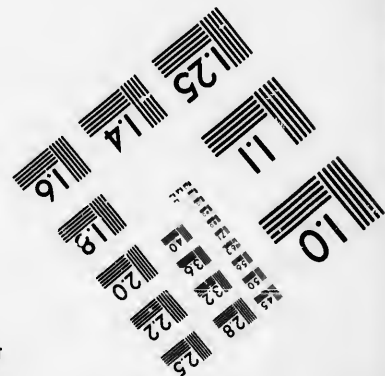
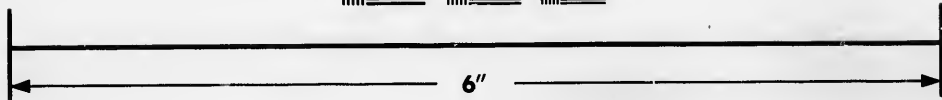
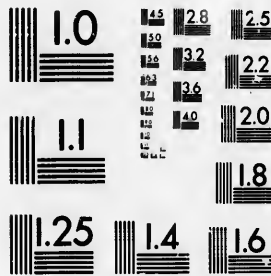


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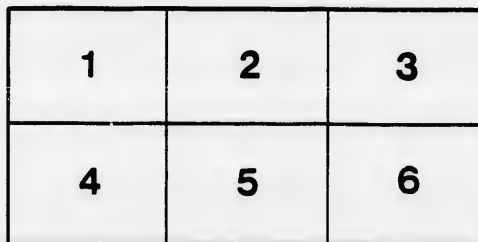
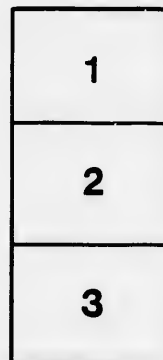
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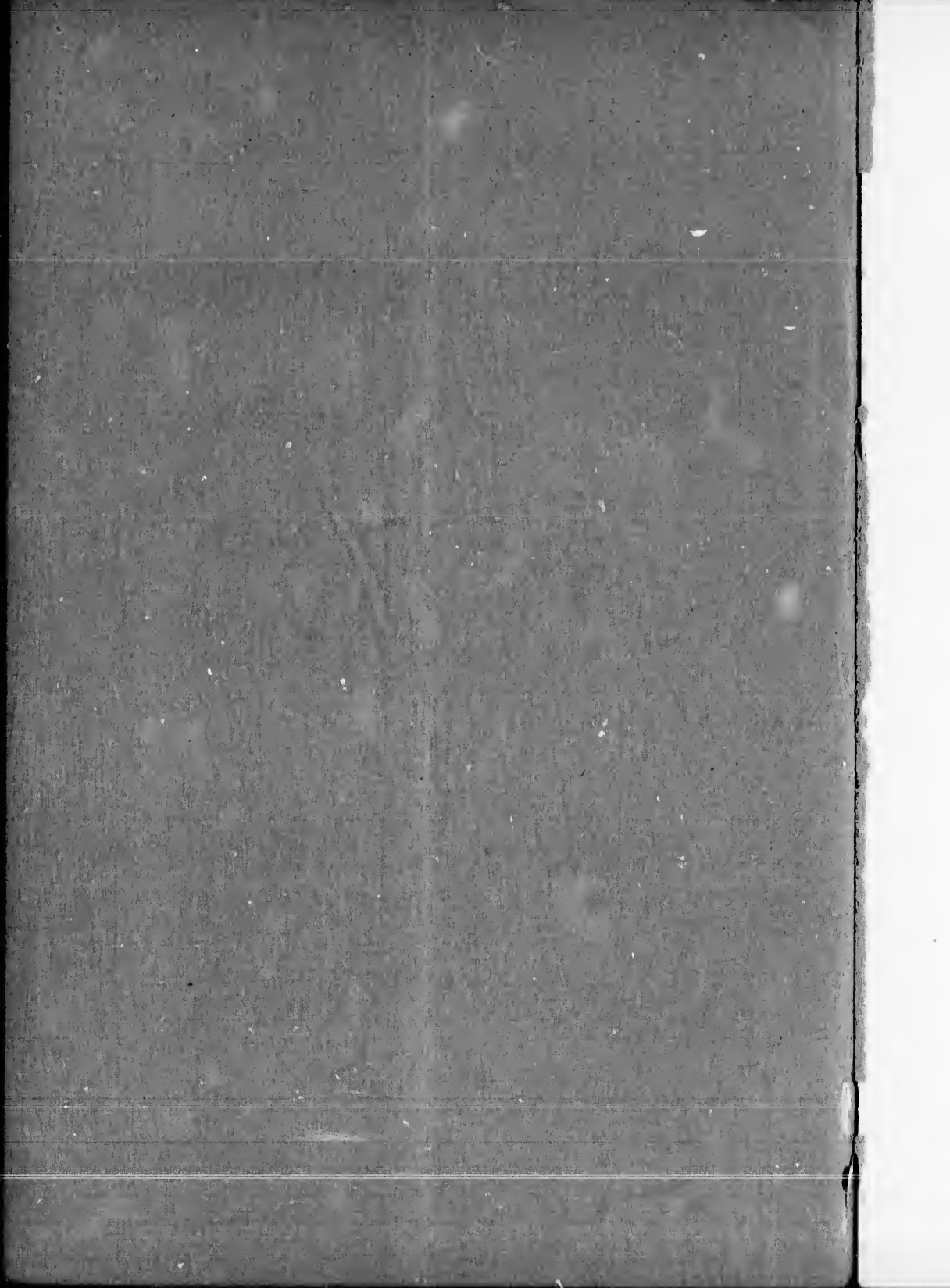
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GUIDE TO VISITORS.

