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Passion to Quaternary palaeontology, geology and speleology: Professor Rudolf Musil (1926-2022)

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Introduction

Not only the professional public, but certainly also the lay one with an interest in fauna and the natural environment in prehistory, found out with regret, that Professor Rudolf Musil, a prominent Quaternary paleontologist and geologist, died on 23 February 2022.

Professor Musil's scientific work was focused mainly on fossil vertebrates (mammals and birds) from the Pleistocene period, their systematics and intra-species changes, on the development of individual species and changes in assemblages during the Pleistocene depending on changes in the environment. Professor Musil dealt with biostratigraphy, ecostratigraphy, paleoecology, paleobiology, taphonomy and biostratonomy. He studied the patterns of evolution, extinction during the Pleistocene, the first traces of domestication, genotypic changes and changes caused by the environment. He focused on the systematics and evolution of the genera *Equus* and *Ursus*. He also dealt with Quaternary geology and sedimentology (loess, fossil soils, river terraces and other fluvial sediments, cave sediments), Pleistocene stratigraphy and speleology.

Professor Musil's long life journey began on May 5, 1926 in Brno - Líšeň. After primary school, he attended the classical grammar school in the war years 1937-1945 and continued his studies at the Faculty of Science of Masaryk University in 1945-1949. Here he focused on geography and especially natural history, i.e. in addition to botany and zoology, also geology, paleontology, mineralogy and petrography. After graduating from Masaryk University, Rudolf Musil taught at the Boys' Secondary School in Petřvald near Ostrava for less than a year, but in the autumn of 1950 he began basic military service. After completing his military service, he did not return to Petřvald, he began working at the Geological-Paleontological Department of the Moravian Museum in Brno, where he became a doctor of natural sciences already in 1952 (RNDr.). Rudolf Musil remained faithful to the Moravian Museum for 24 years, specifically until the end of 1976. In the years 1954-1971 he headed the Geological-Paleontological Department, in the years 1972-1976 he headed the entire museum from the position of director. During his service to the Moravian Museum, he obtained the rank of candidate of geological-mineralogical sciences (CSc.) in 1960, was habilitated for quaternary geology and paleontology (in 1966) and became doctor of geological-mineralogical sciences (DrSc.) in 1968.

At the beginning of 1977, Rudolf Musil moved as an associate professor to the Department of Geology and Paleontology, Faculty of Science, UJEP (now the Institute of Geological Sciences, Faculty of Science, Masaryk University), where he worked as a part-time employee already in 1976. He was appointed full professor of paleontology in 1980 at the Faculty of Science, Comenius University in Bratislava. Until his retirement in 1991, R. Musil worked at the Department of Geology and Paleontology, Faculty of Science, MU (then UJEP), and in 1978-1989 he headed this department. Even at retirement age, however, Professor Musil did not leave Quaternary paleontology and geology, he worked part-time at the Institute of Geological Sciences, Faculty of Science, Masaryk University, and in 2000 he became a professor emeritus.

Fig. 1: Prof. Rudolf Musil at the International Cave Bear Symposium 2017, Photo: Juraj Gullár. | **Abb. 1**: Prof. Rudolf Musil am International Cave Bear Symposium 2017, Foto: Juraj Gullár.

The pedagogical activity accompanied Professor Musil more or less throughout his life, already in the years 1952-53 he lectured systematic paleontology at the Department of Geology and Paleontology, Faculty of Science, UJEP, in the following years he lectured on the development of species and assemblages. Since 1960, he has taught systematically, namely systematic paleontology, introduction to paleontology, evolutionary systems, and so on. He was a trainer of aspirants in zoopaleontology, and since 1965 an external teacher at the Institute of Archeology and Museology, Faculty of Philosophy, MU (UJEP). He was a leader of diploma theses, member and chairman of commissions for the defense of diploma theses, commissions for state final examinations and for state rigorous examinations, commissions for the defense of candidate dissertations (CSc.), commissions for doctoral dissertation defenses (DrSc.), supervisor of doctoral studies, member and chairman of commissions for state doctoral examinations and habilitation commissions, opponent of habilitations.

Field research was also an integral part of the professor's life. In the years 1953-1955 he researched loess with K. Valoch in the vicinity of Brno, he also carried out research in the Vyškovský úval (1954-1956), dealt with the terraces of the Svitava river

Fig. 2: Prof. Rudolf Musil during the excursion at the International Cave Bear Symposium 2017, Photo: Juraj Gullár. | **Abb. 2**: Prof. Rudolf Musil während einer Exkursion des International Cave Bear Symposiums 2017, Foto: Juraj Gullár.

