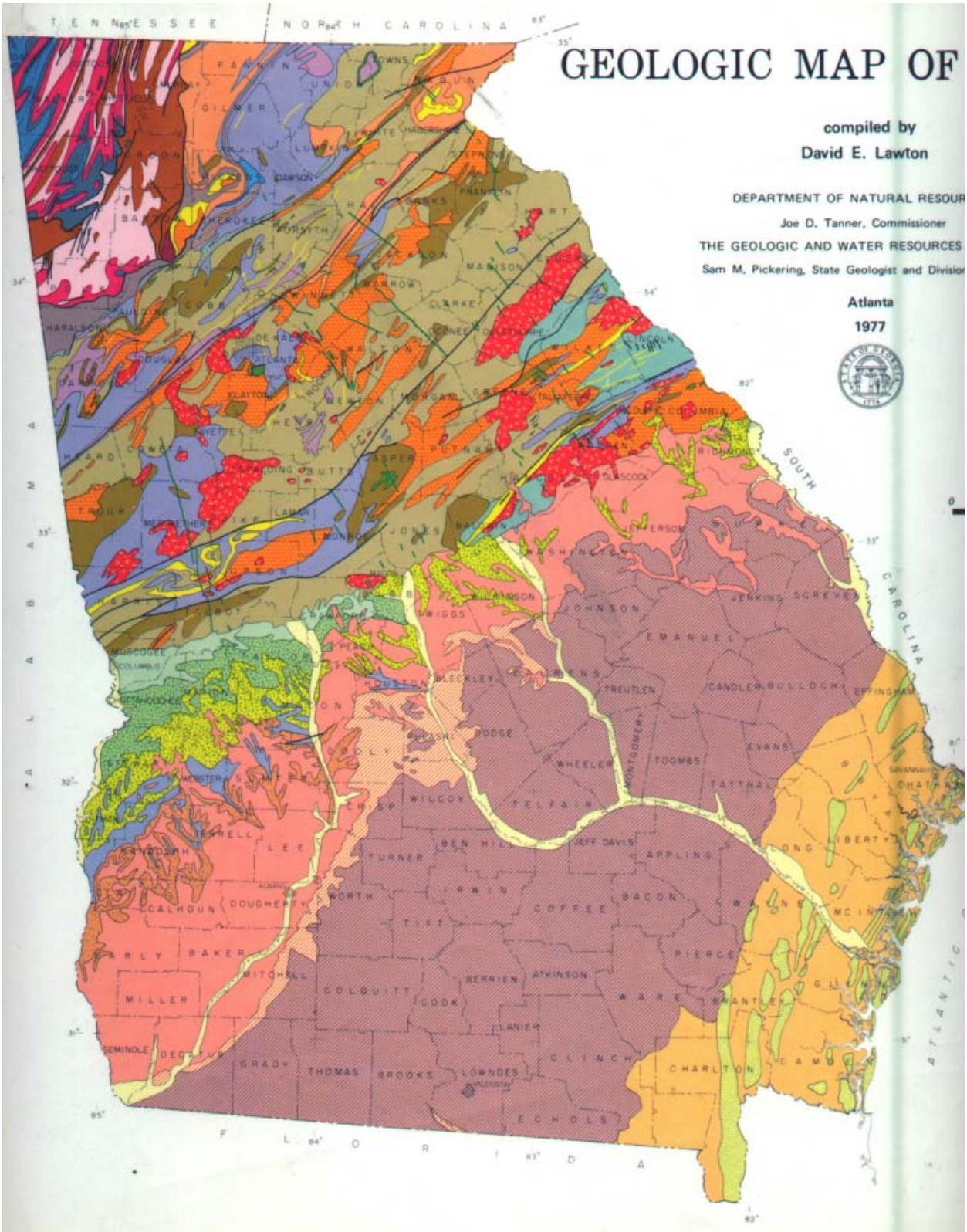
TENNESSEE
NORTH CAROLINA
GEOLOGIC MAP OF
compiled by
David E. Lawton
DEPARTMENT OF NATURAL RESOUR
Joe D. Tanner, Commissioner
THE GEOLOGIC AND WATER RESOURCES
Sam M. Pickering, State Geologist and Divisio
Atlanta
1977
SOUTH CAROLINA
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FLORIDA
ALABAMA
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GILMER
DAWSON
FORSYTH
HABERSHAM
STEPHENS
FRANKLIN
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GLASCOCK
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RICHMOND
WASHINGTON
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EXPLANATION

COASTAL PLAIN SEDIMENTARY ROCKS
(in stratigraphic order)

QUATERNARY ALLUVIUM Composed of unconsolidated sand and gravel located primarily on flood plains. Only the wide alluvial deposits of the major rivers in the coastal plain are shown, although alluvium occurs throughout the state.

