



**the new timber architecture -
making the most of wood**

Peter Wilson, Director, Timber Design Initiatives Ltd

first question

who here works in a timber building?

the wood museum, japan



modern interpretation of traditions



in the wood, of the wood



second question

*how many of you consider architects as
important customers / specifiers of timber?*

third question

*so, how many architects do you think there are in
europe?*

answer 3

569,000

key customers you're not reaching

your customer chain

- *sawmillers / processors*
- *traders*
- *manufacturers*
- *designers – architects / engineers*
- *builders*
- *end users*

seeking the golden fleece

*construction timber can be
low or high value -*

architects & engineers provide high value

*innovation is the only sustainable route to high
value*

innovation requires education

***europa has some of the best timber education
resources in the world***

and

***has the potential to train the world's architects &
engineers to specify more timber***

***helping to make this happen will exponentially
expand your markets***

so what do we mean by innovation?

*“before the invention of the internal combustion engine, when people were asked
what improvements they wanted in transportation, they
have replied - a faster horse”*

Henry Ford

rethinking traditional models



untreated oak cladding & roofing shakes



*cluster of built forms
using bio-based materials*



contemporary structural solution



new buildings forms



repeat elements



engineered timber offers new opportunities



inside and out



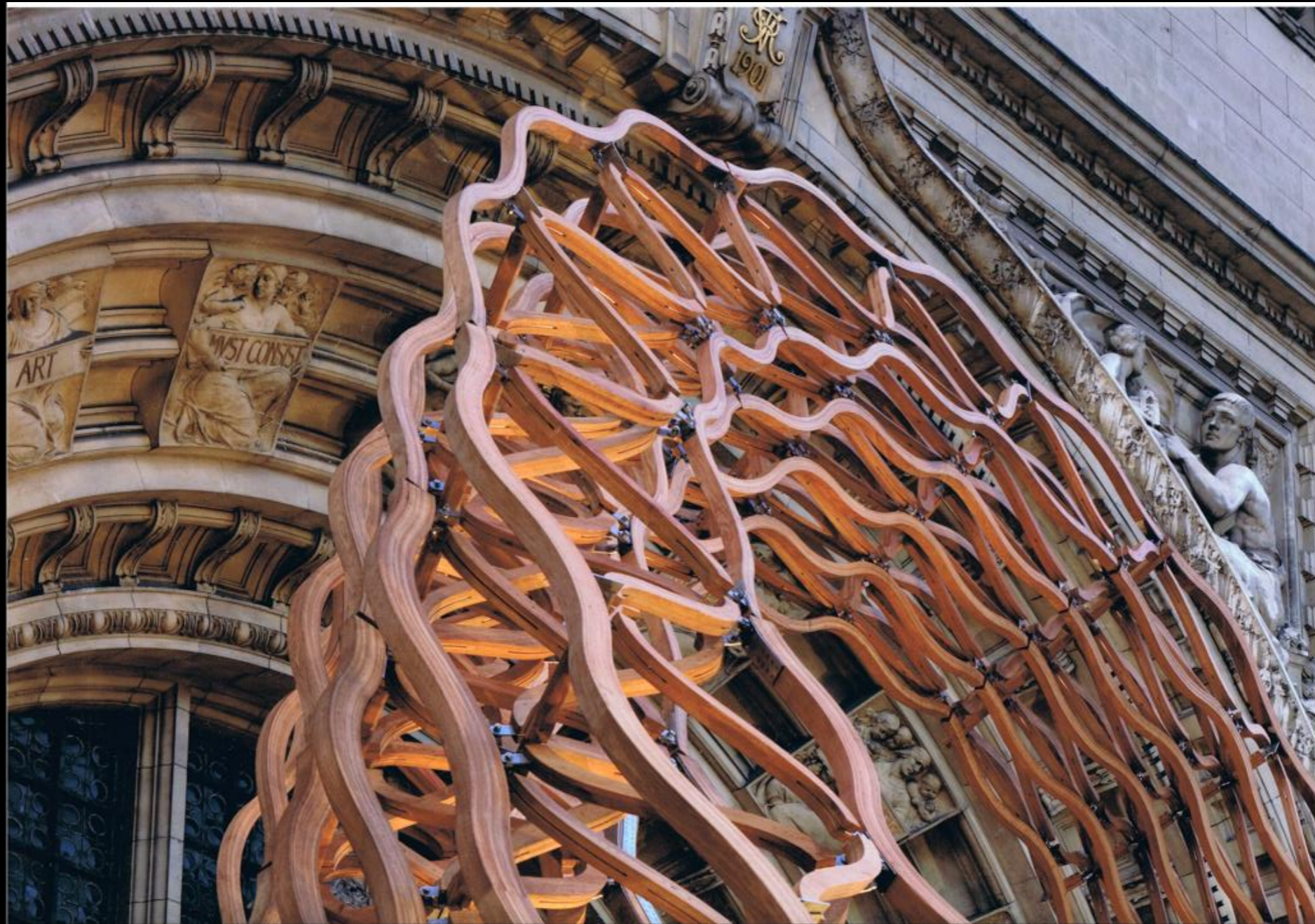
for engineers and architects



micro-glulam used at urban scale



hardwood & engineered connections



modern methods of construction (mmc)



offsite manufacture



platform timber frame technology



combined with parametric modelling



delivering non-standard solutions



*huge market in
recladding existing structures*



prefabricated panelised solutions



***commercial use of
sustainable timber technology***



BSkyB Believe in Better Building (BiBB)



***clt, glulam & timber cassettes -
all prefabricated***



delivering healthy working environments



solid timber



excels in difficult conditions



*hardwood cross laminated timber -
the next level*



large scale infrastructure using modified wood



acetylated wood in glulam form



strong & durable



*exposure to elements -
traditionally hardwoods*



modified wood offers new possibilities



sunken bridge using modified wood



impervious to water damage



netherlands' canals lined with modified wood



and even floating bridges



***fabricated in elegant shapes
that provide structural stiffness***



***new frontiers for design & manufacture -
& maybe for health & safety too?***



other forms of modification



nanotechnology applied to wood



transforming the city with wood



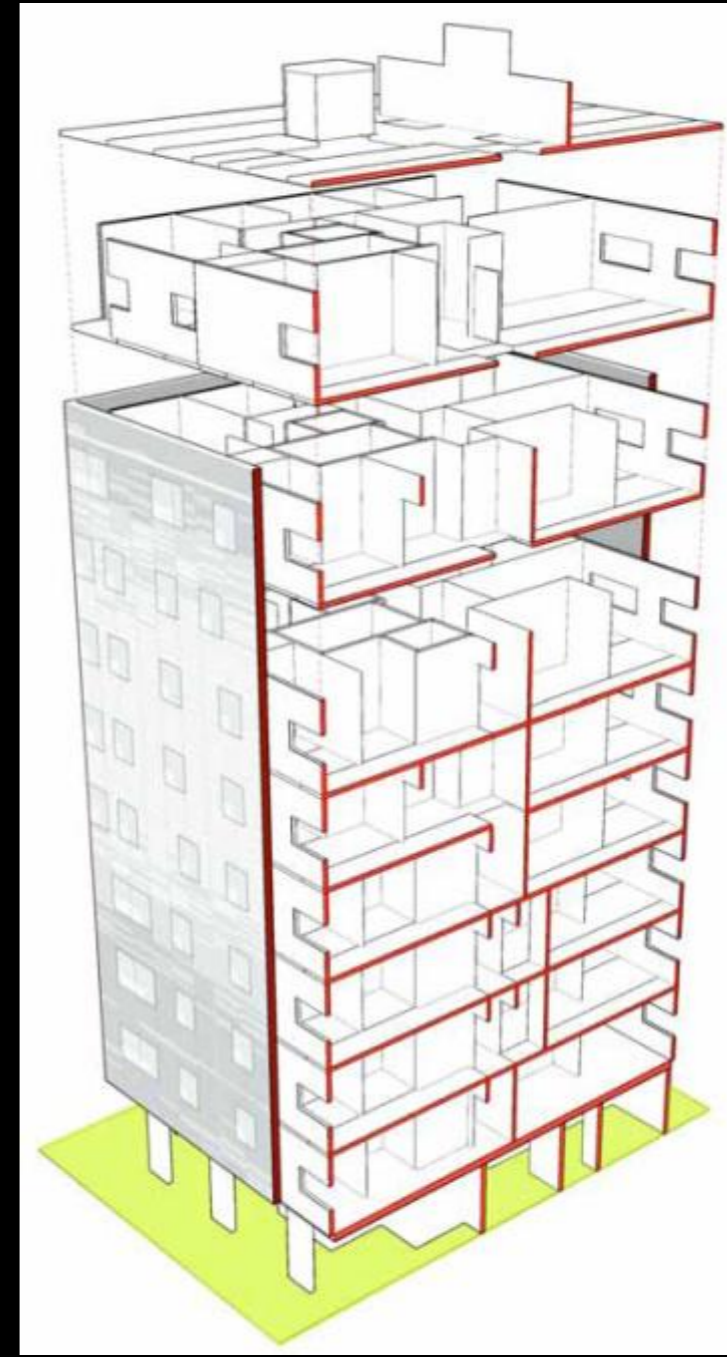
why timber cities, why now?



