Housing Innovations

The talk centred around what possible housing actions and innovations can be taken – and have been taken in New Zealand. The way we build in New Zealand is currently still stuck on the same manner we used to build houses for the last 100 years – pushing out houses slowly by building houses individually. That way may have made sense in the past, but for now and into the future, we need to be building in a more clever fashion. One of those clever aspects is prefabrication – building houses off-site. It is not the only answer to a big challenge for the housing sector, but it is one answer.

Guy's experience was used on the Meridian First Light House, seen on the Wellington waterfront in 2011 – an award winning, self-contained, solar-powered, prefabricated house that was sent to the USA (and came back). Much student innovation has followed since – from Mitch Holden's panelised housing system, Liam Playle's demountable housing system, and Ged Finch's highly successful XFrame construction system – changing the way that buildings could be built, with numerous buildings constructed in both here and in Australia, reducing waste and reducing time and skills needed on site.

The talk discussed innovative materials such as SIPS, CLT, LVL, and noted new abilities in Prefabrication housing plants such as Concision, Fletcher's CleverCore, EasyBuild, and the brand new Hector Egger Holzbau – these are the automated factory plants of the present where our future housing can / will be built. The talk mentioned the incremental housing solutions from Chilean architect Alejandro Aravena, as well as solutions from PrefabNZ's SNUG competition, with a great solution from a fast growing company called Flip Homes – arranging for houses that can be quickly built in your back yard. It is a part of the exciting range of possibilities for the future, where we need to build more intelligently – and build fast. Prefabrication does not necessarily mean all built the same – technology allows us to mass customise, as well as digitally fabricate.

Most importantly, the talk presents and discusses some of the advantages and disadvantages for Prefab as a building solution – and the need to incorporate this into the supply chain of future housing supply. Building cleverer is part of the solution – building in the same dumb old way is not the way forward. Its a big challenge to crack – we need the best possible solutions for the future.

Guy Marriage, Architect, First Light Studio Senior Lecturer, Victoria University of Wellington Board member, PrefabNZ Author, *Tall: the Design and Construction of High-Rise Architecture* (2020); *Modern Apartment Design* (2021 – in press); and *Medium Density Housing* (2022).