QUATERNARY (PLEISTOCENE AND HOLOCENE) BARRIER ISLAND DEPOSITS Located parallel to the present coast line, composed predominately of unconsolidated sand and clayey sand which were deposited at former high sea levels.

QUATERNARY (PLEISTOCENE AND HOLOCENE) MARSH AND LAGOON DEPOSITS Located parallel to the present coast line, composed predominately of sand and sandy clay which were deposited at former high sea levels.

PLIOCENE—MIOCENE DEPOSITS Includes sand, clay, fullers earth, gravel, minor limestone, dolomite, phosphatic sand, and marl.

OLIGOCENE DEPOSITS Includes limestone and minor dolomite, and the residuum from both.

UPPER EOCENE DEPOSITS Includes sand, clay, sandy clay, marl, and limestone of early Tertiary age.

MIDDLE AND LOWER EOCENE DEPOSITS Includes sand, clayey sand, kaolin, impure limestone, and marl.

PALEOCENE DEPOSITS Includes sand, clay, kaolin, limestone, and marl.

UPPER CRETACEOUS—TERTIARY DEPOSITS Includes sand, sandy clay, and marl located in the northern coastal plain. East of the Ocmulgee River, this unit contains kaolin deposits of undifferentiated Cretaceous to lower Tertiary age.

UPPER CRETACEOUS DEPOSITS Includes sand, clay, and marl.

UPPER CRETACEOUS DEPOSITS Includes sand, gravel, and clay.

RIDGE AND VALLEY SEDIMENTARY ROCKS
(in stratigraphic order)

PENNSYLVANIAN ROCKS Includes the sandstone, conglomerate, shale, and coal of the Lookout Plateau.

MISSISSIPPIAN ROCKS Includes limestone, shale, and chert with lesser sandstone units.

DEVONIAN ROCKS Includes sandstone, shale, and chert. Underlain by SILURIAN ROCKS, composed of an iron-rich complex of sandstone, siltstone, and shale. Underlain by ORDOVICIAN ROCKS, including Middle and Late Ordovician shale and limestone.

CAMBRIAN AND ORDOVICIAN ROCKS Includes units which transgress the time boundary between the Ordovician and Cambrian Periods; composed of limestone, dolomite, and chert.

CAMBRIAN ROCKS Includes those units comprising a group of shale, limestone, and lesser units of dolomite underlain by another group of Cambrian rocks, composed of a thick sequence of shale, siltstone, sandstone, limestone, and dolomite.

CAMBRIAN—preCAMBRIAN ROCKS Includes the sedimentary quartzites of the eastern Ridge and Valley Province.

BLUE RIDGE AND PIEDMONT CRYSTALLINE ROCKS
(no stratigraphic order implied)

GRANITE Includes those units which are granitic in composition and texture and units of mixed lithology which are composed predominately of granite.

GRANITE GNEISS Includes all strongly banded metamorphic units of granitic composition whether of igneous or sedimentary origin.

BIOTITE GNEISS Includes units of metamorphic rock displaying gneissic banding, strong foliation, and relatively high biotite-mica content. Also includes those mixed lithologies which are predominately biotite gneiss.

QUARTZITES Includes those units which are composed predominately of metasandstone. Also mixed lithologies in which quartzite predominates.

METAGRAYWACKE Includes metagraywackes with lesser units of mica schist, quartzite, amphibolite and conglomerate.

MICA SCHIST Includes a wide variety of mica schists containing biotite and/or muscovite with lesser units of graphite schist, gneisses, and amphibolites.

ALUMINOUS SCHISTS Includes those mica schist units which contain a moderate to large percentage of aluminosilicate minerals such as garnet, kyanite, sillimanite, and staurolite. Also includes mixed lithologies in which the aluminous schists predominate.

PELITIC AND CALCAREOUS ROCKS Includes calcareous schists metagraywackes, metaconglomerates, metasandstones, and marble.

PHYLLITIC ROCKS Includes meta-argillites, phyllites, graphitic phyllites and similar very fine-grained rocks of lower metamorphic grade.

MAFIC GNEISS Includes a wide variety of metamorphic rocks, (composed largely of iron-magnesium silicates) such as amphibolite, hornblende gneiss, and mafic hornfels. Also includes mixed lithologies composed predominately of these rock types.

