

# UNSHAKABLE HAGIA SOPHIA

1 X 53 HD



PBS®

INTERNATIONAL

# UNSHAKABLE HAGIA SOPHIA

1 X 53 HD

---

CONTACT

Tom Koch, Vice President  
PBS International  
10 Guest Street  
Boston, MA 02135 USA

TEL: +1-617-208-0735  
FAX: +1-617-208-0783

jt Koch@pbs.org  
pbsinternational.org

Hagia Sophia is one of the most magnificent structures ever created. For over 1500 years it has stood witness to the rise and fall of empires, and the transformation from Christian church to Muslim mosque. Now Hagia Sophia is a secular museum, one of Istanbul's most visited sites, open to all who come to see its glorious art and remarkable dome.

Istanbul sits atop a major fault system and has been hit by scores of major earthquakes over the centuries—the last earthquake in 1999 toppled hundreds of buildings and killed 17,000 people. But Hagia Sophia survives. How could a building so old and so large survive such violent shaking? Why is it so strong? And more importantly, will it survive the next big quake?

In an effort to uncover its seismic secrets, architects, engineers, and scientists are undertaking a major effort to find out what makes Hagia Sophia so resilient, using radar, laser, and computer technologies to probe the walls of this massive building. The scientists uncover new details about its materials—the literal brick and mortar that hold it together—and how its original designers tried to ensure its structural integrity. Seismic engineers at Istanbul's Bosphorus University even built an 8-ton scale-model of Hagia Sophia to place on a motorized shake table to simulate the effects of a major earthquake on the real building.

But even as scientists discover the building's strengths, they are also uncovering weaknesses that could indicate trouble ahead. With 3D animation and cutting edge drone camera photography for support, experts carefully explain just how this remarkable building—with its massive circular dome sitting atop a huge, open, square base—actually works. As Istanbul braces for that next earthquake will scientists find answers that can help this remarkable building survive for another 1500 years?

---

141273

CREDITS

Providence Pictures

Writer, Director, Producer: Gary Glassman

Photo: Providence Pictures



PBS®

INTERNATIONAL