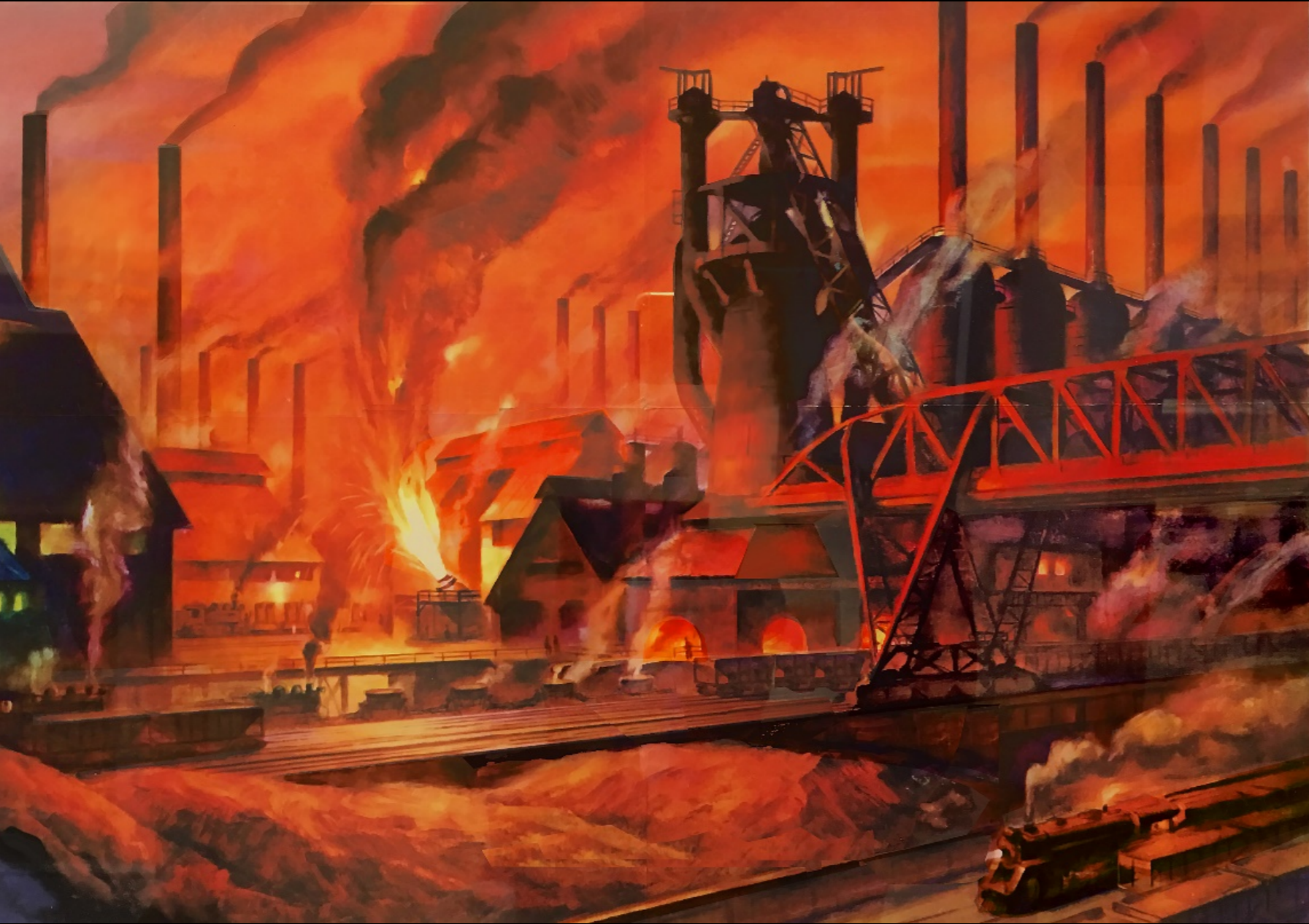




Growing the Future

Engineered Bamboo for Sustainable Construction

Michael H. Ramage
Professor of Architecture and Engineering
Director, Centre for Natural Material Innovation
University of Cambridge

