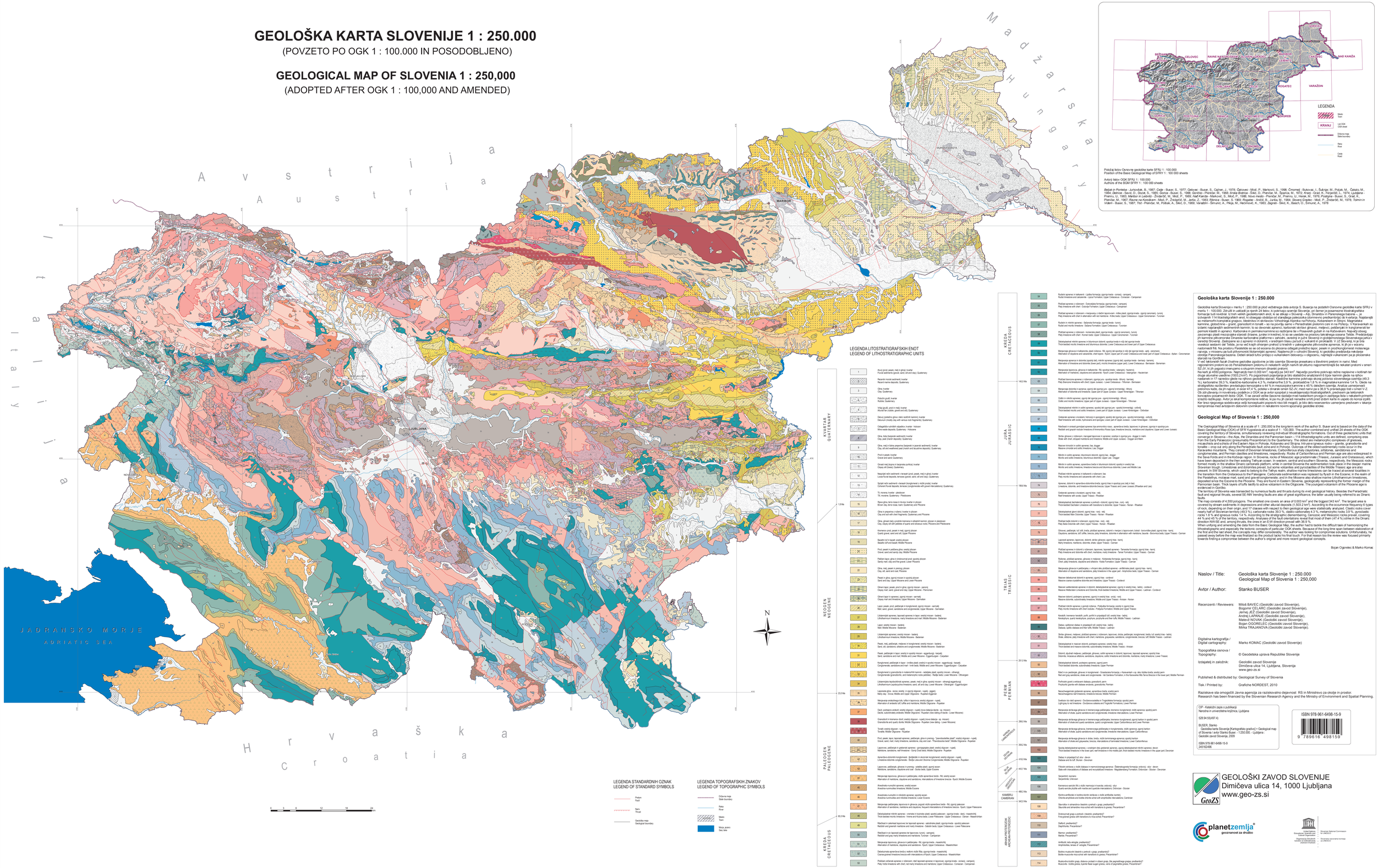
GEOLOŠKA KARTA SLOVENIJE 1 : 250.000

(POVZETO PO OGK 1 : 100.000 IN POSODOBLJENO)

GEOLOGICAL MAP OF SLOVENIA 1 : 250,000

(ADOPTED AFTER OGK 1 : 100,000 AND AMENDED)



