When that stimulating and earnest student of land forms, William Morris Davis, wrote his articles on the streams of Pennsylvania and New Jersey in volumes I and II of the National Geographic Magazine he initiated the scientific investigation of the topographic features of this region. Before Davis wrote, there were occasional notes by other geologists. In 1883 J. P. Lesley\(^2\) called attention to three prominent plains (planes) in the region. Of Kittatinny (Blue) Mountain he said, "Its crest a nearly horizontal line everywhere about the same height (1,500 to 1,600 feet above the sea)." (p. 23.)

He described the topography of the slate region as follows: "The slate belt of Northampton County stretches from the Delaware to the Lehigh for seven miles south of the mountain. It is (a) region of low flat-topped hills, trenchèd by a multitude of small valleys, and when looked down upon from the mountain, appears like a great plain, which it really is." (p. 27.) He describes the limestone region in the following sentences. "The limestone plain of Northampton County is about seven miles wide, and elevated ** about 400 feet above tide; its hill tops sometimes reach 450 feet. This plain is intersected in every direction by gently sloping vales." (p. 36.)

A more casual examination of the topographic map reveals four sharply distinct topographic regions. From north to south these are Kittatinny Mountain, the slate region, the limestone valley and the hills south of the Lehigh River. These will be described in turn. The first three belong to the Ridge and Valley Physiographic Province and the last one to the Reading Prong of the New England Uplands.

In some regions the topographic features have little relation to the stratigraphy. In Northampton County, however, each of the erosion surfaces (peneplines?) is almost completely confined to a particular formation or group of formations. This has resulted in a discussion as to whether the successive more or less level surfaces should be designated as peneplines or not. At this point they will be described as topographic features only and called erosion surfaces. Their origin will be discussed on later pages.

**Kittatinny (Blue) Mountain.**—This even-crested mountain ridge, visible on a clear day for long distances, is the most regular and most impressive topographic feature of the entire region. Viewed from the distance, it has the appearance of the edge or the escarpment of an elevated plateau. When one climbs it and finds that the mountain is a narrow ridge with the top scarcely wider than one-fourth mile any place and generally much narrower, the mountain then appears as a barrier ridge. The hard Shawangunk conglomerates and

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\(^2\) See Geol. Survey of Pa., D 8, vol. 1, 1883.