



MICROMOUNTERS OF NEW ENGLAND

NORTHEAST MEETING

May 8, 1993

4-H Conference Center
Ashland, MA

PROGRAM:

9:00 Registration and Informal Session
12:00 Lunch
1:00 Presentation

**MONT SAINT-HILAIRE:
THE MAGIC MOUNTAIN**

by
Quintin Wight

2:00 Doorprize Drawings
4:00 Departure

President - Frances Morrison	Vice Pres. - Angie Teixeira
Recording Sec'y - Patricia Barker	Treasurer - Janet Cares
Corresponding Sec'y and Newsletter Editor - Shelley Monaghan	

Additional information-----

Mrs. Janet Cares, 18 Singletary Lane, Sudbury, MA 01776 (508) 443-9180

GUEST SPEAKER: QUINTIN WIGHT
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Our speaker was born in Scotland, but moved to Canada in his early teens and attended Canadian universities. He served for 37 years in the Royal Canadian Air Force, from which he recently retired with the rank of Colonel. During his period of service he was involved in photography, radar, bomb disposal, and editing of an in-house journal. He also moved about a good deal, not only within Canada, but in Europe and the United States, where he was posted for several years in Washington, DC.

Quintin began serious mineral collecting in 1962, and eight years later succumbed to the lure of micromounting, after examining some of his Saint-Hilaire specimens under his wife's gemological microscope. He is a member of a number of mineral clubs including the Canadian Micro Mineral Association, and during his stay in Washington he was president of the Micromineralogists of the National Capital Area. An informal group of micromounters from the Ottawa area meet at his home. As a lecturer he has addressed groups in both Canada and the United States, and was Chairman of the Neal Yedlin Memorial Micromount Symposium in Tucson in 1991 and 1992. In 1990 he was inducted into the Micromounters Hall of Fame.

Alone or with others he has had a number of articles published in mineralogical journals. Of particular interest to micromounters is "Mont Saint-Hilaire Revisited" (coauthored by Professor George Chao) in Rocks & Minerals, July/August, 1986, which updates the locality over the period of 1979-1986, and "Stereo Optics for Mineralogy" in the Mineralogical Record, September/October, 1986, which explains the principles of binocular microscopes and gives good advice on their selection and testing. His Complete Book of Micromounting was recently published and is the most comprehensive up-to-date book on the subject in North America.

Quintin's wife, Willow, is a professional gemologist in the Mineral Sciences Division of the Canadian Museum of Nature in Ottawa, and also edits the Canadian Gemmologist, the quarterly journal of the Canadian Gemmological Association. The Wights have two daughters, both working in scientific fields.

GEOLOGIC ENVIRONMENTS AT MONT SAINT-HILAIRE

A familiarity with the various rock types present at Mont St-Hilaire may provide a clue to what mineral you have, or where to look for a specific mineral. The following outline gives a brief description of the various host rocks and some of the minerals usually associated with them. This information is based largely on Horvath, L. and R. A. Gault, Mineralogical Record, July/August, 1990, and Mandarino, J. and V. Anderson (1989), Monteregian Treasures, Cambridge University Press, New York.

PEGMATITES. These resemble our New England pegmatites but have a different composition. Microcline and aegirine predominate with frequent analcime, serandite, eudialyte, astrophyllite, albite, polythionite, catapleite, leifite, and natrolite. Quartz is virtually absent, but sodium silicates and some rare element minerals may be present containing beryllium, zirconium, yttrium, thorium, or rare earths.

ALTERED PEGMATITES. These are essentially the same as the pegmatites described above, but have been altered primarily by hydrothermal action. In addition to the species noted, birnessite, elpidite, chlorites, and sulfides may be found.

MARBLE XENOLITHS. These are white to pale green recrystallized limestones or marble with much pectolite and fluorite. Typical minerals are molybdenite, vesuvianite, monteregianite, miserite, wollastonite, and carletonite.

SODALITE-SYENITE. This rock is pale grey to beige in contrast to the darker nepheline syenite, and may be locally pale to deep blue due to concentrations of sodalite. Sodium silicates are abundant, with some sulfides and carbonates. Sodalite crystals, cancrinite, nepheline, and aegirine may be found, as well as the much rarer dawsonite and sabinaitite.

NEPHELINE SYENITE. This is a dark grey rock typically containing miarolitic silicate cavities lined with analcime and natrolite, often with contrasting dark biotite and ilmenite crystals. Also in this rock are carbonate cavities, characterized by calcite, siderite, zircon, synchysite, and other rare earth minerals. The well-known "siderite hole" was a very large carbonate cavity.

HORNFELS. Much of the wall rock is hornfels, a dense fine-grained dark rock (grey, brown, or green). Minerals such as calcite, siderite, pyrite, and quartz (often smoky) may occur in veins or fractures. Narsarsukite, pyrite, or dravite may be embedded directly in hornfels.

IGNEOUS BRECCIA. This is a lighter rock (essentially albite) containing various-sized fragments of other rock types, broken up and surrounded by the parent rock. The best crystallized minerals such as leucosphenite and gmelinite may be found in cavities in the angular breccia. Breccia rounded by magmatic action contains few cavities or crystals.

SODALITE XENOLITHS. These are angular to rounded inclusions of white to colorless to pale violet coarse-grained sodalite in dense fine-grained dark grey to brownish-grey nepheline syenite, near dark grey to dark green hornfels. Typical minerals are villiamite, eudialyte, and pyroxenes.

THANKS....are due to many people for their help in making this meeting a success. It would be impossible to list everyone who contributed, so only those responsible for the various aspects are named here. Others will be credited in the Newsletter.

Vi Robinson - Registrar
Edna Lerer - Sales and door prizes
Steve Cares - Specimen giveaways
Marilyn Dodge - Donor of framed mineral photo for drawing
Pat Barker - Hospitality
Janet Cares - Souvenir Program production

All others who contributed time, specimens, food, or talent

