

schists, quartzites, limestones, etc., which have been referred to the Laurentian system. The quartzites and limestones occupy basins in the gneiss and constitute an upper series. Three basins are known, two within the city limits and one to the northward of them, in Kennebecasis Bay. There are three principal sets of strata in these basins, viz.: Near the base schistose beds with limestones; in the middle quartzites and silicious slates; and towards the summit limestones with silicious and graphitic slates. This is the general succession, but further study is required to determine the parallelism of the several members in the different basins. The whole of these Laurentian rocks are separated from the Cambrian by a great mass of intermediate rocks usually denominated Huronian.

We thus have below the Cambrian rocks the following descending succession:

ARCHÆAN.	EOZOIC.	Thickness.	
		COASTAL SERIES (OR SYSTEM), 1872. — Grits, hydromicaschists, argillites, etc.; resembling the Peibidian rocks of Dr. H. Hicks.	10,000 feet.
		COLDBROOK SERIES (OR SYSTEM), 1865 — Diorites, felsites, petrosilex, etc.; resembling the Arvonian rocks of Dr. Hicks.	15,000 " *
		UPPER SERIES (OR SYSTEM) OF LAURENTIAN, 1872.	
		UPPER DIVISION. Argillites, limestones, graphitic shales. <i>Fossils</i> . In upper part of the upper limestones of the South basin, fragmental <i>Eozoon</i> , observed by Sir J.W. Dawson in specimens sent him. In middle of upper limestones in Middle basin, spicules of sponges. In graphitic shale of South basin spicules of <i>Halichondrites graphitiferus</i> . In lowest limestone of the Middle basin, the reef of columnar fossils described in the preceding article (Article I.).	740 "
		MIDDLE DIVISION. Quartzites, siliceous schists, <i>Fossils</i> <i>Cyathospongia</i> (?) <i>eozoica</i> near the top of this division.	450 "
		LOWER DIVISION. Limestones and gneisses. No Fossils known.	200 " †
		LOWER SERIES OF LAURENTIAN. Gneisses, Micaschists, etc.	?

\*The above thicknesses are on the authority of Dr. L. W. Bailey. Report Progress Geological Survey Canada, 1879. pp. 10, D. D. and 21, D. D. Dr. R. W. Ellis in the same Report, p. 6, D., describes these rocks, sixty miles east of St. John, as one system, with a thickness of 14,000 feet.

†Fuller descriptions of these rocks may be found in Rep. Prog. Geol. Surv. of Canada, 1872. pp. 30, 34, etc.