

# THE WALKING QUESTION MARK



## Newsletter of the Grand River Heritage Mines Society Always Digging For Answers



May June July August, 2003

Volume 11, Issue # 2

### IN THIS ISSUE

#### Coming Events

#### Our Book Launch

##### *Herons &*

##### *Cobblestones: A*

*History of Five Oaks and  
the Bethel Area of  
Brantford Township,  
County of Brant.*

#### **Special Limited**

#### **Time Offer to**

**Members - \$15**

#### Bits and Pieces

#### Articles on:

**Mount Healy:** Because we will tour the village in June, we have a background article with maps for you to read first.

#### **Excerpt from Our**

**Book:** Burrowes' Mine/Mill.

**Salt Mining:** Mary Cassar continues our investigation of salt and its history begun last month.

#### Annual Report

#### PLEASE NOTE

Several people have not yet renewed their membership. Keep your newsletter coming! Send renewals to Ilse Kraemer. Single - \$10 Family - \$15. Company - \$20

### COMING EVENTS: Mark your calendar!

**Annual Meeting: Saturday, April 26, 1:30 p.m. Edinburgh Square, Caledonia:** Guest speaker, Al Campbell, will tell us all about his experiences at Domtar. His wife, Sheila, founder of the gypsum museum and mobile display, will also be present. **Our new book *Herons and Cobblestones* will be available at a special price for paid-up members - \$15. Offer limited only until and including Annual Meeting. Inquiries - Phone Jean at 442-2156 .**

**May 10 Five Oaks Centre's 50<sup>th</sup> Anniversary:** Our book will be available for sale there at a display table, 11:30a.m. until 5 p.m. **Volunteers needed** to supervise the sales.

**Picnic/Tour of Mt. Healy, Saturday, June 21, 2 p.m.** Meet at the Parish Hall in York. Bring food to share at the picnic. Drinks will be provided. Wear comfortable walking shoes. This is a joint meeting of York Grand River H.S, GRHMS and Grand River Trails Association. We hope to tour the Dochstader Hotel. We may have time to look for the mine tunnels.

**Golden Horseshoe Steam Show:** Civic Holiday weekend, August 1-4. Come and celebrate Caledonia's 150<sup>th</sup> Anniversary. Our theme: ***Mines and Mills in Caledonia.*** We need volunteers! Let us know if you can help.

**Field Trips: Contact Person - Cathy MacArthur (519)-442-6707.**

**\*Sunday, April 27, 1 p.m. Barker's Bush, Part 2** (Tufa field & Industrial area). Meet at Victoria Park, Paris. Rain date - May 4.

**\*Saturday, June 14 -Tentative. Gypsum Mines/Cayuga Mine.** Contact Ilse Kraemer for details. 519-756-6634.

**\*Sunday, May 25, 10 a.m. Cavan's Flats,** below Torrance Mine. Meet at Rails to Trails Parking lot on Powerline Rd.(beside Wescast off Oak Park Rd.). Rain date - June 1, 10 a.m.

## Bits and Pieces, by Jean Farquharson, Ed.

We have lots to celebrate! This year is our 10<sup>th</sup> Anniversary! We are launching our book about the Five Oaks area this month, after hours of gruelling work - field trips, research, interviews, computer keyboarding and set-up. Buy copies for you and your friends! Thanks to all who contributed over the years, especially the committee working on it for the last few months! We also appreciate the contributions made over the years by interested donors, especially the Cochranes, Burlington Gem & Mineral Society and many of our faithful members. And Whiteman's Creek W.I. for producing such a thorough Tweedsmuir History for reference!

Ilse has some news to contribute: Wonderful news for nature and mining enthusiasts - Nelson Aggregates donated a large tract of Carolinian Forest to the G.R.C.A. It is located north of Highway 403, south of Powerline Rd., west of Oak Park Road, along the Grand River. There is a lot of very rare vegetation, two fens, a tufa area, and at least two old gypsum mines and old roadways.

