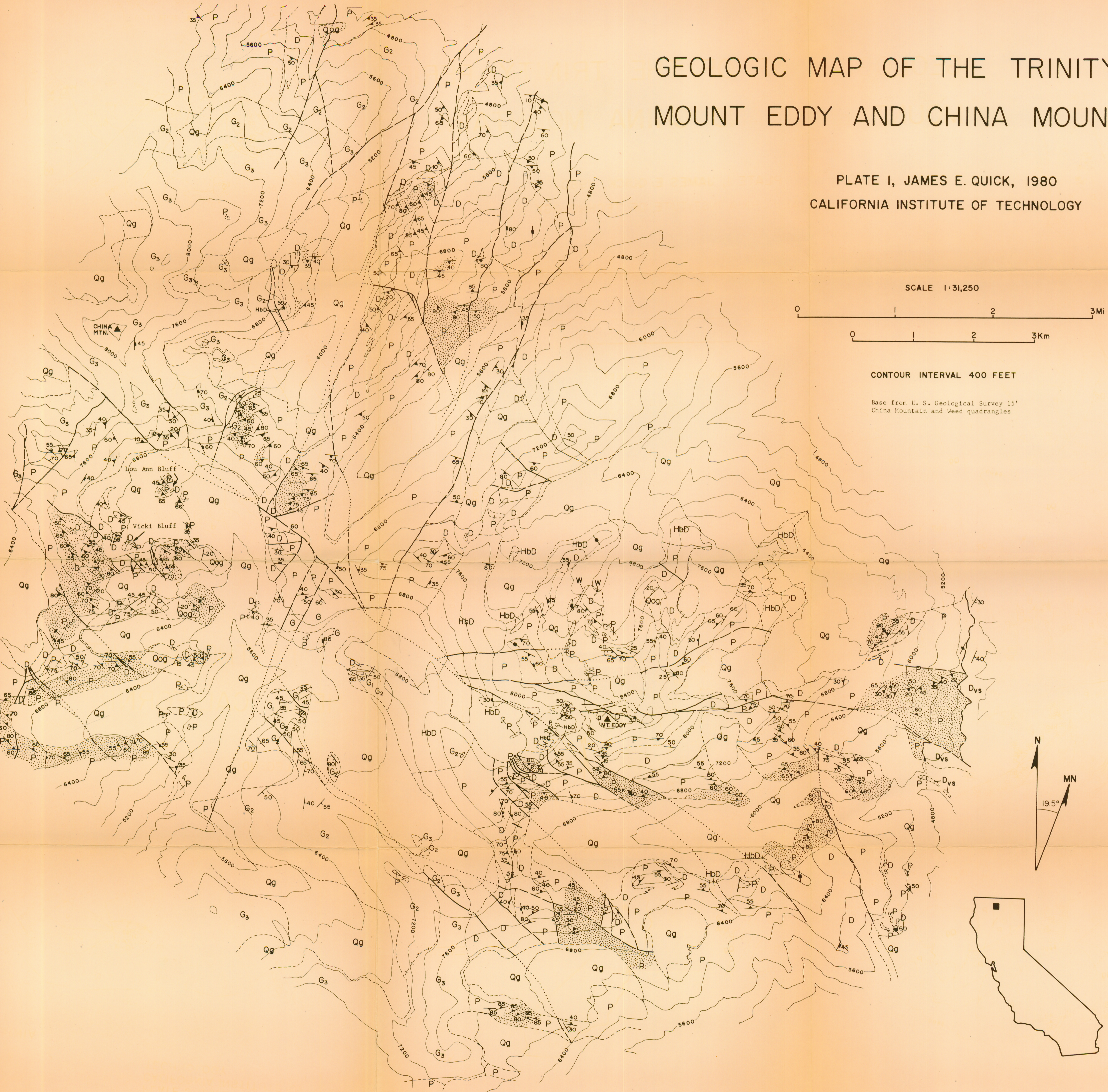


GEOLOGIC MAP OF THE TRINITY PERIDOTITE IN THE VICINITY OF MOUNT EDDY AND CHINA MOUNTAIN, NORTHERN CALIFORNIA

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LEGEND

SEDIMENTARY ROCKS

- Qg** UNDIFFERENTIATED ALLUVIUM, GLACIAL TILL AND TALUS
- Qog** OLDER GLACIAL DEPOSITS
Massive to poorly layered, well-indurated, unsorted conglomerate.
- Dvs** UNDIFFERENTIATED SEDIMENTARY AND VOLCANIC ROCKS
Red-weathering, gray-green plagioclase porphyry and agglomerate, and black, well-laminated shale.

INTRUSIVE ROCKS

- Albite Granite**
A medium-grained rock composed of 60-70 percent albite, 30-40 percent quartz and minor amounts of black amphibole and/or epidote.
- HbD** HORNBLÉNDE DIORITE
Medium-grained diorite composed of black amphibole, plagioclase and minor amounts of quartz and opaques. Locally porphyritic with blocky plagioclase and accretular hornblende phenocrysts.
- G3** GABBRO
Massive, coarse-grained gabbro composed of about 50-70 percent plagioclase and 30-50 percent green clinopyroxene and/or black amphibole.
- G2** PYROXENITE
A medium- to coarse-grained rock composed of 70-80 percent pyroxene. Orthopyroxene comprises about 10-20 percent of the rock, and near the base of the unit, interstitial olivine makes up 10-20 percent. Layering is present locally; orientation of pyroxene grains defines a weak planar fabric that is parallel to the layering. The olivine pyroxenite grades upward into feldspathic pyroxenite that is composed of 70-80 percent pyroxene, 10-20 percent plagioclase, and <10 percent olivine. Plagioclase is interstitial pyroxene.
- G1** INTERLAYERED DUNITE AND WEHLRITE
