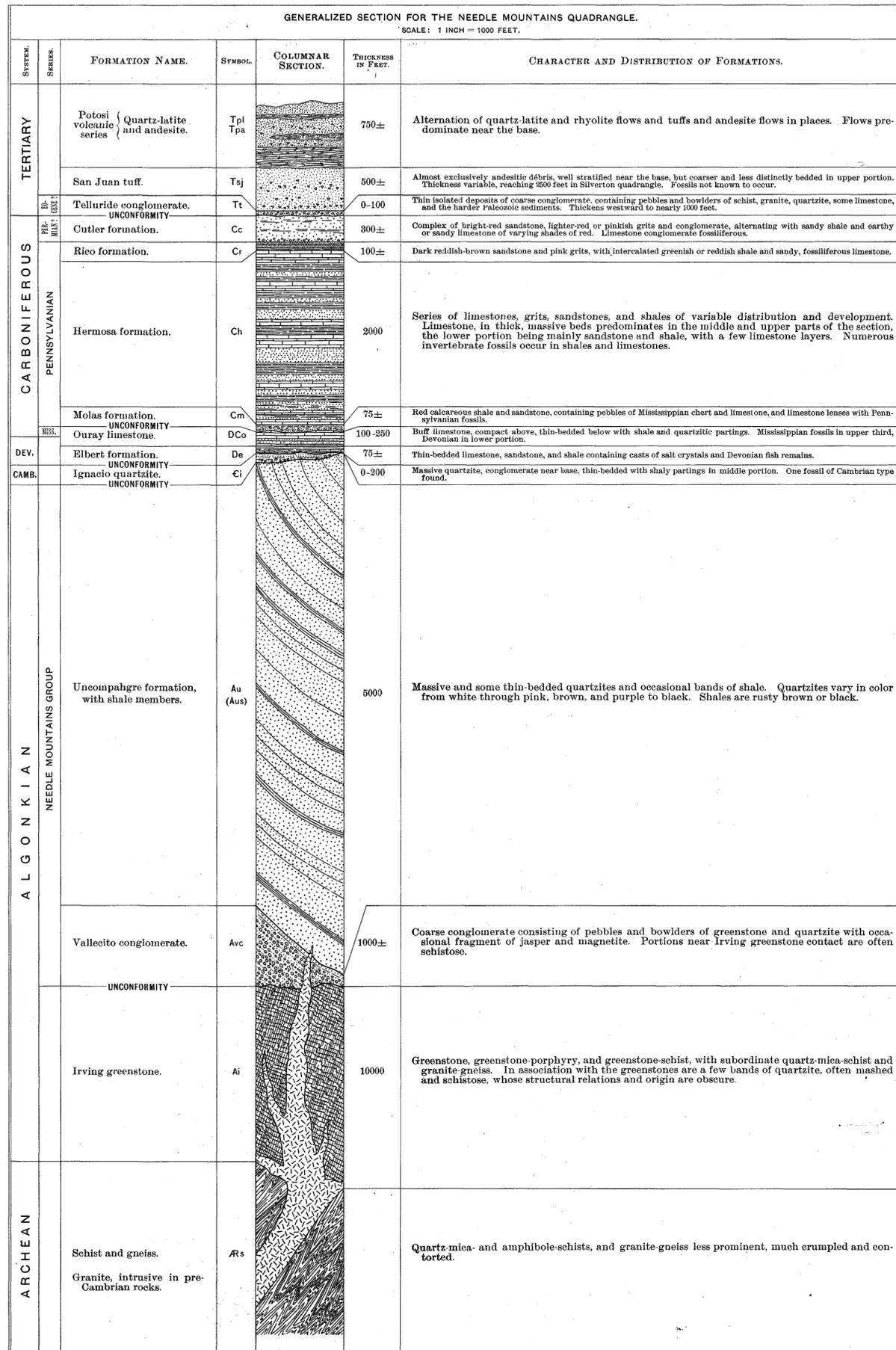


COLUMNAR SECTION



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FIG. 1.—LIME MESA, FROM NEAR OVERLOOK POINT.