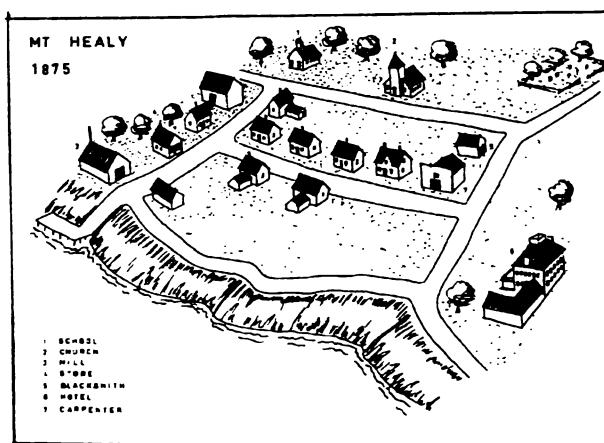
The Canadian Gypsum Company in Hagersville donated to the GRHMS an old mining car, to be set up in Paris as a monument with a plaque on it. This project was tentatively approved by the County when presented by LACAC last year. Mike O'Byrne wants to restore the cart. It will be a fitting reminder for Paris as the oldest gypsum mining town in Ontario. We are very excited.

Congratulations, Mike and Jean for receiving the 2002 certificate of Achievement for Heritage and Conservation from the Ontario Heritage Foundation. We are very proud of both of you.

## MOUNT HEALY, A MINE-MILL VILLAGE, by Jean Farquharson

The first half of this article is based mostly on *A History of Mount Healy*, published by the Mt. Healy Branch of the Women's Institute as their *Tweedsmuir History*, 1969. Institute Members researched many sources for their contributions.

One of the earliest gypsum mining areas in Haldimand County was in Oneida Township around Mt. Healy, now a ghost village. Named after his home village in Northumberland County, England, Mt. Healy was founded by John Donaldson (1795-1866) and his wife Margaret Hume Winram (1811-1895). It was situated on the west side of the Grand River about two miles south of York and six miles



Map Taken from Brown's Ghost Towns of Ontario

north of Cayuga. The village was built on a semi-circular hill, with a beautiful view of river flats, river and islands. Here the Grand River narrows to rapids around Young's Island, and Donaldson noticed the potential for water power. By 1850, Mt. Healy was, according to John Senn's *History of Oneida Township*, "a flourishing little hamlet doing a lot of business, with its sawmill, platemill, blacksmith shop, carriage shop, and hotel." It existed at its prime between 1845 and 1885. Directories indicate that the population of Mt. Healy in 1857 was 100; in 1869, it grew to 150; and by 1884, it had shrunk to 60.

John Donaldson's nephews, John, William and Andrew carried on the businesses of the mills, store and post office. A.W. Thompson, a stepson who married a niece, Mary Jane Donaldson, was also active in the business and became business manager of the estate upon John Donaldson's death. He also owned property that became the Excelsior Mine in the Gypsum Mines area south of Cayuga.

There were three mills - grist, plaster and saw - situated on the river bank. A road followed along the river to link to the Darling Road where a bridge crossed the river to Indiana. A stagecoach connected the various communities by 1870. There was a canal on the east side of the river, passing the rapids, and large boats or scows were towed by horses walking along the river bank on tow paths. There was a dam built about 1/4 mile upstream and two smaller ones at the mills, providing water power until the 1870's. In 1869, an annual water power rental fee of 72 pounds, 10 shillings was paid by the Donaldson Mills to the Grand River Navigation Company. When the dams were beyond repair, a steam engine was installed to operate the mills.

Farmers drove teams of oxen and horses drawing wagons and sleighs from surrounding farms to the village with grain to have ground into grist or flour. Workers hauled gypsum from the mines to the mill where it was ground into land plaster or further processed by calcining to produce plaster of Paris, stucco or lime cement. Local farmers would buy land plaster to use as fertilizer on leguminous crops such as peas and clover. Workers rolled logs into the river from its banks, and brought them into the sawmill on a track. The Donaldsons shipped much lumber and plaster out by boat from the mills to markets as far as Buffalo and Brantford. Two long sheds housed the teams which came to the mills. One shed, across the street from the store, had a storehouse in one end. Some mill hands boarded at the hotel, others at a small brick lodge on the hill behind the mills. A blacksmith, carpenter, and carriage maker were situated in the village.

The village thrived with all its businesses, and drew customers throughout the County of Haldimand and beyond. Two business cards in the Jarvis and Hagersville sections of the *1879 Atlas of Haldimand County* indicate the variety of products handled by Donaldson & Co. and the territories they covered.

