and strongly oxidezed altered amphibolite from a fault zoze, OP-65 (Fissoka) were analyzed for platinum, palladium, gold, tellurium, arsenic and base metals.

Although Fissoka and Skouries intrusions have some common geochemical features the former differ in having lower Cu and Pd content, in both porphyry and amphibolite basement, even in the local Au-bearing mineralization. Also, the Gerakario and Pontokerasia, with a relatively weak silicifiacation and small proportion of amphibolites among country rocks, compared to Skouries and Fissoka (OP-65), are accompanied by much lower precious metal content.

Mineralogical and geochemical data from the studied porphyry systems suggest a similar behavior of precious metals during their transportation and deposition and a relationship with silicification. The presence of merenskyite (Pd-telluride) and sylvanite at Skouries, and limited fluid inclusions data from Fissoka may provide evidence for a higher temperature during the deposition of metals in the former than in latter. In addition, the low Pd content and lack a positive correlation with other precious metals at OP-65 may, reflect conditions not favorable for its mobilization rather than its deposition.

PRODUCTS OF RECENT VOLCANISM TRANSPORTED FROM NISYROS ISLAND TO ANATOLIAN PENINSULA

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Nisyros Island is one of the three recently active centers of island-arc volcanism in the Aegean Sea (the other two are in Milos and Santorini), and represents the eastern-most extremity of the island-arc chain emerged in this area. Volcanism in Nisyros Island probably started under submarine conditions, approximately some hundred thousand years ago and has continued with several eruptions. Most probably, very intensive explosive eruptions have taken place a few thousand years ago and abundant lavas together with volcanic products such as pumice fragments, volcanic bombs, lapilli, tuff and volcanic ash flows have been blown out to the surface and spread over hundreds of kilometers away from the center of eruption. These volcanic ejecta were transported in the air and deposited in Datça Peninsula of Turkey which is located 18 km east of Nisyros Island and formed 30 to 40 meters thick tuff layers. Although the western part of Datça Peninsula was covered with these volcanic products at the beginning, the majority of the transported material was eroded away by the activity of streams with time. Some of them, however, were well preserved in the depressions

around Knidos and Çesmeköy area (Figure 1). These volcanic products are dominantly tuffs, with varying amoynts of lava and pumice fragments.

Besides these volcanic materials aerially transported due to the explosive volcanic activity occurred in Nisyros Island, pumice fragments probably representing the examples of sea water transport due to the low density of these fragments were also encountered in the shoreline of Datça Peninsula, typically and abundantly around the coastline of Bencik Port near MTA Recreation and Resort Establishment Site which is 75 km away from Nisyros Island. These pumice fragments were floated in the sea and arrived at the coast-line of Datça Peninsula by the wind action and abraded by the waves with time into gravels of 6-7 cm size and are found together with limestone and serpentine gravels which from one meter high benches (or terraces) above the sea level.

STRATIGRAPHY AND TECTONIC EVOLUTION OF THE NORTHERN EDGE OF THE MENDERES MASSIF

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The Menderes Massif is represented by regionally metamorphosed rocks in the western Anatolia. In the Selçuk-Bayindir region, the lowermost unit is composed of micaschists, which is named in this study as the Bayindir formation. The beyindir schists are overlain gradationally by marbles that are named as kayaalti formation. The kayaalti formation is dominantly characterized by marbles and schist intercalations in its lower sections, whereas, the upper parts of the unit are represented by emery-bearing massive marbles. The marbles and schists intercalation have yieded a poorly-preservated coral fossil that gives an age of Triassic or Jurassic. In the uppermost parts of the massive marbles, rudist fragments are found. Thus, the age of the Kayaalti formation is presumably in the range of Late Triassic to Late Cretaceous. On the top of the Kayaalti marbles, rests conformably another micashist unit with mafic metavolcanic and metatuff lenses. This unit, which is called the Selçuk formation in this study, contains blocks of emery-bearing marbles and metaserpentinites. On the top of Menderes metamorphics, rests along a thrust fault, the nonmetamorphic Bornova melange.

In the Akhisar region, the stratigraphy starts again with thick micaschists of the Bayindir formation. In upper parts of the Bayindir schists, there is a thin lense of mafic metavolcanics and metaserpentinites, that was probably formed by submarine volcanic eruptions. The Bayindir schists grade upward into marbles of Kayaalti formation, the lower parts of which, yield fossils of Late Triassic and Jurassic ages. The uppermost part of the Kayaalti formation contains rudist fragments and upward in the section