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*C. E. Dionne*

GUIDE TO VISITORS  
TO THE  
PETER REDPATH MUSEUM.  
OF  
MCGILL UNIVERSITY.



THE PETER REDPATH MUSEUM, THE GIFT OF THE DONOR WHOSE NAME IT BEARS, WAS ANNOUNCED BY HIM AS A DONATION TO THE UNIVERSITY IN 1880, AND WAS FORMALLY OPENED TO THE PUBLIC, AUGUST, 1882.

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PRINTED FOR THE UNIVERSITY.

1885.



## INTRODUCTORY.

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The Plan of the PETER REDPATH MUSEUM, and the general arrangement of the Collections, may be stated as follows :

1. The Collections in *Botany* are contained in the room on the ground floor, at the right-hand side of the main passage from the entrance (see page 13).

2. Ascending the main staircase at the right-hand side of the entrance, the visitor first reaches a vestibule in which are *Archaeological Collections*, and large slabs of fossil footprints. Passing from this he enters the main floor of the great Museum Hall, on either side of which and along the centre are arranged the Collections of *Fossils*, which are placed primarily in the order of geological time, from the older to the newer formations, and subordinately to this in the order of Zoological or Botanical classification. This arrangement enables the visitor or student either to see the general order of succession of animal and vegetable forms in the geological history of the earth, or to trace any particular group of animals or plants through the several geological formations. At the extreme end of the Hall are placed the collections of *Minerals* and *Rocks*, arranged in regular series to facilitate their systematic study.

3. Ascending a second flight of steps, the visitor enters the gallery of the great Hall. Here the Collections in *Zoology* are placed, the Invertebrate animals in the table cases in regular series, beginning with the humbler forms, and the Vertebrate animals in the upright cases in similar order.

More detailed notices of the Collections will be found in the following pages.



# PETER REDPATH MUSEUM OF MCGILL UNIVERSITY.

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## GUIDE TO VISITORS.

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### MAIN FLOOR OF MUSEUM.

[This consists of the ante-chamber at the head of the first flight of stairs which is devoted to Archaeological and Palæontological specimens, and the principal Museum Hall, in which are the collections in Palæontology, Lithology and Mineralogy.]

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#### I. ARCHÆOLOGICAL AND MISCELLANEOUS COLLECTIONS IN THE ANTE-CHAMBER AT HEAD OF THE STAIR.

**Cases on left-hand side and opposite stairway.** These contain the following collections:—

Objects from the Queen Charlotte Islands and British Columbia—(loan collection of Dr. G. M. Dawson and Dr. R. Dawson)—including many interesting carvings and articles of domestic use and ornament of the West Coast Indians.

Collection of Antiquities from the site of Hochelaga, the predecessor of Montreal, visited by Cartier in his second voyage. (J. W. D.\*)

Stone Implements and other objects from pre-historic sites in Canada and elsewhere.

Collection of Skulls representing the principal races of men.

Objects collected by Rev. Hugh Robertson in the New Hebrides Islands.

Collections from Pre-historic caves in the Lebanon and stone implements from Egypt (J. W. D.) The oldest of these collections belong to Palæo-cosmic men, contemporary with the woolly Rhinoceros and other extinct animals whose bones and teeth are found among the debris of the repasts of this primitive people.