Geološka karta Slovenije 1 : 250.000

Geološka karta Slovenije v merilu 1 : 250.000 je plod večletnega dela avtorja S. Buserja na podlagi Osnovne geološke karte SFRJ v merilu 1 : 100.000. Združi in uskladi je njenih 24 listov, ki pokrivajo ozemlje Slovenije, pri čemer je posamezne litostratigrafske formacije tudi revidiral. Iz treh velikih geotektonskih enot, ki se stikajo v Sloveniji – Alp, Dinaridov in Panonskega bazena – je izdvojenih 114 litostratigrafskih enot, ki obsegajo obdobje od starejšega paleozoika (kornmenco predkambrija) do kvartarja. Najstarejši so metamorfni kompleksi gnajsov, tilestnikov in skriljavcev Vzhodnega Alpinika na Pohorju, Kobarskem in Strojni. Magmatske kamnine so zastopane z dvema generacijama, starejšo variscijsko in mlajšo alpsko magmatsko aktivnostjo. Variscijske magmatske kamnine so izdanki najstarejših sedimentnih kamnin; to so devonski apnenci, karbonski skrilavi glinavci, meljevci, peščenjaki in konglomerati ter permski klastiti in apnenci. Karbonske in permske kamnine so razširjene še v Posavskih gubah in na Kočevskem. Največji obseg zavzemajo plasti mezozojske starosti (triasne, jurske in kredne). Ki so se usedale na prostoru takratnega oceana Tetide. Predstavljajo jih kamnine pliševornske Dinarske karbonatne platforme v zahodni, osrednji in južni Sloveniji in globljemorskega Slovenskega jarka v osrednji Sloveniji. Zastopane so z apnenci in dolomiti, v srednjem triasu pa tudi z vulkaniti in proklastiti. V JZ Sloveniji, ki je bila vsekakor sestavni del Tetide, je na vel kraju ohranjen prehod iz kredniih v paleogenske plitvovodne apnence, ki jih je v eocenu nadomestil flis. Na prostoru Panetetide so se od eocena do pliocena odlagali pretežno lapori, peski in prodnonapoznost molasnega razvoja, v mnogemu pa tudi plitvovodski litotamnijski apnenci. Najkrejmlji in v vzhodni Sloveniji, ki geološko pradstavlja nekdanje Panonsko morje, so pliocenska. Debeli skladi tufov pričajo o vulkanskem delovanju v oligocenu, najmlajši vulkanizem pa je pliocenske starosti na Gorolnjem.

V vel tektonskih fazah Zivahne geološke zgodovine je bilo ozemlje Slovenije preseknano s številnimi prelomi in nativi. Med regionalnimi prelomi so ob Periadriatskem prelomu in nekaterih večjih nativih strukturno najpomembnejši ile nekateri prelomi v smeri SZ-JV, ki jih pogosto imenujemo s skupnim imenom dinarski prelomi.

Na kartt je 4500 poligonov. Najmanjši meri 0,003 km², največji pa 343 km². Največjo površino pokrivajo ročne naplavine v kotlinah ter druge aluvialne usedline (1503,2 km²). Po pogostnosti pojavljanja je bilo statistično analiziranih 6 tipov kamnin glede na njihov nastanek in 17 razredov glede na njihovo geološko starost. Klastične kamnine pokrivajo skoraj polovico slovenskega ozemlja (49,3 %), karbonatne 39,3 %, klastično-karbonatne 4,3 %, metamorfne 3,9 %, glinokalične 1,8 % in magmatske kamnine 1,4 %. Glede na starost prevladujejo sedimenti mezozoika (50,1 %), sledijo kvartarni (26,9 %) in paleogenski sedimenti (14,6 %). Glede na prelomno kiličo, da jih najvel, in sicer 47,4 %, poteka v dinarski smeri SZ-JV, med njimi pa s 36,9 % prevladujejo tisti v smeri V-Z. Ob uzbuvanju in noveliranju podatkov z OGK ke je avtor soopral z neuskladenostjo litostratigrafskih, predvsem pa tektonskih konceptov posameznih listov OGK. Ti ke zaradi velike časovne razdalje med nastankom prvega in zadnjega lista v nekaterih primerih izrazito razlikujejo. Avtor je iskal kompromisne rešitve, ki pa mu jih zaradi nenadne smrti pred izdom karte ni uspelo do konca izpeljati. Kar brez najcvnega soglašovanja vidiš koncepturiti popravil nisi bil mogoči, je bilo delo recenzentov: usmerjeno predvsem v iskanje kompromisa med avtorjevim dosavnim izzimkom in nekaterimi novimi spoznanji geološke stroke.

