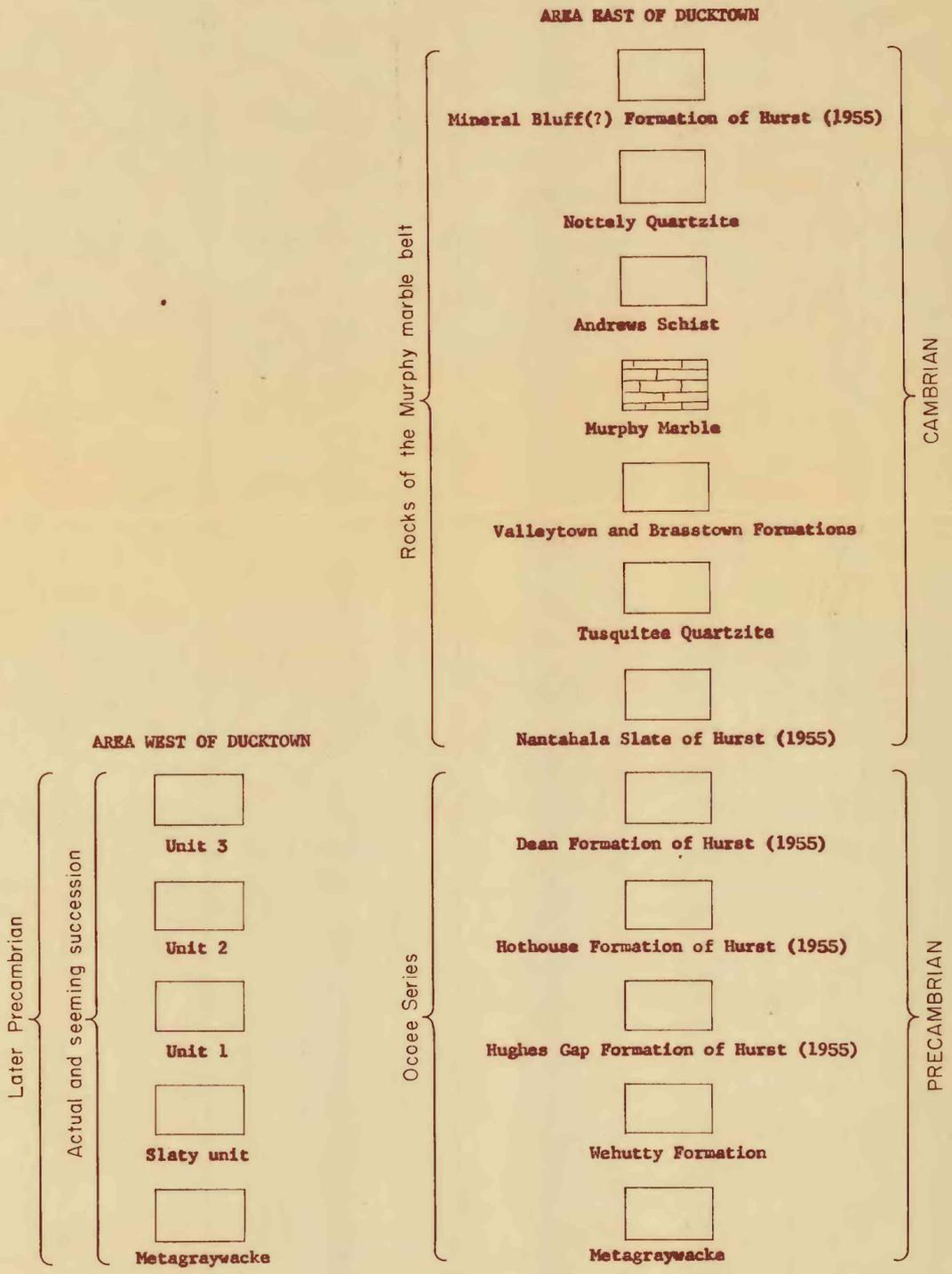
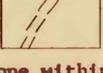


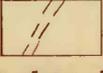
GEOLOGIC MAP OF THE DUCKTOWN, ISABELLA, AND PERSIMMON
CREEK QUADRANGLES, TENNESSEE AND NORTH CAROLINA

By Robert M. Harnon

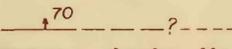
EXPLANATION FOR FIGURE 1



 Slaty or phyllite zone within metasandstone area; where mappable

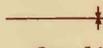
 Metasandstone within slaty phyllite or schist area; where mappable

Symbols

 Contact, showing dip
Long dashed where approximately located; short dashed where indefinite; queried where doubtful

 Fault, showing dip
Long dashed where approximately located; short dashed where inferred; queried where doubtful

 Anticline, showing prestline

 Syncline, showing troughline

 Minor anticline, showing plunge

 Minor syncline, showing plunge

 Crumpling, showing plunge
May involve slaty cleavage or schistosity

 Inclined
 Vertical
 Horizontal
 Overturned
Strike and dip of beds
Tops of inclined beds not indicated or implied. Overturned bed symbol used only where determined at point of observation and not otherwise indicated

 Direction of top of beds indicated by crossbedding
 Direction of grading from coarse to fine
Solid arrowheads indicate most reliable readings; open arrowheads, those of lesser reliability
(All may be combined with bedding symbols)

 Inclined
 Vertical
Strike and dip of slaty cleavage or schistosity

 Strike and generalized direction of dip of deformed slaty cleavage or schistosity

 Strike and dip of bedding cleavage or schistosity that prevails over considerable area
May be mimetic

 Strike and dip of slaty cleavage or schistosity and bedding where locally parallel
Probably not mimetic

 Inclined
 Vertical
Strike and dip of fracture cleavage, commonly crinkle cleavage, slip cleavage
Arrow shows plunge of crinkles

 Bearing and plunge of lineation, commonly crinkles
May be combined with other symbols

 Strike and dip of flattening of pebbles

 Bearing and plunge of long axes of drawn-out pebbles

 Conspicuous shearing

 Inclined
 Vertical
Strike and dip of joints

 Staurolite, where observed

 Chloritoid, where observed

Mineralized zones: typically massive pyrrhotite and pyrite with copper and zinc minerals

This report is preliminary and has not been edited or reviewed for conformity with U. S. Geological Survey standards and nomenclature.