Workshop Presentation:

Fit for sustainability?
A critical review of contemporary apartment layouts in Hong Kong

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Abstract: Hong Kong has been remarkably successful in meeting strong housing demand during the past three decades and it has also acted as a role model to many other Asian cities. The supply was massive with an annual completion of around 30,000 private residential units. The building regulations are considered to contribute to this impressive production performance. Under severe housing land shortage and huge population pressure, stringent space-per-person regulations limited the flat size and controlled the apartment layouts during that period. However, flexibility in layout should be a persistently desirable feature of a family house irrespective of whether it is inhabited by a single family during its life time or if it is replaced by another family. In the older neighborhoods of the 1950s, owners enjoyed much freedom to adjust their layouts according to their changing needs, as the traditional structural system allowed them to do so easily. This flexible concept of layout was successfully transplanted to the first few generations of public housings in the form of open layout (shells for tenant fitout). However, from the mid-1980’s, government started to promote prefabrication as the general principle of construction as it allowed more buildability, higher quality of construction, effective time management, efficient use of resources, and construction hazard and waste reduction. The government also encouraged private developers to take similar initiatives in construction. Accepting prefabrication as a technological advancement with all its positive impacts, some studies show that it takes away to a great extent the design flexibility in layouts that users used to enjoy before. This paper suggests that there might be a lack of integrated design process (IDP) which involves different professionals and users during the design stage working together.

The nature of housing demand in Hong Kong has changed during the turn of the new
millennium, mainly in the form of slower population growth and increased per capita demand for living space both in quantity and quality. Under this situation, any new construction or replacement by demolition as a method of meeting housing demand even with IDP may not appear to be sustainable as there should be some clear directions about how to continue the usage of older houses. This study suggests that before constructing newer housing stocks, it is more sustainable to develop methods for the existing huge housing stocks to meet the changing needs of increased size and more flexibility before it is too late for them to be in danger of being obsolete, and IDP should be used to avoid repeating similar previous mistakes.