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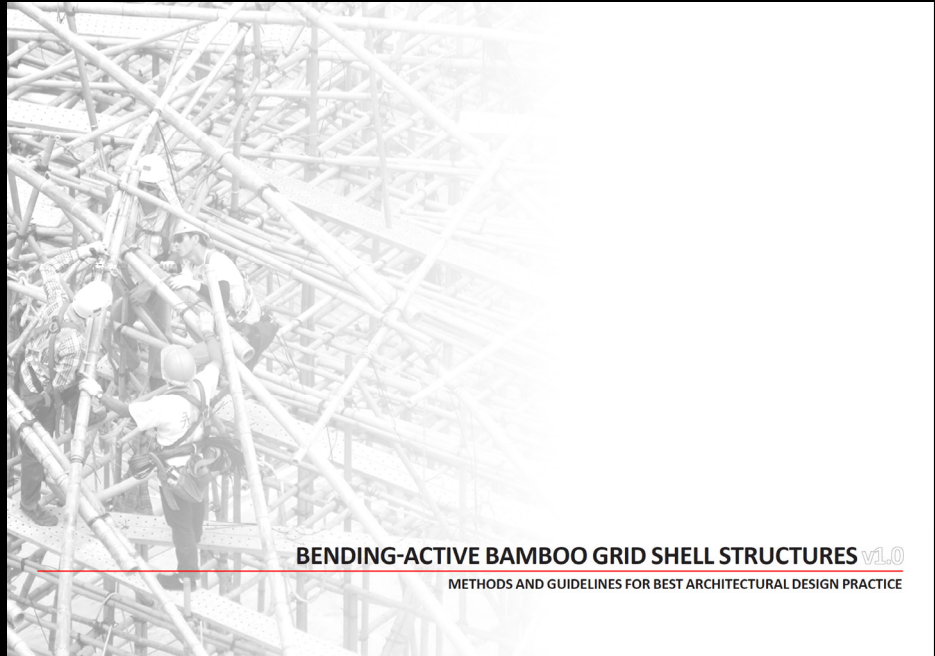


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HK University Grant Council (UGC)
General Research Fund (GRF) Project



BENDING-ACTIVE BAMBOO GRID SHELL STRUCTURES v1.0
METHODS AND GUIDELINES FOR BEST ARCHITECTURAL DESIGN PRACTICE

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HK University Grant Council (UGC)
General Research Fund (GRF) Project

HKU RESEARCH TEAM:



- Principal Investigator: A/Prof. Dr Kristof Crolla
- Research Assistant: Mr Garvin Goepel

CO-INVESTIGATORS:

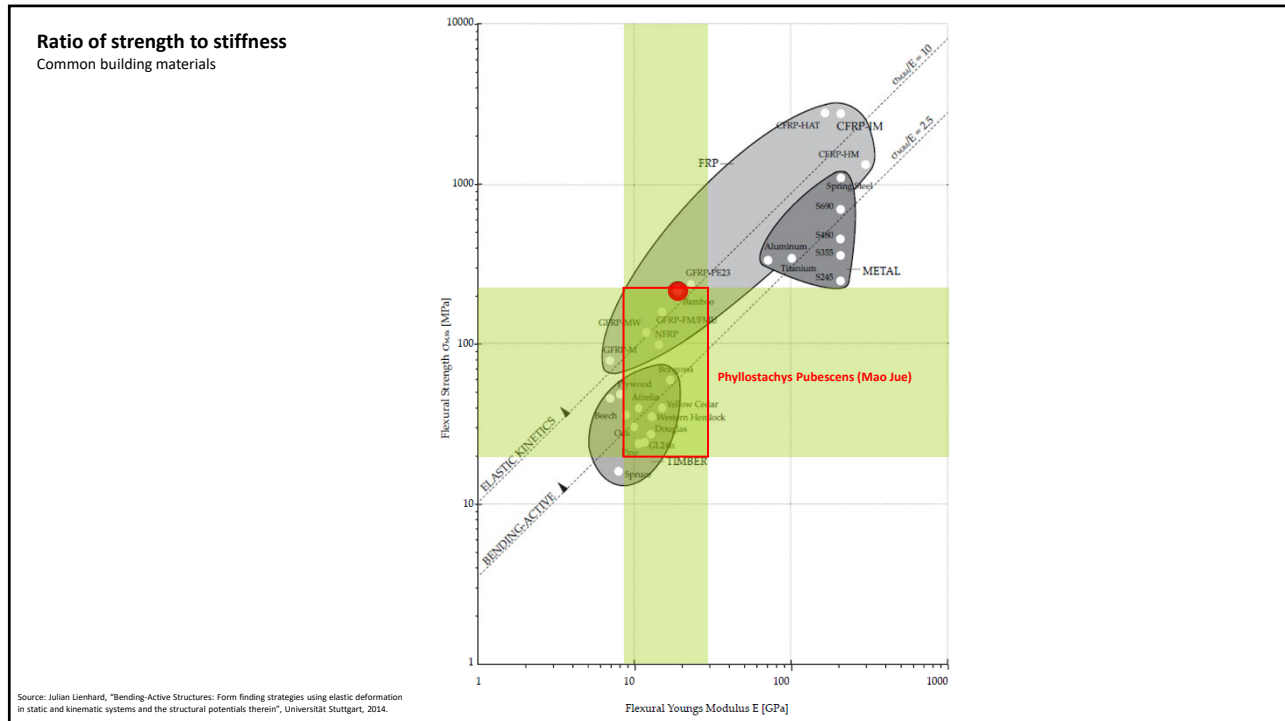
Karamba 3D
parametric engineering

aurecon

- Dipl.-Ing. Dr Techn. Clemens Preisinger
- Dr Alecs Kak Tien Chong

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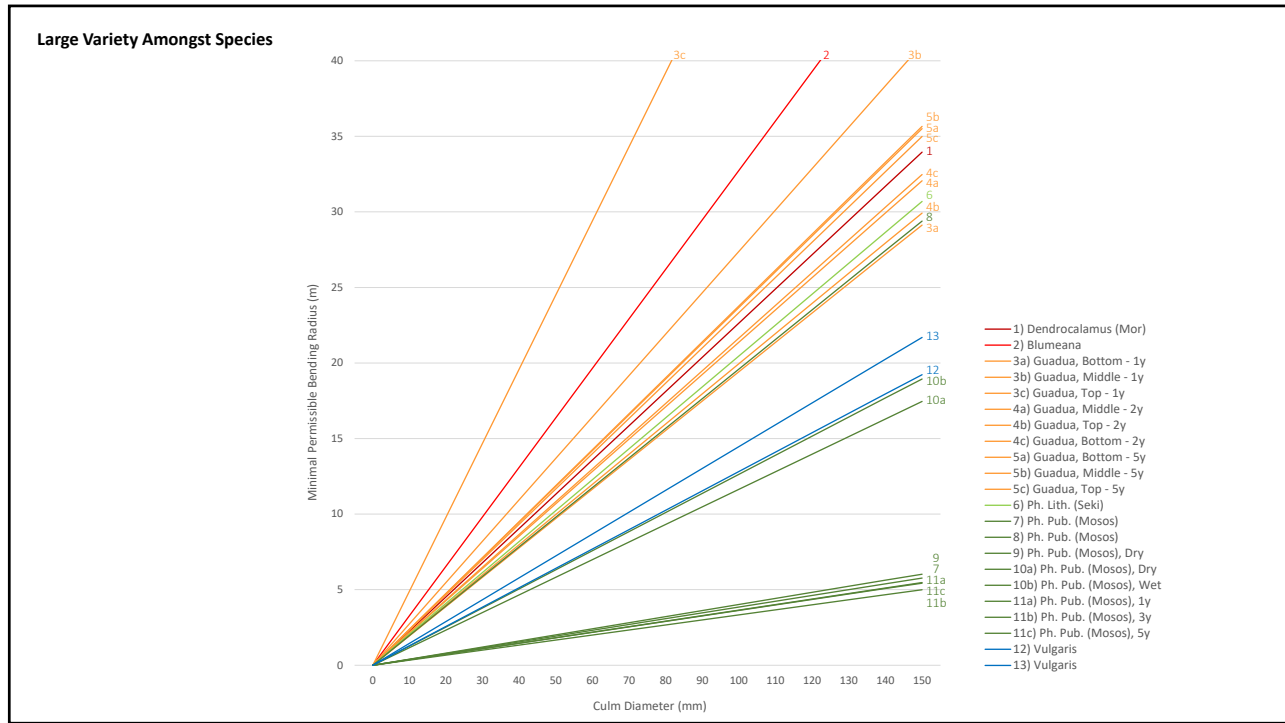


