

nully mapping of the quarry slopes, stereonet analysis of the discontinuity data, identification of the slope failure modes and areas, suggestions and control of the slope reinforcement for the long term safe use of these quarries. Of these quarries, the first one at Göztepe area is being used as open air theatre and car park, after it has been reinforced, the second one at Bayrakli is planned to be used for sporting and recreation activities and motorway is planned passing through the third quarry at Osmangazi area of the Izmir City.

STRUCTURAL CRITERIA IN LOCATING CHROMITE ORES: EVIDENCE FROM THE RIZO DISTRICT, VOURINOS OPHIOLITE, GREECE

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The Rizo chrome ore district of North Vourinos contains fine-grained low-grade chromite ores of schlieren, disseminated, massive, and nodular types. The ore zone itself is poorly exposed and highly sheared; potential continuations of the surficial ore deposits cannot be predicted from standard host rock mapping.

A structural evaluation of the area suggests subsurface continuations of Rizo ore bodies to the west of the exposed ores based on the following observations: Fold axes of schlieren ore parallel mineral lineation of host rocks trending around 270° and impart an appearance that down-dip ore continuations would lie west of the surface occurrence. The ores themselves coincide with the position of Z-fold hinges formed during dextral shear around the ore zone. This dextral shear resulted in deformation of host dunites to east-west trending tabular bodies.

The presence of ductile structures of low temperature ($950-750^{\circ}\text{C}$) plastic deformation are inferred from rotations of high-temperature fabrics into lower-temperature ductile shear zones: The intense brittle shearing and faulting in these zones obscures observations of these ductile structures themselves.

All structures present formed within a single strain orientation, apparently during a continuous evolution of deformation from plastic through brittle conditions. All stages of deformation have strongly imprinted the chromite ore. A drilling program based on these structural criteria has subsequently confirmed the predicted subsurface continuations west of the exposed ore zone.