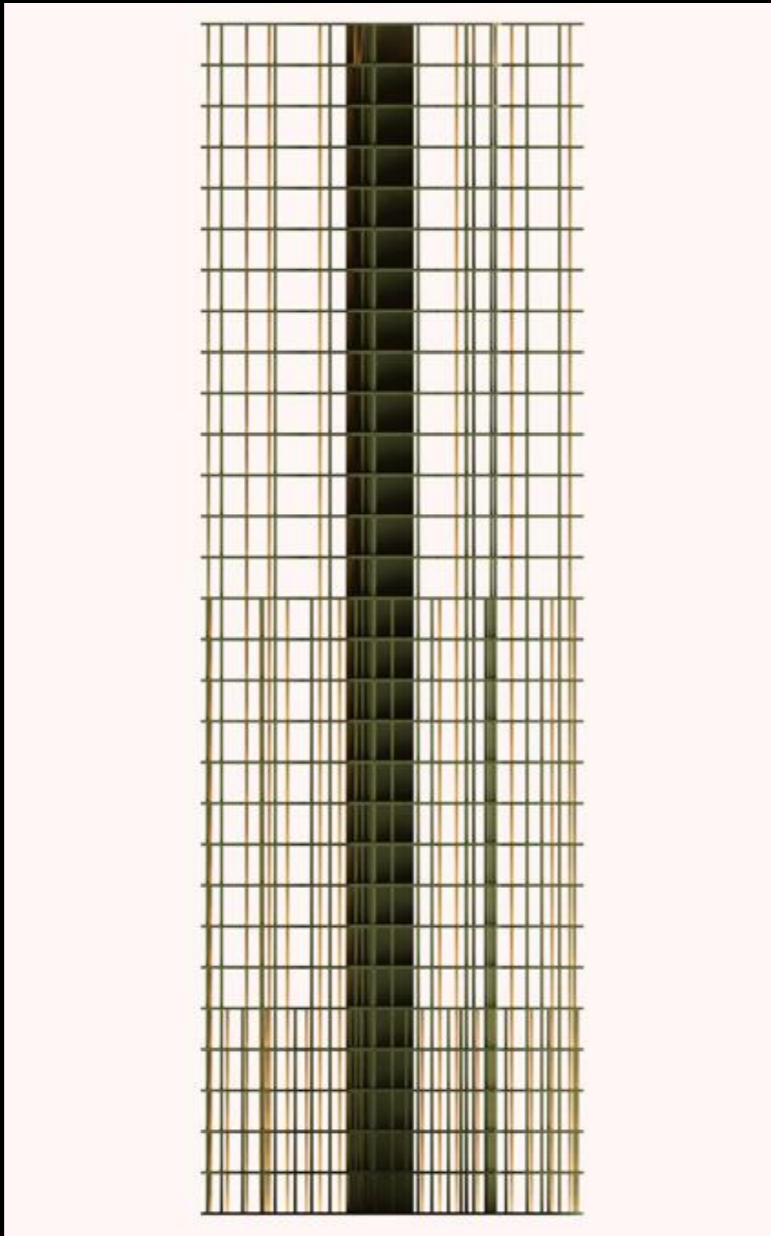
80% of the world's population of eight billion will live in urban situations by 2050

international concerns over rapidly accelerating climate change & the scale & nature of extraction processes demands a paradigm shift in the way we conceive buildings & cities