Collections to illustrate the various rocks and useful ornamental stones employed by the ancient Egyptians, and their modes of working these materials. (J. W. D.)

Miscellaneous Archæological specimens from England, the Canary Islands and elsewhere.

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\* In the following pages the collections of Sir Wm. Dawson, presented by him to the museum, will usually be indicated by these initials.

**Wall on right-hand side.** Casts of footprints of *Sauropus unguifer*, a large batrachian from the coal-formation of Nova Scotia, and of great interest as representing one of the oldest known reptilian animals:— Presented by the Geological Survey. *Orthoceras titan*, a gigantic shell allied to Nautilus, from the lower Silurian. Footprints of gigantic biped reptiles (*Brontozoum* &c.) from the Trias of Massachusetts. In this room are also some casts of Greek and Assyrian Antiques presented by the late Mr. Blackwell, and a cast of the famous Rosetta stone which gave the key to the interpretation of Egyptian hieroglyphics; also a large model illustrating the topography of Jerusalem.

## II. COLLECTIONS IN PALÆONTOLOGY ON THE LOWER FLOOR OF THE MAIN HALL.

WALL TO THE RIGHT OF DOOR IN PRINCIPAL HALL, AND SMALL TABLE CASE IN FRONT OF DOOR.

Fossil footprints from the Potsdam sandstone (*Protichnites* and *Climactichnites*.) The former are believed to be due to crustaceans allied to the King-crab, the latter are of doubtful origin. The original slabs containing them were presented by the Heirs of the late Sir W. E. Logan, and form part of the Logan Memorial Collection. They were collected by Mr. James Richardson. Other specimens are casts presented by the Geological Survey.

TABLE AND UPRIGHT CASES ON RIGHT-HAND SIDE OF HALL.

[These contain the fossils of the Eozoic and Palæozoic formations arranged in order of Geological age, from the Laurentian to the Permian inclusive. The names of the successive systems of formations are marked on the ends of the table cases.]

**First Table Case.** *Eozoic and Cambrian.* Contains *Eozoon Canadense*, the oldest known fossil, and fossils of the Huronian and older Cambrian on one side; on the other side, Cambrian fossils, including Trilobites, &c., from the Acadian group of New Brunswick, and *Scolithus*, *Lingule*, &c., from the Potsdam sandstone; also, Cambrian fossils from Massachusetts, Wales, Bohemia, &c. The wall case, adjoining this case, contains large specimens illustrating the same periods, such as slabs with *Eozoon* and a fine specimen of *Paradoxides Harlani* from Newfoundland, presented by Mr. S. McKay. The greater part of the specimens in these cases are from the collections of Sir W. E. Logan, Sir Wm. Dawson, Prof. Hartt and Mr. G. F. Matthew.

**Second Table Case.** *Siluro-Cambrian.* The fossils in this case extend from the Calciferous to the Hudson River group, and are of special interest as including the Quebec group of Sir W. E. Logan and the Chazy and Trenton limestones of the quarries near Montreal. The upright

cases facing this case contain additional fossils of the same formations. The Graptolites from Levis and the Lower St. Lawrence, collected by Mr. James Richardson and presented by the Heirs of Sir W. E. Logan, are especially noteworthy.

**Third Table Case.** *Silurian.* This contains the formations from the Medina sandstone to the Helderberg inclusive. It is specially rich in the fossils of the Niagara limestone; many of them presented by Lieut. Col. Grant of Hamilton. In the upright case are large and beautiful specimens of Clinton and Niagara fossils from the collections of Col. Grant and Dr. Spencer. On the opposite side are fossils from Anticosti, and collections from St. Helen's Island, (J. W. D.)

**Fourth Table Case.** *Erian or Devonian.* This includes the Oriskany and Corniferous formations. On one side of the table and the wall case facing it, is a series of the silicified Corals from the Corniferous limestone of Ontario, collected by Mr. DeCew, Mr. McQuat and Dr. Spencer. In one of the wall cases is also a collection of Lower Devonian Fishes, (J. W. D.) In this case and the opposite upright ones the fossil corals are specially deserving of notice; as are also the specimens of the earlier fishes.