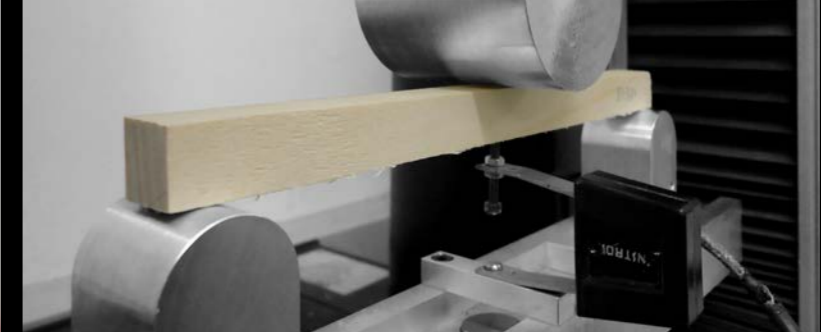
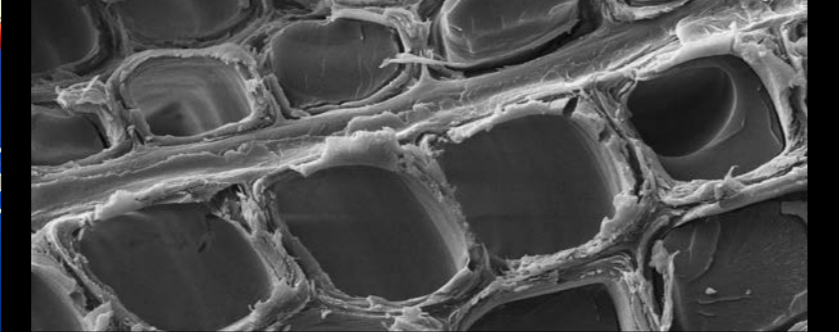
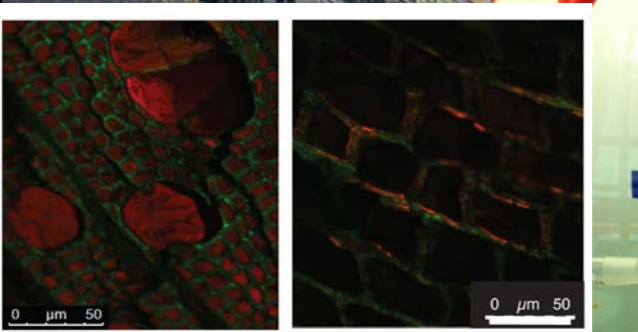
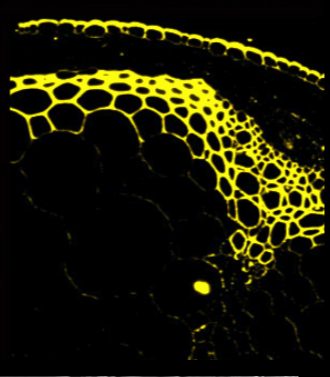
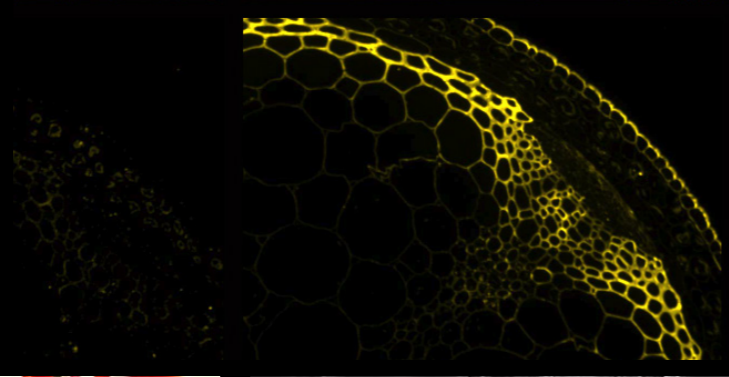
