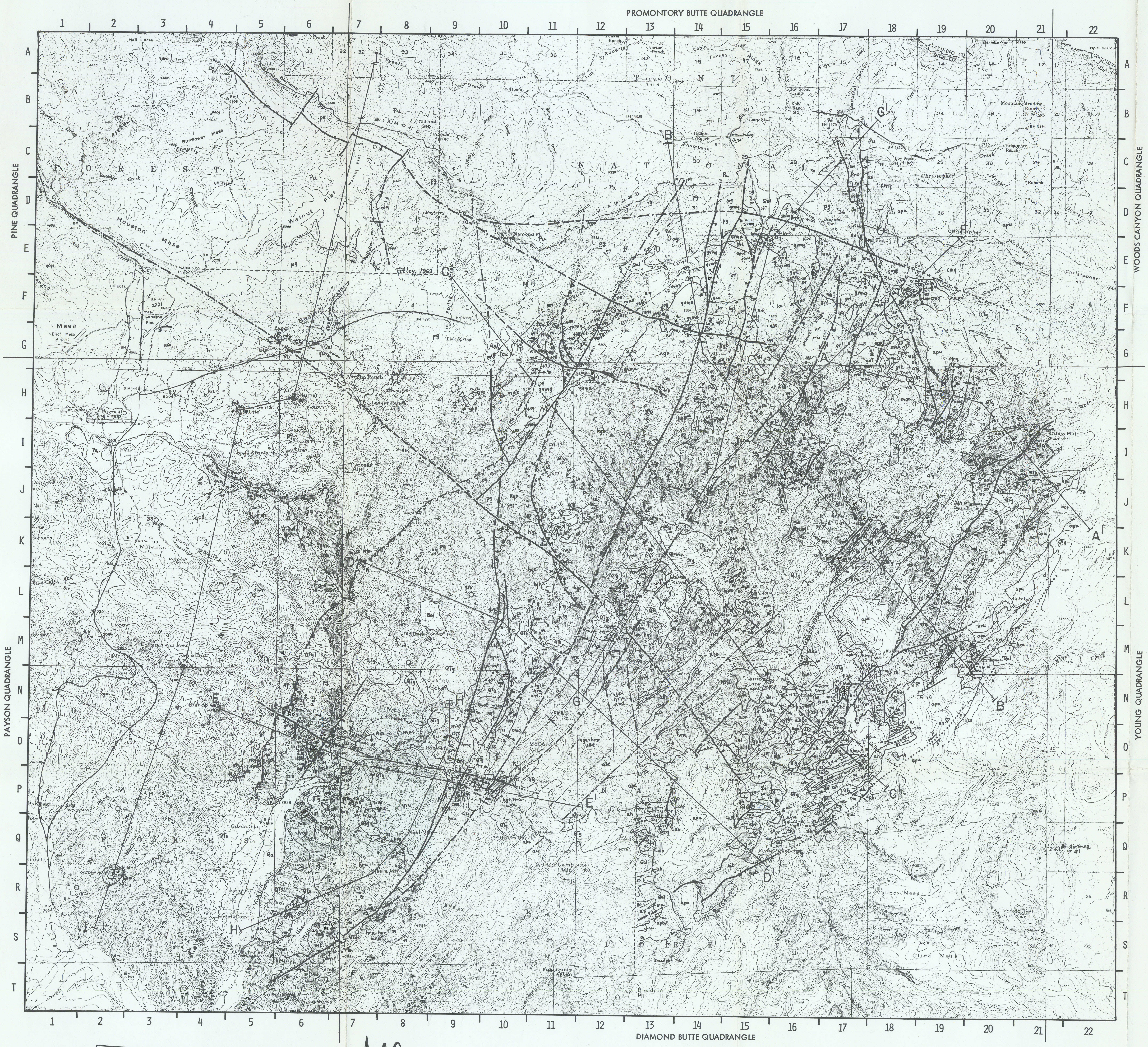
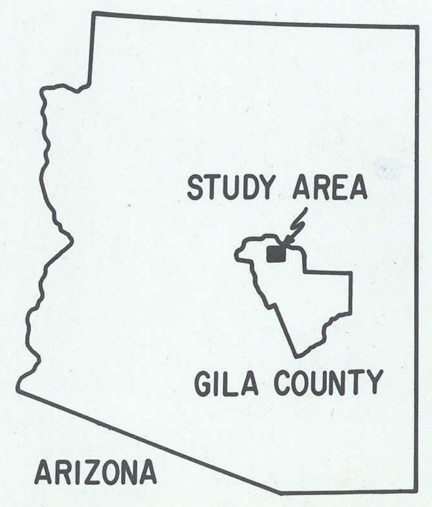
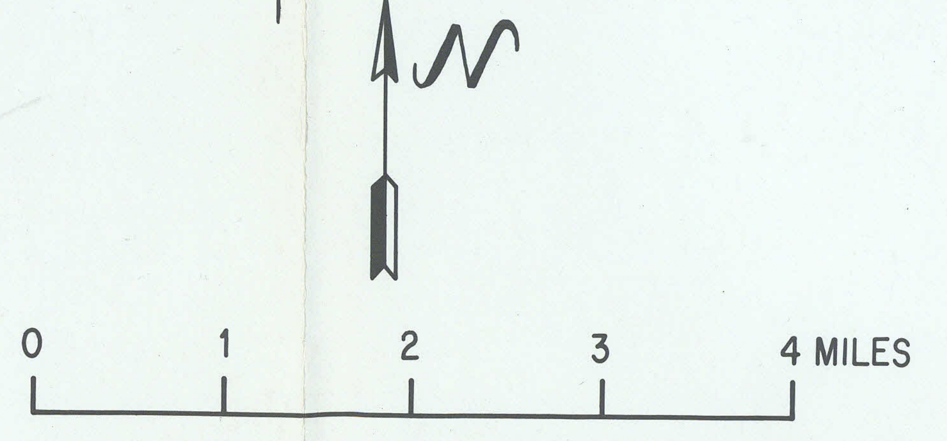
PLATE 1
CLAY M. CONWAY, 1975
CALIFORNIA INSTITUTE OF TECHNOLOGY

