Wherever pyrite is exposed to oxidizing conditions, melanterite is apt to be found. It has been noted at the pyrite prospect between Mountainville and Emmaus and about some of the limonite mines where pyrite occurs. It has been especially noticeable at the old mine north of Breinigsville.

**GEOLOGIC HISTORY**

By Benjamin L. Miller

More than a billion years of history is recorded in the rocks of Lehigh County and it is the duty of the geologists to decipher these records. The task is a tremendous one and is at present only in the preliminary stage. Many of the main events are dimly understood, especially those concerned with great upheavals or revolutions, but there are great gaps in our knowledge. The untangling of happenings in the dim past is made difficult and in some instances impossible by the destruction of much of the record. One may liken the work of the geologist to that of the historian who endeavors to write a consecutive history of mankind from a badly mutilated volume. If he can find in some other library another copy of the same book, perhaps the missing portions of one volume will be found in the other one. By gradually extending his researches to other libraries where imperfect copies are preserved, eventually the gaps may be lessened and the story pieced together. Geologists work in a similar manner. Gaps in the recorded history existing in one locality may be filled in by data secured in another region.

Nature has been engaged alternately in construction and destruction; records have been written in the rocks and later in large part erased by the natural agents of weathering, erosion and metamorphism. Some records are transcribed in a language that is unintelligible except by the slow process of trial and error. An interpretation that seems reasonable at one period may be relegated to the discard when additional facts are obtained. Scientists have been accused of inconsistency when, without being conscious of any "loss of face," they throw aside their earlier explanations and advance new ones. Lesley expressed the idea in the following sentence.1 "Geologists should be consistent; but what can poor geologists do when Nature is the mother of inconsistency." Little progress can be made unless interpretations (hypotheses and theories) are formulated to explain the facts accumulated. These are then tested by all the additional information that can be secured. Thus, the explanation may be strengthened, modified or thrown aside for a newer and better interpretation. Only in this manner have our natural sciences advanced.

The methods used by the geologist are those that have developed during the past century. By studying the natural processes of destruction and construction, and observing their effects and results, keys for deciphering the events recorded in the rocks and in the structural and physiographic features have been obtained. In the story of

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