Kinshasa workshop on urban bamboo Ingemar Saevfors 2013-01-22

A workshop on urban density housing based on bamboo materials was hosted at the School of Architecture in Kinshasa on January 3, 2013. The event was organized by *Société des Architectes Congolais* and *Architectes Sans Frontières en RDC*, with the participation of *Eco Bambou et Forêts*, an NGO focusing on bamboo cultivation and promotion of processed products. Additionally Gilbert Nkuli from GH Investment who is already involved in bamboo based fuel production took part. The workshop gathered some 30-40 professionals, mainly architects and planners.

Apolinaire Kitenge, ASF-RDC

Ingemar Saevfors drew attention to the ever exacerbating urban sprawl of one level developments, whether they are spontaneous squatter settlements or so called “dream-villa” programs as promoted by banks on glossy prints. The resulting megacities are lacking the most basic infrastructure such as access, drainage and power networks. The Kinshasa urban agglomeration has probably a 12+ million population by now and is spreading over more than 50 x 50 km. Imagine a Los Angeles without the freeways!

A reasonable urban density would allow for more rational development of urban utilities and service facilities. A more structured process could take advantage of recently developed eco-techniques based on synergy effects such as turning waste problems into energy resources, sewers into purified waters, rain water harvesting, efficient public transport corridors etc. However, going vertical usually means more steel and reinforced concrete; unfortunately these industries are among the worst contributors of CO_2 emissions.

The good news is that bamboo could become a renewable resource for permanent construction today, even when going multistory. From being a useless, perishable weed worth nothing an eco-friendly technology, primarily developed in Colombia, has totally changed the prospects for bamboo.

Much discussion in Kinshasa centered on these treatment methods based on boron derivatives which turn bamboo into a permanent building material. The need for conscious architectural design as protection against degradation by weather and sun, inundations and humidity was also much in focus. The architects showed great interest in details of safe bamboo-mortar-steel connections, spaced anti-buckling columns, vierendeel beams and recomposed back-to-back purlins for dimensional standards as well as honeycomb wall structures with weather skin.

The networking with Eco Bambou et Forêts and GH Investment was also important. When architects now may have the endeavor to build green cities with bamboo, there has to be a supply chain in place to deliver. The conditions for a three year harvest cycle of construction grade bamboo are excellent in the Congo and Eco Bambou et Forêts envisions to build a house as a proof of concept, in the longer term to raise more interest for quality bamboo housing.

We congratulate the architects, Arsen from Société des Architectes, Apolinaire Kitenge and Richard Losalajome from Architectes Sans Frontières RDC as well as Marie-Ange Bunga for organizing this important workshop at such a short notice.

Marie-Ange Bunga, Eco Bambou et Forêts

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