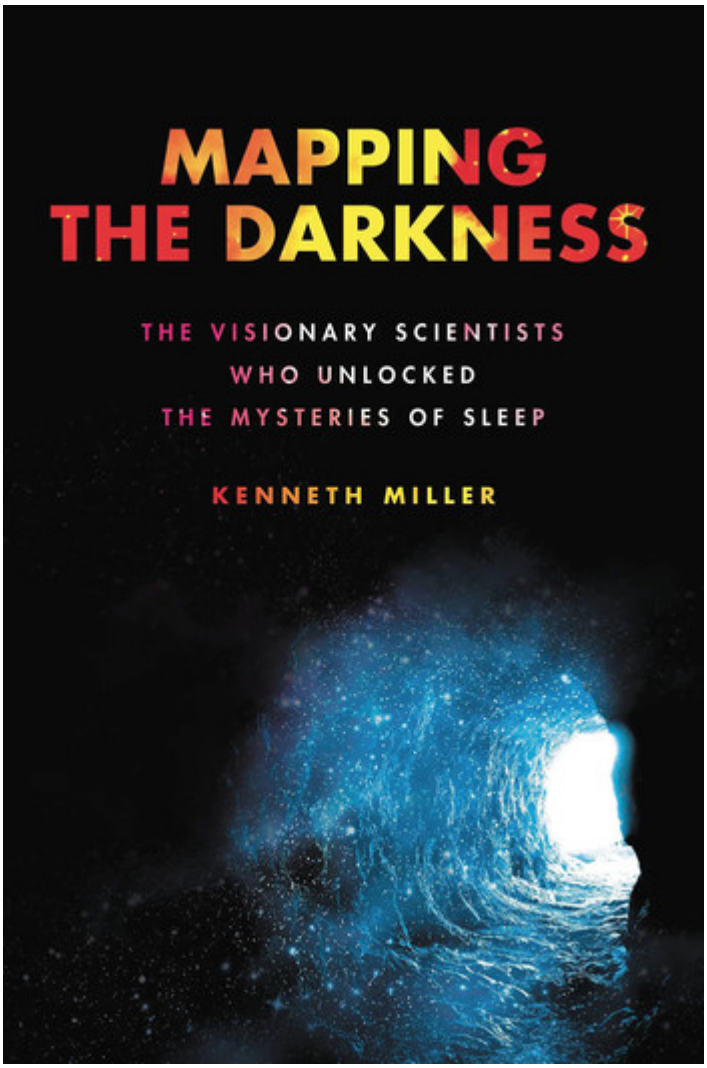
Books

Waking Up to the Mysteries of Sleep

Mapping the Darkness, by Kenneth Miller ’83JRN, delves into the fascinating science of the unconscious state.

By
Rebecca Shapiro
|
Winter 2023-24



Hachette

“The quest to understand sleep — and to apply that understanding to our daily lives — has become a global obsession,” writes journalist Kenneth Miller ’83JRN in his first book, *Mapping the Darkness*, a compelling history of sleep science. There are major institutes devoted to sleep research, thousands of sleep-disorder clinics worldwide, and a multibillion-dollar industry offering medications, supplements, and devices. Today anyone interested in their sleep health need only strap on a smartwatch before bed, and in the morning they’ll have an analysis of their REM cycles.

But it hasn’t always been this way. In fact, writes Miller, just a century ago, almost nothing was known about our subconscious state — a staggering fact, considering that we spend about a third of our lives in the land of Nod. In his book, Miller chronicles the work of the four maverick scientists — Nathaniel Kleitman 1920GSAS, Eugene Aserinsky, William Dement, and Mary Carskadon — who pioneered sleep research, taking it from the fringe to the mainstream.

Kleitman, the “patriarch” of sleep science, was a Jewish immigrant who escaped a Russian pogrom and a Lebanese POW camp before finally landing in America, where he studied physiology at City College and Columbia and then entered a PhD program at the University of Chicago. Rampant antisemitism kept him from the good research grants, so he took the only topic that no one else would touch: sleep. Kleitman’s initial experiments were literally primitive — together with an assistant, he camped out in a cave for a month to assess the body’s natural sleep cycles when deprived of all outside stimuli.

In the early 1950s. Kleitman’s assistant, Aserinsky, used early brain-mapping technology to discover the REM state — “revealing that the slumbering brain is as active as its waking counterpart” (amazingly, even this was not considered sufficient research for him to earn a PhD). Dement, another of Kleitman’s protégés, founded the first Stanford University sleep clinic, where he linked dreams to REM cycles and helped us understand neural activity during sleep. Carskadon, a cousin of Dement’s wife, was initially pushed out of neuroscience because it was a “man’s field.” Thanks to the family connection, she ended up at Stanford doing clerical work for Dement, who saw her potential and encouraged her to earn a doctoral degree. Her research focuses on the sleep needs of adolescents, and it inspired much-needed policy changes in school systems in the 1980s.

Sleep science, as Miller emphasizes, is much more than a wellness trend. Many catastrophes, from the space shuttle *Challenger* explosion to the *Exxon Valdez* oil spill, have been found in hindsight to be due to human error, caused in part by a lack of sleep. And modern technology increasingly undermines our need to rest. “Growing attachment to digital devices makes it harder to disconnect from waking consciousness,” Miller writes, “and the blue light from screens throws our circadian clocks into confusion.”

There is still much to be learned about sleep. But this engrossing tale of four scientists plunging into the unknown gives us a better understanding of the deeply important role of sleep in our lives and is an inspiring story of scientific discovery against all odds.

Read more from ***Rebecca Shapiro***



Guide to school abbreviations

All categories >
Read more from ***Rebecca Shapiro***