

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

AREAL GEOLOGY

ALABAMA
COLUMBIANA QUADRANGLE

EXPLANATION

SEDIMENTARY ROCKS

(Subaqueous deposits are shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles)

Qal

Alluvium

(flood-plain deposits of present streams)

Kt

Tuscaloosa formation

(varicolored sand, clay, and gravel)

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Pottsville formation

(sandstone, conglomerate, shale, and a coal bed; sandstone members, Shales, C₁, Fine, C₂)

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Parkwood formation

(gray shale and sandstone)

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Floyd shale

(black or gray shale, some gray granular and impure shaly limestone, and much fine-grained gray and green sandstone)

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Fort Payne chert

(chert and limestone)

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Chattanooga shale and Frog Mountain sandstone

(Chattanooga shale, thin bedded, gray, granular and impure shaly limestone, and sandstone on Frog Mountain; sandstone, soft gray sandstone of Onondaga (Middle Devonian) age)

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Little Oak limestone

(thick-bedded argillaceous cherty limestone, with irregular nodular chert layers; weathers to rusty network; late Chazy age)

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Athens shale

(dark to black argillaceous shale with thin limestone layers; late Chazy age)

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Lenoir limestone

(dark-gray crystalline limestone with a little chert locally; Chazy age; conglomerate locally at bottom; in Cahaba Valley only, where underlying Middle Devonian is possibly also present)

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Odenville and Newala limestones

(thick-bedded gray limestone and some dolomite; very pure in upper part; of Beekmantown age)

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Chepultepec dolomite

(dolomite with mealy, cavernous, fossiliferous chert)

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Copper Ridge dolomite

(gray crystalline dolomite with much very dense, tough, angular chert at base; pure limestone very pure; pre-Copper Ridge rocks in Tennessee)

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Conasauga ("Coosa") limestone

(medium thick-bedded dark fine-grained limestone, some dolomite, and yellowish-green shale)

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Rome ("Montevallo") formation

(purple, red, green, and grayish shale, calcareous gray sandstone, and a little limestone; yellowish to purplish sandstone lentil, C₁, at top)

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Shady limestone

(thick-bedded coarse and fine grained light-gray limestone)

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Weisner formation

(dark-gray or greenish shale or slate; quartzitic lenses, C₂, very less conglomeratic, and beds of siliceous pebbly iron ore)

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Wash Creek slate

(sericitic slate, weathering green and gray, and black slate, conglomeratic in upper part; contains quartz, and probably gold bearing; ferruginous sandstone member, wca, in lower part; heavy conglomeratic sandstone member, wca, in upper part)

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Brewer phyllite

(purplish-gray argillaceous schist with silty luster and some green schist)

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Waxahatchee slate

(blackish argillaceous slate, weathering pink, yellowish, and gray; Sawyer limestone member, wsl, and conglomeratic sandstone member, wca, in upper part)

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Limestone of unknown age

(in northeast corner of quadrangle; yields deep-red soil; may be of Ordovician or Cambrian age)

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Shale of unknown age

(yellowish-green shale in northeast corner of quadrangle; may be of Talladega, Weisner, or Conasauga age)

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Known fault

Probable fault

Concealed fault

(covered by younger deposits)

Klippe

(erosion remnant of overthrust mass)

