



THE WALKING QUESTION MARK

Newsletter of the Grand River Heritage Mines Society

Always Digging For Answers

Fall 2002

Volume 10, Issue # 3



IN THIS ISSUE

Bits and Pieces

From Your Editor

*Apologies

Reports on:

*Annual Meeting

*Springtime in Paris

*Golden Horseshoe

Steam Show

*Cobblestone Festival

Articles on:

*The Uses of Gypsum &
Plaster of Paris in
Building & Decoration,

by Jean Farquharson

*Gases in Deep Rock

By Ilse Kraemer

*Heritage Report

by Mike O'Byrne

Coming Events:

Field Trips

Sept 29-Cavan's Flats

Oct 20-Barker's Bush

Nov 17-Combined trip

Meetings

Nov. 19-Combined

Meeting With York Hist.

Soc. Speaker: Bruce Hill,

Navigation on the Grand

Nov. 30-Xmas Party-Ilse's

Bits and Pieces, by Jean Farquharson

Some of our members have been very busy this year with the display at the Lapidary show, the historical walking tour, and the displays at the Steam Show and the Cobblestone Festival.

I **apologize** to the members who were misled on page one of the last newsletter -- I gave the wrong date for our annual meeting. It was correct on a later page, but unfortunately, three of our members showed up at Pearts a day early for the annual meeting. Sorry! But I hear you were well received by the Pearts and had a good visit!

We also **apologize** for not having any field trips yet this year. Ilse Kraemer was very ill for quite some time this spring and was unable to lead any field trips, and, from now on, can go on only easy trips owing to a bad knee. It is someone else's turn to lead the trips. We thank Ilse for all the trips she has led over the years. We have decided to form a **Field Trip Committee** and are looking for volunteers. Cathy MacArthur has volunteered to lead a few trips this autumn, but they must be on a Sunday morning. Mike O'Byrne offered to assist. Anyone else?

Our **Historical Walking Tour** on June 1 and 2 was a great success! Paris Historical Society arranged for the County of Brant Council Chambers to be open, and had their members available to view their display. Their Pres. Bob Hasler invited us to set up a display there, sell tickets and begin our walking tour from the Council Chambers. I spent many hours researching and rewriting the old script, recruiting and training the guides, advertising, attending Springtime in Paris meetings, creating and booking the tickets, posters and brochures, arranging a discount meal with the Arlington Hotel which was where the tour ended. We made a profit of about \$150. Many thanks go to the Paris Historical Society for their support, particularly Bob and Pat Hasler. Marie Williamson, Werner Mueller, Bob Schroeder (who became a member of our society), and our members Diane Balz and myself led the tours. Howard Parkhill, Ilse Kraemer, Lou Knechtel, Cathy MacArthur and myself took turns selling tour tickets and scheduling people in. Thanks everybody!

The Cobblestone Festival is reported in the article that follows.

Field Trips: For more details, phone Cathy MacArthur, weekdays between 7 and 9 p.m. At 519-442-6707. Weekends anytime when you can get her. Wear sturdy walking gear.

Parking Lot. Fairly long 4 km. Round trip, but easy.

Oct. 20: Barker's Bush. Rain date Oct 27

Meet 10 a.m. at Victoria Park

Nov. 17: Tentative - Combined trip to Hamilton Place and W. River Road Mine. Rain or Shine, unless really bad ! Meet at 10 a.m. in parking lot of Medical Arts Building, 139 Grand River St. N., Paris. Short walks, steep banks.

Last year, Mike who is on the Brant LACAC Committee was assigned by us the task of arranging a request for a plaque about the first gypsum mine in Ontario at Paris. This is what he reported:

The County's Planning, Building and Economic Development Committee passed a resolution authorizing the LACAC to investigate options regarding a monument in conjunction with the Grand River Heritage Mines Society.

One suggested location for the monument was by the dam in Paris where the GRCA has its display.

THE WHITE CITY - A DEMO OF THE PERMANENT QUALITIES OF GYPSUM IN BUILDING

2

buildings were intended to be temporary, the Palace of Fine Arts remained standing for over 30 years. It was finally renovated and made into a permanent structure in time of the next Chicago World's Fair in 1933, when it reopened as the Museum of Science and Industry.

