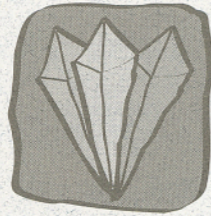


Of the roughly 60,000 minerals and gems in the collection, only a small sampling is on display here. Others may be seen at the Victoria Memorial Museum building which now houses the Canadian Museum of Nature, but which was the home of the Geological Survey from 1911-1959.

Displays of minerals, arranged according to their chemistry, begin near the ore cart that emerges from a typical small mine shaft. Adjacent to the ramp you will find displays of native elements, while along the windows are displays of sulphides, oxides and other important minerals. Continuing along under the windows you will learn about halides, carbonates, sulphates and other oxygen salts, and silicates. There is also a display showing some of the minerals named to honour Canadian geologists and mineralogists.



Within the Minerals Gallery there are several special exhibits backing on to the central aisle; two display cases near the ramp look at crystals. Moving toward the entrance of the Hall you will find thematic displays and minerals of the world.

The four tall window cases at the end of the Minerals Gallery contain examples of sedimentary, volcanic, plutonic and metamorphic rocks, and specimens of the minerals they contain.



Immediately in front of these window cases is an **Information Kiosk**, with maps of the geology of the Ottawa region, samples of some of the local rocks, and maps showing the many mines, quarries and oil and gas wells across the country. There are also examples of GSC's educational materials, which can be obtained at the **Bookstore** off the foyer.

Finally, in the central aisle of the hall, you will find a **Video Station** with four video selections and an **Interactive Geology Quiz**.

Geology all around you...

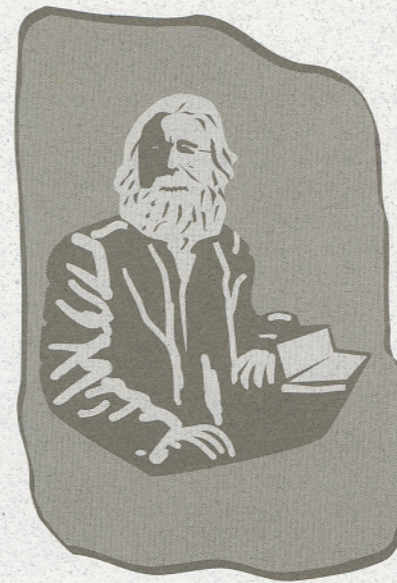
The GSC building is itself a geological exhibit. The green columns and baseboards in Logan Hall are a serpentine breccia called "Monte Verde", from Italy. Its walls and window sills and the walls in the foyer are a marble breccia also quarried in Italy, and the foyer floor is pink crystalline limestone from Tennessee. A cream-coloured marble from Italy is used as facing on elevator fronts throughout the building; window sills are of a buff Italian bioclastic limestone containing many bryozoan and milleporoid fossils; and baseboards are a black bioclastic limestone from Vermont.

At the front of the building, black alkali syenite quarried from Mount Megantic, Quebec, is used as facing stone near the entrance doors and on columns and planting boxes. The steps, door sills and facings to the entrance are granodiorite from Mont Sainte-Cecile in the Eastern Townships, Quebec. GSC's geochronologists have determined its age as 379 million years.



Jasper conglomerate, from the vicinity of Bruce Mines, Ontario, at the north end of Lake Huron, is used as an inscription stone to the right of the front steps, with a large boulder set nearby.

The outcrop in front of the building is made up of sedimentary rocks from the Ordovician Period, which are about 440 million years old. These limestones are called the Cobourg beds of the Ottawa Formation and Barneveld Stage. Take a close look, they are full of fossils.



Located at
601 Booth Street, Ottawa,
Ontario, Canada K1A 0E8

Logan Hall is open to visitors,
Monday to Friday
between 8:00 a.m. and 4:00 p.m.

For further information please contact
(613) 995-4261.



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Canada



WELCOME TO LOGAN HALL

Logan Hall is named for Sir William Edmond Logan, the founder in 1842 of the Geological Survey of Canada (GSC) and its first director. Many of the exhibits in Logan Hall draw on GSC's vast national collections of rocks, minerals, fossils, meteorites and ores. Interactive displays and videos will test your knowledge of geology and teach you how to pan for gold. The "Wall of Fame" will introduce you to some of the many men and women whose work with the Geological Survey has made a difference to the way we understand the world. Historical displays show how geology has been carried out in Canada from its earliest days.

Self-guided tour...

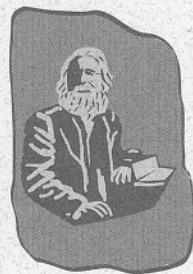
On the left as you enter Logan Hall is the **Fossils of Canada** display. The first three window cases contain fossils of bacteria, plants, and invertebrate and vertebrate animals. They vary in age from over 570 million years old (Precambrian Eon) to about 8,470 years old (the glacial Pleistocene Epoch).

A few of the specimens are replicas of the original fossils, cast in plaster, resin or, in one case, chocolate.

