SCIENCE . TECHNOLOGY

SUSTAINABLE BUILDING

3 × 30' (ENG, GER)

Explore many innovative approaches to achieve eco-friendly building construction.

From carbon-neutral concrete that could turn the climate killer into a climate hero, to the rise of green materials like straw, hemp, and wood, the series highlights groundbreaking efforts to reduce carbon emissions. Pioneers in sustainable architecture and construction reveal how traditional techniques and modern technology are reshaping the future of building, transforming cities into resource mines and envisioning structures that act as carbon storage. Discover how these advancements aim to make a significant impact in the fight against climate change.

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1. **Green Concrete: From Climate Killer to Climate Hero?**

   Concrete - the building material of the modern age: houses, towers, bridges, tunnels, dams - nothing works today without concrete. But concrete is a climate killer. Eight per cent of global carbon dioxide emissions are caused by concrete. But concrete is a climate killer. Eight per cent of global carbon dioxide emissions are caused by concrete. Scientists are developing CO2-free concrete. Its carbon footprint could even become negative in the future, turning concrete into a reservoir for carbon dioxide. But the steps towards more climate protection are difficult and slow.

2. **The Green Construction Revolution**

   Can traditional building materials and modern recycling reshape the future of eco-friendly construction? Climate-neutral or CO2-negative building methods using materials like straw, clay, lime, hemp, and wood are increasingly viable. The circular economy, emphasizing the reuse of materials, is also on the rise. Cities as resource mines and entrepreneurs are working on bringing straw modules and hemp blicks to the mass market. This documentary explores how these pioneers are reshaping the future of sustainable building.

3. **Wood – The Future of Sustainable Building?**

   Wood, a renewable material that stores CO2, could become the building material of the future. With projects like Germany's tallest wooden high-rise in Hamburg and an 80-meter tower in Switzerland, the trend is gaining momentum. Researchers are developing stronger, more resilient wood to replace concrete, a major climate change driver, envisioning eco-friendly construction and massive CO2 storage.