THE COBBLESTONE FESTIVAL

By Jean Farquharson

The Festival was held inside and on the grounds of a beautiful cobblestone house, Hamilton Place, just north of downtown Paris, built in 1844 by Norman Hamilton, an industrious Yankee who came to Paris about 1832. He made his fortune on many enterprises, among them, a mill that ground gypsum and grist, and a pork-packing business and a distillery. He fed the mash to the pigs - happy pigs!. He closed his businesses and retired early in life to enjoy his beautiful home and family.



NORMAN HAMILTON

Ron and Elizabeth ^{Hansen} ~~Hamson~~, the present owners of Hamilton Place, kindly decided to share their beautiful home with the public for a two weekends every summer (this is the third year), and with the help of The Friends of Paris Culture they hold the Cobblestone Festival. Among many activities, they bring in displays and crafts people to and musical groups to demonstrate their talents, and they perform a play. During the rest of the year, Chautauquas are held, when speakers and entertainers are brought in for the public to hear.

The Mines Society's display on *The Uses of Gypsum and Plaster of Paris in Building and Decoration* was set up in the main hallway. The spectacular ceiling medallion made from gypsum which encircles the chandelier in this hallway tied into our display. Samples of lath and plaster were on view in the display case prepared by the Mines Society, along with samples of gypsum lent by our members (Howard Parkhill, myself, and Ilse), and literature (from the sources previously mentioned) from the Gypsum, Lime and Alabastine Co. We displayed a

Today, it graces Jackson Park, a magnificent survivor of the original fair's architecture, and a showcase of the versatility and practicality of gypsum plasters." Taken from *United States Gypsum: a Company History, 1902-1994*.

booklet on the use of gypsum blocks in building, a booklet on Alabastine paint, a catalog for ordering stencils for decoration, some advertisements for Alabastine paint, an anniversary booklet from GLA, and photos taken by Allan Farquharson of various historic homes located in Paris with exteriors finished with gypsum stucco. Cathy MacArthur displayed the large can she found of powder paint made by the GLA Co. I prepared three panels which displayed on the wall a brief history of gypsum in Paris and described its uses in architecture and decoration.

In the beautiful double parlour of Hamilton Place was a display worth seeing of models of all the cobblestone buildings in Paris, prepared using grains of barley cut in half. What painstaking work! There was a tea room set up in the house with costumed maids serving scones and refreshing iced tea. The Orpheus male Choir and other singers entertained the audience from a stage set up adjacent to the verandah, and craftsmen displayed their talents outside. Various booths were set up by organizations. This is an event you should plan to attend next year.

I spent several hours this summer to find interesting but hard-to-find background details for the display at the Cobblestone Festival in August. Some information I found on the Internet, some in various books from Woodstock, St. George, and Paris public libraries, some in booklets in North York's Canadiana

Church's Alabastine

(MADE IN PARIS.)

is a perfect and everlasting WALL-COATING, made from a cement base, (Plaster of Paris) in twenty tints and white. One that HARDENS WITH AGE; is ready for use by mixing in COLD WATER, and may be re-coated whenever necessary to renew the wall surface.

ALABASTINE is a SANITARY WALL-COATING. It is porous, and permits the free passage of air. Kalsomine, under whatever name or claim, is only temporary—rubs off on everything that comes in contact with it. Wall-paper—with mouldy paste on the back, and arsenical poisoning matter in the finish and coloring on the face—is unsanitary. Besides, kalsomine, wall-paper and paint obstruct wall respiration. "Walls to be healthy must breathe." The walls of hospitals are never papered—the reason is obvious. Sanitarians endorse ALABASTINE. That fact alone is evidence of superiority.

ALABASTINE on the wall of any home will do more to enhance good looks in HOME SURROUNDINGS than anything else that can be used.

ALABASTINE is GOOD, looks rich, and is healthful. Wall-paper gives a room a stuffy smell and impregnates the air with disease germs.

Look for the little church on the label of every package. Alabastine is never sold in bulk. Hardware and Paint Dealers everywhere sell it.

Everybody should be interested. Anybody writing us can have free our booklet on Alabastine. Address.

The Alabastine Co., Limited, Paris, Ont.