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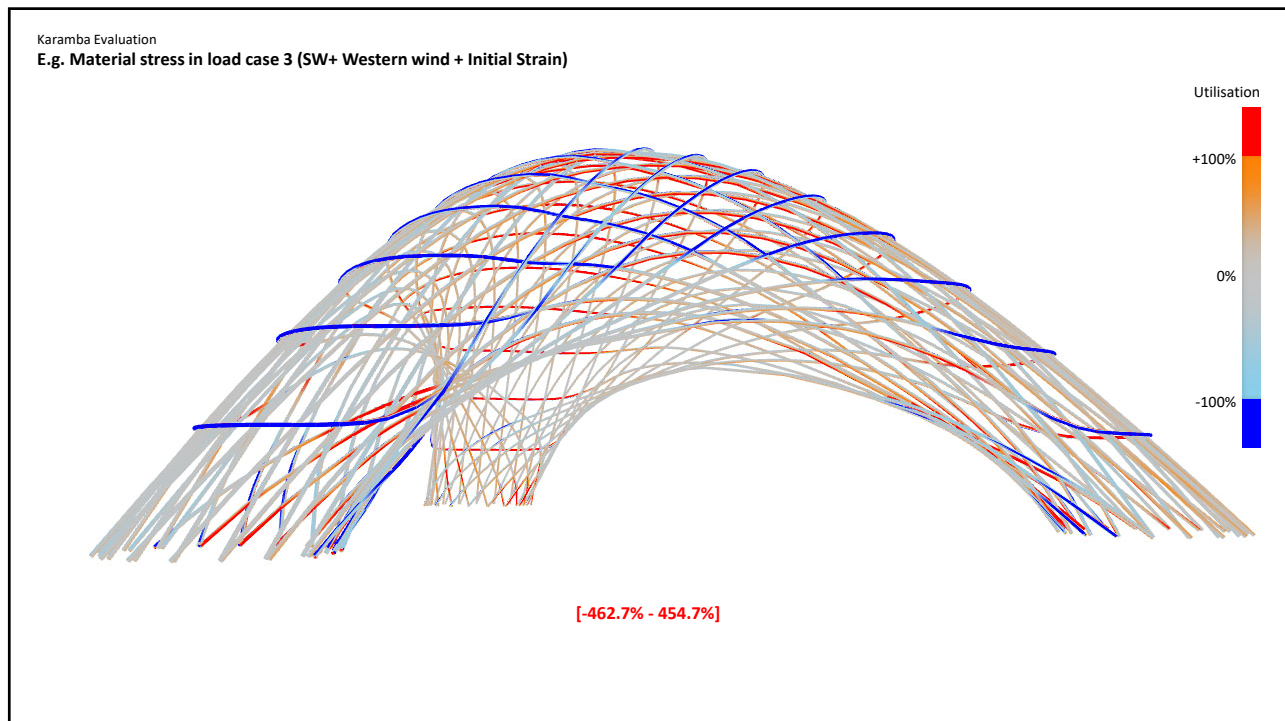
Obs. 1: Ph. Pub. = best for bending!

Species	Properties	Comp. Strength (kN/cm ²)	Youngs Modulus (kN/cm ²)	Source
11b	Ph. Pub. (Mosos) 3y	15.2	1012	Xiabo 2004
11c	Ph. Pub. (Mosos) 5y	18.5	1341	Xiabo 2004
11a	Ph. Pub. (Mosos) 1y	11.9	868	Xiabo 2004
7	Ph. Pub. (Mosos)	15.2	1170	Chung, Chan 2002
9	Ph. Pub. (Mosos) Dry	11.7	940	Schröder 2018
10a	Ph. Pub. (Mosos) Dry	5.67	1320	Chung, Chan 2002
10b	Ph. Pub. (Mosos) Wet	3.8	960	Chung, Chan 2002
12	Vulgaris	7.8	2000	Awalluddin et. Al 2017
13	Vulgaris	5.34	1545	Lopez 2003
3a	Guadua Bottom - 1y	3.99	1550	Schröder 2018
8	Ph. Pub. (Mosos)	6.11	2395	Lopez 2003
4b	Guadua Top - 2y	4.26	1700	Schröder 2018
6	Ph. Lith. (Sekil)	8.62	3528	Lopez 2003
4a	Guadua Middle - 2y	4.21	1800	Schröder 2018
4c	Guadua Bottom - 2y	3.81	1650	Schröder 2018
1	B. Dendr. (Mor)	3.56	1612	Lopez 2003
5c	Guadua Top - 5y	3.9	1820	Schröder 2018
5a	Guadua Bottom - 5y	3.21	1520	Schröder 2018
5b	Guadua Middle - 5y	3.47	1650	Schröder 2018
3b	Guadua Middle - 1y	2.72	1490	Schröder 2018
2	Blumeana	2	1310	Salzer et. Al 2019
3c	Guadua Top - 1y	2.04	2000	Schröder 2018

