

11: Space standards and densities: how policy tools and the market interact

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Space at Home – Where next? England is exceptional in Europe in its lack of space standards for market housing. It is not difficult to demonstrate a correlation between this fact and the fact that dwellings in England are on average significantly smaller than those elsewhere in Europe. It is more difficult to build a consensus about whether anything should be done about this, or indeed what to do. The research undertaken by HATC is very helpful in shedding some further light on the issue, but also in identifying the gaps in our knowledge which might be addressed through further research.

Evidence or Conviction: But before we become entirely angst-ridden about the evidence base for a revival of the Parker Morris standards, it is worth remembering that the Government of the day required little or no research to justify sweeping them aside in 1981. If we were to ask architects, planners or developers in other European countries where space standards for room sizes are in force, what their evidence base for those space standards is, we would probably draw completely blank looks. Fundamentally the attitude towards space standards in housing is a matter of our approach to policy. Research-led policy is a high ideal, but there is also a place for conviction-led policies. This is why the issue of space standards in housing has a highly political dimension to it.

Efficient Space: The issue of space standards is not just about the total floor area of the home, but it is also about the most efficient distribution of that space. It could be said that marketing-driven housing design has generated an over-emphasis on personal hygiene and a simultaneous neglect of healthy nutrition. It is not uncommon to find homes with an en-suite bathroom for nearly every bedroom, with the bathroom carved out of the floor space of the bedroom. Bathrooms are also relatively expensive in comparison to plain ordinary floor space but they provide an opportunity to impress the prospective consumer with arresting “design features” and perhaps achieve a premium on the sale price.

At the same time it is equally common to find homes without a dedicated dining area, or indeed a floor space large enough to accommodate a table that would seat the entire household if the home were fully occupied (I will return to the issue of under-occupation later). This means that a family might have difficulty in finding adequate space to sit down together for a meal prepared in the home. There are profound effects on the family’s health and social life if meals are eaten “on the hop”, in sittings, or on trays in front of the television. Perhaps this could be the “Christmas Dinner” test: can you get your family round the dining table for Christmas Dinner? Perhaps predictably, I should add that, “a dining table is not just for Christmas, it’s for life”. The size of the home and the rooms within it can also have a major effect on our mental health and the educational attainment of our children. There needs to be adequate space for members of the family to withdraw and enjoy a degree of privacy – whether for contemplation or for homework. This is particularly important for children and teenagers, who need to be able to revise for exams but also develop hobbies and leisure pursuits.

Externalities: If we are of the view that small homes or indeed homes with small rooms are a problem, then we have to build a case for it which is based on research and conviction. In building that case there are costs to think about, but there are also implicit costs of not doing anything. Any intervention – such as new regulations for higher space standards for new dwellings - would elicit quite a response from some sectors of the industry pointing out that this would make development more costly, raising the price of new homes and impacting on the profitability of the sector. However, we must also consider the cost implicit in providing homes which are either too small or which have rooms which are too small to be fit for purpose. These might represent a significant cost in terms of long-term sustainability: small rooms are inherently inflexible, especially when all of the spaces in the home are designed to a minimum, leaving no scope to reconfigure layouts at a later stage. The success of historical housing typologies is due to the fact that rooms are sized generously enough to be able to be converted and adapted to different uses. Georgian townhouses could be converted into flats and (admittedly modest) bed-sits because the sizes of the rooms allowed them to be used as living rooms, bedrooms or – where services were provided – kitchens and bathrooms. The rooms provided were large enough to suffer subsequent subdivision. British cities are full of townhouses, originally built for a single household; where each floor has at some point been converted to form a self-contained flat with one of the original rooms serving as a living room or bedroom, and the other having been subdivided to create a bathroom and kitchen. By contrast, the small rooms assembled in modern homes are destined to be entirely mono-functional, able only to serve the initially dedicated purpose in perpetuity.

Small homes are inflexible because they lack the ability to adapt to demographic change. Household sizes vary over time, and whilst there has been an increase in the number of one and two person households in recent years, a simplistic extrapolation that this trend will continue will jeopardise sustainability of the homes that we should, after all, be building for the long term. Household size and structure has changed beyond recognition since the Victorian or Georgian age, but one of the reasons homes from these periods are so successful is the inherent generosity and flexibility of the typologies developed at the time.