(1959-1961, again with K. Valoch), and for a long time he dealt with the Stránská skála issue, which he solved in the years 1948-1975. Professor Musil also enthusiastically addressed issues of cave paleontology and sedimentology, he conducted research in many caves of the Moravian Karst, in the Pod hradem Cave (with K. Valoch, 1956-1958), the Žitného Cave (1957), the Barová Cave (1956-1958), the Cave No. 4 in Vratíkov (1960-1961), the Holštejn (1965) and in the little karst island of Lažánky near Tišnov (1973). Fossil animal osteological material he processed also from the Švédův stůl Cave (1959-1960), from the Kůlna Cave (1967-1968 and 1986-1987) and from the Pekárna Cave (1967-1968). He participated in the mapping of the Quaternary on the map sheets Ivančice, Hodonín, Brno, Kojetín, Protivanov and Moravský Krumlov in the years 1986-1993. He also studied paleontological material from well-known Moravian Gravettian settlements - from Předmostí near Přerov, Pavlov and Dolní Věstonice. After the year 2000, he carried out and led a long-term comprehensive field research of sediments of the Za hájovnou Cave (Javoříčko Karst) and the Mokrá quarry (Moravian Karst). He has also participated in many international research projects and research at foreign sites (Voigstedt, Süssenborn, Ehringsdorf, Taubach, Burgtonna, Weimar, Bilzingsleben, Meiningen, Oelknitz, Bärenkeller, Urdhöhle, Kniegrotte, Teufelsbrücke, Gamsenberg, Grubgraben).

He was a member of many international societies or unions, e.g. the Paleoanthropology Society (USA), the Hugo Obermaier Gesellschaft (Germany), the International Cave Bear Symposium (Austria), the International Union for Quaternary Research, the Nespos Society (Germany), the Past Global Changes (Switzerland), the International Union of Geological Sciences (Inhigeo) and the International Speleological Union, Commission on Archeology and Paleontology.

There is no point in elaborating on this site about all the conferences, seminars and symposia that Professor Musil attended. However, he also organized or co-organized a large number of them, such as a symposium on Pleistocene problems in 1961, a workshop on evolution in 1971, a conference »Perspectives and development of applied paleontology« (1980), or a conference »Organisms and the environment in geological past in terms of paleoecology, sedimentology and geochemistry« (1982). In 1983 he organized and led a practical field course following the conference »Mutual relations of bio-, litho- and geofactors«, in 1983, 1985 and 1987 he organized conferences focused on paleoecology. In 1995, Professor Musil organized for the first time the conference »Quaternary«, a workshop with international participation. This first year was followed by other successful years under the professor's guidance, later under the guidance of Associate Professor M. Ivanov. The seminar »Quaternary« has become a very successful annual autumn tradition (with the exception of two Covid years). Professor Musil actively participated in all these seminars, including the last one, which took place on December 3, 2021. In the years 2005-2010 he organized Summer Schools of Quaternary Studies, the first year in Moravia, then in Austria, Germany, Slovakia, Poland and the last year in Czechia. His long-term research in the Za hájovnou Cave (Javoříčko Karst, 2001-2016) Professor Musil conceived as a practical, methodical, teaching course for university students. Among the conferences that Professor Musil attended regularly and very gladly was the International Cave Bear Symposium. The last time he participated in the »bear« symposium was in 2017.

Professor Musil was a hardworking and active person until the end of his days, which is evidenced, among other things, by his very extensive publishing activity. Apart from work, however, he was able to find time for other activities, such as scouting; to the scouting movement he remained loyal throughout his life. Another passion of his was speleology; he was an active speleologist, a member of several speleological groups, and later an honorary member of the Czech Speleological Society. Professor Musil was a friendly, sociable and open person, his students and younger colleagues always appreciated his helpfulnessly approach and willingness to share his years of experience. He raised a number of followers who are today excellent experts. He was never afraid of new challenges and maintained his vigor, enthusiasm and optimism for life until his late age. With his passing, we are losing not only an internationally recognized scientist, an excellent expert and teacher, but also a kind, affable person with an interest not only in nature, but also in society.

With Professor Rudolf Musil, a great generation of Quaternary researchers of the second half of the 20th century is leaving. Honor his memory.

Selected publications of Rudolf Musil

Musil, R., Děkanovský, O., Ivanov, M., Doláková, N., Mrázek, J., Juřičková, L. & Lundberg, J. (2019): Dagmar Cave (Czech Republic, Moravian Karst), a unique palaeontological site of the Cromerian Interglacial. — Quaternary International 504: 56-69. doi:10.1016/j.quaint.2018.03.029.