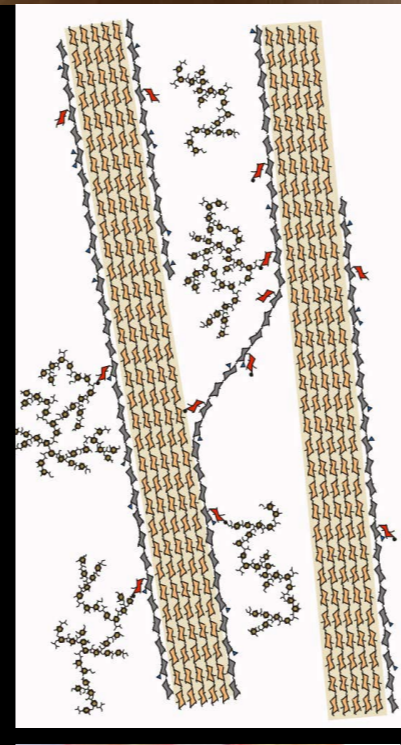
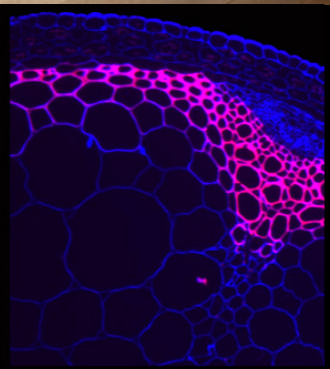
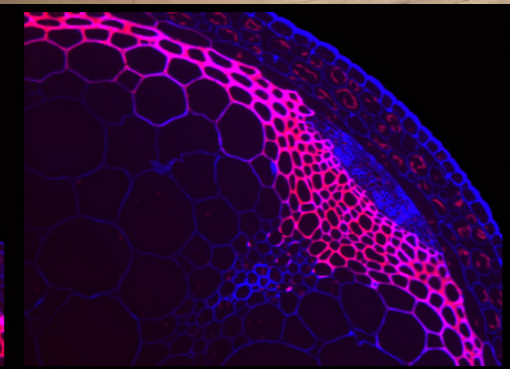
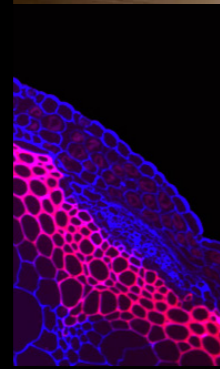
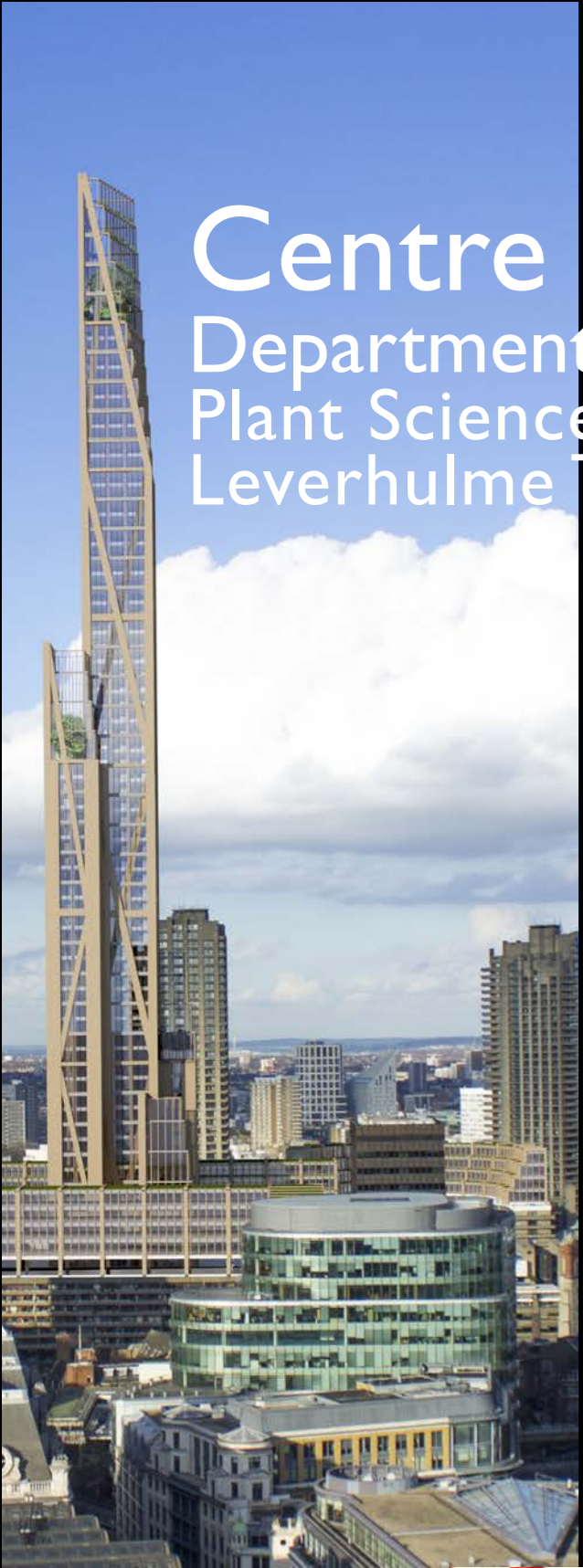