Collection of documents and some in our own archives. After all the time spent on it, I decided to use some of it in this article for the newsletter. Here is a summary of the research:

THE USES OF GYPSUM AND PLASTER OF PARIS IN BUILDING AND DECORATION

GYPSUM AND ITS PROPERTIES

Because gypsum is a soft mineral which contains much water in crystalline form, it is useful in the building industry as a fire resistant material. When a building burns the drywall gives off water and thus retards a fire from spreading. The white rock in its purest form is used for plaster of Paris, but other less pure forms which may be pink, grey, blue or black are used for other purposes in building, such as stucco. Often the impure forms of the mineral are interspersed with grey layers of dolomite and shale.

ITS DISCOVERY AND USE IN PARIS AREA

Augustus Jones when surveying the Governor's Road discovered gypsum deposits in the Paris area in 1793 before there was any settlement. It was located where the bedrock was exposed in the valley along the banks at the forks of the Nith and Grand Rivers. The first gypsum mine in Ontario was opened up in Paris by the first settler, William Holme, in 1822.

In 1829, after purchasing Holme's holding of 1000 acres, including the plaster and water power rights, Hiram Capron, founded the village of Paris, and eventually decided to name it Paris after plaster of Paris, since gypsum was the resource that drew the first settlers and was

important in the early economy. Plaster of Paris received its name from Paris, France, where there were large deposits of gypsum.

In the Paris area, the main beds were located near Green Lane, between Hamilton Place and the railway bridge, at the Forks of the Nith and the Grand Rivers, and at the south end of Paris in the Mile Hill area.

There are many other local sites where it has been mined. The last mine in this area was closed about 1905.

Gypsum has many uses in daily life. When the first gypsum mine and grinding mill in Ontario were opened in Paris in 1822 and 1823 respectively, the gypsum chunks were ground up and used as land plaster which was a soil conditioner or a kind of fertilizer sown on their crops by the early settlers, and also in building their homes in the form of stucco and plaster. When raw gypsum is ground and heated in large kettles to take 3/4 of the water out (this process is called *calcining*), the product is plaster of Paris. It is ground to a powder, then reconstituted by adding water, and it again goes into crystallized form to be used as drywall, moulds, wall plaster, patching material, medical casts, dental moulds, etc.

USES OF GYPSUM IN DECORATION AND CONSTRUCTION

In the building industry, the main uses of gypsum over more recent years have been to produce drywall and as a set retarder for cement and a flux in smelting nickel ores. Construction materials produced over the years included other board products, various plasters, fireproofing materials, insulating materials, lath, blocks, acoustic tile, partition tile, joint filler, and paint filler.

One of our booklets has many photos of homes in Ontario using gypsum blocks in

constructing the walls.

STUCCO

Stucco is a term used to describe a type of exterior plaster applied as a two or three part coating over wood, logs, brick, rubblestone, fieldstone, lath and found on many historic and modern structures. Historically, at times it was used in the original construction, and sometimes it was used as a cover-up to improve the exterior when the owner's social status rose.

The composition of stucco depended on local custom and available materials. Can you believe it? Stucco often contained substantial amounts of mud or clay, marble or brick dust or even sawdust, and an array of additives ranging from animal blood or urine, to eggs, keratin or glue size (animal hooves and horns), varnish, wheat paste, sugar, salt, sodium silicate, alum, tallow, linseed oil, beeswax, and wine, beer, or rye whiskey. Waxes, fats and oils were included to introduce water repellant properties, sugary materials reduced the amount of water needed and slowed down the setting time, and alcohol acted as an air entrainer. All of these additives contributed to the strength and durability of stucco.

A few persons whose occupation was listed as *lime burner* in the 19th century Paris censuses, suggested that lime was used locally for lime cements and mortars. Hydraulic cement(stucco) had been patented in 1779 in England, but not produced in Canada until 1830. In Paris, gypsum was a popular material for stucco because it was available to the early settlers and it was a cheap construction material for their homes. The impure, grey form of gypsum found in the Paris area which contained a lot of limestone (dolostone) and shale, could be used for this purpose,

In an early brochure, Paris was described as "the prettiest town in Canada" with its many

white stucco cottages nestled in the hillsides. As a matter of fact, in the 1851 Census, when Paris had a population of approximately 1000 people, were listed 206 homes constructed of "lath and plaster". This census also listed twenty-five masons and plasterers who were kept employed in the building trade. Today, many of the workers' cottages still exist, but the stucco has been covered with modern siding. We observed several historic homes on our Historical Walking Tour in June. The original lath and plaster has been preserved on the exterior of several of them, including the Wolverton House and adjoining houses to the south, Hiram Capron's Homestead, a cottage at the corner of Washington and Queen Streets, and a cottage at the corner of Arnold and Grand River Street South, to name a few.