Musil, R., Sabol, M., Ivanov, M. & Doláková, N. (2014): Middle Pleistocene stratigraphy of the deposits in Za Hájovnou Cave. — Acta Musei Nationalis Pragae. Praha: Národní muzeum 70, 1-2: 107-119.

Lundberg, J., Musil, R. & Sabol, M. (2014): Sedimentary history of Za Hajovnou Cave (Moravia, Czech Republic): A unique Middle Pleistocene palaeontological site. — Quaternary International 339-340: 11-24. doi:10.1016/j.quaint.2013.04.006.

Wiśniewski, A., Adamiec, G., Badura, J., Bluszcz, A., Kowalska, A., Kufel-Diakowska, B., Mikołajczyk, A., Murczkiewicz, M., Musil, R., Przybylski, B., Skrzypek, G., Stefaniak, K. & Zych, J. (2013): Occupation dynamics north of the Carpathians and Sudetes during the Weichselian (MIS5d-3): The Lower Silesia (SW Poland) case study. — Quaternary International 294: 20-40. doi:10.1016/j.quaint.2011.09.016.

Musil, R. (2012): Die stratigraphische Anwendung der Evolution der Pferde im Hinblick auf die Funde von Schöningen. In: Behre K.-E. (Eds.): Die chronologische Einordnung der paläolithischen Fundstellen von Schöningen. The chronological setting of the Palaeolithic sites of Schöningen. — Römisch-Germanisches Zentralmuseum Mainz: 125-128.

Musil, R. (2011): The Environment of Pavlov and its surrouding area during the Pavlovian. In: Svoboda, J. (ed.): Pavlov Excavations 2007-2011. — The Dolní Věstonice Studies 18: 76-114.

Musil, R. (2010): Überlebensstrategien von Elefanten. In: Meller, H. (Eds.): Elephantenreich. Eine Fossilwelt in Europa, Halle/Saale: 322-336.

Musil, R. (2010): Das Austerben der Megafauna am Ende des Pleistozäns. In: Meller, H. (Eds.): Elephantenreich. Eine Fossilwelt in Europa, Halle/Saale: 613-624.

Musil, R. (2008): Neue Bärenart von Bilzingsleben. — Acta Musei Moraviae, Scientiae geologicae 93: 245-246.

Musil, R. (2008): The Paleoclimatic and Paleoenvironmental Conditions at Předmostí. In: Velemínská, J. & Brůžek, V. (Eds.): Early Modern Humans from Předmostí. A new reading of old documentation. — Academia Praha: 15-20.

Musil, R. (2007): The Moravian Karst - the cradle of karst research in Central Europe. — Scripta Fac. Sci. Nat. Univ. Masaryk. Brun. Gelogy. 35: 17-30.

Ivanov, M., Musil, R. & Brzobohatý, R. (2006): Terrestrial and Marine Faunas from the Miocene Deposits of the Mokrá Plateau (Drahany Upland, Czech Republic). Impact on Palaeogeography. — Beiträge zur Paläontologie 30: 223-239.

Musil, R. (2005): Arctoide und speleoide Merkmale bei den mittelpleistozänen Bären. — Abh. der Naturhist. Ges. Nürnberg 45: 163-168.

Musil, R. (2005): Animal prey. In: Svoboda, J. (ed.): Pavlov I Southeast. A window Into the Gravettian Lifestyles. The Dolní Věstonice Studies 14,2: 190-228.

Musil, R. & Valoch, K. (2005): Environmental changes spanning the Early-Middle Pleistocene transition. — Jahresschrift für mitteldeutsche Vorgeschichte: 51-98.

Musil, R. (2006): Die Bärenpopulation von Bilzingsleben - eine neue mittelpleistozäne Art. — MUNIBE 57: 67-101.

Musil, R. (2003): The Early Upper Palaeolithic Fauna from Stránská skála. — The Dolní Věstonice Studies 10: 213-218.

Stewart, J. R., Kolfschoten van, T., Markova, A. & Musil, R. (2003): The Mammalian Faunas of Europe during Oxygen Isotope Stage Three. — Donald Institute Monographs Cambridge: 103-130.

Stewart, J. R., Kolfschoten van, T., Markova, A. & Musil, R. (2003): Neanderthals as Part of the Broader Late Pleistocene Megafaunal Extinctions? — Donald Institute Monographs Cambridge: 221-231.

Musil, R. (2002): Morphologische und metrische Differenzen der Pferde von Bilzingsleben und Schoningen. — Praehistorice Thuringica 8: 143-148.

