

BE BAMBOO

DESIGN & CONSTRUCTION

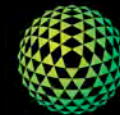
World Bamboo Congress
9th edition - Part II
De Kolonie, Merksplas, Belgium

Welcome



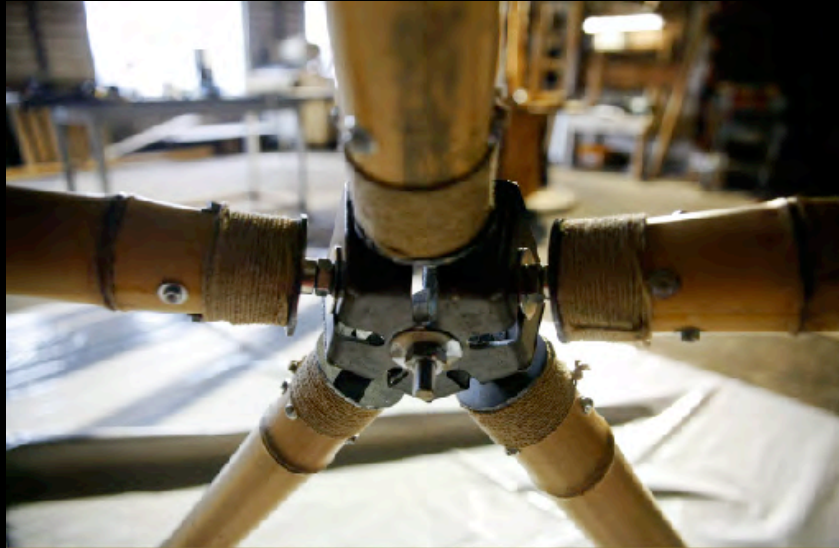
Bamboo shoot

- Awakening
- Young
- Strong
- Full with potential
- Beautifull
- Geometric
- Durable



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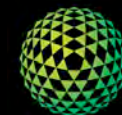
BeBamboo : ecologic new company.



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Concept

- Bamboo is being used as a structural element for geometric architecture.
- We use steel joints as node points to join the bamboo struts together.
- We like to finish/cover our constructions with natural materials.



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Bamboo

Negative aspects for building with bamboo in Europe:

- As we need to import bamboo > Transport impact & cost.
- Deviation on the strut diameter > difficult to apply standard processes for production.
- Susceptibility to air-humidity > cracking of the strut when A.H. < 20%
- Lack of knowledge & support for bamboo construction in Europe.



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Bamboo

Positive aspects for building with bamboo in Europe:

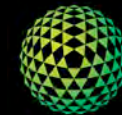
- As architects and builders, we have a pioneer function.
- Bamboo is durable and ecologic.
- Bamboo is light and strong.
- There is potential for growing bamboo in Europe.



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Maximize durability

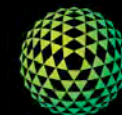
- We seek modular solutions > ex. : the geodesic dome and the space frame.
- We want to build our domes and future constructions according to the Cradle-to-Cradle principle (C2C).
- We need to optimize our use of resources such as materials and time in bamboo construction processes.



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Modular

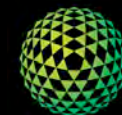
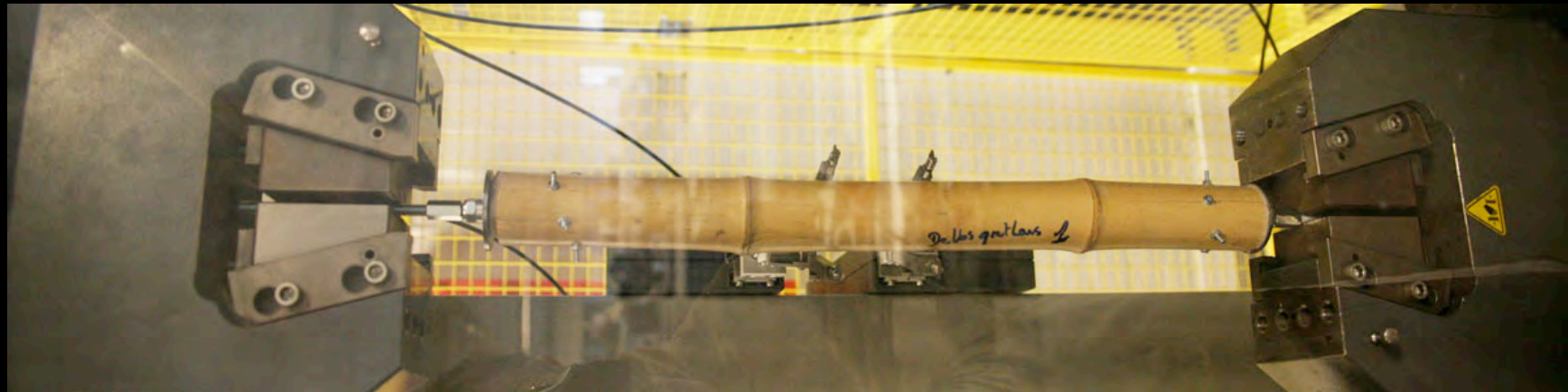
- BeBamboo domes have a modular set-up.
- Structural elements which are damaged can be easily replaced.
- We need to develop a modular connection system so we can couple our domes.
- Modularity is a big advantage for pre-fabrication.