For homes which are truly future-proof, we must provide for the demographic trends we are currently witnessing, but we must ensure that our homes remain flexible enough for the possible future trends. We are all living longer, and the baby-boomer generation is approaching retirement. Currently aged between 45 and 60, this group can look ahead to continuing good health and a degree of prosperity for a while. Accustomed to an independent lifestyle, this group will be looking for homes that allow for a lesser degree of mobility, and which offer sufficient space for live-in carers. Again, homes (and rooms) which are flexible and adaptable will be to the fore. We need to give thought to how we are going to be able promote independent living, support and care for a growing older population, and the understanding we develop must inform the type of homes we build.

We are facing a period of climate change, with temperatures predicted to rise significantly over the next decades. For homes to be fit for habitation, adequate ventilation will be increasingly important. Advances in construction, improved insulation and a better understanding of solar gain could minimise energy requirements for keeping our homes warm, but we must ensure that homes do not overheat. Aside from thermal mass, the volume of rooms and the capacity for cross-ventilation will be instrumental. The many small and-frequently single-aspect homes currently being built may well prove uninhabitable over time.

Expressed in economic terms, the points referred to above represent harmful externalities arising from the currently prevalent supply of homes with small rooms. An argument for future regulation would need to prove that the cost arising from these externalities is greater than the potential cost of measures introduced to redress the balance.

Market failure: It is sometimes argued that England's homes with small rooms are the result of a cultural preference for a certain lifestyle. However a cultural preference could only be proved on the basis of choice, not lack of choice. The HATC research suggests that the link between consumer desires and the choice on offer is too weak to support this assumption, suggesting that “the market is delivering products that are failing to deliver what the consumer thinks they want”. This, in other words, describes a form of market failure.

Given that the industry responsible for creating this specific offer is calling for support, an issue up for discussion is that of Government funds being dedicated to support the acquisition of unsold private sector development. If tax payers are to support the industry in this way, the Government has a duty to ensure that we are getting quality for money. Tax payers' money should not go towards buying homes which are too small to be fit for purpose or sustainable in the long term.

Demand or Need?: The imperative to meet projected housing need, even under current challenging economic conditions, is clearly understood, as is the resulting apprehensiveness towards further regulation. However, a dysfunctional market represents a substantial risk to the delivery of government objectives. The current market upheaval is unusual in that it does not arise from an oversupply of housing, other than perhaps in certain sectors, e.g. inadequately small homes only suitable for under-occupation. Intervention to address the oversupply of homes of a very specific type could be justified on the basis they are destabilising to the wider market, but also because they represent a major inefficiency in the allocation of scarce building land and capacity within the industry, and thereby an obstacle to meeting the projected housing need.

The view that small room sizes are an issue best addressed by consumer choice is often justified by referring to widespread under-occupation, the view being that the externalities referred to above do not arise in practice because the three bedroom house is usually occupied by an affluent single or couple, rather than a family with one or two children.

The widespread under-occupation is evidence of consumers' general preference for more space. If we can afford it – and this is an important qualification – we do like to buy more space than we “need”. This income elasticity of demand for space is a trait shared with most of the rest of Europe. Nevertheless, the homes we build need to be fit for purpose. Despite a half-hearted attempt to provide back seats, nobody is really taken in by the two-door sports convertible – and this should go for many of our two and three bedroom homes. Then again, nobody needs a sports convertible. But whilst cars of this type are inherently aimed at demand rather than need, the homes we build must be sufficiently flexible to meet housing needs. This becomes especially evident with respect to social housing, where efficient allocation of resources requires full occupation.

Imperfect information: If we are to trust in market dynamics as a mechanism which can lead to the desired quantity and quality of homes without further regulatory

intervention, we must at least ensure that these market dynamics can operate effectively. However, there are two important cultural specificities to the way that homes are delivered and marketed in England which are relevant to the effective working of a competitive market:

The first is that English homes are bought and sold on the basis of the number of rooms rather than the floor area, and this stands in the way of the market working efficiently. The housing market is too complex ever to enjoy entirely perfect competition, mainly because housing will never constitute a homogeneous product in the way that flour or sugar does. Nevertheless, providing better information about the products on offer could help create a more competitive and consumer-oriented market.

Perfect competition would require that consumers have adequate and standardised information in order to be able to compare products on offer. In order to achieve this aim, other countries such as Sweden and Germany require not only that the floor area in square meters must be advertised, but also exactly what can and can not be included. This is a far cry from the approach in this country, where homes are sold by the number of bedrooms, whilst it is left up to developers to explore what might constitute a bedroom – let alone a single or double bedroom. In a buyer-led market, the provision of better information to consumers could interact with inherent market dynamics to change the nature of the offer over time.

