Finally, when looking southward, we can see perfect panorama of Tatra Mountains, Pieniny and Podhale trough with Czorsztyn Lake, and looking northward of Gorce Mountains are visible (see Golonka *et al*., 2005b).

From the Snozka Pass we are descending into Krośnica village across Magura Nappe and going uphill into Pieniny Mountains, which belong to the geological structure known as PKB. The Pieniny Mountains belong to the Polish Pieniny National Park (Pieniński Park Narodowy) and its Slovak equivalent Pieninský Narodný Park. The idea of the National Park was given by Władysław Szafer in 1921 after Poland gain her independence. The Park was established in 1932 in Poland and in 1967 in Slovakia (Kordováner *et al*., 2001b; Tłuczek, 2004). The Pieniny National Park area is 4,356 ha, 2,231 ha on the Polish (Kordováner *et al*., 2001a, 2001b; Tłuczek, 2004). One quarter of this area belongs to special nature sanctuaries, the most important ones are: Macelowa Góra, Trzy Korony, Pieniński Potok valley, Pieninki and Bystrzyk (Kordováner *et al*., 2001b; Tłuczek, 2004). 60% of the park area are forests mainly beech woods, the rest are meadows, agricultural areas and rocks. The Pieniny National Park fulfills its nature preservation role, conducting also scientific research, education and touristic activities (Kordováner *et al*., 2001b; Tłuczek, 2004; see also Museum of Pieniny National Park at Krościenko n/Dunajcem). From the Krościenko we are going to thw Szczawnica spa and farther east to the Jaworki village.

Stop 13 – Obłazowa Klippe – microfacies of the Czorsztyn Limestone Formation (Bathonian-Tithonian, Czorsztyn Succession) (Fig. 45)

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The south-eastern part of the Obłazowa Klippe shows a fairly complete sequence of the Jurassic deposits of the Czorsztyn Succession (Birkenmajer, 1963, 1977; Wierzbowski *et al.*, 1999). The best section is exposed at a rock shelter in southernmost part of the klippe, and it shows the contact of the Czorsztyn Limestone Formation with underlying crinoid limestones.

The oldest are grey crinoid grainstones of the Smolegowa Limestone Formation attaining at least 25 m in thickness (Birkenmajer, 1963). The overlying pink to rusty coloured crinoid limestones with some admixture of heamatite-marly matrix, form a single bed about 0.10 – 0.15 m thick, which belongs already to the Krupianka Limestone Formation. The upper boundary of the crinoid limestones represents an omission surface coated with ferro-manganese crusts. Overlying this surface are nodular limestones of the Czorsztyn Limestone Formation. The ammonites collected from the lower part of bed 2 include *Procerites* (*Procerites*) *progracilis* Cox & Arkell, and *Procerites* (*Siemiradzkia*) sp., indicative of the Progracilis Zone – the lowest zone of the Middle Bathonian (Wierzbowski *et al.*, 1999). The nodular limestones are developed in two microfacies types: the filament microfacies occurring in lower and upper parts of the studied deposits of the Czorsztyn Limestone Formation, and the filament-juvenile gastropod microfacies found in the middle part of the deposits. Moreover, the filament – *Globuligerina* microfacies is recognized in the topmost part of the deposits studied – it still shows the presence of the filaments together with fairly common planktonic foraminifers of the genus *Globuligerina* (Wierzbowski *et al.*, 1999; Jaworska, 2000). The younger deposits represented by nodular limestones show the presence of the *Saccocoma* microfacies (Jaworska, 2000). The occurrence of *Saccocoma* microfacies in the Czorsztyn Succession is typical of the Kimmeridgian and Lower Tithonian (Myczyński & Wierzbowski, 1994; Wierzbowski, 1994).

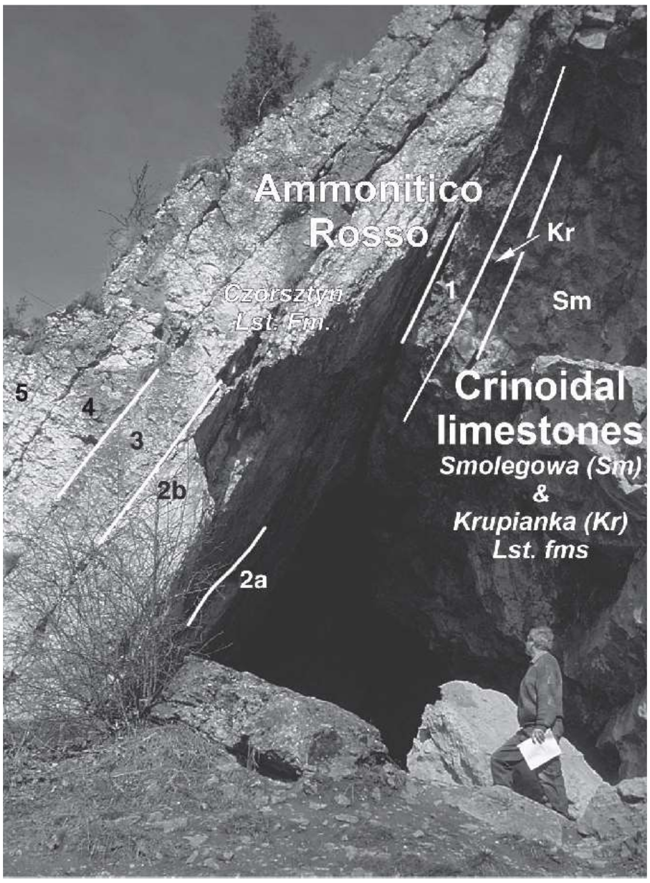

Fig. 45. Obłazowa Klippe: section studied; Sm – white crinoidal limestones of the Smolegowa Limestone Formation; Kr – red crinoidal limestones of the Krupianka Limestone Formation