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Performance

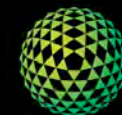
- Geodesic domes create a certain volume with a minimum use of skin surface compared with traditional building methods.
- Buckminster Fuller domes are amongst the most earthquake and storm resistant structures known .
- In co-operation with KAHO Sint-Lieven we conduct tension and compression tests on our bamboo and our connections. Engineers from UTIL are making stability reports for our domes and constructions.



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Feeling

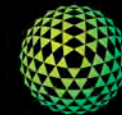
- The use of bamboo, wood, steel and canvas has a big esthetic potential.
- To dwell in a round habitat can give us a good feeling.
- As we try not to use toxic chemical materials this can be beneficial for both body and mind.



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Economical

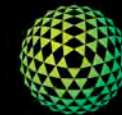
- BeBamboo is prepared to shop locally for the purchase of the necessary materials needed for our construction purposes.
- Is European bamboo for the use of construction possible?
- Bamboo construction in Europe needs funding and moral support from the government, architects and building companies alike.



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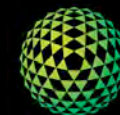
BeBamboo Products

- Bamboo domes heavy duty > cultural and business events.
- Bamboo domes light-version > recreational use (BeBamboo Diamond Dome)
- Bamboo construction projects in architecture > e.g. Dome habitat.
- Bamboo domes as shelter for disaster prone areas.
- BeBamboo special projects > ex: bamboo space frame, bamboo tunnel, bamboo truss, or any of your projects.



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Our katalyst: Johan Gielis from Genicap & Ikebana.
Picture taken at the bamboo testfield here in Merksplas.

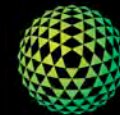


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BeBamboo & Architecture



Tourist Info Point, St-Privat de Champclos, South France.
Concept by Architect Jean-François Daurès,
Archivision & Greenwall.



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Tourist Info Point, St-Privat de Champclos, South France.
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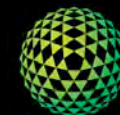
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TIP elements:

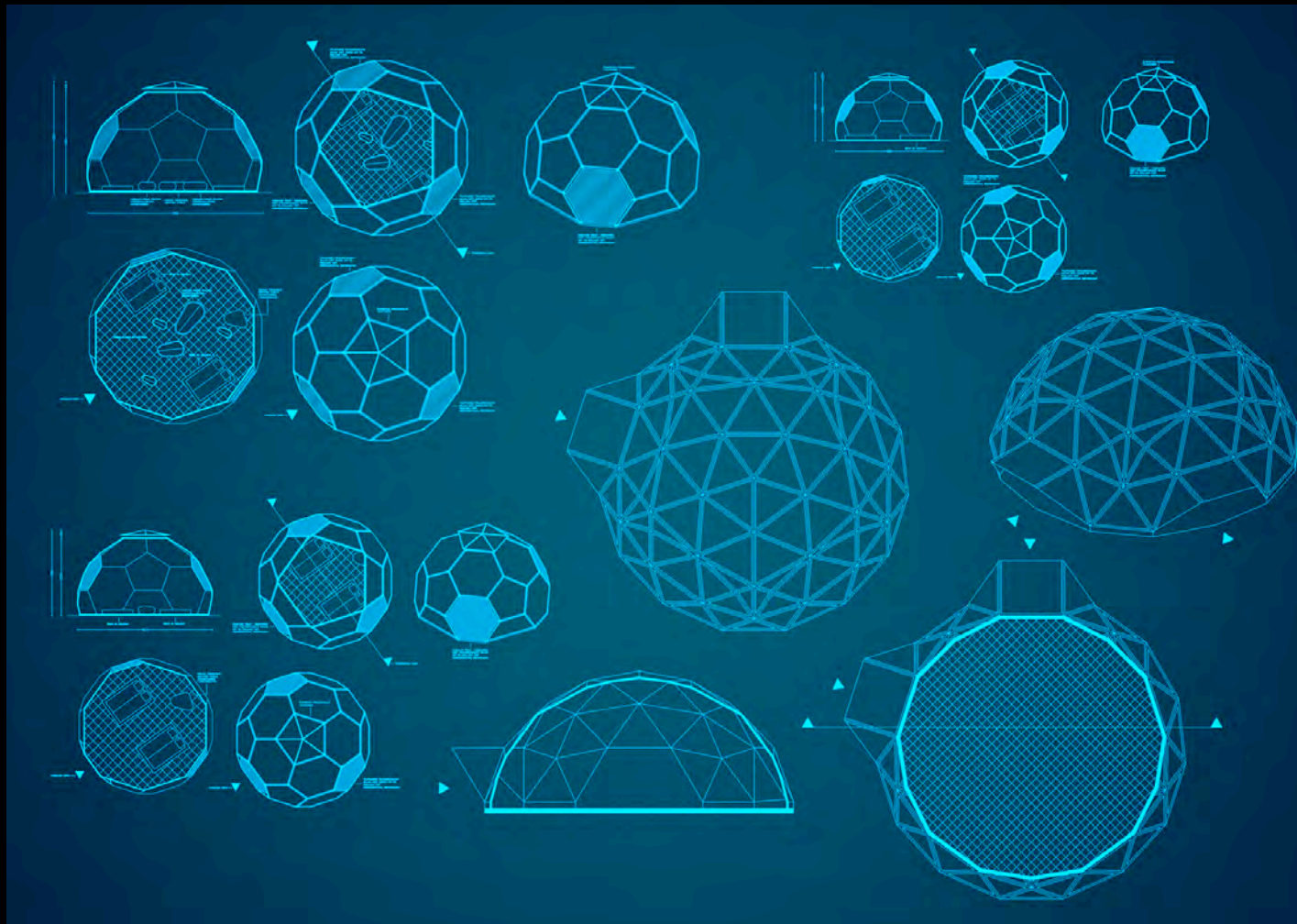
- concrete slab
- bamboo dome
- wooden sandwich panels with insulation
- EPDM roof & tunnel
- greenroof and “ Pierres Sèches”

Tourist Info Point, St-Privat de Champclos, South France.
 Concept by Architect Jean-François Daurès,
 Archivision & Greenwall.



