



the Manitoba boundary. Here (p. 3) the land is so laced with natural waterways that one may paddle in almost any direction, interrupted only by brief carries. Here is one of the continent's most accessible fishing and hunting paradises, where increasing numbers of wilderness-hungry visitors annually renew their sanity. Here privacy may still be found, and the sense of isolation; where the only mechanized sound is the reassuring throb of a Beaver aircraft on fire protection patrol. Here, in the early morning calm one may paddle around a rocky point to glide silently within hand reach of a looming cliff, and stare in wonder at the mysterious red markings of a vanished culture.

Scores of such experiences have yet to rob me of the feeling of

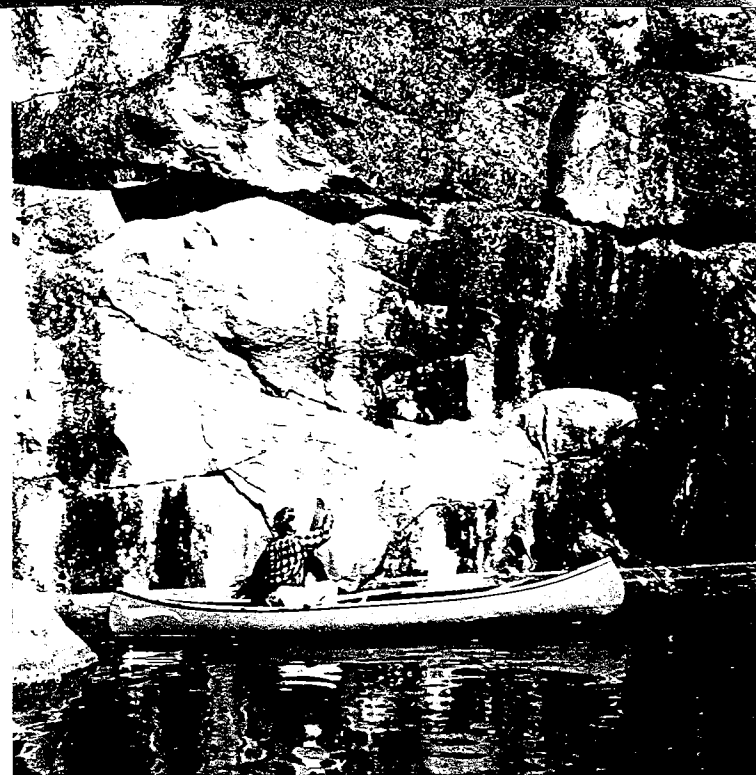
suspense, of having been touched by fingers out of the past. Nor can all the details in the pages that follow adequately convey the intimacy of a visit to one such actual place.

#### *The Typical Site*

The photographs on the opposite page and below were taken at a small pictograph site on Twin Lakes, just north of Highway 17 and thirty miles east of Kenora. In the Canadian Shield woodlands of Northern Ontario, there are thousands of such outcroppings of rock—usually granite or gneiss—with vertical faces at the water's edge.

Few places have such large areas of bare rock as are seen here. Normally lichen growth of various sorts covers the whole surface: coarse

*Photograph by Klaus Prufer*



*Photograph by Klaus Prufer*

leafy "rock tripe" on the upper faces; crustose types, medium to fine in texture and often of brilliant colour, on the lower and more vertical faces; and, wherever seepage is constant, a fine-grained black variety that looks much more like a stain than a lichen.

In both photographs the light areas of rock are the lichen-free ones. Here the only covering agents are the light, pink stain of oxidized iron, the occasional white streak of precipitated lime, and—rarely, as here—the mysterious red markings of the aborigine.

Where the lime deposits form a background the stronger paintings stand out vividly, and can be photographed in black and white successfully. Sometimes lime solutions have seeped down over the paintings, obscuring them unless one moistens them with water. Usually the iron oxide of the pigment overlies the same compound that stains the surface from the weathering of minute particles of iron ore in the rock. If, then, the pigment is weak, it is difficult to see, and impossible to photograph without colour film. Since the underlying colour is essentially the same it is doubtful whether colour filters would help to increase the contrast.