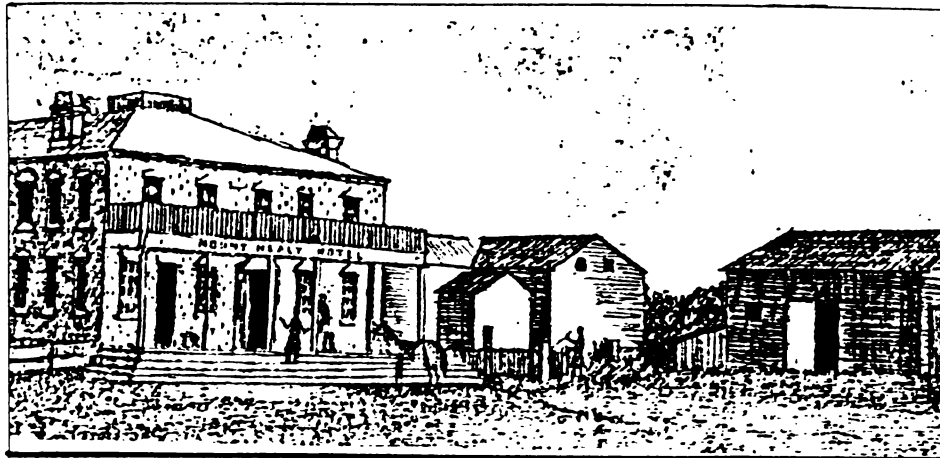
The store and post office were in one building, and stood at the bottom of the hill behind the plaster mill. The storekeeper's quarters were above the store. According to *Lovell's Directory of 1857*, mail came three times per week to Mt. Healy by stage coach. John Donaldson was listed as the postmaster in 1861, and A.W. Thompson in 1869. William Donaldson, Jr. was the mailman for many years. It was his duty to cross to the east side of the river just above the Mt. Healy dam in a rowboat to meet the stagecoach to receive and dispatch the mail. The coming of the railways brought delivery of the mail by train to York, called Seneca Station. The carrier brought it from York to Mt. Healy Post Office. Later, as other members of the Donaldson family took over the position, the post office was moved to their various homes. Mae Donaldson was sworn in as Postmistress at age twelve and held that position until the Mt. Healy Post Office was closed when rural mail delivery began in 1913.

Several homes were owned by the Donaldsons and Thompson. The Donaldsons were Baptist, and the church they built was attended by people of other denominations who lived in the village or area. The first Mrs. John Donaldson, affectionately known as “Granny Donaldson,” taught in both the Sunday school and the school, S.S. No. 3, Oneida.

The first school, built of logs in the 1850's, and situated on the east side of River Road, was later replaced by a brick school in 1875. It was used until 1937, and in 1951, was sold.

There was a drill hall situated north of the brick school, built about 1867, following the Fenian Raids, to serve the 37<sup>th</sup> Battalion Volunteer Militia.

Mr. Henry Dochstader built a large brick hotel at the bend of the road by the river. The building is solidly built with massive hand hewn timbers and bricks four deep. Henry later operated a Cayuga hotel. William Dochstader followed Henry in operating the hotel. John Dochstader was the local blacksmith. Some of the Dochstaders are buried in the local cemetery which is on the hill west of the village. Andrew Donaldson, son of William, lived in the Dochstader building with his family, Laura (Mrs. Jim Gibson, Caledonia), Gerald and Leslie. [We expect Laura to join us on the tour on June 21].



Dochstader Hotel, Mt. Healy, Taken from *Atlas of Haldimand County, 1862*

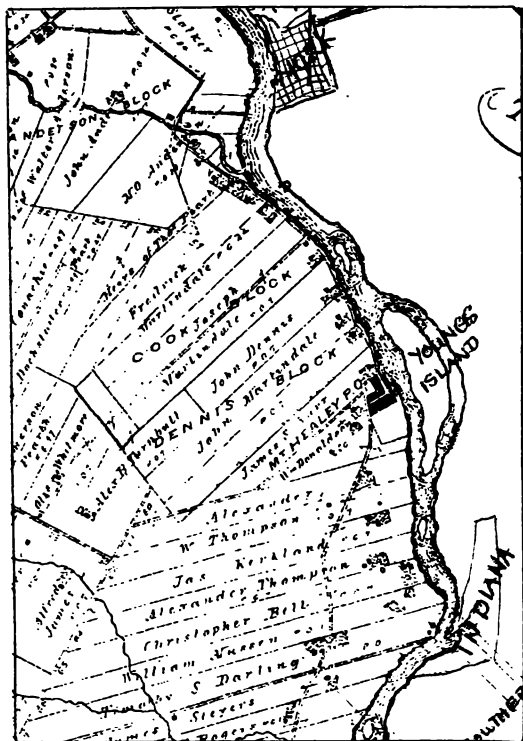
Built in 1854, it served as a hotel between 1855 and 1875. The Dochstader family was well known for its hotels scattered in Welland and Haldimand Counties. The hotel was designated as a Heritage site on Aug 18, 1988.