PLASTER WALLS AND DECORATION

Interior walls consisting of framing, lath and plaster were not used in Upper Canada until the late 1700's because hundreds of nails were required for lathing and they were scarce and expensive, for they had to be made by hand. Early lath, hand-split, and sometimes called *accordion lath*, was made from a single board, using a *mallet* and *froe*, so the single continuous piece of lath would *accordion* when pulled apart. The Mines Society has samples of these.

Plaster was applied in three coats: a *scratch* coat, a *straightening* coat, and a *finish* coat. When the scratch coat was troweled into the lath, the plaster oozed between the gaps in the lath. The *keys* of plaster formed on the other side of the lath actually held the plaster on the walls.

Plaster was often reinforced with

horsehair, straw, etc. The plasterers of the day had many skills which are now lost.

Where most of the pre-Victorian plaster work was done on site, with only relatively small pre-cast decorative elements, the development of fibrous plastering enabled the production of fine plaster mouldings to be industrialized.

Cornices and other mouldings could be cast in a plasterer's workshop and transported to the site for fixing. They were made in two beeswax moulds, pressed together until the plaster was dry. The moulds would then be pried apart and the medallion applied to the ceiling. Joints were concealed with daubs of plaster.

Although lime plaster was used as well as gypsum plaster in moulding plaster forms, gypsum was a more satisfactory medium because it would dry more quickly, become harder, and produce crisper details. Often lime and gypsum were combined. Much research is yet to be done on the methods and applications used in the past.

If gypsum is heated to higher temperatures, all the water can be driven off. Plasters like Sirapite, Keenes Cement and Parian Cement are made from *fully hydrated gypsum*. These plasters

set in a few hours and can be worked over to achieve a highly polished finish. They were very popular for use in public buildings because of their hardness and durability, and in homes to form skirtings and door surrounds.

Scrolling leaves, fruit, figures and heraldic devices in cast decoration allowed repetition. Plaster medallions and decorations such as those in Hamilton Place are still found in many other old Paris homes, and the styles have remained popular throughout the years. Today many companies advertise their products and craftsmanship, showing copies of the old patterns as well as modern creations.

PAINT

Paints were first used mainly for protection, but when basic pigments became available, coloured paints came into use for decoration during the last half of the 18th century, allowing a freedom of choice in decor.

Until late Victorian times, factory-made paints were not commonly available and the hand-mixed variety was the norm. Some oil paints were made, and whitewash was used on walls, made from a mixture of slaked lime, water and salt or glue. Other interior paints used between 1750 and 1800 were water-based. The pigments, calcimine and casein were the most common and were mixed with water and glue, milk or egg whites. Recipes are found for many of these early paints and whitewashes. A wide variety of colours was available.

Alabastine paint was a great improvement on calcimine. It was invented and patented by **Melvin B. Church**, who came to Paris from Grand Rapids, Michigan, and invested with local businessmen to form

the **Alabastine Co. of Paris** in 1886. The Company owned the mining rights in the area and the large gypsum mill on Willow Street. They imported pure white gypsum from Caledonia to use in their paint. Alabastine powder paint was made by the Alabastine Co. of Paris from 1886 well into the twentieth century. With a variety of tints, it was mixed with water and applied to the interior walls. It could be purchased in cans or boxes. It became popular across Canada and in Britain. People today still remember using Alabastine paint.

STENCILING

Wallpaper was often imported from England or France, and was unaffordable to many ordinary people or farmers. By 1862, the **Barber Mill** of Georgetown was advertised as the largest wallpaper factory in North America. Paint, however, was a cheaper alternative, and **stenciling** was popular in combination with paint to decorate the walls of homes.

Stenciler's colours were vibrant and intense, and were even used to decorate floors. Friezes were painted in various patterns just below the ceiling, with such motifs as bells, laurel leaves, hearts and flowers. The pineapple was used as the symbol of hospitality.

The Alabastine Company produced several editions of their booklet ***Homes Healthful and Beautiful*** in the early 1900's. In it the company expounded on the advantages of using Alabastine paint for health and decoration. The readers were given advice on how to prepare surfaces and select decorating colours and stencil applications.

