Special Paper No. 1
PLATE 1

GEOLOGY OF THE WHITE MOUNTAINS APACHE COUNTY, ARIZONA

by
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and
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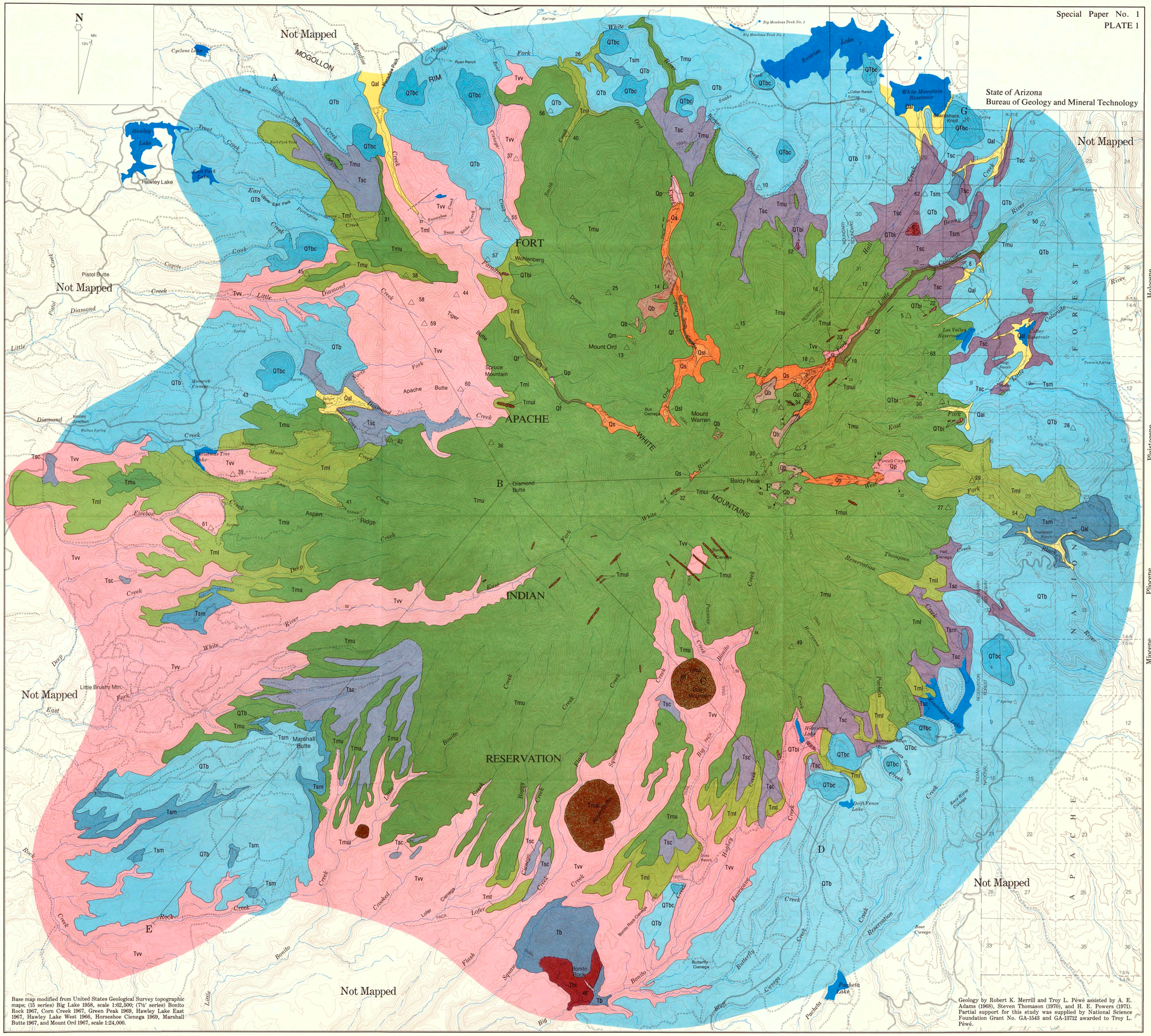
1973

State of Arizona
Bureau of Geology and Mineral Technology



Base map modified from United States Geological Survey topographic maps; (15 series) Big Lake 1958, scale 1:62,500; (7½' series) Bonito Rock 1967, Corn Creek 1967, Green Peak 1969, Hawley Lake East 1967, Hawley Lake West 1966, Horseshoe Cienega 1969, Marshall Butte 1967, and Mount Ord 1967, scale 1:24,000.

Geology by Robert K. Merrill and Troy L. Péwé assisted by A. E. Adams (1968), Steven Thomason (1970), and H. E. Powers (1971). Partial support for this study was supplied by National Science Foundation Grant No. GA-1543 and GA-13712 awarded to Troy L. Péwé.

SCALE 1:48000

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

EXPLANATION

Sedimentary Rocks

QUATERNARY

Holocene — Mount Ord Glaciation
- Qm — Till

Pleistocene — Wisconsonan — Baldy Peak Glaciation
- Qb — Till

Pleistocene — Wisconsonan — Smith Cienega Glaciation
- Qsl — Lake and swamp deposits
- Qs — Till

Pleistocene — Pre-Wisconsonan — Purcell Glaciation
- Ql — Lake deposits
- Qp — Till

- Qf — Glacio-fluvial deposits
- Qal — Undifferentiated alluvium

Volcanic Rocks

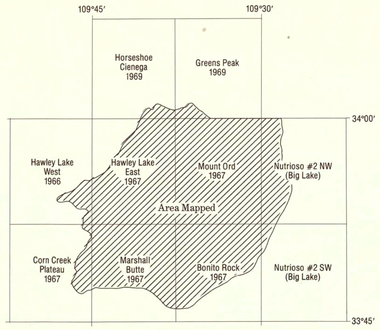
QUATERNARY

- QTbi, QTb, QTbc — **Younger Basalt**
  QTb, basalt lava flows
  QTbi, intrusive dikes
  QTbc, basalt cinders

TERTIARY

Pliocene — Miocene
- Tsc, Tsm — **Sheep Crossing Formation**
  Tsc, Campground Member, unstratified diamicton
  Tsm, Marshall Butte Member, interbedded lahars, diamicton, and tuffaceous sandstone
- Tmui, Tmu, Tml — **Mount Baldy Formation**
  Tmu, Upper Member, quartz latite, and alkali trachyte
  Tmui, intrusive dikes and domes
  Tml, Lower Member, latite
- Tb, Tbt — **Bonito Rock Trachyandesite**
  Tb, lava flow and intrusive rocks
  Tbt, Tephra
- Tvv — **Early volcanic and volcaniclastic rocks**

Index of Quadrangles



SYMBOLS

- Moraine
- Inferred glacier terminus
- Abandoned sideglacial channel contact
- Contact (dashed where inferred)
- Fault (dashed where inferred)
- Strike and dip of beds
- Strike and dip of joints
- Sample locality (A.S.U.—8200 series)
- Talus or block fields