The railways came through in 1870, with the completion of the Great Western Loop Line and the Canada Southern Railway. As time passed, the mills at Mt. Healy declined because they couldn't compete with the more profitable mills along the railway. The Grand River Navigation Company could not compete with the railways nor reduce its large debt, and it went bankrupt and disappeared. The canal and dams eventually went into disrepair. Mt. Healy slowly faded away until there are only a few houses and the Dochstader Hotel left standing.

## THE GYPSUM MINES NEAR YORK AND MT. HEALY

According to John Senn's *History of Oneida*: "In different places there has been found a valuable commodity, viz. Gypsum or Plaster. This seems to have been reserved by the Government in their patents issued, but in 1839 a Duncan McFarlane obtained a patent for the Gypsum quarries which he afterward sold to different men who operated these quarries quite successfully."

According to the Mt. Healy Women's Institute *History of Mt. Healy*, some of the mines were located at a place named Plaster Beds, where the Jubilee Primitive Methodist Church was built, across from York. There may have been plaster beds in that location, but more well-known were the plaster mines located on the Cook property further south along the river. The mines were opened up about 1846. Many settlers in the areas were miners from Durham, Northumberland, Lancashire and Yorkshire, England. S. and M. Elliott were listed in directories as miners living in Mt. Healy. Waltons, Hodgsons, Pearts and Martindales were all mining families.



Excerpt from Map of Oneida Township in Historical Atlas of Haldimand & Norfolk Counties

Originally, the gypsum was extracted from small pits and quarried near the banks of the Grand River. This proved to be inadequate, so a decline was sunk and one level was mined at a vertical depth of 70 feet. Thomas Peart and Thomas Martindale, experienced miners who came in 1832 from mining families in Weardale, Durham County, England. They supervised the tunnelling of drifts into the hills to mine the plaster.

The Cook farm (now Alf and Eileen Peart's) had a mine, with the drifts at road level, and some of the tunnel openings may still be spotted along River Road. The Cook mine was one of the earliest in Haldimand County, located in the Cook Block, part of the Nelles Settlement of Oneida Township in the River Range.

Nicholas Cook came with his family as a U.E.L. from the Mohawk Valley to settle in the Niagara Region. In 1835, his son, William, petitioned the Crown for 339 ½ acres in Haldimand County. The mine was opened on his farm in the 1830's, and in 1838 William Cook opened and operated a grinding mill at York. He left the plaster bed and mill to his sons, John, James and William. Thomas Martindale and Thomas Peart may have run the mine for awhile. From 1870 to 1894 it

was operated by W. Donaldson and Co. and renamed the Mount Healy Mine. Barges hauled the gypsum to Mt. Healy; then the refined plaster was exported via the canal. In the Haldimand County Atlas, A.W. Thompson was listed as Secretary of the Ontario Plaster Company. Alex Taylor was listed in the 1861 census living in Oneida Township, with his plaster mill in Seneca Township. He had the mining rights to the Cook mine and lands, according to Registry office records.

According to the *Grand River Sachem*, May 30, 1860:

“The gypsum mines of York rank among the greatest natural curiosities of Canada and a visit will amply repay the intelligent tourist and geologist....Those belonging to Mr. Alex Taylor are the most extensive and produce an article unsurpassed in purity by any beds found in this part of the world. Messrs Martindale and Taylor are sending some splendid specimens of unground plaster to the “Great Exhibition in Montreal from their York mines. The York beds are decidedly the best ones there are to be found on this continent, and they must prove a mine of wealth to their fortunate owners, who are daily shipping vast quantities of the ground article.