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BeBamboo Domes



Light domes: 4m / 5m / 6m

Heavy-duty domes: 6m / 8m / 10m / 14m

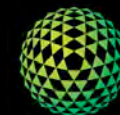


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World Bamboo Day



16th - 18th of September 2011, Gent, Belgium

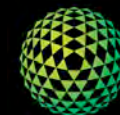


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Summertime City

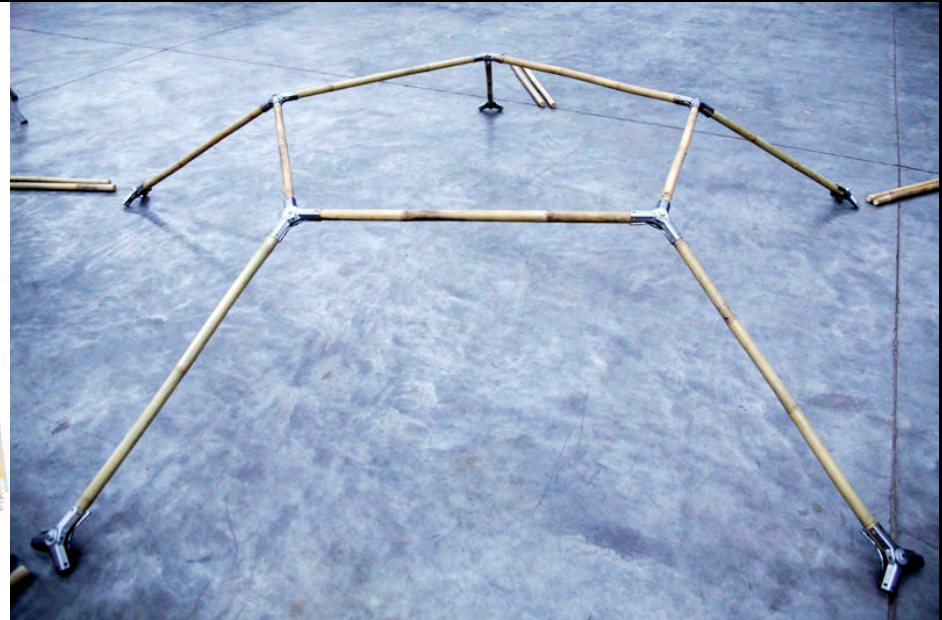


23rd – 25th of March 2011, Antwerp, Belgium

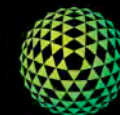


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BeBamboo Diamond Dome



- Lightweight connector.
- One length of bamboo struts > based on penta- & hexagons.
- Quick setup time.
- Ergonomic design.

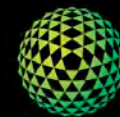


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BeBamboo Diamond Dome

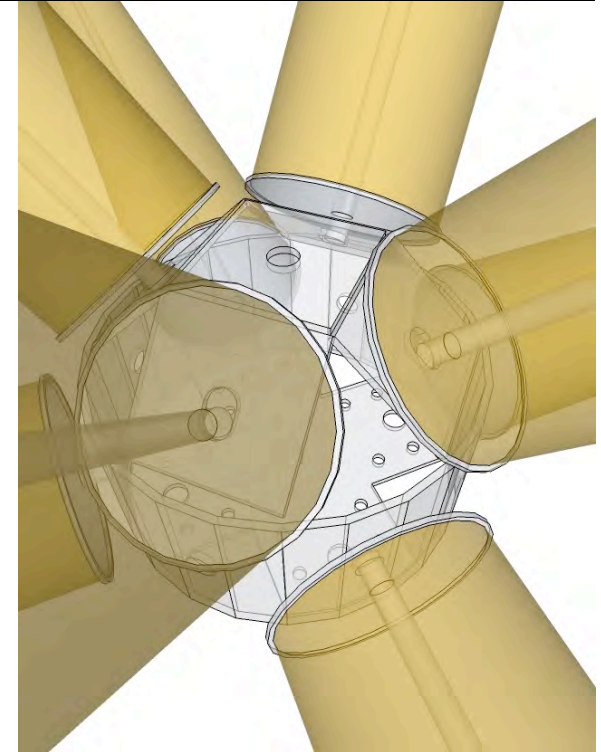
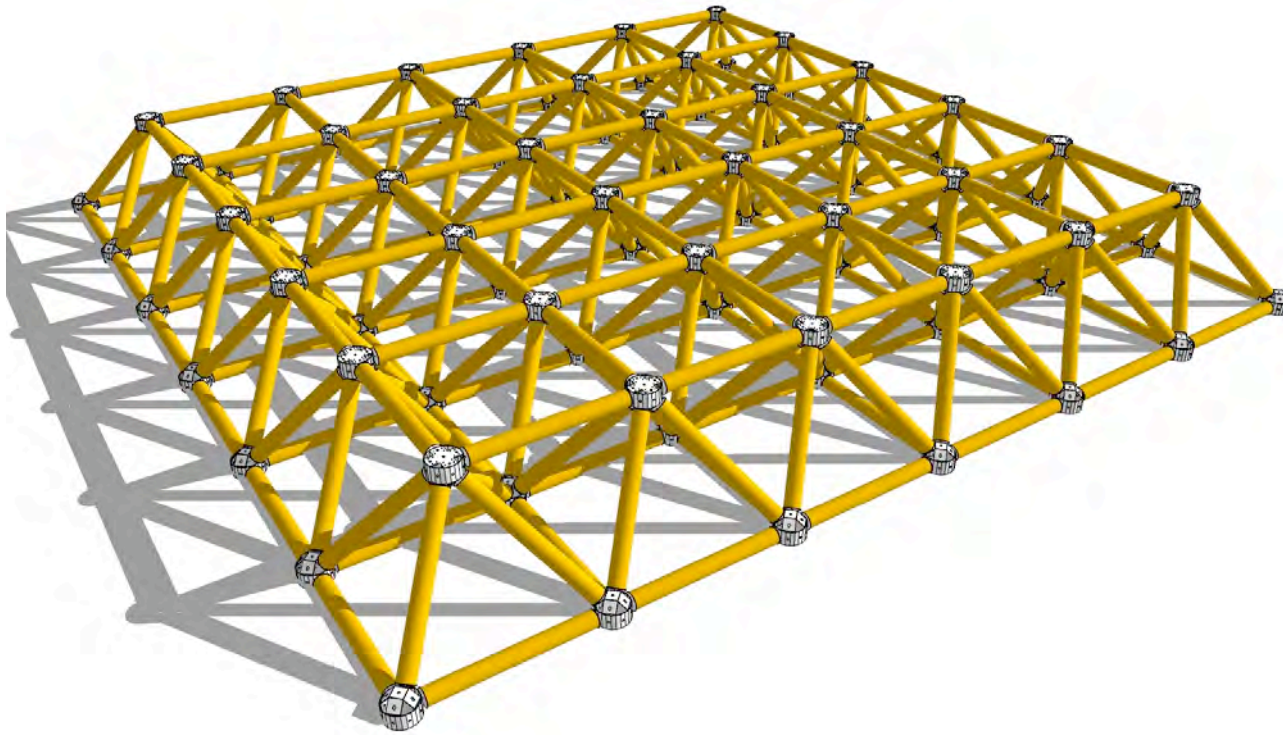