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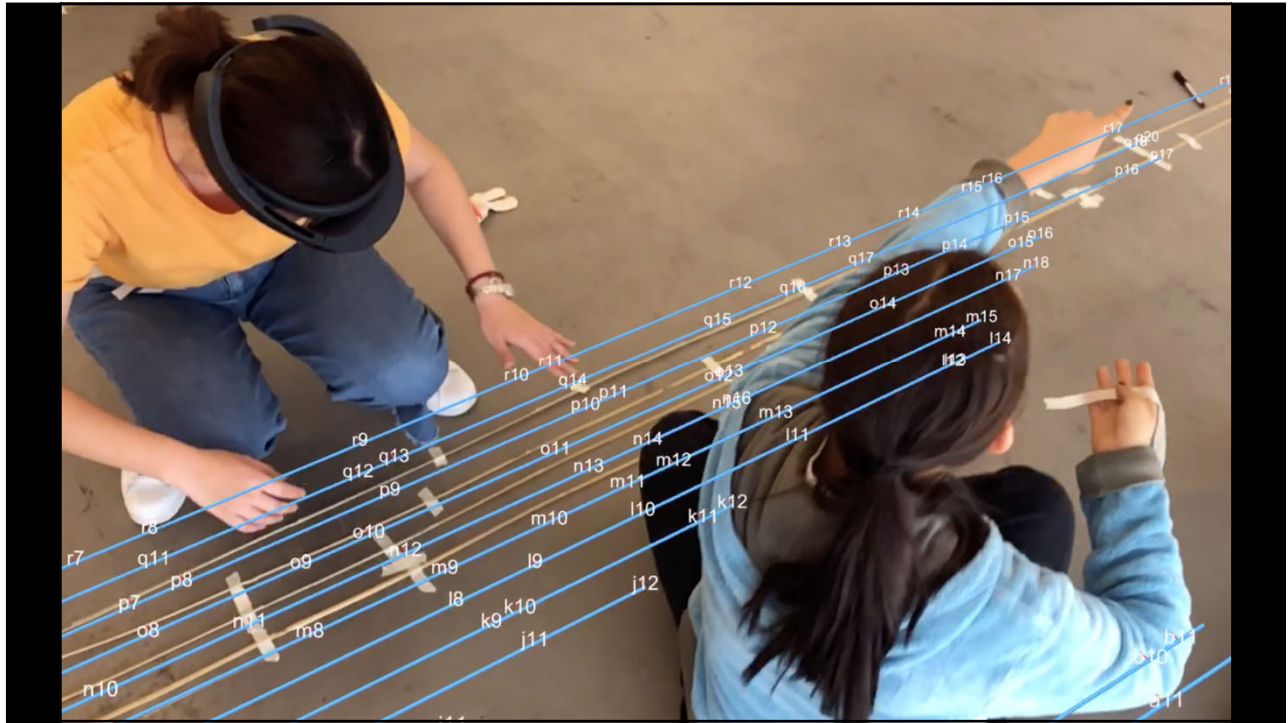
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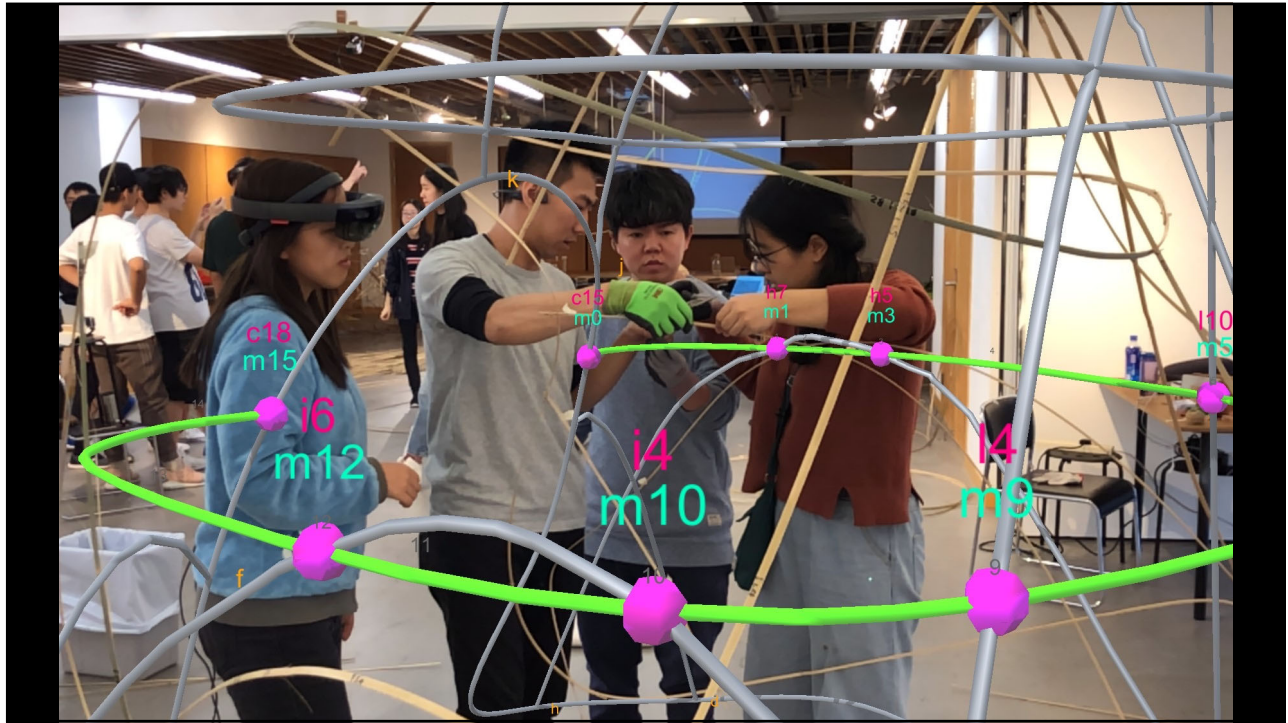