From the *Grand River Sachem*, July 30, 1862:

“ John Donaldson also exhibited unground plaster in Montreal. Mr. Alexander Taylor of the plaster mines, York (whose productions took 3 prizes at the last Provincial Exhibition) has been awarded the prize medal for the Best Specimens of Crude and Prepared Gypsum at the great International Exhibition , now holding in England. This distinction is all the more valuable from the fact that not only had he to compete with the productions of other countries, but also with every plaster owner in the Province, specimens from each having been sent at the special request of Sir William Logan, of the Geological Survey of Canada. This stamps Mr. Taylor’s plaster as the best and purest in the world, and farmers and dealers will do well to bear this fact in mind in making their future purchases.”

About 1908, the Mt. Healy mine was re-opened by the Crown Gypsum Company, and worked until it closed in 1919. The company was renamed the Ontario Gypsum Company in 1917.

The Martindale farm, now owned by Herb Martindale, named *Plaster Hill Farm*, is where the Martindale mine was located. Small ponies or donkeys were used to pull carts loaded with plaster out of the mines on rails to the waterfront, where the gypsum was loaded on scows and towed down the river to the mills either at Mount Healy or to York where Thomas Martindale had a mill, as noted in the business directory of the Haldimand County Atlas: “Thomas Martindale, Proprietor York Plaster Beds and Mills.”

According to G.R. Guillet, in *Gypsum in Ontario*:

“The Martindale Mine was located ½ mile below York on the south side of the Grand River; the property included Lots 56 and 57 of the River Range, Oneida Township. The mine was opened by Martindale in 1846 and was worked almost continuously for 50 years. In 1908 it was re-opened by the Crown Gypsum Company. By amalgamation in 1917 with the Alabastine Company, the Crown Gypsum Company became the Ontario Gypsum Company, and the mine was worked under this name until it closed in 1919. In the early years, the gypsum was processed in a grinding and calcining plant at York, but after 1908 it was handled in a new plaster plant at Lythmore. The bed of white gypsum was reached by a tunnel from the river bank.”

A dinky train connected the mine on a narrow gauge railway track through the bush to the mill two concessions away at Lythmore.

Twenty men were employed in the mines. Several accidents occurred over the years: miners Parmenter and Emerson were killed by falling rock; Donaldson brothers were almost killed by gas which filled the mine; a second-hand acetylene gas machine exploded and injured some of the workers.

### MAJOR BURROWES' GYPSUM MINE AND MILL

This is an excerpt from our book *Herons and Cobblestones*, from the chapter on Mines and Mills in the Paris Area.

The story of the enterprising Major Burrowes is recorded in the chapter on early pioneers. Burrowes operated a gypsum mine and mill around Whiteman's Creek.



1858 Tremaine map shows the plaster mill at Whiteman's Creek

As reported in Whiteman's Creek Women's Institute *Tweedsmuir History* (page 184), Clarence Pottruff tells the following story: "I remember, on the Peart side of Whiteman's Creek, seeing a hole in the bank about halfway up the hill. Plaster had been taken out of there earlier and processed at the plaster mill. I just remember looking in this hole."

The Grand River Heritage Mines Society, on several field trips, located what appeared to be collapsed mine tunnels on the property.

Perhaps the flour and plaster mills were one and the same. Often the miller would change stones, using one to grind flour, one to grind grist and one to grind plaster. According to Clarence Pottruff, "The grist mill foundations of stone lay at the mouth of the creek on the south side. Flour had been made here too. The dam for the mill pond was just above the present Five Oaks swimming pool. A canal ran across from the creek to the mill to carry water for running the water wheel. This water then ran into the river." There was a footbridge near the dam.

## **GRAND RIVER HERITAGE MINES SOCIETY ANNUAL REPORT of 2002 For April 26 Meeting, 2003**

**Mission/Goals:** Our society locates, records, and preserves history and artifacts of the gypsum (and other minerals) mining and milling industry in the Grand River Watershed. We also gather information about the people, the plant and animal life and the geology associated with the mine sites. Part of our mandate is to publish and disseminate information, by providing field trips, walking tours, displays, public speaking, newsletters and other publications.