**Fifth Table Case.** *Erian or Devonian.* This contains animal fossils of the Upper Erian; and, the upright case fronting it are large specimens of fossil plants (J. W. D.), representing the Lower, Middle and Upper Erian. There is a large series of Upper Erian Fishes in the opposite wall case, presented by Mr. Barnston, Sir Wm. Dawson and the Geological Survey. The specimens of *Pterichthys* from Seamenac are of especial interest. There are also among the fossil plants some fine slabs of the fossil fern *Archaeopteris Hibernicus* from Kiltoran in Ireland, presented by Mr. W. H. Baily, trunks of *Prototaxites* from Gaspé and Baie des Chaleurs, and a remarkable base of a tree-fern stem from Gilboa, N. Y., the gift of Prof. James Hall.

**Sixth Table Case.** *Carboniferous and Permian.* Here are, on one side, animals of the Carboniferous and Permian, including the oldest known batrachians, land-snails and millipedes, and fossil fishes and insects, and in the wall cases large specimens of Plants from the coal formation of Nova Scotia, and additional remains and footprints of batrachian reptiles and fishes. These specimens are principally from Sir Wm. Dawson's collections, as are those in the upright cases and on the stand in the middle of the room, which contains large specimens of fossil plants. There is also an interesting series of galvanoplastic casts of the batrachians of the Lower Permian of Bohemia, by Dr. A. Fritsch. In these cases the unique and interesting specimens illustrating the reptiles, insects, and land snails of the Carboniferous are deserving of special attention. There are also some good specimens of Carboniferous echinoderms, including the oldest types of sea urchins.

## WALL AT LEFT-HAND SIDE OF DOOR.

Returning to the front end of the room, we find here fine specimens of *Ichthyosaurus* and *Plesiosaurus*, from the Lias of Street, in Somersetshire, England, presented by Mr. T. J. Claxton, also casts of skeletons and footprints of other reptilian animals of the "Age of Reptiles." The cast of a paddle of *Pliosaurus* shows the great dimensions of some of the marine reptiles of this period.

## TABLE AND UPRIGHT CASES AT LEFT-HAND SIDE OF HALL.

[These contain the fossils of the Mesozoic and Tertiary Periods, arranged parallel to those of the older formations on the other side, and ascending from the Trias to the Modern. Many fine specimens recently added to these collections are the gift of J. H. R. Molson, Esq.]

**Seventh Table Case.** *Triassic and Liassic.* On one side are fossils of the Trias, or new red sandstone, including reptiles, fishes, shells, plants, &c., and on the other those of the Lias limestone and shale, rich in Ammonites and Belemnites, and other forms of molluscan life, and abounding in reptilian remains. Most of the fossils in this case are European, but there are some interesting specimens from the Trias of New Jersey and Prince Edward Island, and a collection of casts of remarkable reptiles from South Africa, presented by the British Museum. Also, a cast of the skull of one of the earliest known *Mammalia*. In the upright case fronting this are some large specimens illustrating reptiles and cephalopod mollusks of the Trias and Lias.

**Eighth Table Case.** *Jurassic.* This is the middle portion of the Reptilian age, and it is illustrated not only by remains of animals of that class, but by numerous mollusks, erinoids and corals. In the upright case facing it are some of the remarkable flying reptiles (Pterodactyles, &c.), also a good head of *Ichthyosaurus*, and a remarkable ganoid fish (*Dapedius*), with gigantic ammonites and erinoid. There is also a cast presented by the British Museum of the oldest known bird (*Archaeopteryx*). Most of the fossils in this case are foreign.

**Ninth Table Case.** *Cretaceous.* The Cretaceous system closes the age of reptiles, of which, however, some gigantic types, as *Mosasaurus*, still remain. It is marked by the earliest appearance of the ordinary bony and horny-scaled fishes, of which there is a fine collection from Mt. Lebanon and from England, and by the great chalk deposits, with many sea-urelins, sponges and foraminifera—the latter composing the greater part of the chalk. Here also are some of the earliest birds, illustrated by casts of the genus *Hesperornis* of Marsh. Among the fossils in the table case are specimens from the cretaceous of British Columbia, presented by the Geological Survey, and from Palestine and Egypt, (J. W. D.).

**Tenth Table Case.** *Eocene and Miocene.* This introduces the age of mammals, and these are represented by specimens and casts of parts of the

more important forms. There are also collections of the marine shells of the Paris Basin, of the French Faluns, and of the Eocene and Miocene of the United States. Skulls of two of the earliest apes (*Dryopithecus* and *Mesopithecus*) are represented by casts. There is also a large collection representing the Eocene of Egypt, (J. W. D.).