Centre for Natural Material Innovation

Department of Architecture • Michael H. Ramage, Director
Plant Sciences • Biochemistry • Chemistry • Fluid Mechanics • Architecture • Engineering
Leverhulme Trust • EPSRC



UNIVERSITY OF CAMBRIDGE













<https://buildingconnection.com.au/wp-content/uploads/sites/5/2016/07/Forte-CLT-panel-installation.jpg>
Peter Williamson



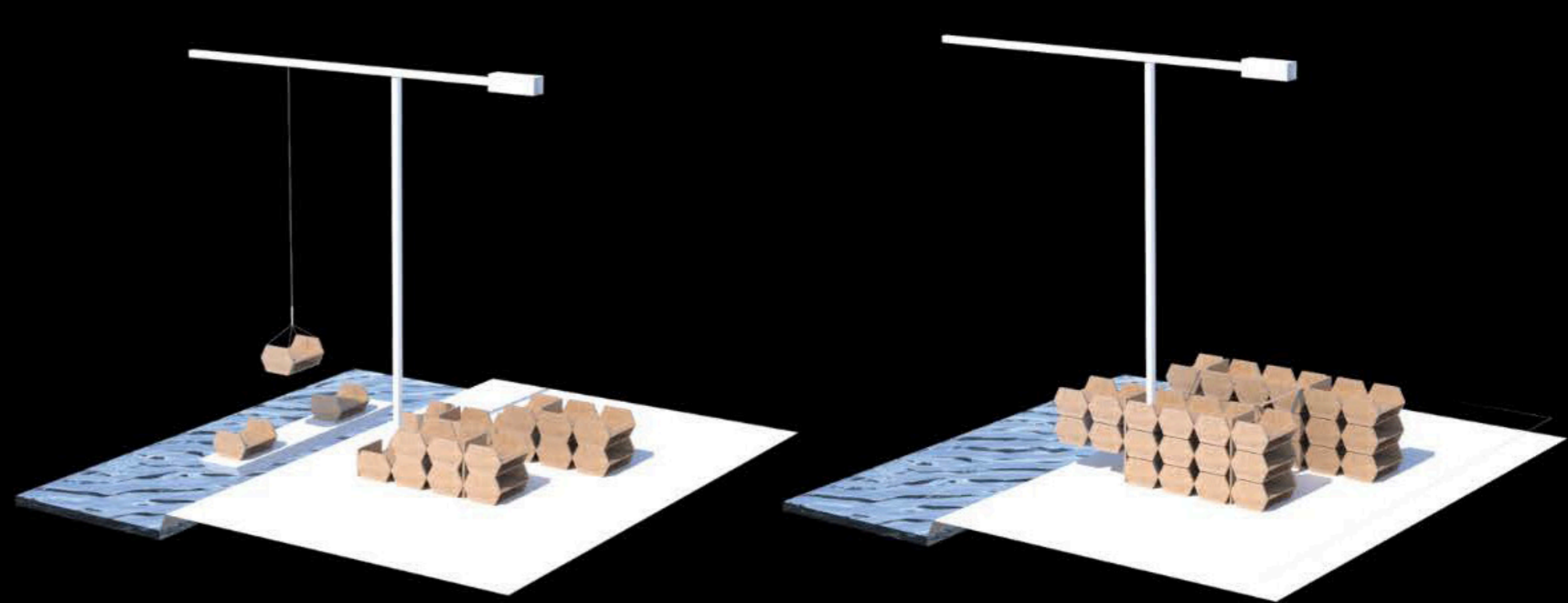


Home Insurance Bldg.,
Chicago.