Geological Map of Slovenia 1 : 250,000

The Geological Map of Slovenia at a scale of 1 : 250,000 is the long-term work of the author S. Buser and is based on the data of the Basic Geological Map (OGK) of SFR Yugoslavia at a scale of 1 : 100,000. The author combined and unified 24 sheets of the OGK covering the territory of Slovenia, simultaneously reviewing individual lithostratigraphic formations. Out of three geotectonic units that converge in Slovenia – the Alps, the Dinarides and the Pannonian basin – 114 lithostratigraphic units are defined, comprising eras from the Early Palaeozoic (presumably Precambrian) to the Quaternary. The oldest are metamorphic complexes of gneisses, tilestnikov and shales on Pohorje, in the Kobarid area and in Strojna. Variscian magmatic rocks are represented by two generations and lonalite – crop out only along the Periadriatic fault zone and in Pohorje. Outcrops of the oldest sedimentary rocks occur in the Karavanke mountains. They consist of Devonian limestones, Carboniferous shaly claystones, siltstones, sandstones and conglomerates, and Permian clastites and limestones, respectively. Rocks of Carboniferous and Permian age are also widespread in the Sava Folds and in the Kočevje region. In Slovenia, rocks of Mesozoic age predominate (Triassic, Jurassic and Cretaceous), which have been deposited in the then existing Tethyan ocean. In western, central and southern Slovenia, respectively, the Mesozoic rocks formed mostly in the shallow Dinaric carbonate platform, while in central Slovenia the sedimentation took place in the deeper marine Slovenian trough. Limestones and dolomites prevail, but some volcanites and pyroclastites of the Middle Triassic age are also present. In SW Slovenia, which used to belong to the Tethys realm, shallow marine limestones can be traced at several localities in the Karst region, which represent the transition from Cretaceous limestones to Eocene flysch deposits. The latter were deposited in the Paratethys, molasse marl, sand and gravel conglomerate, and in the Miocene also shallow-marine Lithothamnium limestones, deposited since the Eocene to the Pliocene. They are found in Eastern Slovenia, geologically representing the former margin of the Pannonian basin. Thick layers of tuffs testify to active volcanism in the Oligocene. The youngest volcanism of the Pliocene age is evidenced in Goričko.

The territory of Slovenia was transected by numerous faults and thrusts during its vivid geological history. Besides the Periadriatic fault and regional thrusts, several SE-NW trending faults are also of great significance, the latter usually being referred to as Dinaric faults.

The map consists of 4,500 polygons. The smallest one covers an area of 0.003 km², and the biggest 343 km². The largest area is occupied by alluvial deposits (1503.2 km²). Based on the frequency of occurrence, 6 types of rocks were distinguished and 17 classes of age, depending on their origin, and 17 classes with respect to their geological age were statistically analyzed. Clastic rocks cover nearly half of Slovenian territory (49.3 %), carbonate rocks 39.3 %, clastic-carbonates 4.3 %, metamorphic rocks 3.9 %, pyroclastic rocks 1.8 %, and igneous rocks 1.4 %. According to the stratigraphic dismembering, Cenozoic and Mesozoic rocks prevail, covering 44 % and 45 % of the territory, respectively. Analyses of the fault relations revealed that most of them (47.4 %) strike in the Dinaric direction NW-SE and, among thrusts, the ones in an E-W direction prevail with 36.9 %.

When unifying and amending the data from the Basic Geological Map, the author had to tackle the difficult task of harmonizing the lithostratigraphic and especially the tectonic concepts of particular OGK sheets. Because of the long time span between elaboration of the first and the last sheet, the concepts may differ considerably. The author was looking for compromise solutions. Unfortunately, he passed away before the map was finalized so the product lacks his final touch. For that reason too the review was focused primarily towards finding a compromise between the author's original and more recent geological concepts.

Bojan Ogorelec & Marko Komac

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