Direction of thrust in overthrust mass

Strike and dip of stratified rocks

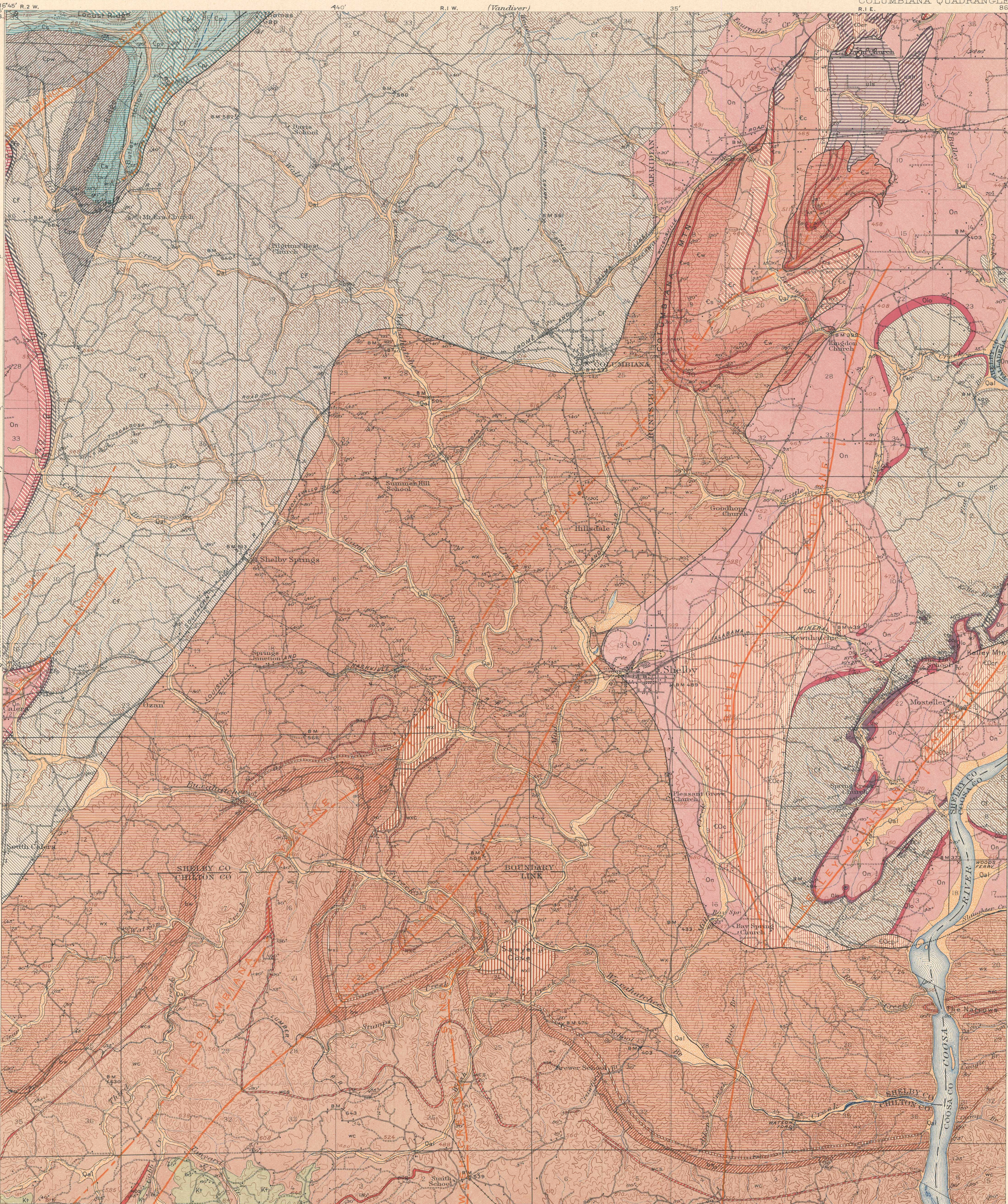
Strike of vertical beds

Horizontal beds

Axis of anticline

Axis of syncline

* Ozarkian of E. O. Ulrich



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Frank Sutton, Geographer in charge.
Topography by W.J. Lloyd and F.E. Hale.
Control by Coast and Geodetic Survey,
C.B. Kendall, and E.A. Stearns.
Surveyed in 1909.

APPROXIMATE MEAN
DECLINATION 1909.

Scale 1:25,000
Contour interval 50 feet.
Datum is mean sea level.
Edition of October 1940

Geology by Charles Butts.
Surveyed in 1908-1910.