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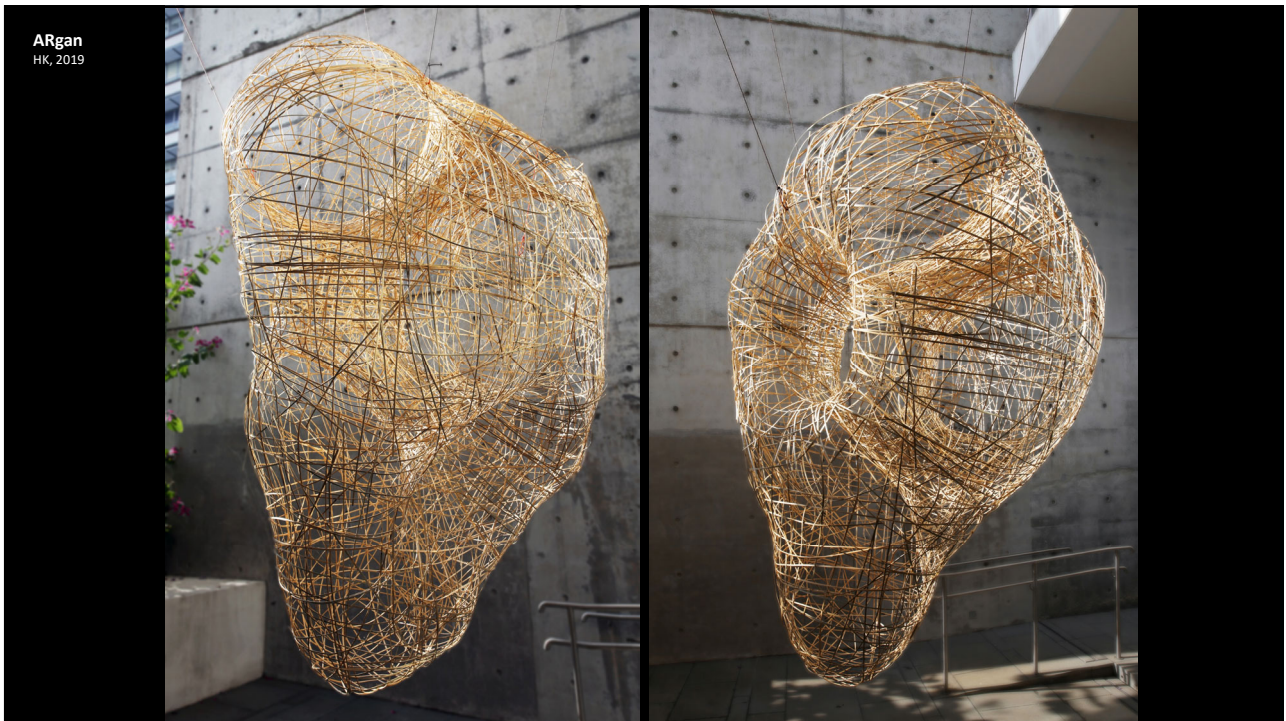
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HK, 2019