Work in progress...

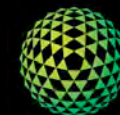


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BeBamboo Space Frame



In development > support for a horizontal green roof / 2 ton per m².
To be implemented in CRU Architects' C2C house (Gent, Belgium).

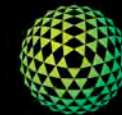


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We need more vision



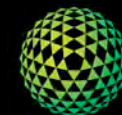
Luc Schuiten : Vegetal City



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We would like to thank:

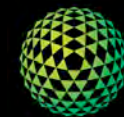
- Suzanne Lucas from the WBO for making WBC possible in Belgium.
- Jan Oprins from “De Kolonie” and his Oprins team.
- Johan Gielis and the Ikebana team.
- Dirk Huylebrouck and his architecture students for helping with the 14m dome setup.
- City Sounds Rent for “light and sound”.
- BeBamboo Crew.
- Norbert Vandenbussche, engineer @ Thyssen Krupp/ Laserworks for believing in us.
- Canvascamp and Vandecasteele for the support in cover construction.
- University of Gent architecture dep., KAHO Sint-Lieven engineering school Gent & Sint-Lucas architecture school Brussels for the joint venture possibilities.



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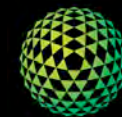
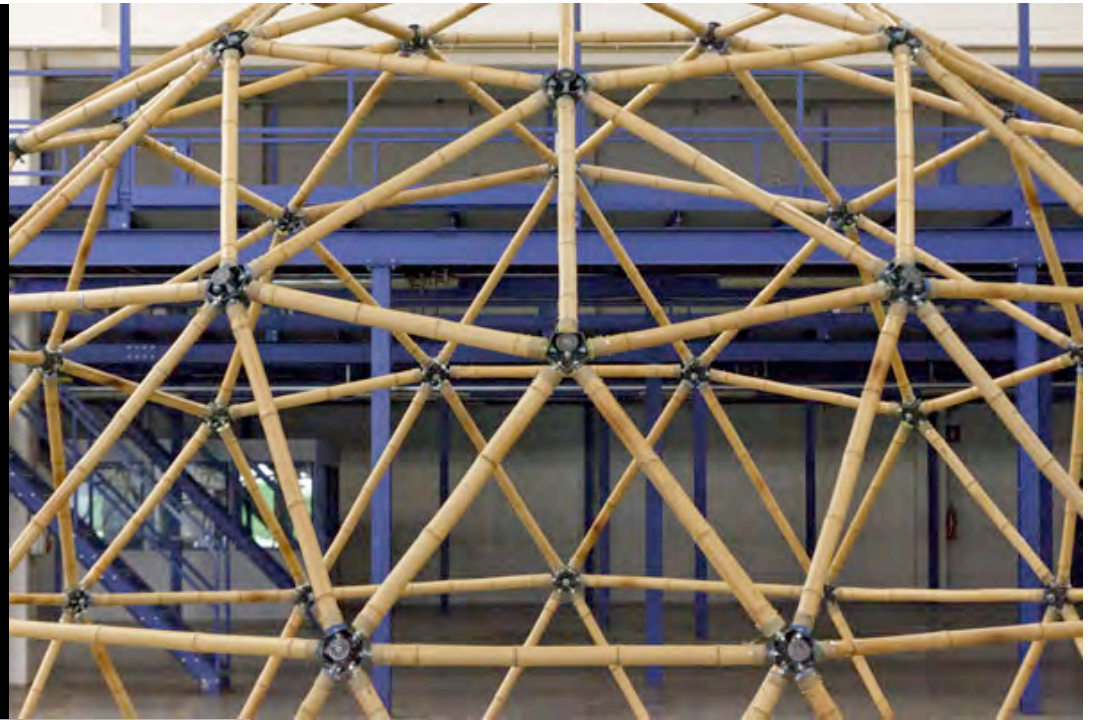