PRECAMBRIAN GEOLOGY
TONTO BASIN, GILA COUNTY, ARIZONA

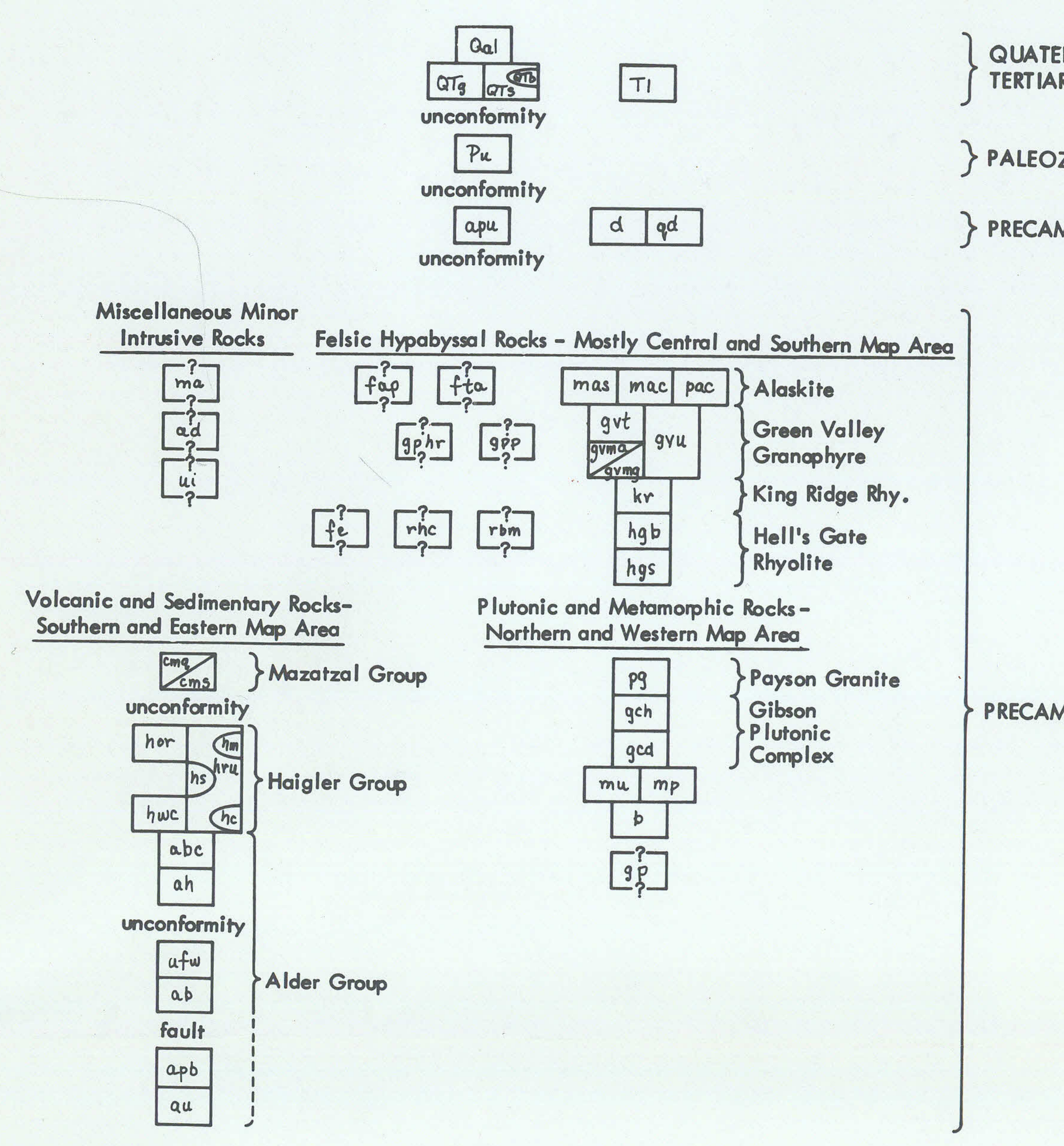






EXPLANATION

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qal — ALLUVIUM AND TALUS (Quaternary) Unconsolidated sand, gravel, and clay
- QTg — TERRACE GRAVEL (Quat.-Tert.) Unconsolidated gravels and lacustrine deposits from ancient Tonto Creek and tributaries
- QTs — VALLEY FILL SEDIMENTS (Quat.-Tert.) Stratified, semi-consolidated sand and gravel
- QTb — BASALT (Quat.-Tert.) Thin flows interlayered with valley fill sediments
- Tl — LAMPROPHYRE (Tertiary ?) Basaltic plugs in Payson Granite
- Pu — PALEOZOIC SEDIMENTARY ROCKS UNDIVIDED (Paleozoic) Sandstone, limestone, dolomite, and shale of Cambrian-Ordovician(?) and Devonian through Permian Systems
- apu — APACHE GROUP UNDIVIDED (Precambrian Y) Conglomerate, sandstone, shale, limestone
- d — DIABASE (Precambrian Y) Sills intrusive into Apache Group