Ignacio quartzite rests on the granite at foot of talus from Lime Mesa; the prominent escarpment is formed by Ouray limestone. To the left is a small glacial lake in the Ignacio; to the right of Lime Mesa is the upper portion of Canyon Creek; a branch of Florida River is to the extreme left. Valleys of the Animas and the Florida appear in the distance.



FIG. 2.—STAG MESA, FROM NEAR OVERLOOK POINT.

Débris of Ignacio quartzite on the right; rough surface beyond the foreground is formed by Eolus granite, on which, in the middle distance, rest the older Paleozoic rocks of Stag Mesa. In the distance is the escarpment of the Hermosa formation on the west side of the Animas Valley, while in the far distance rise the La Plata Mountains, composed in part of Cretaceous rocks.



FIG. 3.—GRANITE CLIFFS OF AMHERST MOUNTAIN, FROM NEAR CASTILLEIA LAKE.

A typical view of the higher glaciated region of Needle Mountains. The polished ridge to the left of the small lake is the divide between the Florida and a branch of the Vallecito.

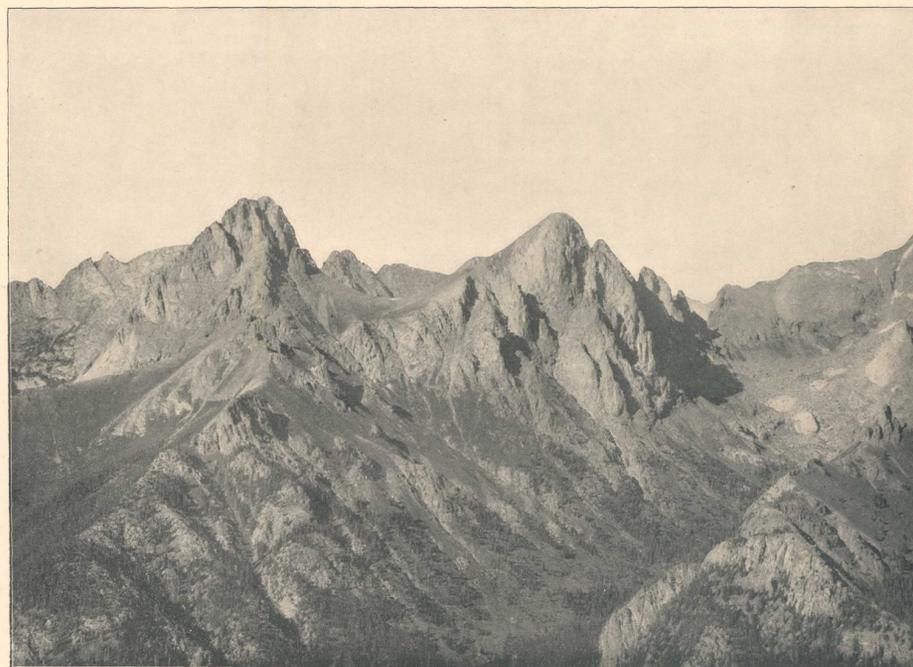


FIG. 4.—PIGEON AND TURRET PEAKS, FROM MOUNTAIN VIEW CREST, NEARLY 4 MILES DISTANT.

New York Basin is to the right. These are two of the highest and most conspicuous summits of the Needle Mountains, and are composed entirely of Eolus granite.

