

burnt umber paint of an extra strong body and has remained unchanged after exposure. This mineral often occurs associated with ankerite in veins and accumulated masses near the contact of the Carboniferous and older rocks, particularly in the counties of Colchester and Pictou, N. S. See Report 1873-74.

Clay.—Limehouse, Halton Co., Ont.

This sample, which has a greenish-gray colour and is free from grit, has no body in itself, but, when mixed with white it makes some delightful gray tones that could be obtained only by the most expert artist. If this clay be burnt and then ground in oil it makes a light-bodied burnt umber which has remained permanent after exposure. This material was used some years ago by Mr. James Newton, Paint Manufacturer, Limehouse, Ont.

Siderite.—Helen mine, Michipicoten, Algoma, Ont.

This mineral in itself is of little use as a pigment except when mixed with a small proportion of the oxide: it then produces some nice shades of the umber. If it be roasted and then ground in oil it makes a good burnt umber with a strong covering body. This has not been tested for any length of time but it will probably darken a little. Three samples were tried from the above locality.—(a), siderite, (b) siderite slightly oxidized, (c) Weathered oxide: the best and brightest colours were obtained from the pure burnt siderite, although all three had very good covering qualities. This mineral occurs on the summit of Hematite mountain about eleven miles from Michipicoten harbour, and is supposed to be in some quantity.

Clay Iron Stone.—Edmonton, Alberta.

This mineral is easily reduced to a fine powder and when ground in oil has apparently very little body, but when exposed for a year or two it assumes a raw umber tone. If this mineral be burnt and then ground in oil, it makes a good burnt umber of very good body, and is permanent. It is widely distributed in Alberta and Saskatchewan associated with the coals and lignites, often in considerable quantity and is found in the provinces of British Columbia, Quebec and Nova Scotia.

BROWN.

Chalcocite.—Dorchester, Westmorland Co., N.B.

If this mineral be reduced to a powder, then roasted and ground in oil, it makes a paint of a dark brown colour, having a very good covering quality; if this be mixed with white it makes a good substitute for bone brown. See Chalcocite under Black.