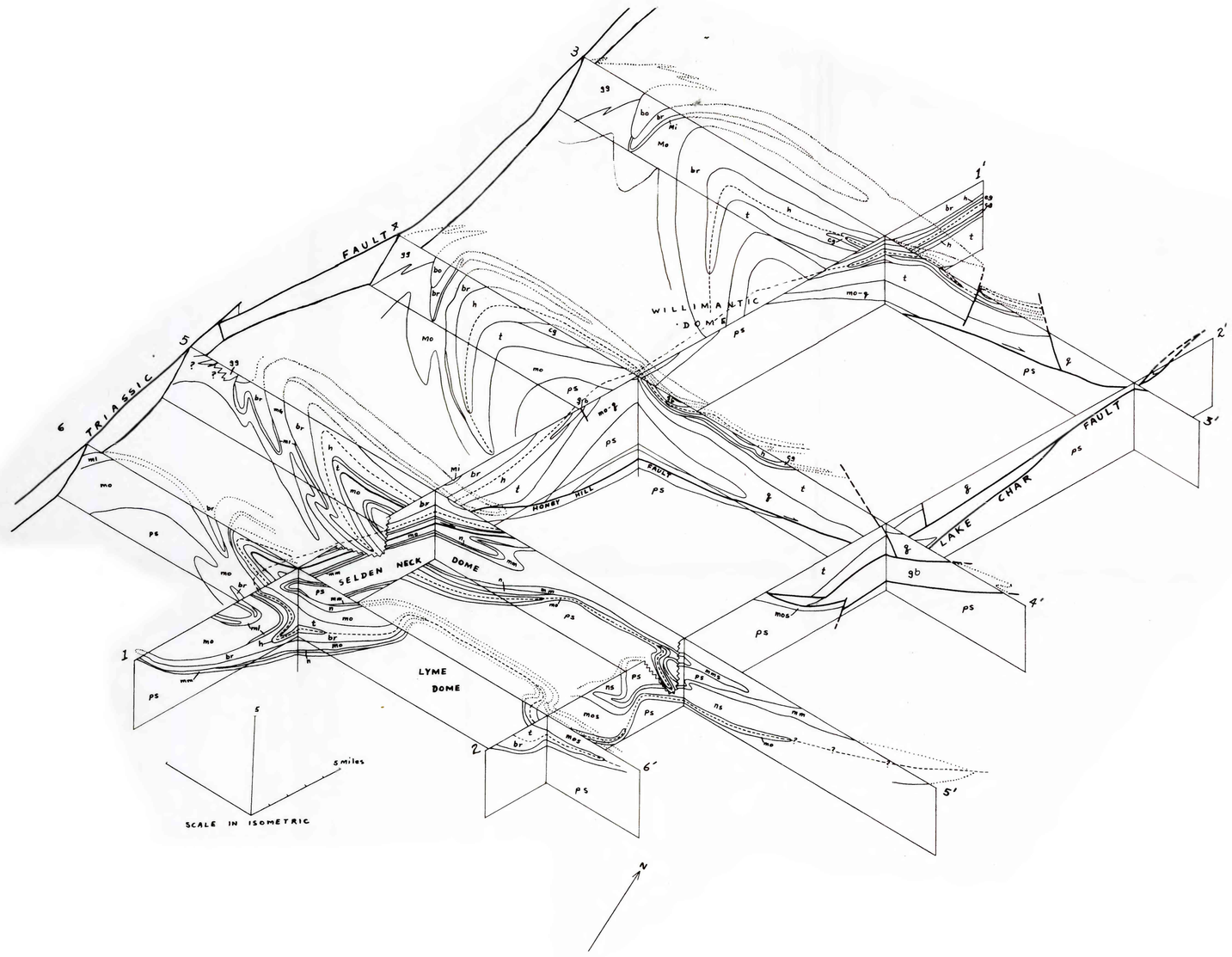

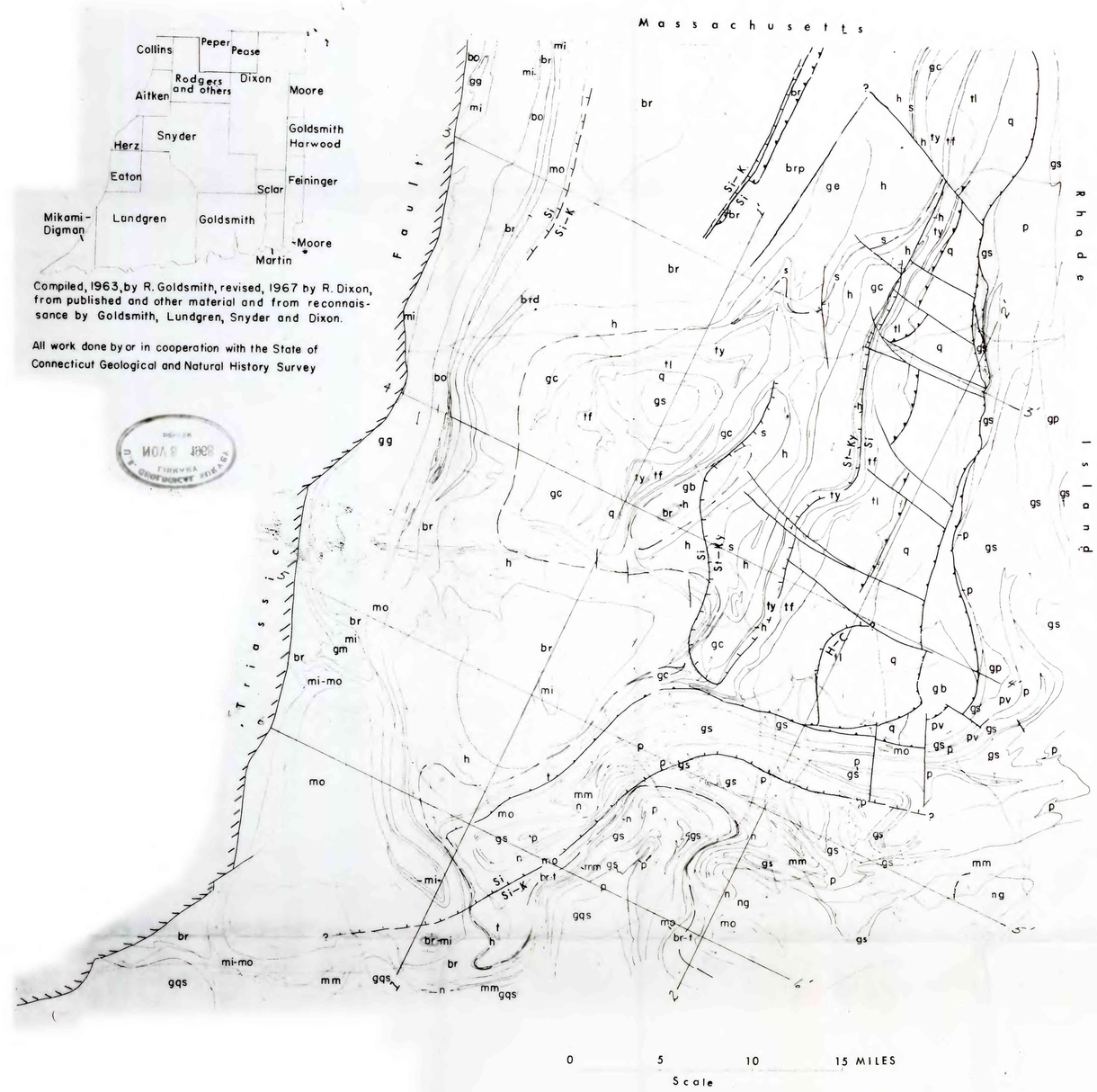

Compiled, 1963, by R. Goldsmith, revised, 1967 by R. Dixon, from published and other material and from reconnaissance by Goldsmith, Lundgren, Snyder and Dixon.