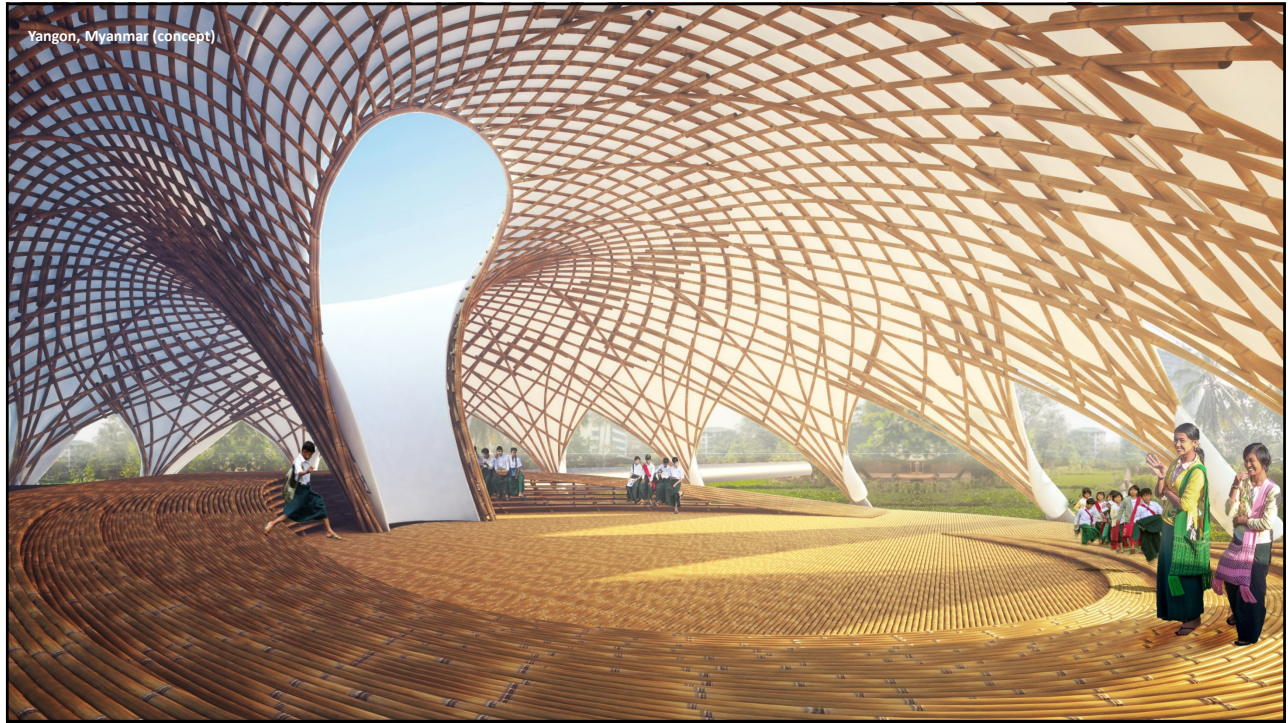
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Yangon, Myanmar (concept)

