

### Annotated Bibliography

Author: Bain, George W., ed.  
Title: Guidebook: Geology of Northern Part – Connecticut Valley  
Publisher: No publisher.  
Date: No date.  
Useful pages: p. 2-56  
Call Number: QE 124.C4.N532  
Physical Location: Lindgren Library, 54-200  
Reference: found via shelf browsing  
Notes:

Text: Pamphlet from the 49<sup>th</sup> meeting of the New England Geological Conference. Published under the auspices of Amherst College, Mt. Holyoke College, Umass, and Smith College. No date or publisher information given. Gift to MIT Libraries in 1967.

Contents: General overview of the region's geology and field trips.

Additional notes: General overview is relatively broad and non-location specific. Author uses town names as opposed to geological features for orientation, which is helpful to those not familiar with the geology of the region. Some economic features discussed, some nice line drawings. Field trips also detailed, with some images. Geography is of the region due west of the reservoir. Provides a good, specific overview of the western geology. Should be one of the earlier books consulted.

Author: Farquhar, O. C., ed.  
Title: Conference on Economic Geology in Massachusetts  
Publisher: University of Massachusetts Graduate School?; see \* at endnotes to this bibliography  
Date: 1967  
Useful Pages: p. 29-44, 295-301, 477-486, 496-497  
Call Number: QE 123.C748 1966  
Physical Location: Lindgren Library  
Reference: found via shelf browsing  
Notes:

Text: From the above-named conference ; see \* at endnotes to this bibliography.

Contents: conference information, geology in Massachusetts, industrial rocks, geomechanics, mineral resources, geologic aspects of construction in Massachusetts, geophysics, state geologic programs in New York and Massachusetts, ground water and surface water in Massachusetts, the shoreline and the ocean

Additional Notes: With the exception of the above pages, the source is relatively useless. Above pages refer several conference presentations and papers. "Progress of Bedrock Geologic Mapping in West Central Massachusetts," pages 29-44, provides a good overview of the geology of the Quabbin region and regions immediately north and south of it. This paper should be consulted early on. "Geology of the Northfield Mountain Pumped-Storage Hydro Project." pages 295-301, describes an area to the immediate northwest of Quabbin, and is mostly of interest due to its discussion of reservoir geology. "Ground Water in the Connecticut Valley of Massachusetts," pages 477-486, describes the geology of the watersheds directly to the west of Quabbin from a water-resources perspective, which may be useful. "The Quabbin Water Supply," pages 496-497, gives a brief description of the reservoir construction and statistics, but is otherwise useless.

Author: Jasaitis, Richard A., Jr.

Title: Geology of Pre-Mesozoic Bedrock of the Amherst Area, West-Central Massachusetts

Publisher: see \* at endnotes to this bibliography

Date: 1983

Useful Pages: 1-98

Call Number: QE 124.A54.J37 1983

Physical Location: Lindgren Library

Reference: found via shelf browsing

Notes:

Text: see \* at endnotes to this bibliography ; Master's of Science Thesis

Contents: stratigraphy, intrusive rocks, structural geology, metamorphism, geological history

Additional Notes: Provides a more scientific approach (especially with regards to terminology) to the geology of the Amherst area, which is due west of the reservoir. More specific and much more difficult to follow for those looking for a general overview. Recommended for in-depth study of the topic. The "Geologic History of the Amherst Area," pages 87-88, provides a more accessible discussion of the origins of today's geological features.

Author: Joesten, Raymond, and Sidney S. Quarrier, ed.

Title: Guidebook for Fieldtrips in Connecticut and South Central Massachusetts

Publisher: No publisher given.

Date: 1982

Useful Pages: p. 31-48, 89-102, 289-373

Call Number: QE 78.3.N532 1982

Physical Location: Lindgren Library

Reference: found using Barton search for Library of Congress subject header

Geology -- Massachusetts -- Maps

Notes:

Text: From 74<sup>th</sup> meeting of the New England Intercollegiate Geological Conference (no college names given). Also Guidebook Number 5 for the State Geological and Natural History Survey of Connecticut, The Natural Resources Center, Department of Environmental Protection.

