The redbrown portion, heavily impregnated by limonite in the E part of the profile, is a kind of "terra rossa" decomposed to different degrees, having been produced in the course of near-surface weathering.

The source rocks seem to have been carbonate deposits contaminated in varying measure by impurities. During the Early Alpine deformation, they got metamorphosed into a low-grade greenschist facies.

Based on analogies that seem to be borne out by faunistic record from Austria, the premetamorphic deposition seems to have taken place in Dogger-Malm times. The Köszeg Mountains were formed as a member of the Penninic Series.

Stop 2. Valley-head, Wine Cellars Valley, Köszeg Mountains

On the SW side of the Pogányhegy, on the upper reaches of the Wine Cellars Valley, at the crossing of the valley by the highway there is a huge rock face with low-grade sericite-phyllite rock exposed. The rock here belongs to the Velem Sericite-Phyllite Member of the Köszeg Phyllite Formation. Access is possible by motor vehicle.

Striking NE-SW the road crossing has obliquely intersected the rock beds. Thin to thick-bedded, well-foliated rocks are found here. Because of the heavy deformation by rolling and fracturing, the dip values that can be measured are quite uncertain: an average dip between 64°/30° and 58°/35°. In some places low-grade folding is noticeable, too. The fold axes strike about 140°-320°.

The commonest mineralogical components of the chlorite- or sericite-phyllites representing the main type are mica-like minerals. Their tiny or, less frequently, fairly-developed plates form banded bundles, being generally organized according to the schistosity. The micaceous fields are often curved, in fact they may be even microfolded. Both muscovite/sericite (with more or less paragonite) and chlorite are frequent contituents. The former is colourless, the latter shows a pale yellowish-greenish pleochroism. The two are largely intermingled, being often even interlayered. Admixed to the micaceous field portions of forming separate, schlierlike segregates quartz appears as single crystals or as minor aggregates in which the individual grains are closely packed. Their extinction is sligthly wavy. They are limpid, containing hardly any inclusion. Albite is a secondary component, its xenoblastous grains being relatively well developed and separable into two types: the older solitary feldspar grains associated with some micaceous parts are slightly porphyroblastous in habit and simple, their rims being frequently coated by limonite. Their inclusion content consists of fine, acicular rutile and sericite tending to become opaque. Appearing in the younger segregates, albite is xenoblastous in habit, showing but slight sericitic alteration. Represented by microcrystalline aggregates and tending to become opaque, graphitoid is associated with the micaceous field portions. Varying amounts of tiny, microlite-like, acicular rutile are found in the same position. In the more heavily deformed zones both accessories get enriched. Further accessories: tourmaline,

zircon, apatite and opaque ore. The limonitic infiltration that has affected the rock has produced stainings, fissure-fills and displacements manifested in bands.

The source rock seems to have been a clayey-muddy sediment of basin facies. Deposited supposedly in Liassic time, the sediment involved altered to phyllite in the course of a low-grade greenschist-facies alteration associated with the Alpine orogeny.
The metamorphic rocks of the Köszeg Mountains belong to the Penninic Series.

Stop 3. Köszeg Mountains, Cák, Felsö Quarry

Aligned on the N side of the valley having its mouth NNW of Cák village, old and new quarries have exposed metasandstone-metaconglomerate beds included in a calcareous phyllite sequence. Access to the quarries is possible by motor vehicle and, from Köszeg, by regular coach service.

The characteristic metaconglomerate of this locality was named "Cák Conglomerate", for the first time, by JUGOVICS (1918). The rocks exposed in the quarries are assignable to the Velem Calcareous Phyllite - and Cák Conglomerate Formations.

In the NW, NE and E walls of the abandoned upper (Felsö-)quarry, the metaconglomerate is always found exposed near the bottom, whereas the overlying rock is always calcareous phyllite. The underlying metaconglomerate forms a scarely foliated mass interbedded, in a lobate pattern, with the overlying rock.

From the overlying rock, the calcareous phyllites are slightly to fairly affected by schistosity and fined-grained. After a low-grade greenschist-facies metamorphism, the essential components of the rock are constituted by chlorite, muscovite, quartz, albite, calcite and - in some beds - dolomite minerals. The organic matter content of the parent rock has been converted into a graphitoid of meta-anthracite rank associated with the mica-rich parts.

Interbedded with the calcareous phyllites are chlorite-muscovite phyllites which derive from a mainly clay-mud source material with little or no lime content. A similar grade of metamorphism affected them as the calcareous phyllites. Overwhelming muscovite and chlorite form bundles of tiny plates affected by rolling. The variation of their proportions to each other has resulted in a banded pattern. The enrichment of graphitoid and rutile has added a darker colour shade to the mica bands. Quartz forms lenticular schlier bodies. Albite and calcite may be added to it accessorily. The detrital dolomite of varying grain size deposited in the sedimentary basin underwent recrystallization in the course of metamorphism, but the detrital grains have preserved their original structure in direct proportion with the increase of grain size.
The fine-grained, i.e. completely recrystallized, dolomite-constituted rock shows a texture and structure that is similar to that of calcareous phyllite. Relictic dolomite sand grains are round with a heavily resorbed edge and a microcrystalline inner structure being slightly to fairly affected by graphitoid impurity admixture. Mica, quartz,