

h we are all
nded woody
and here and
f crystalline
fication, ex-
sures. This
supposed to
by appear-
if not tho
Johns and
one of the
f Laprairie,
Its frag-
end twenty
untry, in a
nce, in Up-
ck of Mon-
one or two
undisturbed,
sition. But
m a centre,
ably straight
veins of the
o Lachine a
ain unite in-
eet with ob-
, and again
me to three
w and then
a have been
ss, escaping
sheets be-
remarked,
e explained,
that at the
ted, and of
generally al-
n; to which
ss and mica
treme cases,
ary with that
la Grande,
These ap-
rope.

ular trap, of
crystals of
one adheres
them some of
ect with the
dded in the
with credit

"The rock of the hill varies in its mineralogical characters. It is usually highly crystalline, and is almost altogether hornblende: but augite is also often present in great quantity, and is distinguished by the dihedral terminations of its crystals. In some places it becomes slaty, and then is largely intermixed with white granular quartz. Much of it resembles the dykes of the plain. The minerals characteristic of a trappose or volcanic origin are imbedded plentifully. They are olivine, augite, zeolite, chabasite, basaltic hornblende, rhombic tables of feldspar. The limestone of the hill is bluish black, of dull lustre, compact, and of a conchoidal fracture. That of the race-course is similar; but in the quarries adjacent, it is rendered crystalline and hair brown by vast quantities of organic remains. It is there covered by four or five feet of calcareous shale. All these limestones, and those also about Lachine are of the same age, from being in juxta position, and containing the same fossil and mineral substances. The fossils are highly interesting. One superb specimen of the encrinis moniliformis has been found in the quarry nearest the race-course.—It is of the same size as that represented for its beauty in the frontispiece to Parkinson's large work.—Two other species occur there, the pear and staghorn. The remarkable many chambered shell, named orthocera, is frequent there as large as the celebrated ones of Lake Huron. There are also numerous and rare forms of the trilobite, named by Linnæus "*Entomolitus paradoxicus*"—the very scarce conulariæ quadrisulcatæ. Trochi, encrinital columns, turbos, turbinoliæ, corallines, terebratulæ, productæ, madreporæ, retæporæ, &c. are innumerable. The principal mineral substances are blende, an ore of antimony, iron and copper pyrites, purple fluor spar, and some exquisite crystals of the carbonate of lime. Even in so slight a sketch as the present it must not be omitted, that the Montreal hill, at some remote period has been an island in a vast collection of fresh water, whose limits we cannot now describe. This is indicated by the great embankment surrounding its base, but in much the best preservation on its southern and western sides. It is composed of fine clay, flinty and calcareous sand, primitive bowlders and rounded masses of the black limestone of the district, which it is worthy of remark, scale off in concentric layers, like the coats of an onion; no such natural divisions being apparent in the sound rock. Among these materials of a deserted beach, fresh water shells belonging to the genus saxicava have been found. The canal, also, in the flat below (often covered to a great depth by rolled stones,) has penetrated a white flaky marl, which is full of fresh water shells identical with those of the Canadian lakes of the present date. They are anadonta, uniones, Physæ heterastrophæ, Planorbis, Helices, Cyclades, Malaniæ, Virginica, &c. &c. The horns and bones of wild animals have been found there.—Similar deposits occur on the north side of the hill.

"The streams which enter the St. Lawrence, on its north shore, near Quebec, are highly instructive; and afford a rich harvest to the collector of organic remains. We refer to the rivers Montmorenci, Beauport, St. Charles and Jacques Cartier. Their geological History may be understood from a slight sketch of the first named river. The Montmorenci falls into the St. Lawrence over a bed of sandy red gneiss, (a slaty kind of granite abounding about Quebec,) whose strata run south-west and