

Written evidence submitted by Liverpool School of Architecture, University of Liverpool, Housing Cluster (PHS0301)

How do we live now?

Housing Performance and Homeworking during Lockdown and beyond

8 million people living in unsuitable homes

Housing experts at Liverpool University ask the Health and Social Care Committee to examine how Covid-19 lockdown measures impacted the use of our homes during lockdown, and how this has influenced our housing preferences and working-living conditions after the immediate emergency.

Data by the National Housing Federation shows that around 8 million people are living in unsuitable homes across the UK. We request to take into consideration an ongoing investigation on the effectiveness of London's housing stock for intensive 24-hour occupancy, especially thinking about a future likely to include a much larger element of home-working and other activities.

The lockdown imposed on 23 March 2020, which lasted a year, created a once-in-a-lifetime 'stress test' for the nation's housing stock by compelling households, from single occupants to intergenerational family units, to live and work together for 24 hours, with only limited opportunities to leave home, initially only for essential exercise or shopping. Housing researchers and residential property columnists have written about signs of a permanent shift away from central office, 9 to 5 working, and towards homeworking on a part-time or even full-time basis.

This is for both positive reasons; flexibility, use of time, cleaner air, and due to the crisis revelation about the problematic nature of shared workspaces and crowded public transport. However, evidence shows that those living in more deprived areas such as estates of higher density, less access to green space or shared amenities have been affected more by the pandemic. Effects include higher infection rate as well as greater stress on mental health, work and home teaching, all contributing to widening inequality gaps. This makes a compelling case for us to re-evaluate our housing and to draw lessons which can be applied to future construction as well as the management of our accumulated pre-existing stock.

- How well have our homes performed?
- How adaptable have our homes proved to be?
- Can the known shortcomings of housing be identified and remedied?
- Can we identify particular features in our houses which can be enhanced in future schemes?

For these questions to be useful we must move beyond basic questions of space standards (increasingly tight in modern dwellings), to consider factors bearing on comfort and health. These include the trade-offs between open plan and cellular floor layouts, different access provisions, the comfort quality of the

internal environment, the effects of winter heating and its associated energy load, and also summer overheating, daylighting, artificial lighting and acoustics.

Furthermore, does British housing benefit from additional social facilities such as extant local community centres, nurseries, and libraries? The extreme conditions of the Covid-19 lockdown bring many of these questions into sharp focus. The longer-term shake-up in society's working practices which some already foresee makes it important to think fast.

The collection of architectural data on conditions before and during lockdown period is being gathered through architects, housing associations, and private accounts and portrayed in mainstream media sources. These accounts give evidence on housing capacities in terms of inhabitant segregation, spatial adaptability, functional re-programming opportunities, appropriation of shared spaces, and the reestablishment of security thresholds. Particular user-based conditions can be explored through different generations (from children to elderly) and occupant specificities. The portrayal of the life in shared homes and issues of overcrowding should also be considered. Increased intensity of use impacts energy consumption and hygienic conditions which will all be assessed through the lens of comfort (acoustic, ventilation, heating, cooling and lighting control).

Our proposed research investigation into this field builds on four years of prior data-gathering on the new private-sector housing built in the last 10 years in inner-London. This is the work of Johanna Muszbek and Jocelyn Froimovich, (Lecturers in Architecture, leaders of the Housing Cluster at Liverpool University), Simon Pepper (Emeritus Professor of Architecture, Liverpool University, historian and expert on public sector London housing), Richard Partington (practicing architect with extensive experience of contemporary house building, re-adaptation of social housing estates) , Aleksander Ivancic (sustainability engineer with research expertise in energy performance, who has served on numerous policy advisory committees globally), and Impact Data Metrics Ltd (a specialist team of researchers who focus upon the custom development of research data repositories).

The outcome of this inquiry will provide house builders, developers, planners, local authorities with building metrics and quality assessment tools with which to analyse housing plan and estate layouts for their capacity to adapt. Part of this process is likely to take the form of designs for modifications to estates, block plans and individual dwelling units. These designs are seen as prompts to critical discussion amongst all of those involved and to inform the framing of future housing standards.

Johanna Muszbek and Jocelyn Froimovich

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