- qd — QUARTZ DIABASE (Precambrian Y ?) Dikes or sills intrusive into Precambrian X rocks
- ma — MAFITE (Precambrian X ?) Very fine-grained mafic intrusive rocks
- ad — ALBITE DIORITE (Precambrian X ?) Medium-grained albite-chlorite intrusive rock
- ui — UNCLASSIFIED INTRUSIVE ROCK (Precambrian X ?)
- pac — PORPHYRITIC ALASKITE AT CHERRY SPRING (Precambrian X) Fine- to medium-grained leucocratic biotite granite with plagioclase phenocrysts
- mac — MEDIUM-GRAINED ALASKITE AT CHERRY SPRING (Precambrian X) Leucocratic biotite granite
- mas — MEDIUM-GRAINED ALASKITE SILLS (Precambrian X) Leucocratic biotite granite
- fta — FINE-GRAINED TOURMALINE ALASKITE (Precambrian X) Leucocratic tourmaline-bearing biotite granite
- fap — FINE-GRAINED ALASKITE PLUGS (Precambrian X) Leucocratic biotite granite plugs in Payson Granite

GREEN VALLEY GRANOPHYRE (Precambrian X) Leucocratic, porphyritic, micrographic sills. Mostly 'red-rock' granophyre, rarely gray with aegirine-augite.