The fourth window case has fossils of historical interest. For example, the trilobite was collected by Logan during his first GSC field excursion to Percé, Québec, in 1843. On the shelf below is a specimen that was the centre of a heated debate over a century ago. The discovery of *Eozoon canadense*, or the so called "Dawn Animal of Canada", was announced by Logan in 1859 — the same year that Charles Darwin published his revolutionary theory of evolution that caused such controversy on the origins and antiquity of life. Found in Precambrian rocks (making

it more than 570 million years old), *Eozoon canadense* suggested to Logan and others that life on Earth began much earlier than was thought at the time. *Eozoon canadense* was later determined not to be a fossil, but similarly banded stromatolite fossils, an example of which is on the same shelf, are now known from Precambrian rocks as old as 3.4 billion years.

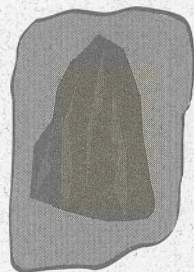
Against the east wall of Logan Hall, you will see **William Logan** himself sitting in front of his tent on a beach, in the Gaspésie region of Quebec, recording his day's work in a field notebook. The large wheel behind him is the odometer which he used to measure distances. The landscape in the background is based on one of his own sketches.



Next to the Logan diorama are portraits of Alfred Selwyn and George Dawson, the second and third directors of the GSC. Beneath the portraits are medals and honours received by the GSC in Selwyn's time as well as early photographs of Haida villages by George Dawson, and silver and gold specimens he collected in the Yukon just prior to the Klondike Gold Rush.

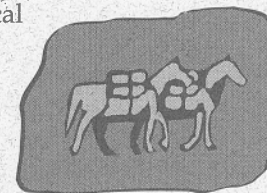
Did you know that Dawson, Yukon, is named in honour of George Dawson?

The large boulder on the floor in the centre of this section represents the Precambrian rocks of the Canadian Shield — the ancient roots of the North American continent and a vast storehouse of mineral wealth for Canada. This one-billion-year-old boulder is granitic gneiss, weighs about 1400 kilograms and comes from a gravel pit near Perkins, Quebec, north of Ottawa.



Did you know that Canada's oldest rocks, found near Yellowknife, Northwest Territories, are almost four billion years old?

To the right of the boulder you will find a display of historical **Modes of Transportation**. Most geological research requires direct observation in the field. Since 1842, GSC scientists have either adopted existing forms of transportation or developed new and innovative ways to gain access to the country's most remote corners. A wide variety of tools and instruments used by early surveyors, geologists and chemists are also in this section.



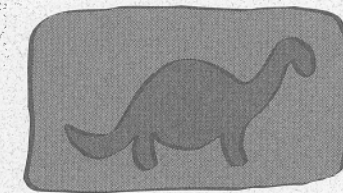
Continuing along the east wall you will meet the first two of our "Wall of Famers", Thomas Sterry Hunt, one of North America's most famous geochemists, and Elkanah Billings, GSC's first paleontologist.

Did you know that the green ink Sterry Hunt invented is still used in the U.S.A. for printing dollar bills?

Further on, the **Burgess Shale** display contains fossils of just a few of the many strange life forms found in the rocks near Field, British Columbia. These fossils of the Cambrian Period are over 500 million years old. The site is considered so unique that it is protected as a United Nations World Heritage Site. The display also includes drawings that show what the animals probably looked like. Research into these bizarre animals adds to our understanding of the history of life and the extinction of major animal groups.

Explorers and collectors from the GSC made important discoveries in the dinosaur beds of western Canada in the late 1800s and the early part of this century. Most of the dinosaur and other vertebrate bones they collected are now under the care of the Canadian Museum of

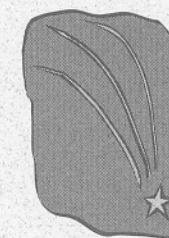
Nature, which was part of the GSC until 1947. The fossils of the **Dinosaur Hunters** display show some of the invertebrate and plant fossils collected during those early years, and some of the dinosaur and reptile bones and teeth collected more recently. The video shows a GSC expedition, led by Charles Sternberg in the 1920s, to collect fossils in Alberta's Badlands.



The last section along the east wall is GSC's **Wall of Fame**. It will introduce you to some of the heroes, past and present, of the Geological Survey. The diversity of their work will surprise you.

Quick Quiz:

*Who wrote a children's book on geology?
Who has 50 plant and animal species named after him?
Who was one of the first explorers of Labrador?*



Before you leave this side of Logan Hall, on your right you will see specimens from the **National Meteorite Collection**. Meteorites are rocks that fall to Earth from space, and they are made up of some of the same materials you will see later in the Minerals Gallery. GSC specialists are often

called upon to identify meteorites, and this display shows you some of the many common materials that are often mistaken for meteorites. There is also a special new display about a meteorite that landed on a car in Peekskill, New York, in 1992. Its spectacular fireball upon entry to the Earth's atmosphere was observed over much of the eastern United States. Also featured is the St-Robert meteorite which fell near Montreal, June 14, 1994.

The **Minerals Gallery** occupies most of the west side of Logan Hall. The minerals on display belong to the National Mineral Collection of Canada, which is jointly curated by the GSC and the Canadian Museum of Nature.