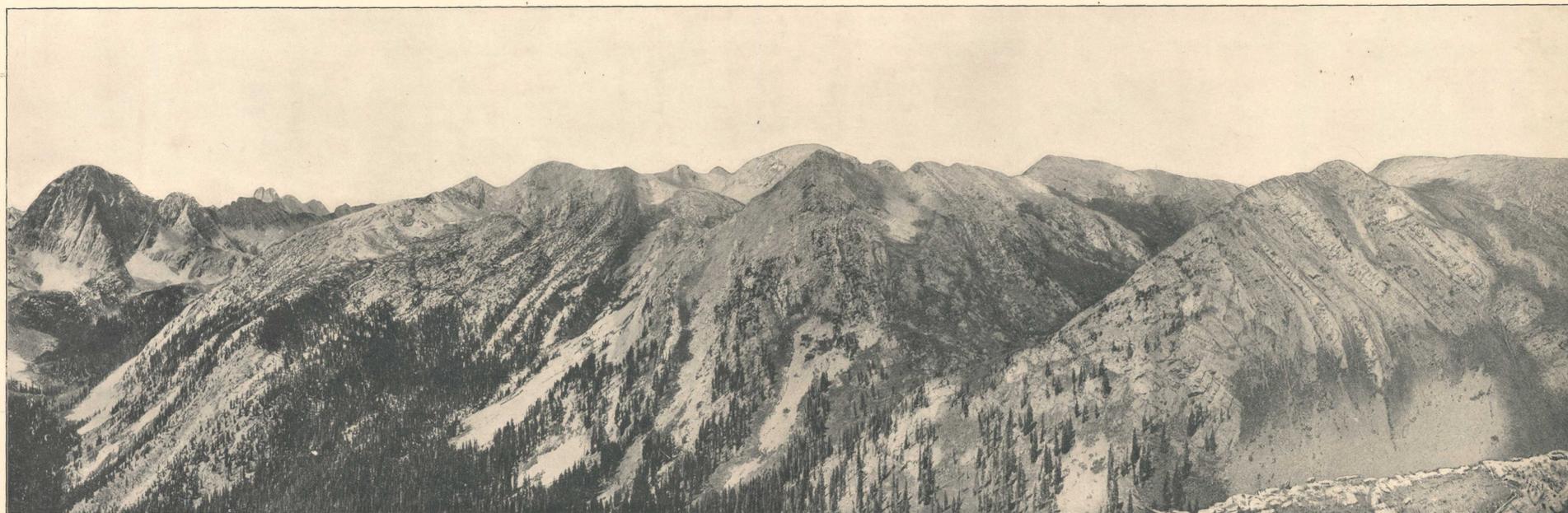


FIG. 5.—CLOSED AND OVERTURNED FOLDS OF UNCOMPAGRE QUARTZITES AND SLATES IN REGION ABOUT HEAD OF VALLECITO CREEK.

White Dome is in the middle; Grenadier Range and the west fork of the Vallecito are on the left; Hunchback Mountain is slightly to the right of White Dome. From a point just north of Mount Nebo.

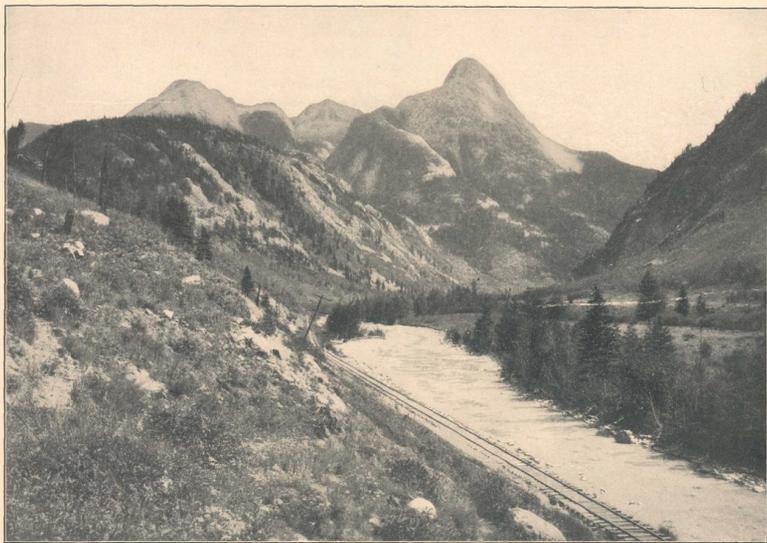


FIG. 6.—MOUNT GARFIELD, FROM THE NORTHERN END OF ELK PARK, ANIMAS CANYON.

Near center of picture the vertical strata of Uncompahgre quartzites are shown. The well-defined ravine below and to left of Mount Garfield marks the fault which bounds the quartzites at the river. The peak of Mount Garfield itself consists of northward-dipping quartzites, which have been thrust over the Archean schists.



