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## Mind and Memory...

Memory is said to be the mother of all wisdom. Central to the human intellect, memory means learning, knowledge, a mechanism for passing on experience. It is the driving force of all history, our link to the distant past. But memory of a somewhat different sort is also crucial for animal species, and likewise for computers. So it comes as no surprise that such diverse articles were contributed to this issue of *Academia*, each tackling memory from a different perspective.

In this issue we talk with Prof. Karol Modzelewski (p. 40) about the emergence of identities, about culture, continuity, and heritage. Such societal memory is linked to a given group's image of its own past, to symbols which enable past events to be repeatedly relived in the here-and-now – exemplified by the passion plays we portray in another article, “*Crucified*” (p. 34). Our historical awareness depends in large part on efforts to identify and record various traces of the past. As cases in point, the intriguing story of flint mines used by human societies millennia ago is told on p. 16, and beautiful marks left behind by ancient life forms of much greater age are highlighted on p. 46. Stretching even further back in time, the articles “*The Milky Way's Neighbors*” (p. 12) and “*Perfect Black Body*” (p. 36) deal with mementos of the distant cosmic past.

Some of our authors, in turn, look at how human memory actually functions. The age-old conundrum of why we recall one thing but forget another is discussed in “*Shreds of Memory*” (p. 4); the molecular mechanisms of memory in the brain are probed more deeply on p. 31. Why those mechanisms sometimes break down and how we might prevent that are discussed in “*Fleeting Memory*” (p. 28).

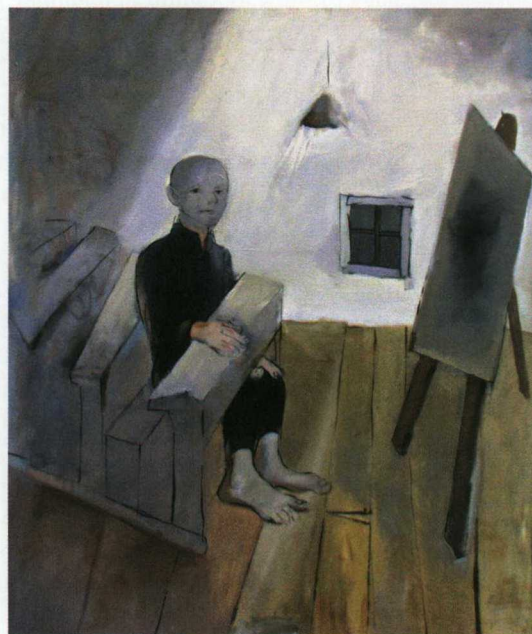
Yet all of this just raises a broader question: what indeed is “memory”? Is it just individual recollections of personal experiences, or can it be understood as the history of whole populations? Just as humans have our culture, animals also remember things collectively, e.g. reiterating behavior familiar to their ancestors, like in the genetic and non-genetic “memory” of migratory birds (p. 8).

Biological systems also exhibit a kind of memory – on p. 20 we look at algorithms that imitate the way immune systems “remember” pathogens.

The writer Borges likened the essence of human nature to a heap of broken mirrors. Like him, we are frequently afraid of what we might behold in those mirrors, fearing greater awareness of the past. Such difficult moments in our collective memory are discussed in the article “*The Pope in a Synagogue*” (p. 48) and also the commentary “*Watching Everyone?*” (p. 50).

In short, we at *Academia* have done our very best to make sure this issue makes a meaningful and lasting impression in our readers' minds.

ACADEMIA staff



Tadeusz Kantor (1915–1990) – A Polish theater director, painter, set designer, graphic artist, writer of artistic manifestos and initiator of “happenings,” Kantor gained worldwide fame as a man of the theater, his most well-known plays being *The Dead Class* and *Wielopole, Wielopole*. He thought in terms of images, which were often graphic illustrations of the mechanisms of memory

Tadeusz Kantor, “La classe morte I” [“The Dead Class I”], 1982. Collection of Stefan Derędowski, deposit MNK, copyright: Maria Kantor and Dorota Krakowska