A ***Stencil Catalogue*** was available from the company so that the users of Alabastine could order the stencils they wished to complete the decoration of every room in the house, or their offices, libraries, churches, or other public buildings. Special offers were made to the

customer to acquire stencil brushes and stencils by sending in proofs of purchase of Alabastine paint. Practical advice and hints were given to the customer to make the job easier, and free advice on selection of colours and stencils by the **Home Betterment Department**.

Each stencil was cut from a piece of heavy card, which was held on the wall and stippled with a stiff brush. Register marks were used to line up the motifs. One design might employ two or three colours, hence two or three separate paint applications. The art of using stencils has again become popular in the last few years.

ALABASTER

Alabaster is a form of gypsum that has been used since Egyptian times for carving beautiful vases or figures. Owing to the ease with which it is carved it became a popular statuary stone. Its gorgeous translucent qualities contribute to its beauty. Alabaster was used for grand tables and furniture during the age of stone. It is said that the legendary Round Table of Arthur was of *alabaster white and red coral*. Children's marbles were made of alabaster in a variety of colours, hence the name *ally*.

Inuit people also make carvings using alabaster. David Ruben Piqtoukan, Inuit artist said: "Italian alabaster is an apt metaphor for my cross-cultural conditions; a foreign material not found in the Arctic..... alabaster seems to have the transparency and inner light of the shamans and the spirits described in the old stories." Recently a deposit of gypsum in the form of alabaster was found in the Canadian Arctic. Eskimos who formerly had to import soapstone may now use alabaster as a medium in their carvings.

Alabaster was often used in religious art. Many cathedrals in Britain and Europe have alabaster carvings. Peruvian *huamanga* are a form of religious painting, three-dimensional reliefs, depicting saints, carved in alabaster and usually brightly painted. Over the centuries, master carvers would place their creations in churches, gardens, graveyards, windows and private devotional altars. If one holds up a thin sheet of *huamanga* to the light, the light will penetrate it. The art tends to glow around the edges with candles behind them. They seem to have a unique presence.

.....
RESEARCH OF MINE GASES,

Reported by Ilse Kraemer

A while ago, Mike O'Byrne (he who is always on the lookout for news) gave me a Globe & Mail newspaper clipping about mine gases. I found it extremely interesting and want to share it with you.

Toronto University researchers believe to have solved the problem and puzzle mines had for centuries. The question was: *Why and how could natural gas be buried so deep in the ancient rock of the Canadian Shield?* Up to now scientists thought that hydrocarbon gases - methane, propane - could only be produced by biological means in wetlands where bacteria break down vegetable matter, or from ancient buried forests, covered by sediments. It took eons for the wood to be digested by bacteria with the help of the earth's heat. Nobody thought that this process could occur deep in the Pre-

Cambrian rock of the Canadian Shield. Miners had noticed that natural gas escaped out of the new drilled holes. This could mean that gases could also be produced without vegetable matter or other life. All this was big news in the 1980's. It was proposed that a *biogenic* natural gas makes up most of our fuel reserves.

Some scientists even suggested that our gas reserves were endless. They credited its production to reactions between hydrogen and carbon, powered by the heat of the earth.

But now, many years later., English scientists debunked this pipe dream. Yes, a biogenic gas is produced in the Shield, but only in very small quantities. It is of no economic importance. It will never be our next source of fuel. By shining light on this mystery, scientists found out that the gas can be produced by a simple reaction between water and rock and the bacterial life trapped in the rock, up to four kilometres in depth. Bacteria at this depth can survive on methane gas alone.

The aim of the English research is now centred on how bacteria can digest these gases. Samples are collected at Kid Creek, a copper and silver mine in Ontario. Scientists say to understand these reactions would be like understanding the chemistry of life itself.

If all this proves to be true or not has to be seen. But I thought it very interesting since we have encountered concentrated gases in the vacant historic gypsum mines during our research.

This newsletter is edited by Jean Farquharson. We are not responsible for errors. We are looking for more information about the mining industry in Southern Ontario. Submissions are welcome. The deadline for the next newsletter is January 5th, 2003.
Please send correspondence to Jean Farquharson, RR # 3, Paris On N3L 3E3. Phone 519/442-2156 Fax 519/442-2373. E-mail: <allanf@golden.net>. For membership inquiries, contact Ilse Kraemer, 23 KingsHill Lane, Brantford ON N3T 6A3. Phone/Fax 519/756-6634.