the first tall solid timber building



engineers taking wood even further upwards



urban conditions favour timber structures



bridport house



built over victorian sewers



40 metre clt tower, portland, oregon



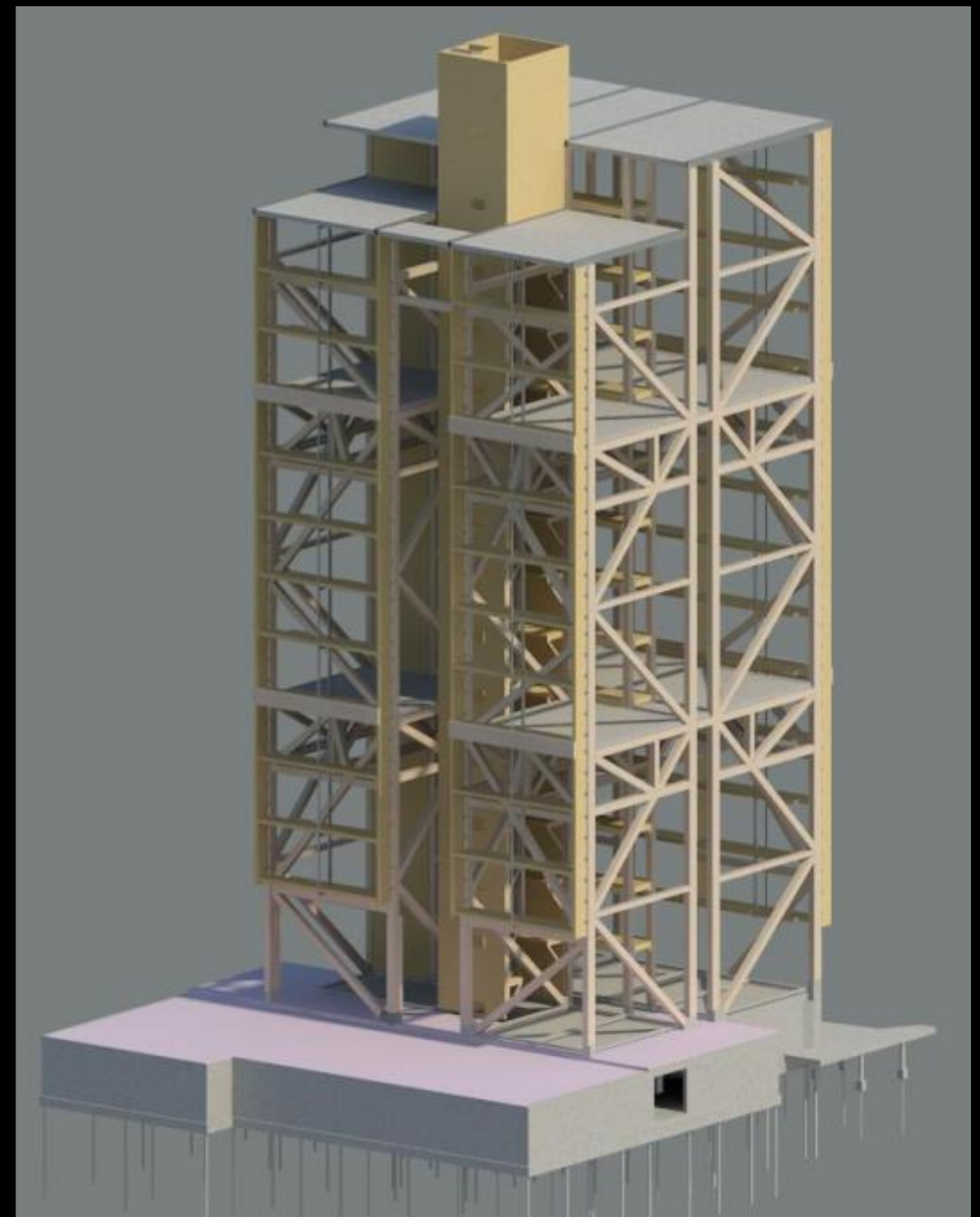
12 storey framework of clt & glulam



14 storeys in bergen



truss structure & prefabricated units



units transported on container ships



a rationale for tall timber structures

“In British Columbia we grow trees that are 30 storeys tall – why shouldn’t we have timber buildings this high?”