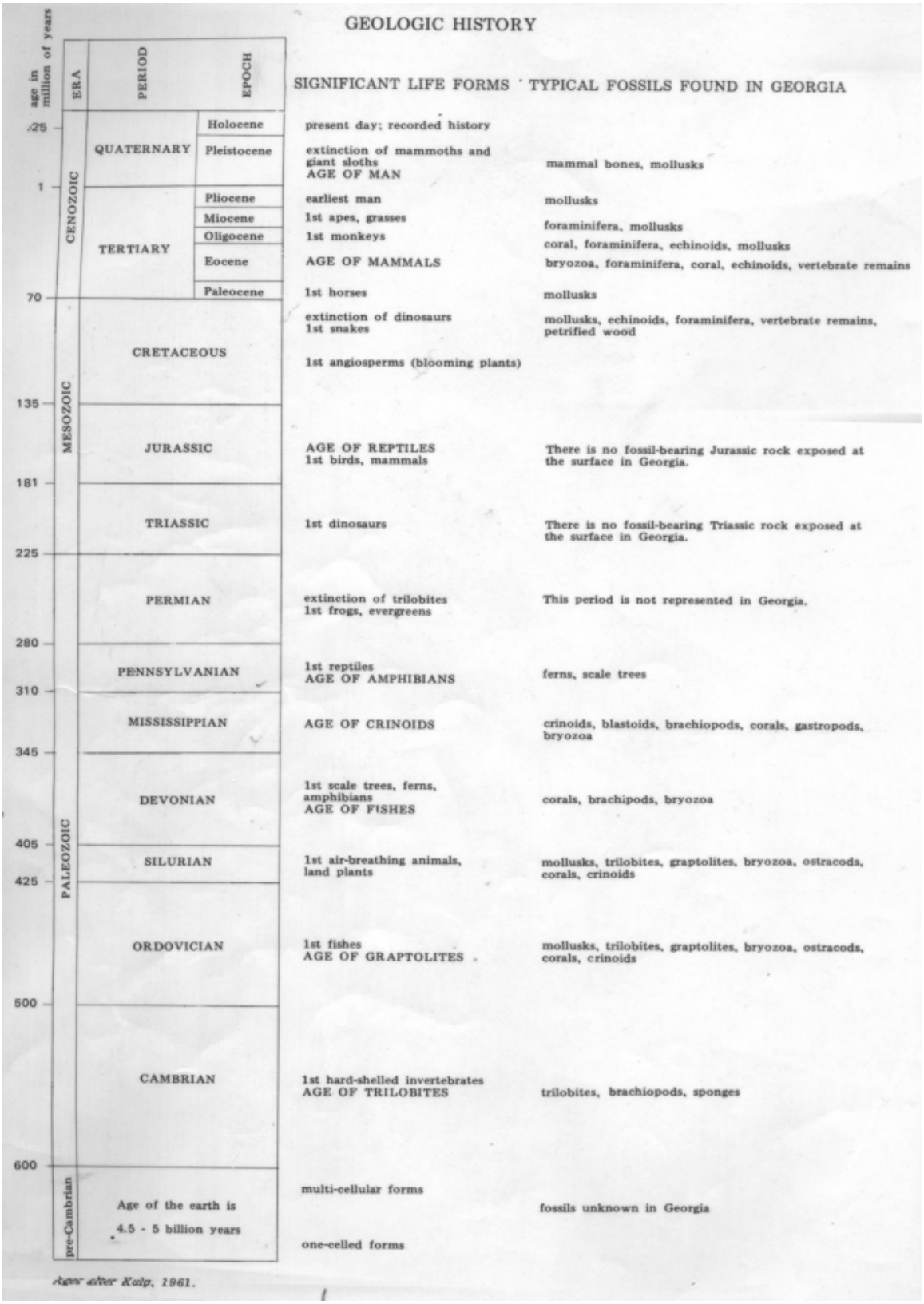
SCHISTOSE MAFIC ROCKS Includes schistose units composed predominately of various mafic minerals including chlorite, tremolite, actinolite, and hornblende.

ULTRAMAFIC—MAFIC ROCKS Includes gabbros, serpentinites, diabase, and undifferentiated ultramafics. The generally northwest trending diabase dikes are indicated by thin green lines.

METAVOLCANIC ROCKS Includes metavolcanic rocks of mafic to felsic composition, locally includes meta-argillites, phyllites, and schists.

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

GEOLOGIC HISTORY



Ager after Kulp, 1961.

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