ECONOMIC GEOLOGY

Salt

The Upper Silurian beds (Camillus formation) south of their outcrop to the north contain numerous beds of rock salt. At Portland Point, on the crest of the anticline, the salt is reached at depth of about 1800 feet by two shafts and is mined. A short distance to the north at Myers Point, the salt is procured in the form of brine from wells. The location of the salt works is determined partly by the uplift due to the anticline (less distance down to the salt) and partly due to immediate proximity of a railroad.

Gypsum

Gypsum occurs in considerable quantity in the upper part of the Camillus formation and in the Forge Hollow member of the Bertie formation, at the north end of the Cayuga Lake basin. It was formerly quarried extensively in the 19th century and exported by barge, largely to be used as "land plaster".

Limestone

At Portland Point, on the crest of the anticline, the Tully limestone has been quarried for many years for the manufacture of cement at a large plant located on the lake shore, to which the rock was transported from the quarry above by aerial cableway. The plant has been closed since June, 1948. Quarries scattered along the outcrop of the Tully provide small amounts of locally used road metal.

The Onondaga limestone was formerly extensively quarried for building stone and lime along its outcrop in the northern part of the area, but today only a few quarries are still worked for road metal. Outside the area, to the east and to the west, the Onondaga is a very important source of lime.

Building Stone

Since early days, the sandstone layers in the Ithaca and Enfield formations of the Upper Devonian have provided flagstone and building stone. A large quarry (now covered over, alas) about 150 yards down the slope to the northwest of McGraw Hall, and others nearby, provided the stone, except for the trim (which is Onondaga limestone from the Union Springs region 40 miles down the lake), for the first three Cornell Buildings: Morrill, McGraw and White. In the course of working these quarries, many fossils were obtained, some of them new species described by James Hall, H. S. Williams, and others.

At present the only operative quarries are in the Enfield formation in the Cascadilla Creek valley (Ellis Hollow) about 3 miles east of the

campus. One is owned by the university and provided the stone for Willard Straight Hall, Barton Hall, and Balch Hall.

Natural Gas

Natural gas springs, detected by gas bubbling up through joint planes in the beds of creeks, are not uncommon in this region. The gas comes from the black shales of the Marcellus, and has been used locally for small domestic supply.

In the latter part of the last century, enough gas was supplied by shallow wells in the Lower Silurian Medina sandstones to provide most of the village of Seneca Falls for about 20 years.

The Portland Point anticline has been tested several times to the Oriskany sandstone but little more than a show of gas has been found. But on the next anticline to the south of Ithaca, several wells drilled to the Oriskany in the vicinity of Danby produced marketable quantities (2,000,000-5,000,000 cu. ft. per day). However, by the time a pipe-line was laid, the pool was virtually exhausted. Test drilling continues hopefully and sporadically in this region.

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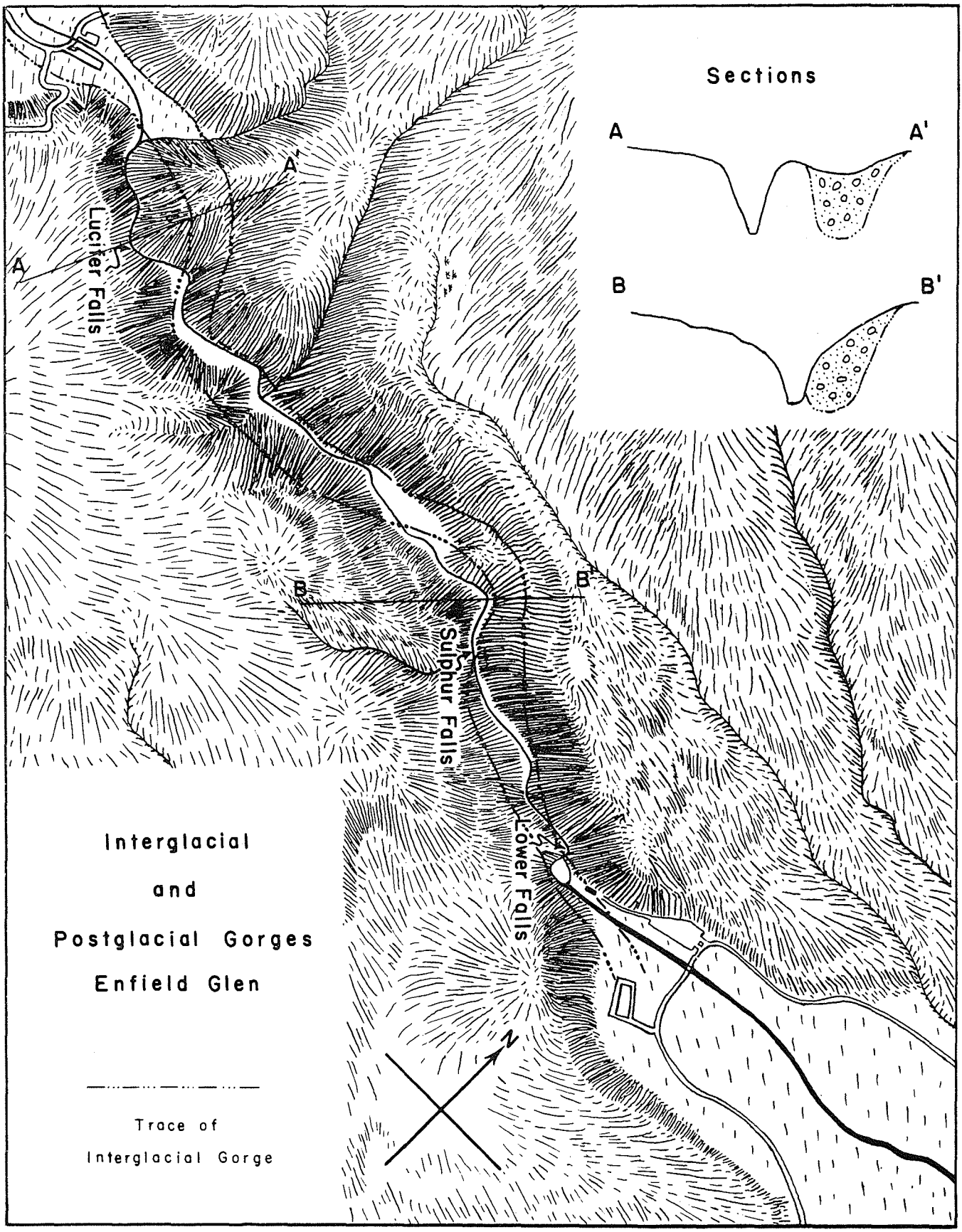
Sections
A
A'
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Lucifer Falls
Sulphur Falls
Lower Falls
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Interglacial
and
Postglacial Gorges
Enfield Glen
Trace of
Interglacial Gorge