Vo Throng Nghia : Vietnam



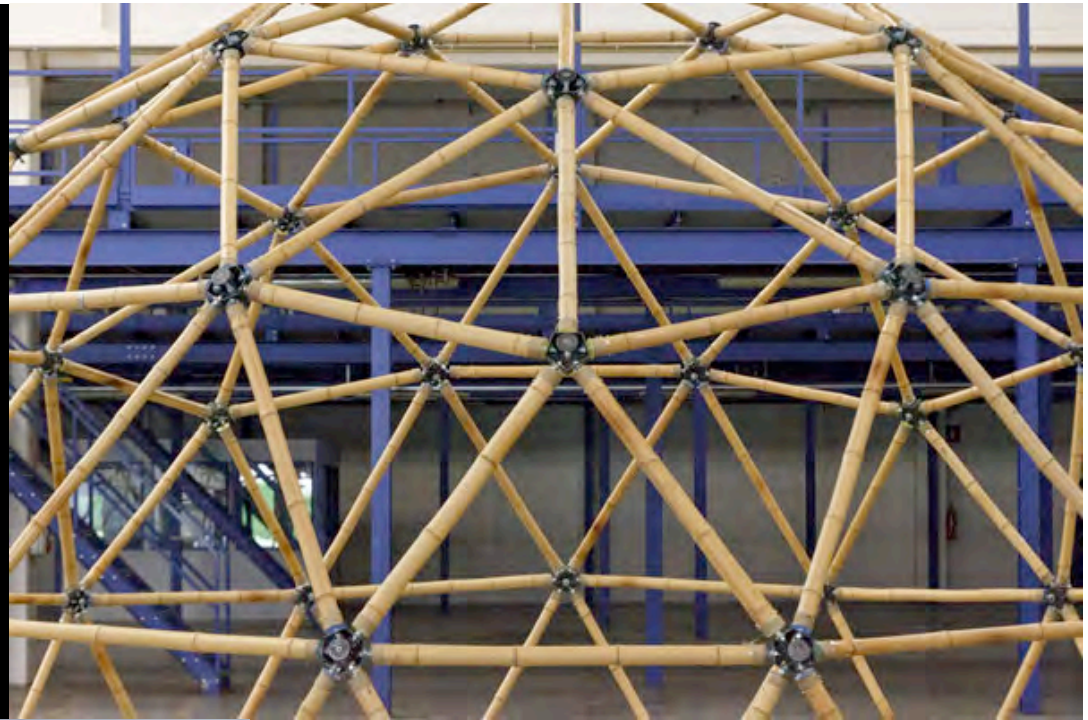
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We thank you for
attending WBC
edition 9 - part II

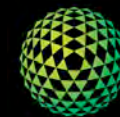


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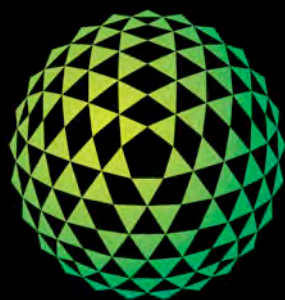
We thank you for
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And always
remember:
Be nice,
Be wise,
Be Bamboo.



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