- gvt — THOMPSON WASH PHASE

MESCAL RIDGE PHASE

- gvma — Aplite, porphyritic aplite, granophyric aplite
- gvmg — Granophyre: abundant quartz phenocrysts
- gvu — GREEN VALLEY GRANOPHYRE UNDIVIDED
- gpp — GRANOPHYRE PLUGS IN PAYSON GRANITE (Precambrian X) Leucocratic, porphyritic, micrographic to granular, abundant quartz phenocrysts
- gphr — GRANOPHYRE (Precambrian X) Leucocratic, micrographic to granular
- kr — KING RIDGE RHYOLITE (Precambrian X) Sill of leucocratic, porphyritic, spherulitic rhyolite and granophyre

HELL'S GATE RHYOLITE (Precambrian X) Sills of leucocratic, rhyolite porphyry

- hgb — BLUE DOG PHASE Abundant inclusions of mafite porphyry and diorite
- hgs — SALT LICK PHASE Minor mafite porphyry inclusions
- fe — FELSITE (Precambrian X) Minor sills and other, possibly Hell's Gate Rhyolite
- rhc — RHYOLITE (Precambrian X) Highly leucocratic intrusive porphyry at Hog Canyon
- rbm — RHYODACITE(?) (Precambrian X) Intrusive hybridized(?) porphyry at Bull Mtn.
- pg — PAYSON GRANITE (Precambrian X) Medium- to coarse-grained leucocratic biotite granite and ferrohastingsite granite

GIBSON COMPLEX (Precambrian X)

- gch — Hornblende granophyre: abundant assimilated diorite, less mafite porphyry
- gcd — Hornblende diorite, hornblende gabbro, layered pyroxene gabbro, minor granodiorite and quartz monzonite
- mp — MAFITE PORPHYRY (Precambrian X) Very fine-grained mafic intrusive(?) rock with plagioclase and K-feldspar megacrysts
- mu — MAFITE UNDIVIDED (Precambrian X) Mafite porphyry, very fine-grained granophyre, and hybridized porphyritic rocks
- b — BUCHITE (Precambrian X) Partially melted quartz monzonite(?)
- gp — GISELA PENDANTS (Precambrian X) Metamorphosed wacke, rhyolite, andesite,quartzite

MAZATZAL GROUP (Precambrian X)

CHRISTOPHER MOUNTAIN QUARTZITE

- cmq — Well-bedded, cross-laminated quartzite
- cms — Purple slate, rhyolite detritus

HAIGLER GROUP (Precambrian X)

- hor — OXBOW RHYOLITE Leucocratic, strongly porphyritic, massive flow

HAIGLER RHYOLITE UNDIVIDED

- hru — Leucocratic rhyolite: ash-flow tuff, flows, breccias, generally weakly porphyritic. Very minor conglomerate, slate, mafic volcanic rock.
- hm — Mafic volcanic rock
- hs — Slate, wacke
- hc — Conglomerate (mostly rhyolite clasts)
- hwc — WINTER CAMP FORMATION Rhyodacite flows, breccia, tuff, conglomerate

ALDER GROUP (Precambrian X)

- abc — BOARD CABIN FORMATION Andesite porphyry, mafic pillow lava and agglomerate, conglomerate, wacke, slate
- ah — HOUDEN FORMATION Well-bedded, cross-laminate quartzite, slate
- afw — FLYING W FORMATION Conglomerate, rhyodacite, basalt(?)
- ab — BREADPAN FORMATION Wacke, quartzite, slate, conglomerate
- apb — PRE(?)-BREADPAN ROCKS Mafic volcanic rocks, slate, minor limestone
- au — UNDIFFERENTIATED ALDER GROUP

SYMBOLS