Contents: preliminary geological map of Connecticut, Quaternary geology, Mesozoic geology, Paleozoic and Precambrian geology

Additional Notes: "Anatomy of the Chicopee Readvance, Massachusetts," pages 31-48, covers the geology of the region to the southwest of Quabbin. Maps are difficult to interpret and have no non-geologic landmarks. A relatively specific discussion of this single geological feature, of little interest to those seeking a general overview. This feature might be mentioned in an overview paper, but information this in-depth may be too specific. "Sedimentation in a Proglacial Lake: Glacial Lake Hitchcock," pages 89-102, covers the geology, formation, and remaining evidence of Lake Hitchcock, a glacial lake to the west of Quabbin. This topic is covered elsewhere, but this paper provides a nice overview. The road trip is less interesting without knowledge of the region, but provides some specifics. "High Grade Acadian Regional Metamorphism in South Central Massachusetts," pages 289-339, is less useful; much of the paper is taken up with a microscopic view of geology and mineralogy, rather than a macroscopic view of the region. The vocabulary and syntax is extremely specific and therefore confusing to those without background knowledge of these two fields. More useful is "Stratigraphy and Structure of the Ware-Barre Area, Central Massachusetts," pages 341-373. This covers the area to the south (Ware) and east (Barre) of Quabbin in

some detail, and includes several maps, again lacking any non-geological reference points. However, it is probably the most useful source in the book, and is relatively accessible to non-geologists.

Author: Michener, Stuart R.

Title: Bedrock Geology of the Pelham-Shutesbury Syncline, Pelham Dome, West-Central Massachusetts

Publisher: see \* at endnotes to this bibliography

Date: 1983

Useful Pages: 1-101

Call Number: QE 123.M52 1983

Physical Location: Lindgren Library

Reference: found using Barton search for Library of Congress subject header

Geology -- Massachusetts

Notes:

Text: see \* at endnotes to this bibliography ; Master's of Science Thesis

Contents: stratigraphy, intrusive igneous rocks, structural geology, metamorphism

Additional Notes: Like other similar documents (the other theses in this bibliography, for example), this is mostly too specific for non-specialized research. However, the "Introduction," "Generalized Structural History of the Pelham Dome," "General Structure of the Pelham-Shutesbury Syncline," and "Summary Geologic History of the Pelham-Shutesbury Syncline" are all worth reading, as they are more general and easier for the general researcher to parse. The region covered in this text is the western part of Quabbin and some additional territory adjacent to the reservoir to the northwest. Recommended due to the specificity of the region and the amount of general information. Maps and figures are well-done.

Author: Robinson, Peter, ed.

Title: Guidebook for Fieldtrips in the Connecticut Valley of Massachusetts

Publisher: No publisher given.

Date: 1967

Useful Pages: p. 17-47,105-127, 143-165

Call Number: QE 78.3.N532

Physical Location: Lindgren Library

Reference: found via shelf browsing

Notes:

Text: From the 59<sup>th</sup> annual meeting of the New England Intercollegiate Geological Conference (Amherst, Mt. Holyoke, Smith, Umass-Amherst). No publication information given.

Contents: overview of region's geology, twelve field trips

Additional Notes: "Gneiss Domes and Recumbent Folds of the Orange Area, West Central Massachusetts," pages 17-47, gives a nice description of the various rock types and formations found in the region, in addition to having several very useful and easy-to-interpret maps. The region covered is directly under the reservoir itself, and is thus very localized to the topic. Road trips with detailed diagrams and maps follow. "Stratigraphy and Structure of the Monson Area, Massachusetts and Connecticut," pages 105-113, also has a good description of rock types and structure, although it is far shorter than the above. There are, however, several nice maps. The most relevant paper in the text, however, is "Geology of the Quabbin Reservoir Area, Central Massachusetts," which basically sums up the entire topic. A very detailed map and references to stratigraphy and structural geology from other regions (with comparisons) follow. Geology of the islands, which are off-limits to visitors to the reservoir, is provided- a rare resource. Although the water trip seems detailed and irrelevant, the location of the trip is such that

all details are important. "Geology of the Northern Portion of the Belchertown Intrusive Complex," pages 143-153, covers the area to the southwest of Quabbin, while "Sedimentary Features of the Triassic Rocks in Northern Massachusetts," pages 154-165, covers the northwest region. Neither is particularly specific to the reservoir itself, and the first is quite mineralogically scientific, while the second is almost too broad to be useful.

Author: Robinson, Peter, and John B. Brady, ed.