**Eleventh Table Case.** *Pliocene and Pleistocene.* The Pliocene age is represented principally by fossils from the sub-Appennine beds of Italy and the English crag. The former are interesting as having been those which first directed attention to the study of fossils in a scientific manner. The Pleistocene is represented by Canadian examples, this formation being extensively developed in this country. Among the specimens are fossil fishes of modern species from the nodules of Green's Creek on the Ottawa, and many species of mollusks, crustaceans, &c., nearly all of recent species, from Montreal, Rivière-du-Loup and elsewhere. The Pleistocene shells, &c., in this and the next case are principally from the collection of Sir Wm. Dawson, which is the most complete in Canada, and probably in America. In one of the upright cases are models of Mont Blanc and Vesuvius, illustrating glaciers and volcanic action.

**Twelfth Table Case.** *Pleistocene and Modern.* In this the Pleistocene shells &c., are continued, and there are also specimens of Post-glacial Mammals from Europe, America and Australia. In this case, and one of the upright cases, are also bones of the Moas of New Zealand, and of the Dodo of Mauritius, which became extinct in modern times. In the upright cases, facing this and the last case, are bones of a whale found in Pleistocene gravel on the Canada Pacific Railway, near Smith's Falls, Ontario, as well as casts and specimens of various extinct Pleistocene Mammals. In one of the upright cases is a cast of the skull found with remains of the Mammoth in the Cave of Engis in Belgium, and a human skull from Illinois, said to have been found in a bed containing bones of the *Mastodon*. In this case are also specimens of stones and rock surfaces, striated and polished by the ice action of the glacial period. There is also an interesting series from the celebrated prehistoric caves of Crosswell in England, presented by Prof. Boyd Dawkins.

#### LARGE CASTS IN THE MIDDLE OF THE FLOOR.

The most prominent of these are a cast of the skeleton of *Megatherium Cuvieri*, an extinct gigantic sloth from the Post-glacial beds of South America, and a head and tusks of the American *Mastodon*. These form part of the Logan Memorial Collection. There is also a cast of the head of *Dinotherium*, a gigantic elephantine animal of the Miocene period.

#### CASES OF FOSSIL PLANTS.

In the Table Cases on two sides of the main hall, outside the columns, are collections of Fossil Plants, running parallel with the animal fossils

from the Cambrian up to the Pleistocene inclusive. They are principally from the collections of Sir Wm. Dawson, and include the types of many of the species described by him. In these cases may be seen a very complete history of the vegetable kingdom. It begins with the huge lycopods, ferns, calamites, &c. of the Palæozoic age, which in the Carboniferous period are associated with the great deposits of coal. Following these are the cycads, conifers and ferns of the Mesozoic or reptilian age; and the first appearance of the ordinary broad-leaved trees and the palms is seen in the middle and later Cretaceous.

### III. MINERALOGICAL AND LITHOLOGICAL COLLECTIONS.

[The minerals and rocks are arranged in the semi-circular end of the Museum and in the table cases immediately in front. The basis of the Mineral Collection is that purchased from the late Dr. Holmes, but many additions have since been made. The arrangement of the specimens in the flat cases is essentially that given in Dana's Systematic Mineralogy, and the species in the upright cases correspond, as far as possible, with those in the table cases opposite.]

#### MINERALOGY.

**First Table Case on the right.** This contains native elements, sulphides, chlorides, fluorides, oxides, &c. There are several good specimens of native gold, one of which, from Baker's Mine, Oldham, illustrates well the mode of occurrence of gold in Nova Scotia. Native sulphur from Sicily, zinc-blende from Spain, tetrahedrite from Clausthal, and fluor-spar from a number of localities may also be mentioned.

In the adjoining Upright Case to the left is a large specimen of amethyst from Lake Superior, a fine group of quartz crystals from Hot Springs, Arkansas; bornite or horse-flesh ore from the Harvey Hill Mine, Q.; a large octahedron of magnetite from Ontario, crystals of pyrrhotite from Elizabethtown, Ont.; graphite from Buckingham, sulphur from Sicily, as well as a number of interesting specimens of fluor-spar, pyroxene, &c. There is also a cast of a large platinum nugget from the Urals, and one of the "Welcome Nugget," a huge mass of gold found by a party of twenty-four men at Bakery Hill, Ballarat, Victoria, 1858. The original was first sold in Ballarat for £10,500, and after being exhibited for some time in Melbourne, sold there for £9,325. Subsequently it was taken to London and melted in 1859.