Normally the rock gets enough moisture for lichen growth. It is only when, as in this case, an overhang ensures that rain and groundwater seeping from above will drip clear of a surface that lichens are discouraged. However, a slanting rain will wet the rock beneath an overhang, so that frequent exposure to the drying action of the sun is also needed to discourage lichen growth. The Twin Lakes site has a southern exposure. Others may face the rising or the setting sun. So far I have seen only three sites on which the sun never shines. In such cases the fuzzy green lichen which often obscures them is easily scrubbed off, unlike most of the crustose types on sun-exposed faces, which are extremely tenacious. Lichens originate in a symbiosis of algae with fungus spores—both carried through the air. Such a pair, lodged by accident on the same rock nodule, or in the same microscopic pore, lead a precarious

existence at best in normally lichen-free surfaces.

At water level the action of ice and waves tends to keep the rock clean. The remarkable thing is that such erosive agents seem to have had little effect on the pictographs on sites where they have obviously been so exposed for decades or longer.

As a matter of record most of the paintings are from two to five feet above the present water levels. Here, for instance, where the photograph shows me working at a tracing, they are within easy reach of a person sitting or standing in a canoe.

It is difficult to generalize about the typical location for a site. The example illustrated here marks a minor portage into an insignificant lake. We do tend to find larger numbers of pictographs on the larger cliffs facing the more travelled waterways; but this is contradicted too often by obviously important sites on small rocks in out-of-the-way places.

Only two generalizations can be made. The one colour favoured on every site is the "Indian red" characteristic of aboriginal paintings the world over. A limited use of white is made on two sites, of yellow on one, and of black on another. All sites so far found have been close to water, and all reports of sites away from the water have been traced to natural stains of oxidized iron.

#### *The Search*

How does one go about finding Indian rock paintings?

This question was uppermost in my mind as my wife, three sons, and I drove north and west early in the

#### *Opposite:*

F. H. Nohlgren reports a site on the Saskatchewan River

Ojibwa at Northwest Bay pinpoint a site on Footprint Lake

summer of 1957 to French Lake, the Canadian access point to Quetico Provincial Park. There, in a small colony of Park officers, biologists, and one botanist, my wife set up house-keeping in a small prefabricated hut while I set up my drawing table, got out my maps, and proceeded to check the reports I had brought from the Museum against local information.

That summer established the pattern I was to follow, with later refinements, for the next three years. People hearing of my work wrote in reports; I proceeded to the nearest jumping-off point, where I checked and pin-pointed the reports I had and collected new ones. Everywhere we went we talked to anyone and everyone: campers, Lands and Forests personnel, old-time residents, store-keepers, youngsters, tourist operators, and above all, local Indians.

We never knew where information might pop up. A navy recruit hitch-hiking from the Yukon to Halifax gave us a location to check in British Columbia; the Twin Lakes site we

got from the twelve-year-old son of a Ranger. We had no way, either, of separating fact from fancy. Reports of a painted moose six feet high turned out to be based on a tiny painting that I could cover with my hand. Pictographs on unnamed lakes were reported as being on the shore of a nearby named one.

As experience grew, a few working rules established themselves. Where there's smoke there's fire; the more smoke, the bigger the fire. Expect even the experts to disagree; all memories are fallible. And, not least, pictographs—like fish—are where you find them!