Title: Guidebook for Field Trips in the Connecticut Valley Region of Massachusetts and Adjacent States

Publisher: see \* at endnotes to this bibliography

Date: 1992

Useful Pages:

Volume 1: v-ix, 1-47, 95-119, 132-169, 199-215, 229-255

Volume 2: 305-331, 358-379, 425-445, 467-487

Call Number: QE 78.3.G86 1992 v.1 and v.2

Physical Location: Lindgren Library

Reference: found via shelf browsing

Notes:

Text: From 84<sup>th</sup> annual meeting of the New England Intercollegiate Geological Conference (Amherst College, Smith College, Mount Holyoke College, Hampshire College, and Umass-Amherst). also see \* at endnotes to this bibliography

Contents: overview of region's geology, twenty-three geological field trips

Additional Notes: Pages v-ix cover a brief overview of the geology and geologic history of the Connecticut Valley. This overview is worth reading, as (despite its many references to other studies) it gives a good summary of the topic. The numerous field trips, most of which have accompanying papers, described above are located in regions adjacent to or including Quabbin. Of particular interest and value are "The Pelham Dome, Central Massachusetts: Stratigraphy, Geochronology, Structure and Metamorphism," pages 132-169 (covers the geology directly under Quabbin, as well as the surrounds, including nice maps; is relatively readable), "Hydrogeology and Water Resources of the Connecticut Valley and Western Quabbin Reservoir Watershed," pages 199-215 (although it's less geology and more hydrology, it provides a valuable view of Quabbin, including a description of important geologic features), and "Glaciation of the Worcester Plateau, Ware-Barre Area, and Evidence for the Succeeding Late Woodfordian Periglacial Climate," pages 467-487 (which looks at the geology from the glacial perspective and gives evidence for more recent changes).

Author: Roll, Margaret A.

Title: Effects of Acadian Kyanite-Zone Metamorphism on Relict Granulite-Facies Assemblages, Mount Mineral Formation, Pelham Dome, Massachusetts

Publisher: see \* at endnotes to this bibliography

Date: 1987

Useful Pages: 1-202

Call Number: QE 124.B44.R65 1987

Physical Location: Lindgren Library

Reference: found via shelf browsing

Notes:

Text: see \* at endnotes to this bibliography

Contents: description of rock types, mineral chemistry, phase relations, modeling, history of metamorphism

Additional Notes: Like the other theses, this is extremely specific, but does have some general information under the

“Introduction” section. The rest of the paper deals with microgeology and mineralogy, which is less useful for research on the geology of Quabbin, but the above section gives some information on the Pelham dome (immediately west of Quabbin) and its rock strata.

Author: Shearer, Charles Kenneth

Title: Petrography, Mineral Chemistry, and Geochemistry of the Hardwick Tonalite and Associated Igneous Rocks, Central Massachusetts

Publisher: see \* at endnotes to this bibliography

Date: 1983

Useful Pages: 1-210

Call Number: QE 123.S54 1983

Physical Location: Lindgren Library

Reference: found via shelf browsing

Notes:

Text: see \* at endnotes to this bibliography ; Doctor of Philosophy Thesis

Contents: rock distribution, petrography, mineral chemistry, phase relationships, geochemistry

Additional Notes: As above, this is quite specific and deals mostly with microgeology. However, the “Introduction” and “Distribution and Correlation of the Hardwick Pluton and Associated Igneous Rocks” contain information on macrogeology. The region studied lies under the eastern half of Quabbin and continues to the east, north, and south. The text contains several nice maps of the region with geologic strata distributions.

Author: Skehan, James W.

Title: Roadside Geology of Massachusetts

Publisher: Mountain Press Publishing Company

Date: 2001

Useful Pages: 1-32, 218-233, 238-242, 261-265, 269-281

Call Number: QE 123.S56 2001

Physical Location: Lindgren Library

Reference: found in Minuteman Library Network catalog, then found using Barton title search

Notes:

Text: Part of a series of “Roadside Geology of” books, one per state.

Contents: Geological overview of the state in three sections: Eastern seaboard, Central lowland and Bronson hill upland, Berkshires.

Additional Notes: An excellent overview of the topic, and one that should be approached as a definite first reference. Intended for a general audience, the book is specific enough to satisfy most needs. The “Introduction” (pages 1-32) provides a general summary of the state's geologic histories, with region-specific information scattered throughout. The other pages given above (in the 218-281 range) cover the geology of Central Massachusetts in depth, with some road trips. Pages 218-233 cover a more specific overview of Central Massachusetts geology, with road trips in the remaining pages. Again, this book's value cannot be overstated, and it should definitely appear on any bibliography or citations page covering this topic.

\* Note: all texts with this symbol marked under their Notes: Text information are published under the auspices of the Department of Geology and Geography, University of Massachusetts Amherst. They are also labeled with contribution numbers, although these aren't strictly useful.

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