### **Activities in 2002**

- **Displays** at the Brant Lapidary Show in April and the Golden Horseshoe Steamshow and Cobblestone Festival in August.
- **Meetings:**
  - Joint Public Meeting with Paris Museum and Historical Society . Speaker - Jean Farquharson on the *Mines and Mills in the Paris Area*
  - Annual public meeting at Alf and Eileen Pearts' near York, at their historic Georgian home built by the Cook family.- Speaker -Eileen Peart. Topic: *A History of the House, and of the Cooks, Martindales and Pearts.*
  - Joint public meeting with York Grand River Historical Society in York. Guest Speaker: Bruce Hill. *Grand River Navigation Company.*
  - Annual Christmas Pot-luck in Brantford at Ilse Kraemer's. Joe Clark described his trip to Peru.
- **Field Trips:** Cathy MacArthur led trips to Barker's Bush, Cavan's flats, the Capron mine.  
Note: Before visiting mine sites, we review the research which we have done, gathering old maps and mine maps, historic photos, personal narratives, government reports, local history, etc., in order to locate the mine adits, air shafts, old buildings, etc.
- **Special Event:** A Historical Walking Tour of Paris was organized by Jean Farquharson at Springtime in Paris. Proceeds helped pay for our new banner and reprinting of brochures.
- **Newsletters and Publications:** We published three newsletters and continued to gather information for our Five Oaks publication. Republished our brochure.
- **Public Speaking:** Jean Farquharson spoke to a Grade 11 Geography class at Paris District High School and a class at Laurier (Brantford), about the development of the Town of Paris.
- **Media Coverage and Public Relations:** Springtime in Paris brochure - Historic Walking Tour  
Several members attended the Heritage Day at Cayuga, and Rae Tomlinson and Eileen Peart volunteered on the bus tour of Haldimand.  
Ilse Kraemer received Heritage Awards.

**Membership:** We had 38 paid up members last year including family members

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### **Events Planned For 2003:**

- Complete working with LACAC for a plaque re Paris Plaster mines
- Hold annual meeting in Caledonia and at least one other public meeting and several field trips
- Publish: three newsletters. Complete and publish booklet on the early history of the Five Oaks area for their 50<sup>th</sup> Anniversary Celebration on May 10<sup>th</sup>, 2003 and our 10<sup>th</sup> Anniversary.
- Apply for grants for publication of future book.
- Display at Golden Horseshoe Steam Show - August Holiday Weekend
- Hold Christmas Pot-Luck Meeting/Social



**Annual Financial Report for the Year 2002 (January 1, 2002 to December 31, 2002)**

Opening Balance for 2002		\$1900.62
<u>Income</u>		
Membership Fees - 2002 (\$335 - \$50 Prepaid)	\$350.00	
Donations		\$90.00
Walking Tour (\$243.90 gross - \$82.14 expenses)	<u>\$161.76</u>	
Total Income		\$601.76
<u>Expenses</u>		
Meetings	\$6.89	
Banner	\$50.00	
Newsletter	\$153.00	
Ontario Historical Society fees	\$20.00	
Brochure	\$138.00	
Photocopying (Farquharsons)	\$350.00	
Miscellaneous (Stationery, Bank charges, etc.)	<u>\$111.72</u>	
Total	\$829.61	
Closing Balance Dec. 31, 2002		\$1672.77
<u>Net Gain/(Loss)</u>	(\$199.10)	

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**A DASH OF SALT**, By Mary Cassar

Mary has recorded the highlights of an article on salt from National Geographic magazine.

Earth's oceans contain billions of tons of salt. Subterranean deposits - remnants of ancient seas - dot our planet. Crystalline salt deposits - the residue of long-vanished seas or pinched-off gulfs - are found on every continent. Even in Antarctica, scientists have found millions of tons of salt frozen on the floor of a dry valley. The oceans' four and a half million cubic miles of salt would bury the United States a mile deep.

By weight, you and I are 70 % fluid - the same percentage of the earth's surface covered by ocean. The sea within us had the same saltiness as the Precambrian seas of three billion years ago. We all spend our first months in a sac of saline solution; the fetus passes through an early stage with gill-like ridges and tail.

From cells in our brains and bones to customs that spice our language and history, salt influences our lives. Without salt, the body goes into convulsions, paralysis, and death. Put blood cells in a salt-free fluid and they burst.

A mere pinch, around five per cent of the world's salt production, ends up on our dinner table. The vast majority pours into chemical plants where it leads the five major raw materials utilized by industry: salt, sulfur, limestone, coal and petroleum. Salt, or its component elements of sodium and chlorine, go into modern commodities ranging from gargles to rocket fuels.

