As soon as I mention this, people tell me about miniaturization, and how fan it has progressed today. They tell me about electric motors that are the size of the nail on your small finger. And there is a device on the market, they tell me, by which you can write the Lord's Prayer on the head of a pin. But that's nothing; that's the most primitive, halting step in the direction I intend to discuss. It is a staggeringly small would that is below. In the year 2000, when they look back at this age, they will wander why it was not until the year 1960 that anybody began seriously to move in this direction.

DONOSTIA INTERNATIONAL PHYSICS CENTER

Richard P. Feynman, 1960

THE COVER IMAGE DEPICTS A PORTION OF RICHARD FEYNMAN'S 1959 TALK,

"THERE'S PLENTY OF ROOM AT THE BOTTOM". THIS FAMOUS SPEECH HELPED TO INSPIRE NANOTECHNOLOGY.

THE IMAGE WAS CREATED BY SEUNGHUN HONG USING DIP-PEN NANOLITHOGRAPHY, EACH LETTER IS ONE MOLECULE HIGH WHICH MEANS THAT AND MADE OF 16-MERCAPTOHEXADECANOIC ACID.

THE WIDTH OF THE SPEECH IS 30 MICRONS; OVER ONE THOUSAND COPIES COULD FIT ON THE HEAD OF A PIN.

CREDITS

Ŋ

Creative direction and design by Lauren Hammond (Ihammond@wanadoo.fr)

Cover image created under the direction of Chad A. Mirkin at the Institute of Nanotechnology, Northwestern University Opening image by Carl Pendle, Photonica

Photography by Adrian Collins (www.adriancollinsphotography.co.uk), photograph on page 7 by Lamia (Irún, Spain) Film output and printing by **Zyma Servicios Gráficos** (zyma@zymagraficas.com)