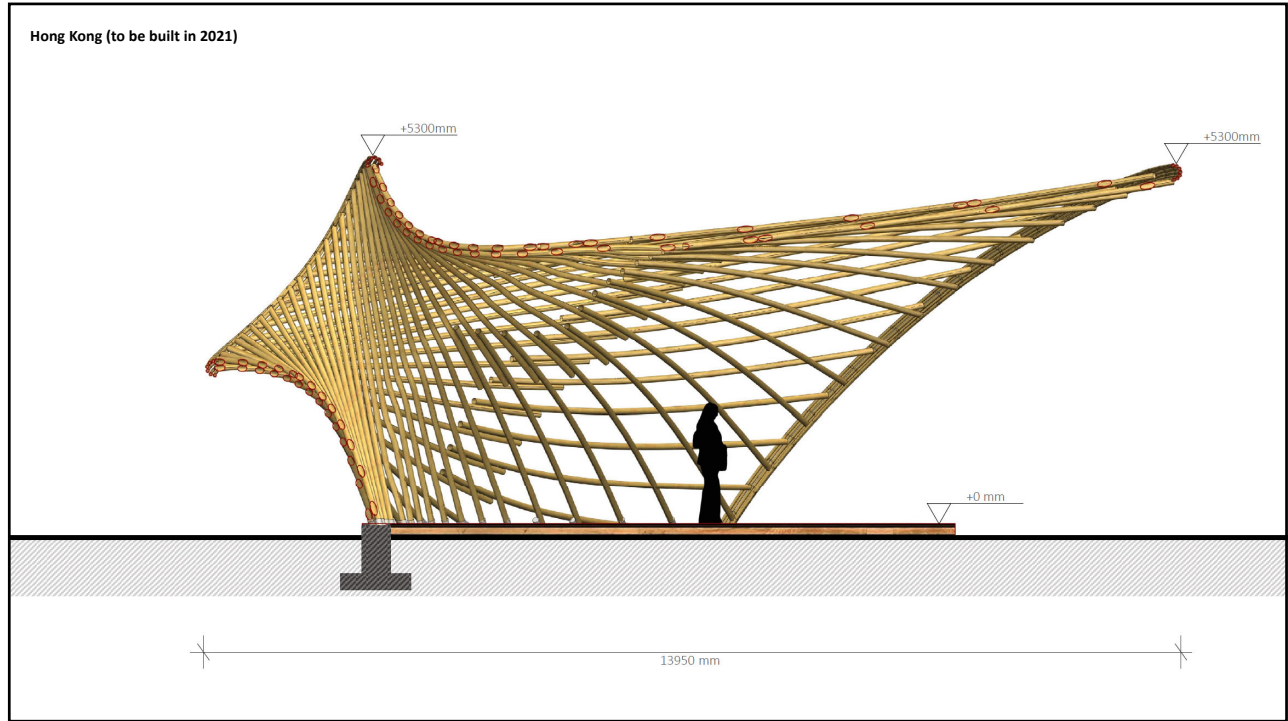


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Hong Kong (to be built in 2021)