Ancient man's sole access to salt was brine bubbling up, surface deposits, bay salt at the seashore. Rising sea levels, ten feet in the first millennium B.C. and A.D., drowned coasts and solar salt pans, causing salt famines. When man the hunter first walked this earth, a salt supply was no problem. Raw meat supplied the salt he needed for survival. But fire's invention was a mixed blessing. Roasted meat keeps its salt; boiling leaches it out. When we began to farm, cereals didn't give us enough sodium chloride, and the great salt hunt began.

That quest ranged the world. Where it was scarce, salt was traded ounce for ounce with gold. Rome's major highway was Via Salaria (Salt Road.) Over it, soldiers conveyed the precious crystals up the Tiber from the salt pans of Ostia. Those "worth their salt" were paid a salary. That word comes from "salarium,

money paid soldiers to buy salt. Marco Polo reported the high value in Himalayan regions of salt coins bearing the seal of the great Khan of Cathay. Twentieth century Ethiopia used salt disks as money. Stacks of them are salted away in the Treasury.

Under the *ancien regime*, French people had to buy salt from royal depots. And the hated salt tax, *gabelle*, helped spark the French Revolution which killed the tax, and the king as well. Emperor Napoleon revived it 15 years later, but fortune sometimes plays bitter jokes. During the grim winter of Napoleon's retreat from Moscow, salt starvation decimated his troops, lowering resistance to disease, epidemics and wounds. Thousands died. Men have credited salt with qualities far beyond price. It betokens wit, wisdom, virility, hospitality, sanctity. In his painting, the "Last Supper," Leonardo da Vinci put an overturned saltcellar in front of the ill-fated Judas.

Our familiar table salt also comes in a lesser-known form, that of white gossamer threads, collected by the Hopi Indians in the Grand Canyon for their ceremonies. Worlds apart, Afor tribesmen pry salt from ancient seabeds in Ethiopia's brutally hot Danakil Depression. The salt slabs are then cut into uniform blocks. Carried by caravans to the Ethiopian highlands and beyond, the salt can command thirty times the desert price. Vigilance at stops helps prevent pilferage by the salt-hungry camels swinging their long necks around to lick their cargo!

And in southern Ethiopia a switchback trail zigzags down a crater wall into a volcano's caldera. Erosion washes salt down into the brine pool where Borana tribesmen gather it. They thrust twigs into the brine, then air-dry them to form seed crystals. They shake these back into the brine and larger crystals blossom. Salt-induced sores are a liability for these harvesters.

Back in North America, New York State lies on one end of the Eastern Salt Basin, a deposit extending through the Great Lakes region. Under the terms of an old land treaty, salt is delivered each year on June the 1<sup>st</sup> to the Onondaga Indians of New York State. And in Civil War days, the country's salt capital was Syracuse, New York. Salt was shipped on the Erie Canal, the "ditch that salt built," opening Ohio country. At Syracuse, salt from brine was stored in huge warehouses.

A quarter of Detroit, Michigan rests on pillars of salt. International Salt Company's mine, 1,100 feet underground extends roughly 4 ½ miles beneath southwest Detroit. Mining techniques are similar to those in automated coal mines. At the working face, an oversize chainsaw slashes through the salt deposit at the floor level. Higher up the wall, holes are drilled for explosives. After the blast, diesel loaders scoop up the shattered salt and transport it to the foot of the shaft where the salt chunks, graded by size, are sent to the surface by elevator. The white tunnels are 50 feet wide, 20 feet high, cool, airy and well lit.

At the same company's Avery Island, Louisiana mine an enormous gallery of rooms has been hewn within a salt dome. Such domes are vast upwellings in the Gulf of Mexico. Though easily soluble in water, salt's structural strength when dry allows for the safe excavation of large volumes.

San Francisco's bay shores sport multi-coloured ponds. Seawater (which contains about 1/4 pound of salt per gallon) is pumped from pond to pond, while sun and wind evaporate the water. At a certain point, calcium sulphate -gypsum - precipitates out. The brine then moves to a crystallizing pond. There a crust of almost pure salt forms on the bottom.[TO BE CONTINUED IN NEXT NEWSLETTER]

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This newsletter is edited by Jean Farquharson. We are not responsible for misinformation nor errors. We are looking for more information about the mining industry in Southern Ontario. Submissions are welcome. **The deadline for the next newsletter is August 15, 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.

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