In this quarry the beds vary in thickness from two to ten inches. The surfaces are fairly smooth and the joints regular, so that rectangular blocks of suitable size can readily be obtained. They are dressed easily.

Up to 1938 there has been little overburden, but if the working continues it will be necessary to remove an increasing thickness of soil and talus as the strata dip underground. Only about ten feet of bed is worked. The supply of easily quarryable stone is limited.

The Shawangunk sandstones and conglomerates of Kittatinny Mountain contain some stone suitable for building purposes but they have been little used. So far as known, no stone of this kind has ever been quarried in Northampton County. Some of the blocks from the talus slopes have been used but only in small quantities.

_Gneisses._—Elsewhere in Pennsylvania, the pre-Cambrian metamorphic gneisses have been quarried extensively for structural stone but in Northampton County they have been used sparingly. This is mainly due to the fact that the expense of quarrying is high on account of the toughness of the rock. The initial expenditure involved in opening a quarry is also great on account of the decomposition of the exposed rock. On the surface the gneisses of all kinds are so broken by the action of frost or so greatly decomposed that much waste must be removed to reach good stone. Below the zone of freezing the stone is broken by joints into large irregular blocks that could be handled economically only by expensive mechanical equipment. The irregularity of the joints would cause an excessively large amount of rock to be discarded as waste, although this condition may not prevail everywhere. As large quantities of crushed rock for concrete and ballast are required in the industries of the region and in making permanent roads, market might be found for the rock that is unsuited for building stone.

The gneisses of the county furnish a wide variety of stones, ranging from dark-brown hornblendie to light granitic rocks, some of which are beautifully banded and others present a uniform appearance. In general the darker gneisses are more common in the eastern part of the county, especially near Hexenkopf Hill, and the lighter-colored ones are more abundant about Bethlehem and Hellertown.

The gneisses contain no objectionable minerals, except in a few localities where pyrite is a common constituent. The chemical and physical character of the rocks makes them very durable as building stones under all climatic conditions.

A few attractive residences, churches and barns in the county have been built of the local gneisses. In almost all of them, only loose