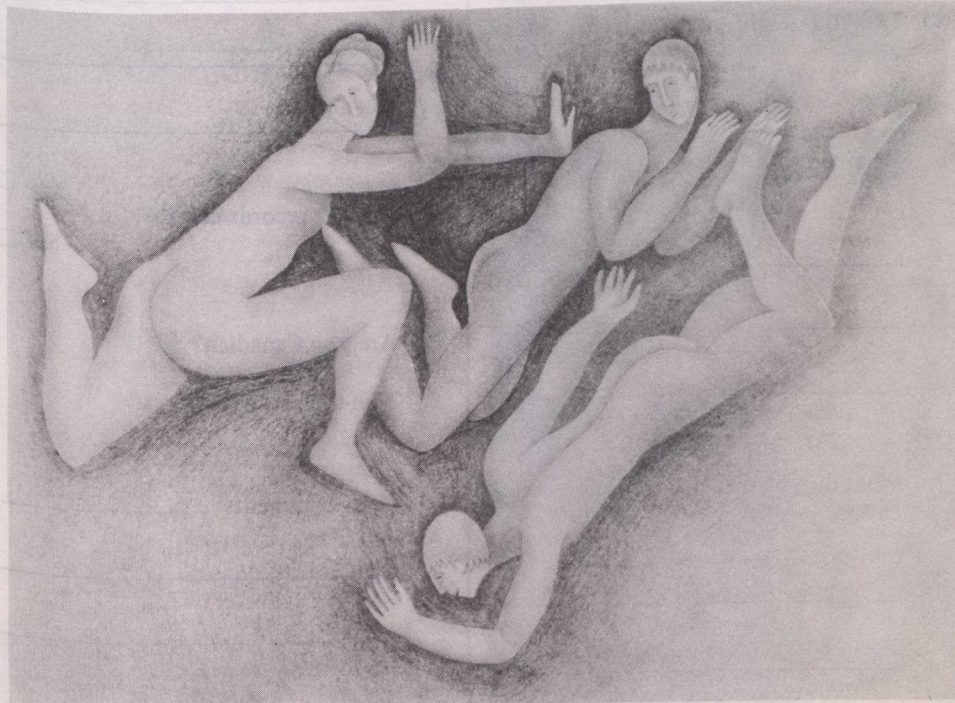
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Canadian art abroad

An exhibition featuring the work of 23 contemporary Canadian artists, called *Other Realities - The Legacy of Surrealism in Canadian Art*, is on show until February 21 at Canada House in London, England.

Ceramic sculptures by Louis Gosselin will be exhibited from February 1 to March 1 at the Yorkshire Sculpture Park, Bretton Hall College, near Wakefield, Yorkshire, England.

At the Canadian Cultural Centre in Paris are 36 contemporary prints assembled by the Department of External Affairs, accompanied by recorded dialogue with the artists whose works are presented. The exhibition, which continues until February 25, includes works by Joyce Wieland, Michael Snow, Lebrun Doré, Noboku Sawai, Eugène Ouchi, John Palchinski, Greg Curnoe, Denis Forcier, Mary Rawlyk, Pat Martin Bates, Marianna Schmidt, Pierre Bougie, Gary Lee-Nova, and Jean Noël.



Paulette Tourangeau used mineral colours for this painting.