

EVOLUTION OF PREFAB TIMBER SWEDISH HOUSES IN UK

FROM PROTOTYPE IN SWEDEN

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Destruction in the Second World War created a demand for urgent housing in the post-war United Kingdom (UK). The government was compelled to look for non-traditional methods since traditional materials and labour were scarce (O'Neill & Organ, 2016). Swedish houses were imported from Sweden as prefabricated units to meet the demand. These Swedish houses in the UK presently carry significant heritage values.

Prefab houses in Sweden

Vale (1995) points out that the trend of building prefabs had already started in Sweden from 1927. Around 50,000 people lived in the owner-built garden suburbs around Stockholm. Prefab houses were partially self-built where the owner's whole family participated in the construction of brick plinth and the timber superstructure from prefab sets (Fig.2). To keep the costs low, the parts were standardised and mass-produced, but architects were employed to decide on the town planning and exterior appearance of the houses. UK architect and author Denby (2015) termed them as 'Magic Houses' of self-build communities (Fig.1). The Swedish experience also highlighted the other advantages, in addition to the reduction of cost and requirement of skilled labour. It allowed the owner cum builder to have a proper stake at the home through contributing 'sweat equity'. Though this element was never brought into discussion in UK while considering import of prefab houses.



Figure 2: Swedish family working together at foundation for a factory-made timber house (Vale, 1995: pp. 168)



Figure 1: Timber prefab house in Stockholm put together by tenants (Vale, 1995: pp.66)

Prefab houses in UK

During World War II, there was a severe shortage of housing in the UK. To address the need, the Burt Committee was set up in 1942 jointly by the Ministries of Work and Health in the hope of finding a non-traditional method for house construction, as supply of construction materials and workers were scarce. At the same time, the Dudley Committee was set up by the

Ministry of Health to provide guidance on standards of space and equipment for housing. By 1944, the Dudley Committee had come up with suggestions for internal layout of the post-war housing, as patterns of life were changing. (Bullock, 2002)

In the aftermath of World War II, prefabrication seemed to be a possible solution to cater to the need of urgent housing (O'Neill & Organ, 2016). Under the 1944 Housing Act (Temporary Accommodation), the Ministry of Works decided to provide 3.4 million prefabricated homes, though only 157,000 were finally built (Prefab Museum, 2017 online). There were mainly 11 types of prefab houses in the form of bungalows, which were developed from a government prototype known as Portal House (Historic England, 2018) (Fig. 3). As these were designed for a life-span of only 10-15 years, the ones which are still standing today have very clearly survived long, even if the outer envelope in some of them have been replaced by brick, tiles and other materials (Vale, 1995; O'Neill & Organ, 2016).

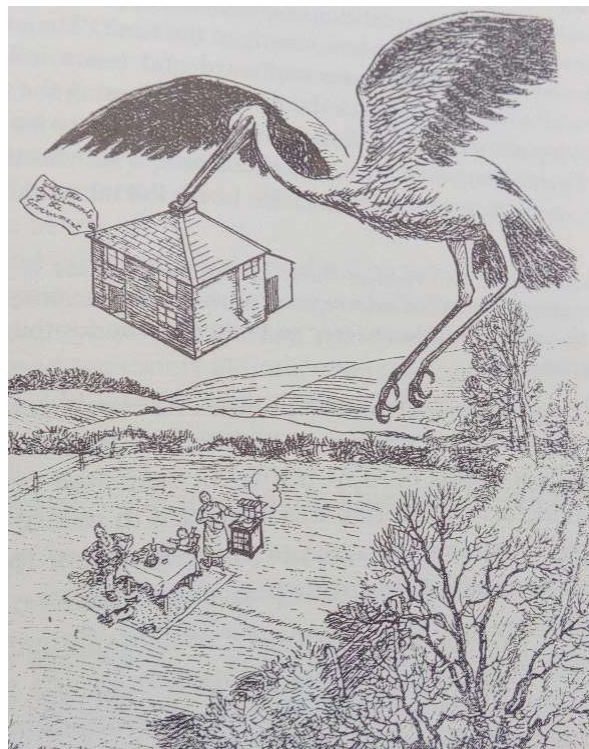


Figure 3: A cartoon showing prefab houses being delivered by storks with compliments from the government, as published in 1944 (Vale, 1995: pp. 115)

Swedish prefab houses in UK

Architect Cyril Sjöström advocated Swedish prefabricated houses and organised an exhibition on the same in Building Centre, London in 1944 (Historic England, 2018). During the same time, the Ministry of Health and Agriculture was trying to find a fast and cheap solution for housing farmworkers. Agriculture was necessary to rebuild the country economically and agricultural professions were feasible to house and train ex-servicemen (Prefab Museum, 2017 online).

