

Dedications to the Memory of V.M. Entov

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Vladimir Entov was a gifted and unselfish scientist, who in the years we knew him was always willing to discuss our problems and interests. He was an excellent and helpful consultant to Schlumberger both in Russia and the United States. His written output on a range of topics, many connected with oilfield science and technology, will ensure that his work is not forgotten. We shall remember his kindness, courtesy, quiet humour, and above all his intellectual honesty.

Paul Hammond and Antony Pearson
Schlumberger Research Cambridge

Professor Vladimir Entov was a respected and valued colleague and a friend. Over the years he helped me and my students think about mathematics of the interaction of phase equilibrium and multiphase flow with helpful advice, gentle but thoughtful criticism (delivered with good humor), and encouragement. His work, his papers, and his suggestions helped a group of engineers understand and embrace his careful attention to mathematical rigor in a way that strengthened our efforts measurably. His many contributions live on in all of us who learned so much from him.

Lynn Orr
Professor
Stanford University

My teacher Vladimir Markovich Entov was an extraordinary person, who profoundly affected my view of mathematics, science, and the world in general. While he was an outstanding applied scientist, his motivations were often aesthetic rather than utilitarian; this is, I think, what allowed him to achieve true brilliance. He regarded science as a kind of game, in which the winner is one who manages to get one more glimpse of the beauty of nature. And he possessed a genuine gift to be surprised and to visibly enjoy the beauty of mathematical ideas, which created an unforgettable blissful feeling when I worked with him. This ability made him one of the best teachers I have ever met. Also, he had a striking intuition and gift of scientific foresight. He predicted that what we worked on would be intrinsically connected with the

theory of integrable systems— something that became the subject of many research papers only 10 years later. This is how I will always remember him—a true intellectual, an artist of science, and a person of extraordinary integrity, wisdom, kindness, and sense of humor.

Pavel Etingof
Professor of Mathematics, MIT

When I remember him, the fragments of personal contacts arise in my memory. In library of Gubkin's University, we discuss how to get the second, mathematical education. Then the Student's Research Association, its scientific conferences, and the first presentations given by Vladimir. Postgraduate studies under the direction of professor G.I. Barenblatt. Famous all-Union Congresses on Mechanics: presentations of Vladimir and his pupils on research performed in the domain of complex flows in porous media. The USSR Highest Qualification Commission: I write the conclusion on his thesis for doctor's degree and receive powerful backing of his thesis from Academician L.I. Sedov. Vladimir is a strict head of laboratory in Institute of Research in Mechanics of the Academy of Sciences. When I am there, by all means I come into his small study-room. Recall his useful discussions of my articles in journals—*Applied Mathematics and Mechanics* and *Transaction of the Academy of Sciences*, where he was an unalterable reviewer. Sharp open disputes in the foyer of the Lomonosov State University in August, 1991. The conference dedicated to the memory of Academician Poline Polubarinova-Kochina in Moscow: Vladimir is the active President of the Organizing Committee. His son and daughter-in-law are among students of my special course in Gubkin University. Then I see them in the USA, still not equipped immigrants. Vladimir begins to live on two houses—he reads lectures on two continents—obviously he is overloading. A warm meeting in the house of his daughter in a pine wood near Washington D.C. The scientific grants of Schlumberger Research in Moscow giving rise to new impressive intensive researches. His sudden passing away ... The Life of professional scientist V.M.Entov is completed.

Victor Nikolaevski
Professor
Earth Physics Institute
Russian Academy of Sciences

It is difficult to write shortly about a man with whom you were connected for 45 years by very close friendship. First of all, V.M. was a very bright person. Even the first meeting with him has been remembered for a long time. As the acquaintance became more close you were surprised to his deep erudition in many various fields— from verses and kayak trips to the most complicated professional problems. The level of his professional skills in mechanics and engineering was extremely high. He possessed the major quality – a deep penetration into the core of any problem, the ability to construct an adequate effective mathematical model and to drive it “up to numbers” by using a rich collection of mathematical methods. The scope of his scientific interests was very wide: fluid flow in porous media, enhanced oil recovery, elasticity theory, rheology of non-Newtonian fluids, well testing. He was also a brilliant teacher: many talented scientists from all the former USSR realized their abilities under his guidance...

Victor Ryzhik
Professor
Oil State Institute, Russia

With the passing of Prof. Vladimir Entov, the scientific community lost a rare scientist and a genuine teacher. For several decades, he devoted his life not only to scientific inquiry and the understanding of new physical phenomena, but also to the nurturing of young scholars. Vladimir left behind hundreds of original scientific papers, several books, and a generation of students who are continuing the many paths he charted. These achievements have been described in detail in numerous memorial articles in various scientific journals. But those of us who had the chance to work closely with him will miss Vladimir on other levels as well. Personally, I lost not only an associate with whom I worked closely for over a decade, but also a great friend with whom I spent hours discussing and arguing issues other than science. In addition to his scientific interests, Vladimir was passionate about social issues, and had a profound knowledge of history, politics, and philosophy. Without exaggeration, his humanism and his sensitivity to social justice matched or even exceeded his scientific intellect. The image so many of us will remember is this: Vladimir, whether in subzero weather or in blazing heat, pacing back and forth, smoking, absorbed in his thoughts, trying to resolve a problem.

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I first met Vladimir Entov when he was able to come to the Golden Jubilee Meeting of the British Society of Rheology in 1990 and later that year I experienced Russian hospitality which included a visit to Vladimir's laboratory in the Institute for Problems in Mechanics in Moscow. That visit included the Vinogradov Memorial Symposium and the first photograph I have of Vladimir is taken at the top of the famous steps in Odessa. From that time on we kept in touch and my last memory is of sharing a flat with him in Cambridge in 2006 at a meeting in the Isaac Newton Institute. Vladimir was widely read both in his field and outside it, as well as his scientific papers. I have a copy of stories by Bulgakov which he gave us. He was always ready to discuss and to question in a forthright manner; truly he was a valuable colleague and friend.

C J S Petrie

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We worked with VM together for 10 years and he became my teacher and friend. He always emphasized to me that he is an engineer first and then an applied mathematician/theoretician. He memorized many physico-chemical parameters, and was able to make estimates anywhere. During his last years, VM split his time between his family in the US and visiting Moscow. In 2004, I invited him to visit TRI/Princeton, NJ, where I worked after I left IPM RAS in 2000. It was my pleasure to see that VM did not change: same sharp questions and curiosity, fullness of plans. He loved life and was fighting for it until the end. In last few months, he stoically stood the treatment and was trying to talk on telephone not showing how he struggled through the pain. I take off my hat before the man who has set high standards in mechanics and engineering of porous materials and complex fluids and inspired several generations of Russian scientists.

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