Musil, R. (2002): Das Studium der Pferde aus der Lokalitat Grubgraben. — Acta Musei Moraviae, Sci.geol. 87: 165-219.

Musil, R. (2001): Die Equiden-Reste aus dem Unterpleistozän von Untermassfeld. In: Kahlke, R.D. (Eds.): Das Pleistozän von Untermassfeld bei Meiningen, Thüringen. — Römisch-Germanisches Zentralmuseum Mainz 40/2: 557-587.

Musil, R. (2001): Die Ursiden-Reste aus dem Unterpleistozan von Untermassfeld. In: Kahlke, R.D. (Eds.): Das Pleistozän von Untermassfeld bei Meiningen, Thüringen. — Römisch-Germanisches Zentralmuseum Mainz 40/2: 633-658.

Musil, R. (2000): Domestication of wolves in Central European Magdalenian sites. — BAR International Series 889: 21-28.

Musil, R. (2000): The Environment in Moravia during the Stage OIS 3. In: Neanderthals and Modern Humans - Discussing the Tradition: Central and Eastern Europe from 50.000-30.000 B.P. — Wissenschaftliche Schriften des Neanderthals Museums 2: 68-75.

Škrdla, O. & Musil, R. (1999): Jarošov II - nová stanice gravettienu na Uherskohradištsku. — Přehled výzkumů AÚ AV ČR, Brno: 47-51.

Musil, R. (1999): The environment in Moravia during Stage 3. In: State of the project at the start of its fourth phase. — Godwin Institute for Quaternary Research, University of Cambridge: 69-78.

Musil, R. (1999): Životní prostředí v posledním glaciálu. — Acta Musei Moraviae, Sci. Geol. Brno 84: 161-186.

Musil, R. (1997): Tuřanská terasa Svitavy v Brně. — Geologické výzkumy na Moravě a ve Slezsku 4. 14-17.

Musil, R. (1997): A dinotherium skeleton from Česká Třebová. — Acta Musei Moraviae, Sci. Geol. Brno 82: 105-122.

Musil, R. (1996): Die Jagdtierfunde von der palaeolithischen Fundstelle Gamsenberg bei Poessneck, Saale-Orla-Kreis. — Weimarer Monographien zur Ur-und Fruehgeschichte Thueringens. 25: 63-87.

Musil, R. (1995): Höhlenbären-Tatsachen und Hyphothesen. — 3. Intern. Höhlenbären-Symposium.

Guenther, E.W. & Musil, R. (1994): Zur Fauna der Fundstelle Metternich aus dem mittleren Jungpalaeolithikum. — Quartär: 173-200.

Musil, R. (1994): Die Pferde aus Ehringsdorf und ihre stratigraphische Wertung. — Tagungsband der 36. Tagung der Hugo Obermeier Gesellschaft: 19.

Musil, R. (1988): Ökostratigraphie der Sedimente in der Kůlna-Höhle. In: Valoch, K.: Die Erforschung der Kůlna-Höhle 1961 - 1976. — Anthropos, 24 (N.S. 16): 215-256.

Musil, R. (1981): Ursus spelaeus - der Höhlenbär. — Weimarer Monographien zur Ur- und Frühgeschichte 3.

Musil, R. (1980): Ursus spelaeus - der Höhlenbär. — Weimarer Monographien zur Ur- und Frühgeschichte 2.

Musil, R. (1980): Ursus spelaeus - der Höhlenbär. — Weimarer Monographien zur Ur- und Frühgeschichte 1.

Musil, R. (1972): Die Caniden der Stránská skála. In: Musil, R. (Eds.), Stránská skála I 1910-1945. — Studia Musei Moraviae, Anthropos 20 (N.S. 12): 77-112.

Musil, R. (1965): Die Bärenhöhle Pod hradem. Die Entwicklung der Höhlenbären im letzten Glacial. — Anthropos 18 (N.S. 10): 7-92.

Musil, R. (1965): Aus der Geschichte der Stránská skála. — Acta Musei Moraviae 50: 1-37.

Musil, R. (1962): Die Höhle „Švédův stůl", ein typischer Höhlenhyänenhorst. In: Die Erforschung der Höhle Švédův stůl 1953 - 1955. — Studia Musei Moraviae, Anthropos 13 (N.S. 5): 97-260.

Musil, R. (1956): Mährische Fundstellen pleistozäner Wirbeltiere. — Geologie 5: 319-323.

Musil, R. (1955): Osteologický materiál z paleolitického sídliště v Pavlově. — Acta Academia Scientarum Čechoslovenicae, Basis Brunensis 27/318: 279-320.