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## The 19th-Century Church Dominated by a Supercomputer

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By [Ella Morton](#)



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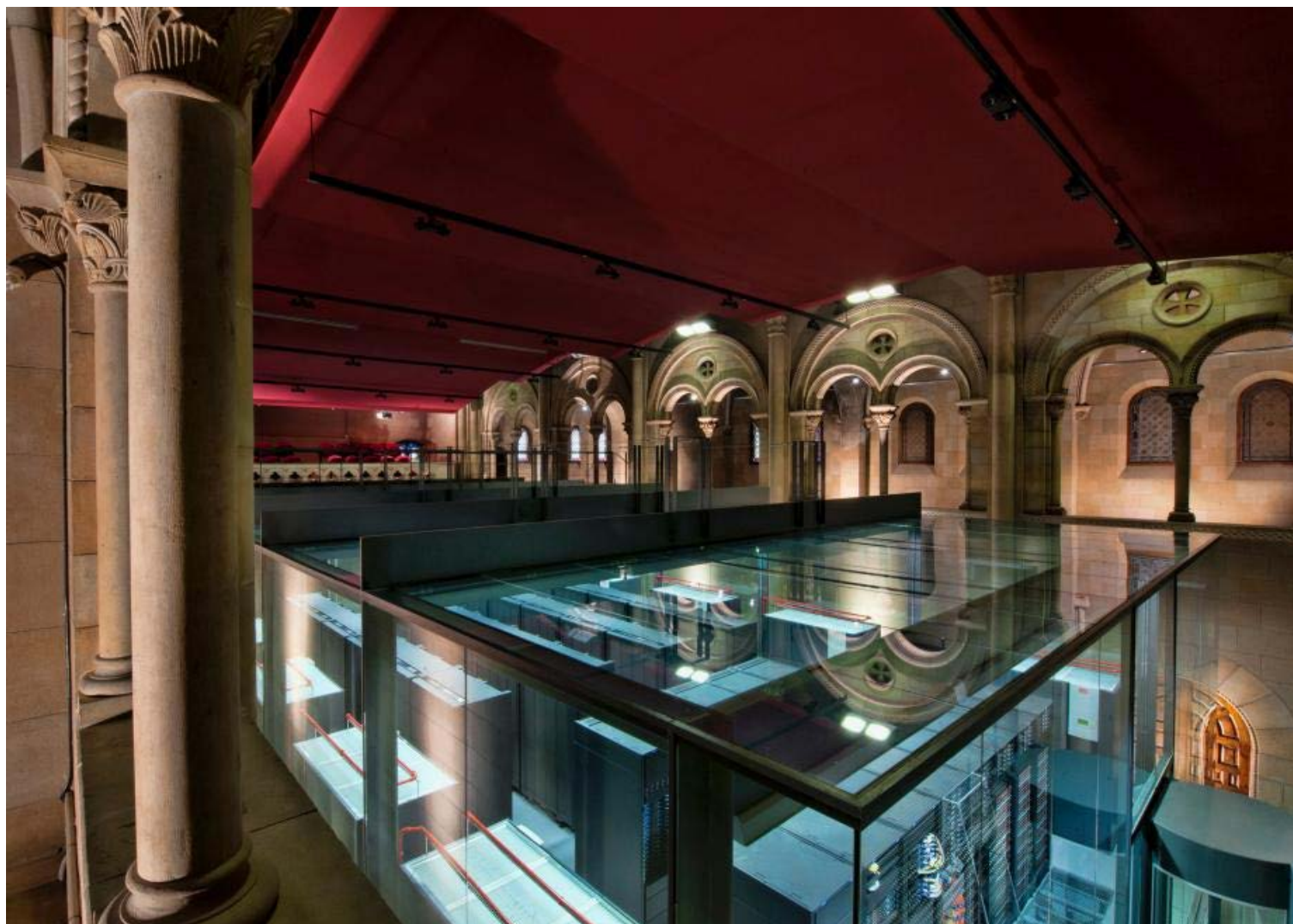
Within the stone walls of the former Chapel Torre Girona in Barcelona, a supercomputer is bleep-blorping its way toward breakthroughs in human genome research, astrophysics, and weather forecasting.