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EXPLANATION

METASEDIMENTARY AND METAVOLCANIC ROCKS

Western and Southern

bo

Bolton Group
Littleton Formation
Fitch Formation
Clough Quartzite

UNCONFORMITY

brd > br
brp

Brimfield Schist
br - rusty graphitic schist, pelitic and semipelitic gneiss and schist, calc-silicate rock and minor amphibolite
brd - layered biotite schist and calc-silicate gneiss
brp - layered binary schist possibly equivalent to the Paxton Quartz Schist in Massachusetts
(b - in fence diagram, undifferentiated)

mi mo
n ng

mi - Middletown Gneiss
Amphibolite and hornblende schist and gneiss; anthophyllite gneiss
mo - Monson Gneiss
Biotite-hornblende gneiss and minor amphibolite and felsic gneiss
(mos - in fence diagram: Monson and interlaminated Sterling)
n - New London Gneiss
Interlayered plagioclase gneiss and amphibolite, aegerine-augite gneiss
ng - granodiorite and quartz diorite gneiss, locally quartz monzonite
(ns - in fence diagram: New London and interlaminated Sterling)

mm

Mamacoke Formation
Felsic and intermediate feldspathic gneiss; minor quartzite, calc-silicate gneiss and sillimanite gneiss

p pv

Plainfield Formation
Quartzite and quartz schist, pelitic gneiss and schist, calc-silicate rocks, feldspathic gneiss, minor amphibolite
pv - metavolcanic hornblende-biotite gneiss, probably interlayered with Plainfield schists
(ps - in fence diagram: Plainfield and interlaminated Sterling)

Eastern

s

Scotland Schist
Pelitic schist, local quartzite at base

h

Hebron Formation
Thin-bedded calc-silicate schist and biotite schist; minor layers of pelitic schist and quartzite

ty
tf
tl

Tatnic Hill Formation
ty - upper, non-rusty micaceous schist
tf - calc-silicate gneiss and marble
tl - lower pelitic and semipelitic gneiss; rusty, graphitic schist and amphibolite at base
(t - in fence diagram, undifferentiated)

q

Quinebaug Formation
Hornblende gneiss, amphibolite, and biotite gneiss; subordinate felsic gneiss and calcic schist

DEVONIAN and SILURIAN

MIDDLE ORDOVICIAN

CAMBRIAN(?)

PLUTONIC ROCKS

(Order does not necessarily reflect age)

gb

Gabbro

gg gm

gg - Glastonbury Gneiss
gm - Maromas Gneiss

gc ge

gc - Canterbury Gneiss
ge - Eastford Gneiss
Quartz diorite to quartz monzonite gneiss. Primarily in Hebron Formation, locally in Tatnic Hill Formation Scotland Schist

gs gp

Sterling Plutonic Group

gs - pink to grey granite and quartz monzonite gneiss; mafic poor alaskite gneiss
gp - dark porphyritic gneiss
Gneisses do not occur in rocks younger than Monson Gneiss. Some granitic gneiss in the lowermost Quinebaug Formation may be Sterling

gqs

Granite and quartz monzonite gneiss mixed with quartzite, gneiss and schist of the lower part of the Plainfield Formation. Occurs only in the coastal domes. Includes some young granites

Contact
Dashed where inferred or based on other than recent quadrangle mapping

High angle fault

Low angle or thrust fault

Approximate trace of axial plane of Hunts Brook-Chester-Hampton syncline. (Short dashed in fence diagram.)

<45° >45°
Strike and dip of layering

Bearing and plunge of lineation

Metamorphic isograds
Ticks on the low temperature side
St-Ky - Staurolite-kyanite
Si - Sillimanite
Si-K - Sillimanite-potassium feldspar
H-C - Hypersthene-cordierite

Note: Sterling Plutonic Group (gs and qp) and the mixed granite and quartz monzonite gneiss (gqs) are not shown in the fence diagram, but are combined with the units with which they are interlaminated. Plainfield Formation is projected into the core of the Willimantic dome from the east, but what underlies the Sterling in the core of the dome is not known.

Plate 1.--Compilation Geologic map of Eastern Connecticut with fence diagram

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