**Second Table Case.** This contains a collection of the more important varieties of quartz, and a number of anhydrous silicates, including pyroxene, amphibole or hornblende, beryl, garnet, the micas, feldspars, &c. There are here interesting specimens of uralite from Templeton, Q.; of chromiferous garnet from Wakefield and Orford, Q.; and of blue scapolite from Montreal and the Rocky Mountains.

In the next Upright Case are two large crystals of scapolite from Renfrew Ont., presented by Mr. J. G. Millar, mica from Grenville, Templeton, &c., and chromiferous garnet from Orford. On the shelves facing the third table case are specimens of several varieties of serpentine, and a mitten made from the fibrous kind called chrysotile, though often wrongly termed asbestos. There is also a series of specimens of apatite, a large crystal of sphene or titanite from Renfrew, Ont.; black tourmaline from Templeton, Q.; and pectolite from Bergen Hill, New Jersey.

**Third Table Case.** This contains specimens of tourmaline, titanite, staurolite, and a few other anhydrous silicates, as well as a number of hydrous silicates, including talc, serpentine and the beautiful minerals known as zeolites. Of the latter there is a special collection presented by Sir William Dawson, and collected by him in Nova Scotia, where zeolites are found in great perfection. In this case are also specimens of apatite, or phosphate of lime, mostly presented by Mr. J. G. Millar, pyromorphite or phosphate of lead, &c., &c.

The next Upright Case is chiefly devoted to carbonates and sulphates, and to the different varieties of mineral coal. Worthy of notice here is a beautiful stalactite from the Cave of Matanzas in Cuba, presented by Mr. Peter Redpath, and the large specimens of nail-head spar (calcite) from the Mile-End quarries, Montreal. Among the coal are specimens of Cretaceous age from some of the mines of Vancouver Island, presented by the Geological Survey. A collection of Canadian marbles, the gift of Dr. Selwyn, is also placed in this case.

**Fourth Table Case.** This contains sulphates (barite, celestite, gypsum, anhydrite, &c.), carbonates (calcite, aragonite, dolomite, siderite, dawsonite, &c.), as well as coals and related substances. The mineral dawsonite, was originally found at Montreal, but was subsequently discovered in Tuscany. It is specially interesting on account of its unusual composition, being a hydrous carbonate of aluminium and sodium. A collection of phosphates from the Island of Mona (W. I.) presented by Mr. J. G. Millar, is temporarily arranged in this case.

#### ROCK STRUCTURES, &c.

In the Upright Cases at each end of the Mineral Collection, and adjoining the Palaeontological Collection, are specimens intended to illustrate peculiar rock structures, effects of weathering, &c., (J. W. D.). The case on the right contains good examples of shrinkage-cracks, ripple-marks, rill-marks, slickenside, &c., while that on the left holds numerous illustrations of concretionary structures, contorted strata, dykes, veins, &c.

#### LITHOLOGY.

The long Table Case immediately facing the mineral collections contains a small general collection of eruptive and aqueous rocks. The

primary grouping of the former is a mineralogical one, there being first a series of plagioclase rocks containing on the one hand augite (basalt, augite-andesite, diabase, &c.) and on the other hornblende or mica (hornblende andesite, diorite, &c.) and sub-divided into volcanic and plutonic. This is succeeded by rocks containing plagioclase feldspar and nepheline (tischenite, tephrite), and then by others in which the feldspar entirely gives place to nepheline (nephelinite and nepheline-basalt). The tischenites, nephelinites and nepheline-basalts are represented by specimens from Montreal, where these rocks occur and are believed to be not later in age than Silurian.

Next in order are the leucite rocks, and then follows the great series in which orthoclase is for the most part a predominant constituent, and which includes on the one hand the liparites, trachytes and phonolites (volcanic) and on the other the granites, quartz-porphyrines, syenites, nepheline-syenites, &c. The last named are well represented by specimens from Montreal and the vicinity.

The aqueous group is represented first by a series of crystalline schistose rocks (gneisses, mica-schists, hornblende-schists, talc-schists, &c.), which are succeeded by non-schistose crystalline rocks, including serpentine, crystalline limestone, crystalline dolomites, &c.; and then follows the group of non-crystalline aqueous rocks, comprising limestones, dolomites, clays, shales, sandstones, &c.