Michael Green, architect

tallest timber building in north america



hybrid of glulam and cross-lam



integrated structure, services & sound control



35 storey 'baobab' tower, paris



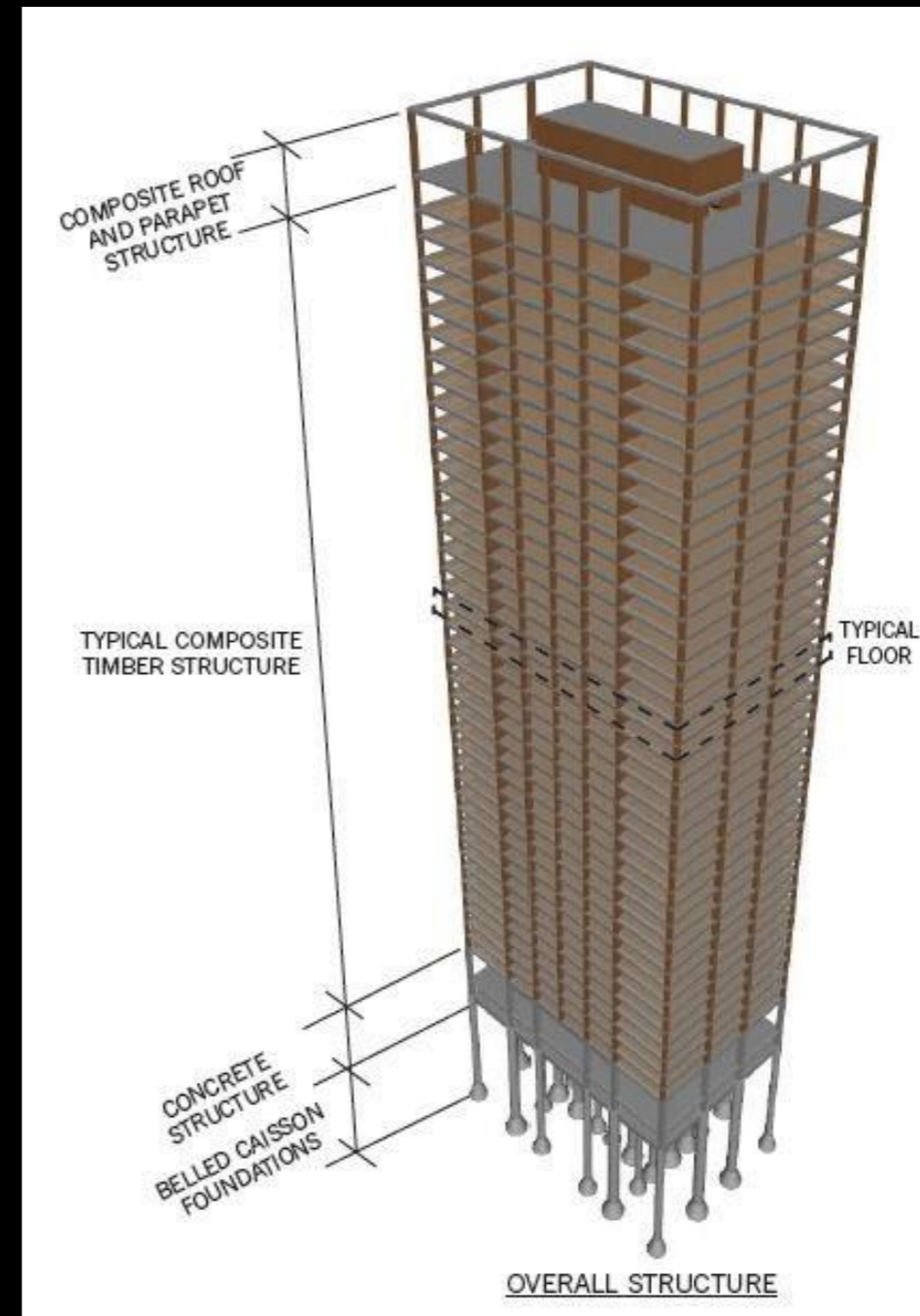
30 storeys in vancouver



34 storeys in stockholm



42 storey hybrid – wood with concrete connections



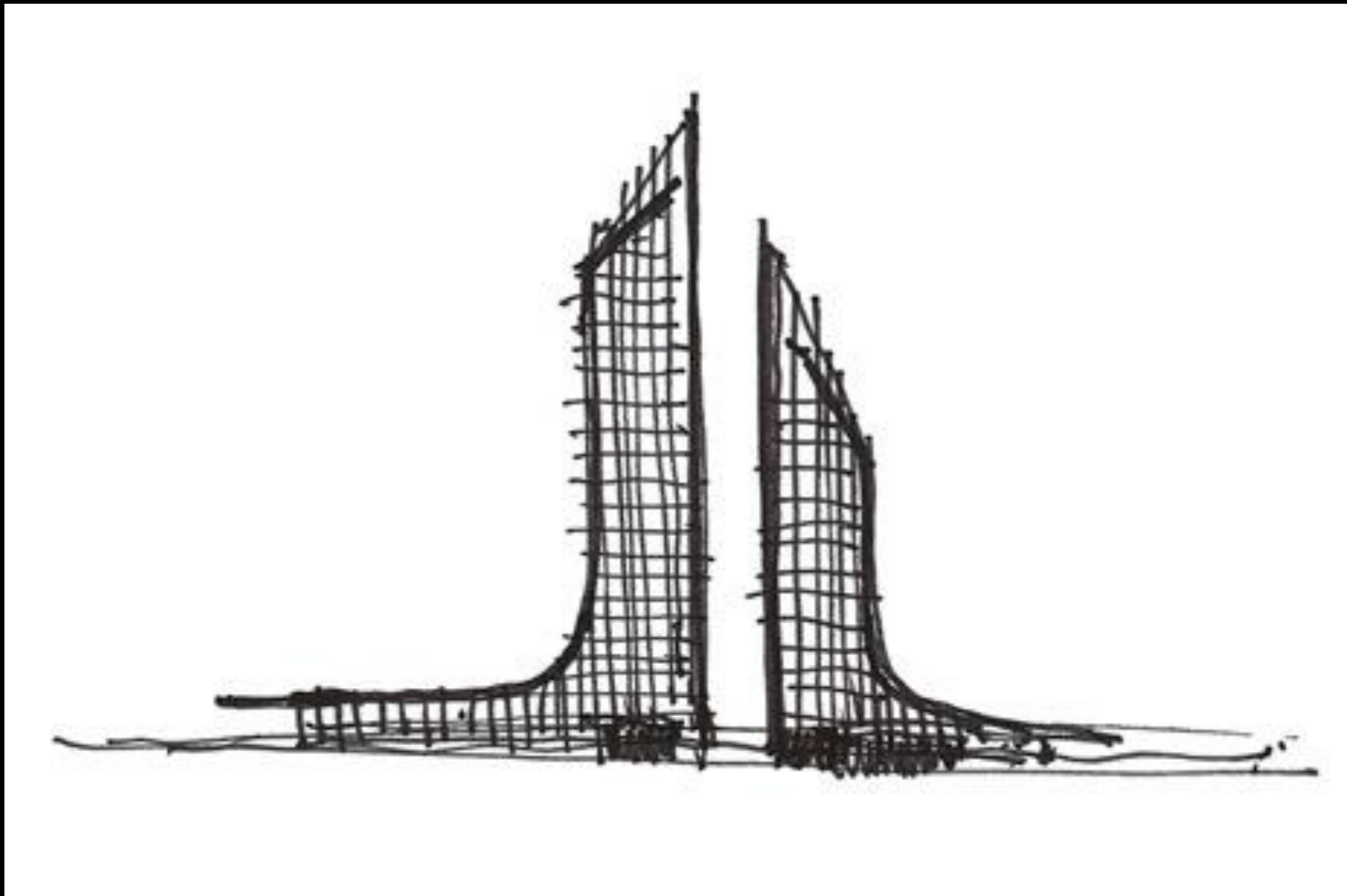
*and back to London this week:
80 storeys, timber structure*



the vertical timber city



creating timber cities



moving beyond the orthogonal



to autarkic city districts



IVI at urban scale



the largest timber building in the world



placemaking with wood



*exhibitions provide opportunities
for innovation*



French pavilion, Milan Expo 2015



x-tu architects



parametric modelling



prefabrication of multiple unique elements



precision & rapid erection & dismantling



An Ceann Mor



scottish scenic routes



***testing ideas and materials -
and talent***



landscape & wood: natural partners



visually striking use of wood