Interlayered, medium- to coarse-grained dunite (ol + sp + minor cpx) and wehrlite (ol + sp + cpx + minor opx). Layers range in thickness from 0.3-5 cm. Size-graded bedding and "soft-sediment" folds present locally. Cut by extremely coarse-grained wehrlite dikes.

PERIDOTITE

- W** WEHLRITE
Black-weathering medium-grained peridotite composed of about 90 percent clinopyroxene and subequal amounts of olivine and orthopyroxene.
- D** DUNITE
Essentially biminerallitic rock composed of about 98-99 percent olivine and 1-2 percent spinel. Local pods of poikilitic clinopyroxene up to 1 m long; most pods are elongate within the foliation plane. Local irregular bodies of harzburgite, <1 m to 10 m in size.
- P** UNDIFFERENTIATED PERIDOTITE
Mostly harzburgite (ol + opx + sp) with subordinate amounts of dunite (ol + sp), lherzolite (ol + opx + cpx + sp) and plagioclase lherzolite (ol + opx + cpx + plag + sp); stippled areas are predominately plagioclase-bearing peridotite. Plagioclase lherzolite forms irregular shaped bodies, 5 cm to tens of meters across, and, locally, is the most abundant lithology. Dunite forms irregular bodies generally less than 5 m across and tabular bodies or "dikes" 5 cm to 10 m wide. Locally, dunite comprises up to 30-40 percent of this unit.

SYMBOLS

- Contact: solid where accurately located, dashed where approximately located, queried where inferred, dotted where concealed.
- Fault: solid where accurately located, dashed where approximately located, queried where inferred, dotted where concealed.
- Attitude on foliation (inclined, vertical).
- Attitude on: (1) banding in harzburgite, lherzolite or plagioclase lherzolite; (2) layering in dunite, wehrlite and olivine pyroxenite cumulates; and (4) planar fabric in olivine pyroxenite and feldspathic pyroxenite.
- Attitude on jointing (inclined, vertical).