In 1945, 10,000 prefabricated houses were to be secured from the Swedish government to address the housing need in rural areas. However, due to restriction on export of currency outside 'Sterling Zone', only 5000 pair of houses were ordered. Out of these, 2444 were erected in England and Wales, and the balance in Scotland. The houses were shipped as flat-packed in 1945-46 (Fig. 4 & 5). The Ministry of Works also supplied fittings, cupboards, fireplaces, bathroom equipment and were erected by local authorities, who arranged for electricity or gas supply, tiling, glazing and painting. (Historic England, 2018).



Figure 5: Storage of flat-packed Swedish houses in warehouse (Preston Herts, n.d. online)



Figure 4: Storage of flat-packed Swedish houses in quayside (Preston Herts, n.d. online)

The construction system and architectural style of Swedish house was originally a Scandinavian design, but then was suited to the UK's design standard (Prefab Museum, 2017 online).

Though each of the four types of Swedish houses found in England, Wales and Scotland had its own unique layout, the basic proportion and material usage were common (Fig 6). A pair of houses had identical floor plans, mirror to each other. Plan was generally rectangular with an attached outhouse which contained a W/C, coalhouse and. Most had a flat canopy porch in the front entrance. The steep gable roof was made of timber rafters and purlins with timber panelling, which was covered with clay tiles or slate (locally sourced). Plinth was made of brick and softwood was used for prefab timber framework. The inside wall had a finished painted surface on plasterboard (Fig. 9). After a gap of 15mm for airspace, 10mm thick plyboard was attached to the 50mm stud framework. External cladding was done by using Baltic pine 20mm thick vertical tongue and groove joint weatherboarding, usually painted black (Fig. 7) (South Norfolk Council, 2015 online). The steep gable roof was made of timber rafters and purlins with timber panelling, which was covered with clay tiles or slate (Fig. 8). The brick chimney stacks were at each end and centre of gable roof. Original doors were flush doors and had simple moulded door frames. Windows were timber casement. Floor was made of timber floorboards inside the house, whereas outhouse and toilet had tiled flooring (Fig 10 & 11). Cupboards were provided in bedrooms and dining rooms. Bathrooms were provided with hot running water from the boiler. Living room and all the bedrooms had fireplaces for heating purpose. (Prefab Museum 2017 online; Historic England 2018)



Figure 6: Front façade with typical architectural features in Norwich, 2016 (Google street view, 2018 online)

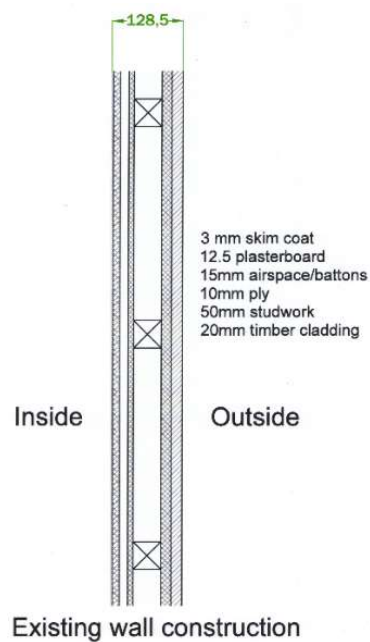


Figure 7: Cross section of original wall (South Norfolk Council, 2015 online)



Figure 9: Original interior finish (Midgley, 2018)



Figure 8: Original roof structure from attic (Midgley, 2018)



*Figure 11: Original floor tile in outhouse
(Midgley, 2018)*



*Figure 104: Original timber floorboards inside
main house (Midgley, 2018)*

Presently, only half of the original number of houses are left standing in this country. Mostly being an unlisted form of heritage, they are under the threat of demolition or substantial change which may render them totally unrecognisable for the future generations.

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