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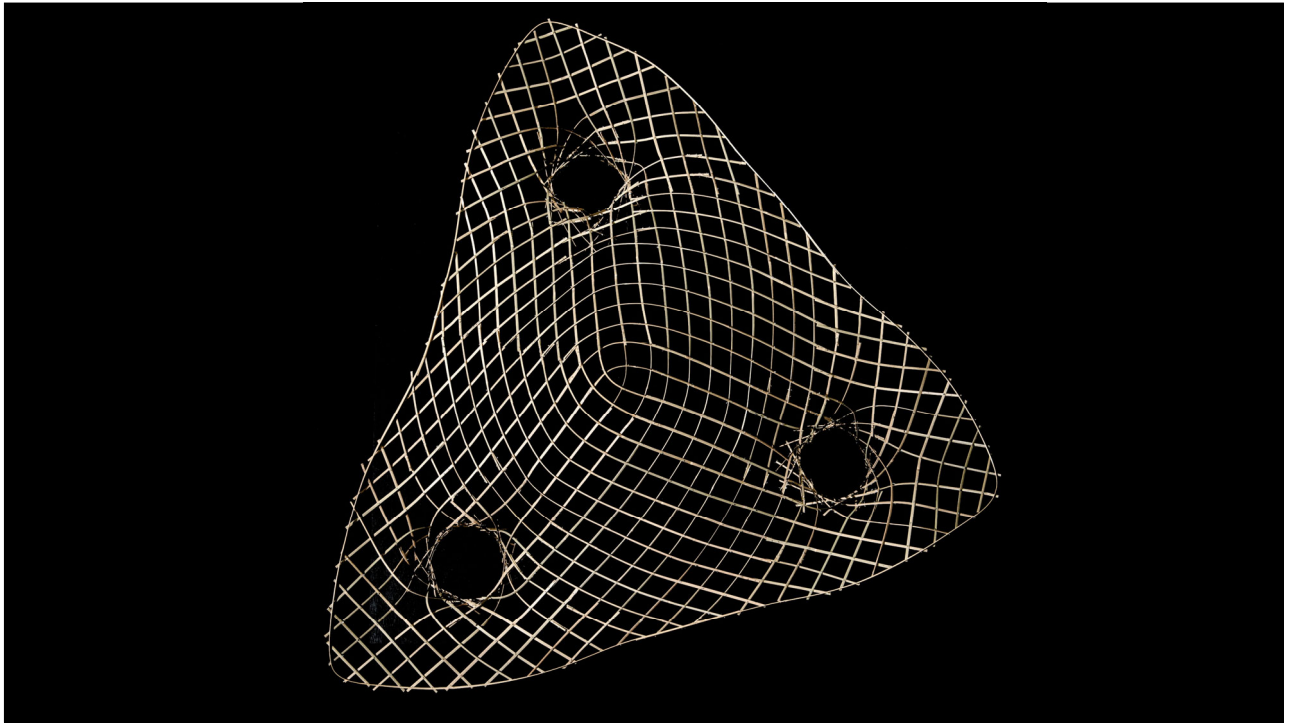
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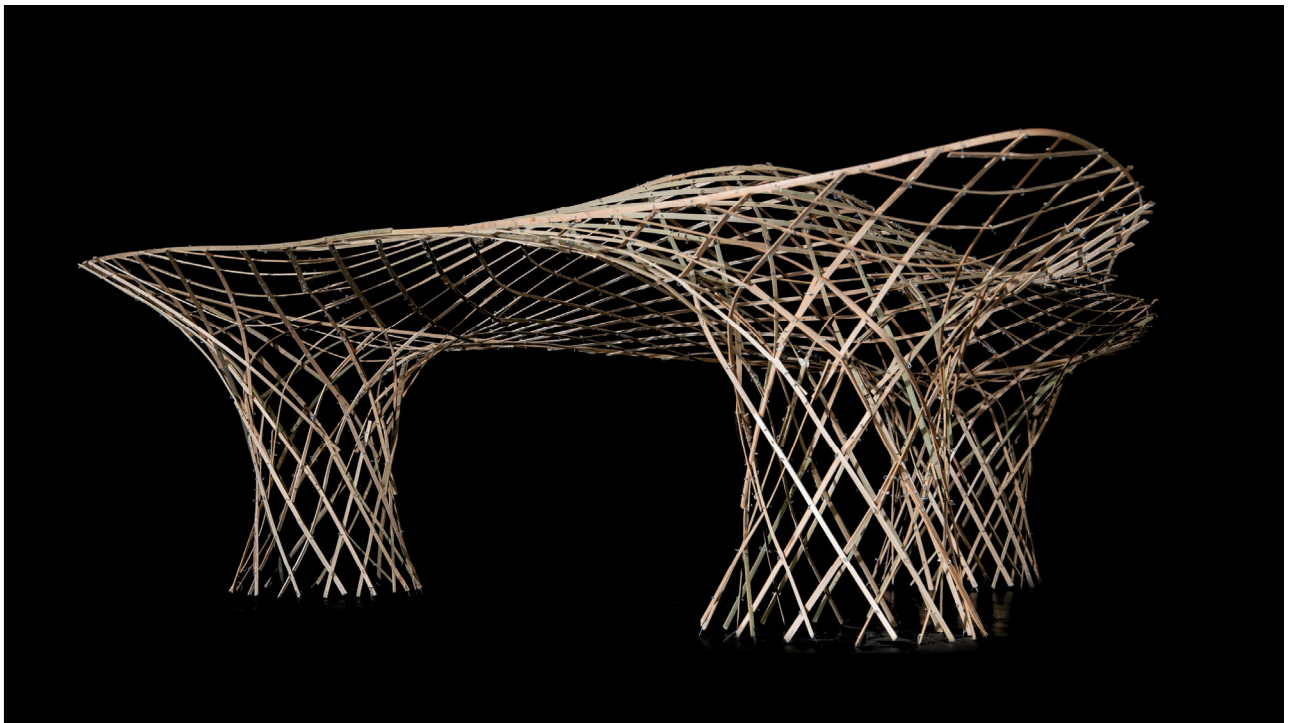
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