FIG. 7.—THE VALLECITO AND THE GUARDIAN, FROM A POINT NOT FAR ABOVE MOUTH OF JOHNSON CREEK.

Stream gravels and terraces in the foreground; the cliffs to the left are Eolus granite, all else being within the area of Uncompahgre quartzites and slates.

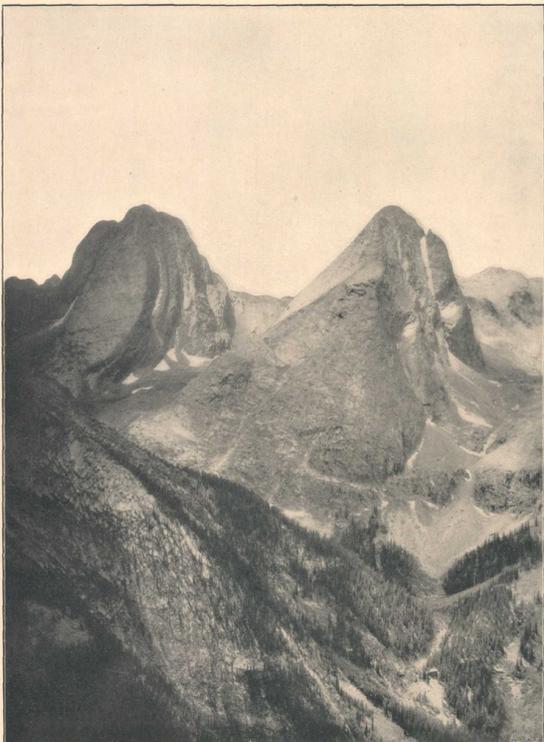


FIG. 8.—ARROW AND VESTAL PEAKS, SEEN ACROSS ELK CREEK FROM DIVIDE NEAR HEAD OF WHITEHEAD CREEK.

In Vestal Peak, to the left, are shown the upturned strata of Uncompahgre quartzite, characteristic of the whole Grenadier Range.



FIG. 9.—THE GUARDIAN AND THE EASTERN END OF THE GRENADIER RANGE FROM A POINT JUST NORTH OF MOUNT NEBO.



FIG. 10.—A GLACIATED SURFACE IN ANIMAS CANYON.

Shows light-gray Twilight gneissose granite cutting dark amphibolites.

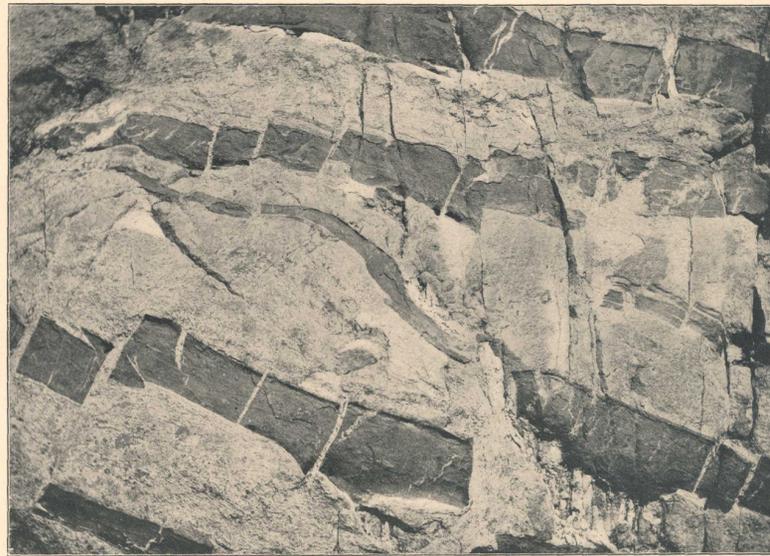


FIG. 11.—INCLUSIONS OF AMPHIBOLE-SCHIST IN TWILIGHT GNEISSOSE GRANITE.

Illustrates manner in which the gneissose banding follows the irregular outlines of included schist fragments.