Among the principal donors to the above collections are Dr. Harrington, Mr. J. F. Torrance, B.A., Mr. J. H. R. Molson of Montreal, Professor Guiscardi of Naples, and Dr. Johnston Lavis of Naples.

**The second long Table Case**, parallel with that just described, contains at either end special collections of volcanic rocks from Vesuvius, Monte Somma, and elsewhere. In the space between these collections will be found an interesting suite of Laurentian and Huronian rocks from the line of the Canada Pacific Railway, between Chalk River and Bishkootasing Lake, and another from the branch line of the same road between Sudbury and Algoma. The rocks of the latter series are possibly Huronian, though in some respects resembling those of the Hastings series or Lower Taconic. Both collections were made and presented to the Museum by Dr. Girdwood and Dr. Ruttan.

Adjoining the above is a valuable collection of rocks from the Eastern Townships, presented to the Museum by Dr. Selwyn, and a series of miscellaneous rocks, mostly from New Hampshire.

**The small square Case on the right** contains a collection of miscellaneous Canadian rocks which formerly belonged to Sir William Logan; while the corresponding case on the left holds a series of Laurentian and Huronian rocks, collected by Mr. A. J. Hill, C.E., north of Lake Superior, and presented by him to the Museum.



HIGHEST OR GALLERY FLOOR, AT THE HEAD OF THE MAIN  
STAIRWAY.

[On this floor are arranged the Collections in Zoology. The Invertebrate or lower animals are in the table cases, numbered continuously around the room, beginning on the right-hand side. The Vertebrate animals, including Fishes, Reptiles, Birds and Mammals, are in the alternating upright cases.]

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IV. ZOOLOGICAL COLLECTIONS.

Immediately at the head of the stair on the left-hand side is a special collection of Canadian Mollusks (J. W. D.) mounted on glass by Mr. Currie. This is intended more especially to aid collectors in determining specimens found on the Canadian coast. Opposite these cases is a large glass case containing some of the larger mammals.

RIGHT-HAND SIDE OF GALLERY.

The Table Cases along this side contain the lower Invertebrates, and the Upright Cases the Fishes, Amphibians, and Reptiles.

TABLE CASES.

**First Table Case.** *Protozoa and Hydrozoa.* The Protozoa or lowest animals are represented by specimens and magnified models of foraminifera and of the sponges. In the latter group there is a good collection of the Canadian species (J. W. D.) and there are some interesting foreign forms as the Venus' flower basket (*Euplectella*) and the Glass-robe sponge (*Hyalonema*). On the opposite side are Hydrozoa or Polyps and sea jellies. Some of the latter are shown by glass models, and there are numerous examples of the skeletons of the Canadian Hydroid Polyps (J. W. D.), and some very large and fine species from California. At the end of this case is a magnificent specimen of *Millepora* which belongs to this group.

**Second Table Case.** *Aetinoids.* This contains the specimens of the Madrepores or reef-building corals, and glass models of their animals and of the allied Actiniae or sea-anemones.

**Third Table Case.** *Alcyonoids.* This contains the sea-fans and gorgonias, the tube-corals and the red coral of commerce, a very beautiful and interesting group of animal structures. At the end of this and the next tables are examples of the large sponge-like structure known as Neptune's Goblet.

**Fourth Table Case.** *Echinodermata*. Here are the sea-stars, sea-urchins and their allies. In the group of erinoids or stalked star-fishes there is a fine specimen of *Pentacrinus*, a modern representative of many curious fossil forms. There is also a very complete collection of the Canadian star-fishes (J. W. D.), and some large foreign species, and many very beautiful examples of the sea-urchins, and sea-slugs or holothurians.

UPRIGHT CASES ON RIGHT-HAND SIDE OF GALLERY.

These are occupied with the *Fishes*, *Batrachians*, *Reptiles*. Among the former is a collection of Canadian Fishes, presented by Dr. T. Sterry Hunt. There is also a very complete collection of the modern representatives of the ancient mailed and pavement-toothed fishes, as *Lepidosteus*, *Amia*, *Polypterus*, *Ceratodus*, *Lepidosiren*, and *Cestracion*. Among the reptiles are good skeletons of the turtle, alligator and snake, &c.

CASES AT CIRCULAR END OF GALLERY.

Eight table Cases and the intervening upright Cases are occupied with the *Carpenter Collection of Mollusca*, presented to the University by Dr. Philip P. Carpenter, and mounted on glass in the elegant and permanent method devised by himself. This collection is unrivalled on this continent, in its extent, arrangement and richness in varietal forms. Besides the general collection there is a special collection of Mazatlan shells.