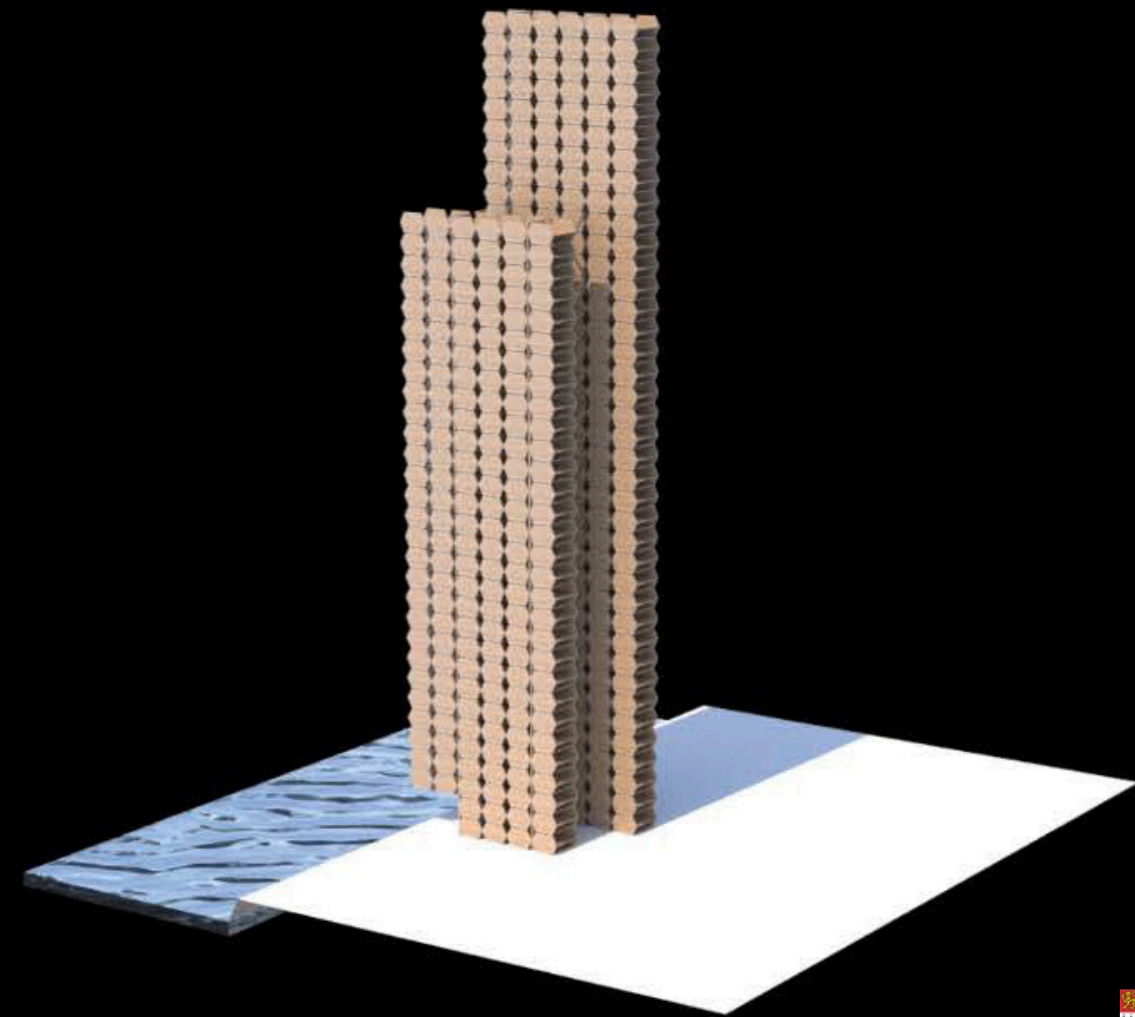




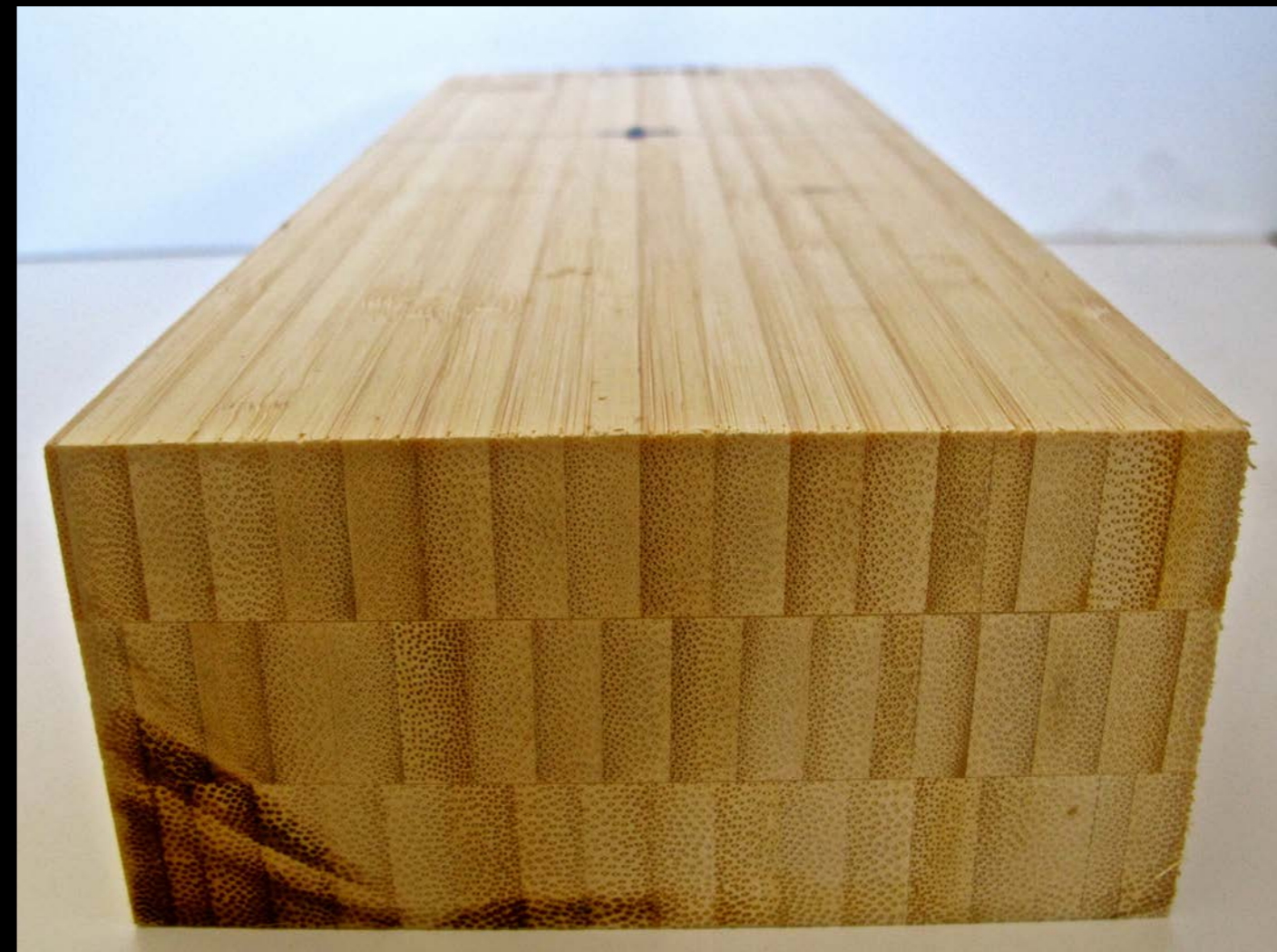


MODULES SHIPPED TO SITE BY BARGE

MODULES BUNDLED IN 6 STORY BLOCKS

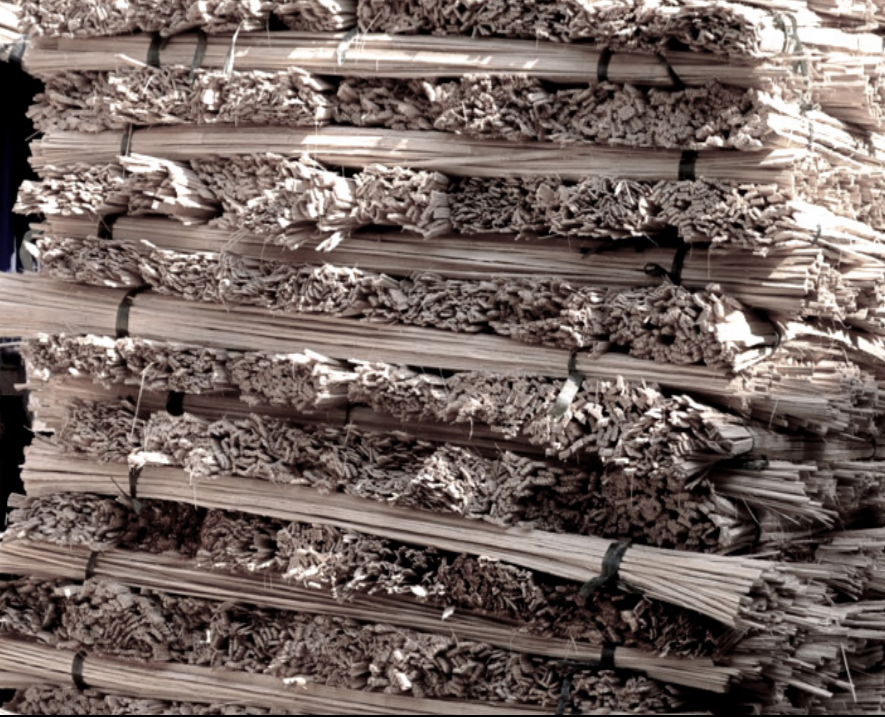


FINAL 800' STRUCTURE



青岛国森机械有限公司

服务热线: 0532-88338235
88313105







Stewardship People Environment





Embodied CO₂

Timber

126 tCO₂e

Concrete

310 tCO₂e

2.46x

Steel

498 tCO₂e

3.95x

The image shows several stacks of bamboo planks, with the text overlaid in the center. The planks are arranged in a way that creates a sense of depth and texture. The text is white and stands out against the natural brown tones of the bamboo.

1kg BAMBOO
holds 1.8 kg CO₂

Embodied CO₂

Timber

126 tCO₂e

Stored CO₂

300 m³

540 tCO₂e



340,000
9,000,000 tCO₂e



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Ms Ana Gatoo
Ms Mutsuko Grant
Mr Eduardo Wiegand
Ms Katie Blackett
Mr Daniel Blower
Ms Bridget Fryer
Ms Emma Williams
Ms Joanna Ye
Ms Frederique Briscoe

The Leverhulme Trust
Engineering and Physical Sciences Research Council
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Margent Farm: Steve Barron
Stora Enso