

observes, J. M. W. Turner's stunning *Rain, Steam, and Speed* (1845) both celebrates the dynamism of the railroad and suggests its apocalyptic power.

Commerce and culture changed too. Fresh fish and beef arrived overnight in London from Scotland, and copies of Darwin's newly published *Origin of Species* sold like hotcakes at Waterloo Station. Meanwhile, cheap tickets were bringing long-distance travel to the masses for the first time. At the Great Exhibition of 1851 in the Crystal Palace, excursion trains attracted throngs of rural families. The companies' fare structure, Freeman suggests, helped integrate the working class into British society, especially as third-class amenities improved. But railroads also helped fragment social space. Even as they were creating the original middle-class suburbs around London, their new construction spawned domino-like waves of social displacement.

No 20th-century innovation changed everyday life as radically and permanently as railroading did in the 19th. Neither aviation nor atomic energy could compare. Only now is the Internet, for better or worse, giving us a sense of how our ancestors must have experienced the early trains, including the frenzy of financial speculation. Freeman has written a clear, engaging tribute to material and aesthetic accomplishments that continue to serve millions.

—Edward Tenner

WILD MINDS:

What Animals Really Think.

By Marc D. Hauser. Holt. 336 pp. \$25

Animal cognition is a rich and vital topic, and Hauser, a professor of psychology and neu-

rosience at Harvard University, aims to popularize it. Unfortunately, he has written a book that will appeal mainly to his fellow scientists.

He opens in the contentious style of a scientific paper, criticizing previous works (including my own) that, in his view, have too quickly drawn analogies between human thought and animal thought. Then he sets forth his own theories. Animals, in his view, lack self-awareness. They communicate by rote, and cannot combine sounds to form novel and meaningful expressions. They lack emotional self-awareness. They are incapable of empathy. They cannot be considered moral agents.

In support of his theories, Hauser trots out a virtual menagerie—vervet monkeys, honeybees, Clark's nutcrackers, desert ants—and describes field observations and laboratory experiments intended to demonstrate aspects of their cognition. It takes a skilled and experienced author to make behavioral studies come alive for the nonscientist, who tends to care less about experiments and theories than about animals. Hauser doesn't succeed.

But it can be done. In *The Nature of Horses* (1997), Stephen Budianski covered much of the same ground by concentrating on one species. He showed how the horse evolved from a solitary, forest-dwelling browser into the socialized athlete of the glacial steppes, for whom the seemingly simple act of running requires data processing powers almost beyond our imagination. We find ourselves in awe of horses and their remarkable abilities. Like Hauser, Budianski may not share all of my views on animal cognition, but he shows how an author can bring important scientific questions to a wider audience.

—Elizabeth Marshall Thomas

Contemporary Affairs

THE BABY BOON:

How Family-Friendly America Cheats the Childless.

By Elinor Burkett. Free Press. 256 pp. \$25

America has always cast a cold eye on the childless. Let it be known that the seen, heard, nasty, brutish, and short are missing from your

life and you will be pitied, censured, called "abnormal," and referred to a wonderful doctor who will find out what's wrong with you.

This prejudice is flourishing in today's "family-friendly" workplaces. Childless employees are being turned into a servant class for an aristocracy of parents who invoke the privilege of flextime to come in late, leave early, and beg