

## Mass Housing and Prefabrication (online, 14–15 Jun 21)

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From Conventional to Experimental – Mass Housing and Prefabrication

### General Introduction:

Mass housing owes much of its social ideas and design to architectural prefabrication. However, it seems that the history of prefabrication and its relationship to modernist architectural concepts and their dissemination, has remained somewhat at the margins of contemporary scholarly debates. This is perhaps because most scholarly contributions discuss phenomena that do not engage canonic or iconic case studies of industrialized architecture, while other aspects of research are in the fields of engineering, rather than history.

This conference seeks to explore the connection between prefabrication and mass housing worldwide. We invite new research that can deepen our understanding of the inherent and crucial connection between the revolutionary advances in prefabrication that characterized the modern era, and their impact on design. Papers dealing with the dissemination of knowledge with regard to prefabrication - such as the role of organizations, exhibitions and professional publications, are also welcome. We further seek papers that address prefabrication in architecture as an embodiment of distinct social and political ideologies and conditions, such as colonialism and nation-building.

### Thematic sessions:

#### Prefabrication in colonialism and nation building

Herbert Gilbert has set out how prefabrication techniques, infrastructure and logistics of knowledge and materials enabled colonizing the British Empire (Gilbert 1972). Simple timber cut, wooden framed huts were transported overseas into West Australia and South Africa. American industries, themselves with a huge tradition in colonizing the West, intermingled in that business, when, in 1772 Clarke and Hodgdon of Portsmouth, New Hampshire, built a 50-by-18-foot wood-framed house for shipment to the Isle of Grenada. Essential novelty came with the Manning Portable Colonial Cottage, developed by H. Manning in London, for settlers in Australia and New Zealand. With the first replicable house, prefabrication became an industry. An international history of prefabrication has been written inter alia by the Museum of Modern Art (Home Delivery, 2008), emphasizing the work of the 'heroes' of the Modern movement like Walter Gropius, Marcel Breuer, Richard Buckminster Fuller and Konrad Wachsmann. Indeed, Wachsmann is a central figure leading over to

less heroic aspects of architectural modernity like infrastructural imperialism (Osayimwese 2017). Prefabrication in Israel as a means for economizing construction was discussed by Allweil (1984 and 2017), who demonstrated that in the field of housing it included complete housing units but mostly prefabricated components, such as windows, walls, bricks for both walls and screens, etc. An additional field where prefabrication was experimented was that of factory buildings, for example in the work of Rudolf Reuven Trostler (Meyer-Maril and Gordon, 2020) or Moshe Zarhy (Nitzan-Shiftan and Handel, 2020). Kenny Cupers has recently demonstrated how standardized, not prefabricated, farmsteads in the Heimatschutz style by Paul Fischer were used to colonize the previously Polish provinces of West Prussia and Posen (Cupers 2020, 194). Both Osayimwese and Cupers claim that this housing regime was fundamental to develop modern architecture, yet has been largely neglected by architectural history. Finally, nation building, which adhered to the ethos of modernity and modernization, fully expressed the use of prefabricated elements in public buildings and civic architecture. In these buildings, displaying and making present these components underscored modern technologies, as well as building research (Aleksandrowicz 2017) and national regimes' top-down processes (Jackson, Uduku et.al., 2019).

#### Prefabrication at exhibitions

The importance of prefabrication can be further substantiated by its predominant display at exhibitions. Many such prefabrication experiments were shown and tried out at exhibitions, which is a phenomenon of the modernization of architecture in itself. During national romanticism (Barbara Miller Lane 2000) surveys of German Farmhouses were composed and exhibited at national architecture exhibitions, facilitating a broader discourse. Prefabricated houses of the German firm of Christoph & Unmack were exhibited at the Deutsche Hygiene-Ausstellung 1911 (German Hygiene Exhibition). Walter Gropius and Adolf Meyer erected a prefabricated wooden house for Adolf Sommerfeld (hereby reusing wood from a ship) and developed their famous Baukastensystem (building block system) (Home Delivery, 234), first shown at the Bauhaus exhibition 1923 and afterwards employed on several villas and dwellings, e. g. Gropius' or Margarete Schütte-Lihotzky's contribution to the Weissenhof exhibition settlement in 1927. The manufacturing of prefab copper houses in Germany and their presentation at exhibitions in Berlin in 1931 (Trezib, 2006) was noted in the Palestine press. A few years later, several cooper houses were exported to Palestine, following the "transfer" (Ha'avara) agreements. Lightweight prefabricated constructions reappeared in a stunning hall and tower at International Building Exhibition 1957 in Berlin by Frei Otto and Günther and Barbara Günschel. The display of prefabrication in exhibitions was complemented by public discussion and information in professional journals, *Bauwelt*, to take one example, in Germany, while in Mandatory Palestine one could glimpse of prefabricated building elements in Journals such as *Habinyan*.

#### The emergence and consolidation of typologies out of prefabrication

Influential Postwar architects applied simple wooden prefabs for emergency housing in the destroyed cities. After the war, Austrian architect Roland Rainer further developed his famous *Ebenerdige Wohnhäuser* (ground level dwellings; Rainer 1948). He demonstrated their development from industrialised structures resembling Manning Portable Colonial Cottage, barracks, weekend huts, rural small houses, export houses (a name also used in the colonial building industry) and even trailers. In the following boom years, architects in many countries of the Northern hemisphere drafted settlements out of ground level houses situated in remote areas, far from city centers. Here, the formulation of a new understanding of settlement and architecture emerged:

ubiquitous and interchangeable, not bound to the ground, quickly adaptable, non-representational, almost an anti-architecture (Rainer 1948, 6). A famous example is the ground level houses pattern settlement, also displayed at Interbau 57. In the German Democratic Republic, housing was subject to a top-down regime to produce an industrialized environment for the new citizen-worker (Heß 2020, 52). High-rise residential blocks constructed from prefabricated blocks were assembled on site as the lowest denominator of the so-called socialist city. Mass housing in Israel up to the 1970s involved the introduction of mass-industrialization of building parts for the repetitive Shikun ("dwelling") housing block. As Asher Allweil's studies of construction methods in Israel indicate, prefabrication methods extended from the basic unit of the concrete block to three dimensional concrete elements produced in the factory or on site (Allweil, 1983). Prefabrication in mass construction in Israel was predominately of the state period, namely from the early 1950s to early 1980s, and was encouraged by mass state involvement in the construction of housing and other typologies. Nonetheless, while fascinating systems – such as Israel Goodovitch's Saddle System for Ashtrom Co. – were produced, assembled on site and widely circulated in the professional media (Goodovich, 1971), the most prevalent prefabricated system in Israel remains the basic concrete block.

The conference will be held online 14-15 June, 2021 and is hosted by the Technion Israel Institute of Technology, DoCoMoMo Israel, DoCoMoMo Germany, and EU COST action Middle Class Mass Housing.

#### Submission Guidelines

Format: the accepted format is for pre-recorded 15-20 minute presentations and for a virtual poster session. Abstracts of no more than 200 words should be sent by April 15, 2021 to [docomomo.is@gmail.com](mailto:docomomo.is@gmail.com)

Please include your name, affiliation, email address and a brief, 100-word biographical note.

#### Scientific Committee

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#### Reference:

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