TABLE CASES ON LEFT-HAND SIDE OF GALLERY.

Returning by the other side of the Gallery, the three table cases (Nos. 13, 14 and 15), are occupied with *Worms* and *Crustaceans*. These cases include a nearly complete collection of Canadian species (J. W. D.), and a large number of rare and beautiful examples of foreign forms. The last table case contains a portion of the collections of insects; but the greater part of this is preserved in glazed cases in the drawers below.

UPRIGHT CASES ON LEFT-HAND SIDE OF GALLERY.

Of these four are occupied with the collection of *Birds*, representing most of the Canadian species. The greater part of these specimens belong to the *McCulloch Collection*, formed by the late Dr. McCulloch of Montreal and presented to the University by his heirs.

Two upright Cases and two small wall Cases are occupied with the collection of *Mammals*, which as yet is small, though it is rich in skeletons and skulls of Canadian species, and contains some good examples of edentates, marsupials and monotremes, as representatives of fossil forms. Among the former, the skeleton of the three-toed sloth is a miniature of that of the great *Megatherium* in the hall below, and the kangaroo rat is a near relative of some of the most ancient mammals known. Speci-

mens of the western black-tailed deer, Rocky Mountain sheep and prong-horned antelope, presented by Dr. G. M. Dawson, are in one of these cases, and a large Canadian Lion or Puma, from the collection of Dr. McCulloch. There is also a skull of the small Greenland finner whale (*Balaenoptera rostrata*) the gift of Mr. P. Redpath, showing the baleen or whalebone in place. In the wall cases are skulls and a skeleton illustrating the higher apes, and several aboriginal American skulls.

### ROOMS ON GROUND FLOOR.

#### V. BOTANICAL COLLECTIONS.

The room at the right-hand side of the Main Hall entrance, contains the Botanical Collections. This includes the Holmes' Herbarium, of several hundred species of Canadian plants, presented by the late Dr. Holmes; the Macoun Herbarium, embracing a very large representation of the Canadian flora, collected by Prof. Macoun and presented by the Geological Survey of Canada; and a general herbarium of about four thousand specimens from various parts of the world. In the wall cases will be found an important collection of Canadian and Gulf States woods, which have been arranged with special reference to important economic details, such as specific gravity, ash percentage, relative fuel value, &c., all of which information is to be derived from the labels.

Other objects of special interest will be found as follows :

##### LEFT-HAND WALL CASES.

Collection of Brazillian woods.

Guarana, prepared from the seeds of *Paullinia sorbilis* and used for the preparation of a nutritious beverage by the Amazonians.

A collection of Teas.

The pith of *Fatsia papyrifera* from which the so-called Chinese rice paper is made.

A very interesting figure blazed on a beech tree more than 160 years ago, as shown by the rings of growth found outside the injury.

##### RIGHT-HAND WALL CASES.

Natural grafts in beech roots.

Cloth and paper from the bark of the paper mulberry, (*Broussonetia papyrifera*.)

##### CENTRE OF ROOM.

Trunk of Royal Palm of Cuba (*Oreodoxa regia*.)

Specimens of diseased trees.

There will also be found a considerable number of other specimens illustrating the various forms of plant growth and their products.

## REGULATIONS FOR ADMISSION.

*[Passed by the Museum Committee and approved by the Corporation of the University, October, 1882.]*

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I. The Museum shall be open every lawful day from nine to five, unless when closed for special purposes by order of the Principle or Committee.

II. The Principle shall have power to issue Sessional Tickets to Students.

III. The Secretary shall issue Family Tickets of Admission to Governors, Fellows and Professors and Lecturers of the University, and also to the Clergymen of the City, to Graduates and to Teachers of Public Schools, on their application for the same, such Tickets to be for one year from date.

IV. Family Tickets for Admission for one year may be issued by the Secretary for \$2.00, and a single Ticket for \$1.00. Classes from Educational Institutions may be admitted by the Principle or by the Honorary Curators, Dr. Harrington and Prof. Penhallow, on such terms as may seem reasonable.

V. Incidental visitors, except when introduced by members of the University, shall pay an admission fee of 25 cents.

VI. All rights under the above rules shall be forfeited by any persons injuring the building or collections in any way.

VII. The hours of lectures for Students in the class rooms of the Museum, shall be those fixed by the Faculties of Arts and Applied Science.

