



IN MEMORIAM
DAVID PEVEAR

(1940–2021)

(David Pevear, pictured above [left] with his partner Adrian Beserra)

We mourn the passing of David Pevear, who died on May 1, 2021, in Jamul, California, after having been diagnosed with pancreatic cancer 10 days earlier. He had predicted his future demise during an interview for the 1995 winter issue of CMS News: “I’m waiting for us all to have our tragic ends. We all get to have a tragic end. Although I already figured out that I’m probably going to go like Mama Cass, choking on a ham sandwich.” Pevear was born on August 21, 1940, in Waltham, Massachusetts, USA. He first became interested in clays as an undergraduate chemistry major at Allegheny College, where he built a DTA instrument for a class project using borrowed tools and stainless steel spoons lifted from the cafeteria. He earned a PhD from the University of Montana in 1969, where he studied under John Hower, and later with Arnie Silverman when Hower moved to Case Western Reserve University in

Cleveland, Ohio. For his thesis he investigated clays in rivers, estuaries, and continental slope sediments off the southern US Atlantic coast. Working in Orrin Pilkey’s lab, he discovered that whereas the rivers carried kaolinite, formed by intense semi-tropical weathering on land, the estuarine and slope sediments were dominated by chlorite and illite brought from farther north. Therefore, the ocean sediments were not a good indicator of climate on the adjacent mainland. From Montana he joined the faculty of Western Washington University (WWU) where he taught a variety of geology courses, and then taught clay mineralogy when Ada Swineford retired. While at WWU he studied the Mount Saint Helen eruption and its ash, which he found contained the trioctahedral smectite saponite. He also studied glacial and marine sediments off the west coast of the US in an attempt to distinguish the two for earthquake prediction. While at WWU, he played in a rock and roll band, and was active in opposing the Vietnam War. In 1981 he joined Exxon Production Research (EPR) in Houston, Texas, where he was treated to excellent support for his research, and where he met his partner of 37 years, Adrian Beserra. While at Exxon

* E-mail address of corresponding author:
DOI: 10.1007/s42860-021-00141-w

he collaborated in developing the inverse of Reynolds' NEWMOD program for calculating the structure of mixed layer clays. Starting with a measured XRD pattern of illite/smectite, his program automatically calculated the mixed layer structure, without the input of successive guesses from the operator. He also worked on determining reservoir quality, clay mineral diagenetic reactions, and K-Ar ages of illite in sedimentary basins and fault zones. Pevear retired from EPR in 2000. Some of us appreciated Pevear's politics as well as his science. For example, a small protest erupted at a Texas CMS conference dinner during the Vietnam War. Instead of standing for *America the Beautiful* with nearly everyone else, most of the scientists at his table raised their fists. Dick Rowland, a very conservative CMS member, also stayed seated. Rowland said, "You don't have to stand for *America the Beautiful!*" Bob Reynolds, however, stood up and said, "Sorry guys." Gray Thompson, who overlapped with Pevear at the University of Montana, said that during an anti-war march in Missoula, Pevear carried an American flag, which so enraged one of the bystanders that he grabbed the flag pole and hit Pevear on the head, knocking him out. More recently, Pevear would never speak the name of the former US president, but always referred to him as Number 45. Pevear was president of The Clay Minerals Society immediately before me, in 1992–93, so I had the honor of presenting him with the President's engraved dinner plate. I remember saying that the plate was a symbol of his presidency, that, like the plate, he was being fired. But the firing had turned the clay mineral kaolinite into the mineral mullite. So now he should "mullite it over" about his presidency, and know that he did a good job. Pevear looked a little uncomfortable at the bad joke, but Linus Pauling, who was also seated at the speakers'

table, gave a big smile and nod. Anyone who knew Pevear knows that he was a remarkable man, witty, brilliant, compassionate, and full of fun. He is sorely missed.

Dennis D. Eberl



Drawing by M. J. Nash