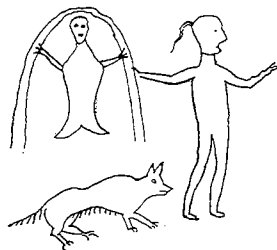
It is the original Canadians who are the best-informed in most localities. There's a special fascination about the way an Ojibwa trapper locates a site. First he will search your map with his finger till he finds the area of his registered trap line. As you watch the finger move you can tell that he is visualizing a frozen shore along his route, recalling landmarks as he searches his memory for

*Photograph by Klaus Prufer*



*Photograph by Peter Dewdney*

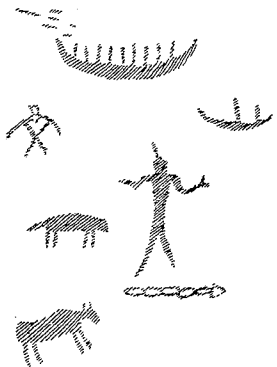




Schoolcraft, 1851; unlocated site, said to be on south shore of Lake Superior



Lawson, 1885; Lake of the Woods (see Site #70)

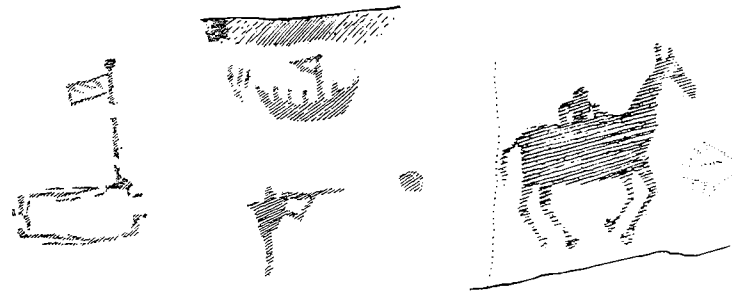


McInnes, 1902; the elusive Cliff Lake Site (p. 137)

offer. Outside of skin-diving I covered all the angles I could think of, with particular attention to lichen growth, lime deposits, and weathering effects. I also noted carefully the strength of the pigment, for whatever value that might have as a dating clue.

In a number of instances sites I have recorded had already been illustrated: the Agawa site before 1850 by Schoolcraft, two by Lawson in 1885, and 18 sites by Wm. McInnes between 1894 and 1904 of which examples appear in the margin. Comparisons of these with my records should yield further historical clues. In a few cases the paintings themselves offer historical clues, picturing forms borrowed from the invading European culture.

The painting of one symbol over an earlier one is so rare in these paintings (though common in examples on other continents) that it seems of little use. More promising is the overrunning of some paintings by various species of lichen. Through studies made by Roland Beschel, a botanist currently at Queen's University, in Switzerland, Greenland, and the Canadian Arctic, considerable knowledge has accumulated of the rates of lichen growth for various species. One species, for instance, tentatively identified by Professor Beschel from colour photographs taken at .5 metres as *Rinodina oreina*, an extremely slow-growing species, has overrun the greater part of Face II on Site #27. The pigment underneath is extraordinarily strong—as strong to all appearances as the same colour freshly squeezed from an artist's tube today. If the lichen is *Rinodina oreina*



Evidence of European contact (see pages 56, 42, 86)

the paint is at least a century old, yet apparently unweathered.

Lime deposits vary in thickness from a quarter of an inch to a barely discernible film. On the Cuttle Lake site a film over one pictograph is the background for another painted over it (p. 63). Since lime is a constituent (though sometimes a minute one) of most rocks, it seems likely that many of these deposits come from ground water that has dissolved the lime as it passed through the rocks. It is just possible, too, that phosphate of lime from bird droppings has been dissolved at a greater height, and re-emerged from the crack where the deposit begins. Here again are possible dating clues.

During the first summer I made a point of collecting pigment samples from smeared areas where the paint seemed thick. I was astonished to find that I could get only a few reluctant crumbs by scraping with a

steel knife. With rocks softer than granite the pigment is not so difficult to detach, but again and again I have found it so bonded to the rock that it defied my efforts to remove it. Compared with commercial pigments used in this century, the Indian paint stands up far better. In two instances initials have been painted on the same site as Indian paintings. In both cases the modern paint is already wearing thin.

A concentrated study of such factors by specialists, covering a group of sites such as the nine in Whitefish Bay on Lake of the Woods, might contribute substantially to reasonable conclusions about the age of the Shield paintings.

#### Interpretive and Ethnological Clues

Few who view an Indian rock painting can refrain from asking: What does it mean? Once there is any kind of break-through in dating