The 19th-Century church building—now deconsecrated—is home to the [Barcelona Supercomputing Center](#). Its star supercomputer,

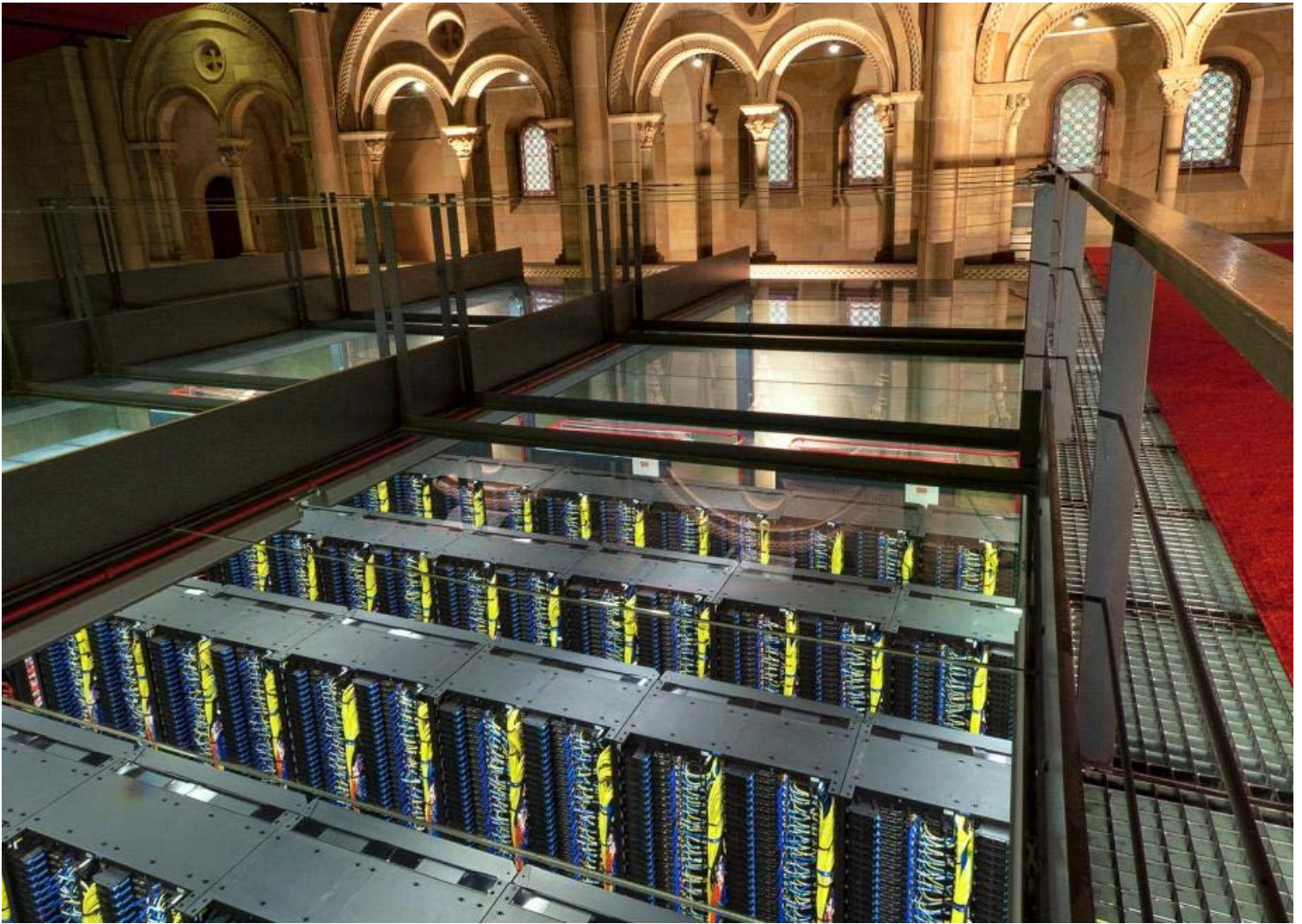
MareNostrum, is encased in a glass box that runs the length of the chapel. Operational since 2005, MareNostrum is a 10,240-core IBM PowerPC computer capable of 63.8 FLOPS—63.8 trillion floating-point operations per second.

In 2012, researchers at the Barcelona Supercomputing Center reported on their use of MareNostrum to simulate the structure of triple helix DNA in a vacuum. The study contributed new data to the field of antigen therapy, a developing approach to disease that involves switching off activity in the relevant genes.

[Visit Atlas Obscura for more on the Barcelona Supercomputing Center.](#)



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Ella Morton is a writer working on *The Atlas Obscura*, a book about global wonders, curiosities, and esoterica adapted from [Atlas Obscura](#). Follow her on [Twitter](#).

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