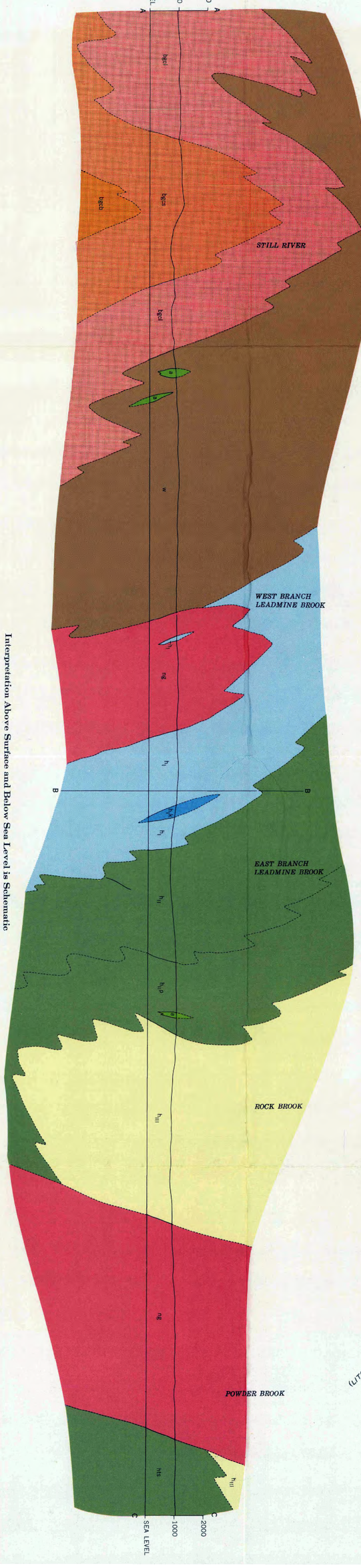
STATE OF CONNECTICUT
GEOLOGICAL AND NATURAL HISTORY SURVEY
JOE WEBB PEOPLES, DIRECTOR

QUADRANGLE REPORT NO. 25
PLATE 1

Open Report



Base map by U.S. Geological Survey

Control by USGS, USC&GS, and Columbia University

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1944. Field check 1948
Revised 1956

Polyconic projection. 1927 North American datum
10,000-foot grid based on Connecticut coordinate system

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Williams & Heintz Map Corporation, Washington, D.C. 20027

GEOLOGIC MAP OF THE TORRINGTON QUADRANGLE, CONNECTICUT

Bedrock Geology by Charles W. Martin 1965-67

13½°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1956

SCALE 1:24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

CONNECTICUT
QUADRANGLE LOCATION

EXPLANATION

MIDDLE PALEOZOIC (?)

ng tg g p

Granite and Pegmatite

ng Nonewaug Granite. *Fine-grained to pegmatitic, massive to layered rock composed of mica, microcline, quartz, and plagioclase. Coarse graphic plagioclase crystals are locally abundant.*

tg Tyler Lake Granite. *Medium-grained to pegmatitic, massive to gneissic, biotite-muscovite-microcline-quartz-plagioclase granite, with accessory garnet, apatite, zircon, and chlorite. Color is gray, pink, or white. Pegmatite is abundant as lenses or irregular patches.*

g Undifferentiated granite.

p Pegmatite.

a

Amphibolite

Fine- to coarse-grained, dark green to black amphibolites composed essentially of hornblende, plagioclase, and quartz, with accessory garnet, biotite, apatite, zircon, carbonate, magnetite, epidote, and sphene. A few contain abundant coarse garnets. Amphibolites range from unfoliated to well-foliated and slabby.

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Altered Ultrabasic Rocks

Massive, gray weathering rocks consisting mainly of serpentine, talc, and tremolite, with subordinate olivine remnants, and accessory carbonate, pyrite, and magnetite.

LOWER PALEOZOIC (?)

h_{III}

Hartland Formation Unit III

Thinly interlayered, slabby, fine- to medium-grained, muscovite-biotite-plagioclase-quartz granulite and muscovite-plagioclase-quartz-biotite schist. Characterized by abundant graphite, especially in granulite, and by porphyroblastic biotite and kyanite in the schist. Granulite is dark gray, schist is silvery.

$h_{II}p$ / h_{II}

Hartland Formation Unit II

$h_{II}p$ *Medium-grained, biotite-muscovite-plagioclase-quartz schist with abundant, coarse porphyroblasts of plagioclase, garnet, staurolite, and kyanite. Accessory minerals are chlorite, tourmaline, zircon, apatite, sphene, rutile, and magnetite. Dominates upper part of Unit II and contains several amphibolite lenses.*

h_{II} *Medium-grained, muscovite-biotite-plagioclase-quartz schist. Lacks coarse porphyroblasts, otherwise similar to $h_{II}p$. Characteristic of lower part of Unit II.*

hts

The Straits Schist

Medium- to coarse-grained plagioclase-biotite-muscovite-quartz schist with staurolite, garnet, and kyanite porphyroblasts. Accessory minerals are zircon, sphene, apatite, and opaques.

h_I / h_Ik

Hartland Formation Unit I

h_I *Fine-grained, gray, muscovite-biotite-plagioclase-quartz granulite or granulitic gneiss with subordinate layers of mica-plagioclase-quartz schist. Contains amphibolite in thin layers to pods and minor calc-silicate.*

h_Ik *Fine- to medium-grained, kyanite-mica-plagioclase-quartz granulitic gneiss, with subordinate garnet, staurolite, and magnetite. Accessory minerals are chlorite, tourmaline, zircon, apatite, sphene, and sillimanite. Typically less well foliated than h_I.*

w

Waramaug Formation

Rusty-weathering muscovite-biotite-plagioclase-quartz gneiss and sillimanite-kyanite-muscovite-plagioclase-quartz-biotite gneiss, the two types intermixed and intergradational. Accessory minerals are chlorite, staurolite, zircon, apatite, tourmaline, sphene, and magnetite. The rock is typically poorly foliated and has nubby weathered surfaces where kyanite or sillimanite are present. Contains amphibolite lenses.

PRECAMBRIAN (?)

bgcl / bgcs / bgcb

The Gneiss Complex of the Berkshire Highlands

bgcl *Gray, fine- to medium-grained, layered microcline-biotite-quartz-plagioclase granitic gneiss. Layering depends on differing proportions and arrangements of felsic and mafic minerals. Contains subordinate interlayered amphibolite, mafic gneiss, biotite gneiss, and calc-silicate rocks. Granite and pegmatite are abundant, and locally the rock is migmatitic.*

bgcs *Pink and gray, fine- to medium-grained, massive to biotite streaked, mica-microcline-quartz-plagioclase granitic gneiss. Contains minor amphibolite, mafic gneiss, and calc-silicate rocks, but lacks biotitic gneiss. Well-banded granitic gneiss is rare.*

bgcb *Rusty weathering fine- to medium-grained, sillimanite-kyanite-quartz-plagioclase-biotite gneiss. Kyanite and sillimanite cause nubby weathered surfaces. Accessory minerals are zircon, rutile, apatite, and magnetite. (Special symbol indicates small zones of bgcb type lithology but no intended correlation with bgcb unit.)*

Contact, dashed where inferred or approximately located.

Probable fault?

Outcrop areas.

70 Strike and dip of foliation.

60 Generalized strike and dip of crumpled or variable foliation. Dip in direction of numeral.

Strike of vertical foliation.

Horizontal foliation.

10 Direction and plunge of mesoscopic fold axes.

Horizontal fold axes.

Anticline, showing direction of plunge.

Overturned syncline.