The development model: A very relevant English cultural specificity is the nature by which new homes and neighbourhoods are developed. In the UK, the land market and the market for new homes are joined at the hip, in the sense that the developer buys land or development rights, puts in place everything from the basic infrastructure (streets, services, lighting etc.) through to the actual homes for sale on the market. In other countries, the market for land and provision of infrastructure is separated from the market for the new houses built. The major infrastructure is put in place either by the local authority or by a developer working in tandem with the local authority. The land thus prepared for development is divided into plots and subject to an infrastructure levy. This generates a strong incentive for development and prevents land banking which might artificially constrain supply. Consumers buy a serviced plot and can then choose which type of home to build on it from a range of many possibilities on offer, including many off-site manufactured house types. Information about house types is relatively standardised, including aspects such as floor space, but also energy efficiency thus allowing consumers to make a direct comparison and make an informed choice about their future home, independently from their choice of location. In a common European market, it is an oddity that off-site manufactured housing should be an exception to the free trade of goods and services. A perfect market would require ease of entry for new providers to come in and redress the continued shortage. This could also provide the basis for renewed efforts to aid the entry of new providers into the market and aid the delivery of the identified housing delivery targets as well as an overall improvement of housing quality through greater competition in the market.

Implementing policy: It is often argued that the higher densities we are trying to achieve inevitably lead to smaller space standards. However, other planning systems are able to achieve both higher densities and better space standards in new housing, by means of more differentiated policy tools and more suitable typologies of housing design. Rather than adding more regulation, the tools already in place might benefit from refinement in order to better achieve their original aim.

It is possible that the planning system's reliance on only one measure for density (dwellings per hectare) has led to unintended outcomes in new development. Other countries consider density in terms of plot ratios and footprint ratios, leaving the market entirely free to determine the number and size of dwellings. I would like to present an example which illustrates this point and can perhaps just show how different typologies and a little bit of lateral thinking might actually provide a way of getting round the issue of poor space standards without having to go for a massive increase in regulation.

The Berlin example: Any of you who have been to Berlin might have recollections of staying in quite large flats there. Most of Berlin is built to a very standard pattern-book design, based on a 5-6 storey courtyard house-type within a perimeter block.



Illustration 1: a figure ground of inner city Berlin

Illustration 1 clearly shows the block structure which to a very large extent is made up of variations on this theme.

Higher Density typologies The Berlin example

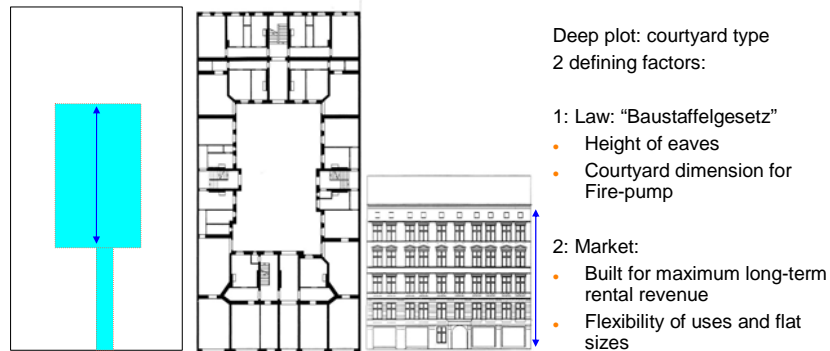


Illustration 2: a typical Berlin block

The building in illustration 2 constitutes part of a typical Berlin block. Presenting a street front on two sides, the flanks of the building are blank fire walls to adjoining buildings, likely to be of a similar type. This is a building type which came about at the time of the first German unification in 1871, when Berlin went through a period of rapid growth in order to assume the role of national financial and administrative centre. Major migration to Berlin generated a massive need for new housing. The state responded with a relatively light touch approach to planning. Due to the concern for fire safety, all that was laid down in planning law was the size of the courtyard, which had to be big enough to allow access for a fire pump and allow it to turn around. There was no specific guidance on the depth of the footprint on either side of that courtyard. The other thing that was regulated was the height of the eaves, which set the overall height of the building. Within that envelope, developers could arrive at whatever design they liked.

The majority of these buildings were built by speculative developers and, much like our house builders, Berlin's 19th century developers very often worked without architects, taking a pattern-book approach to the design of the buildings and rolling out standard house types to form a rapidly growing city. The example featured below is a very archetypal one, but you would find variations of this around the whole of Berlin. It is not completely unproblematic; for example there is the so-called "Berlin Room" which is situated in the inside corner of the building and can suffer from poor lighting. However, as a whole, the building typology is extremely flexible. Note that the rooms are not labelled: they could be a bedroom, a kitchen, a bathroom, whatever was required.

Higher Density typologies The Berlin example

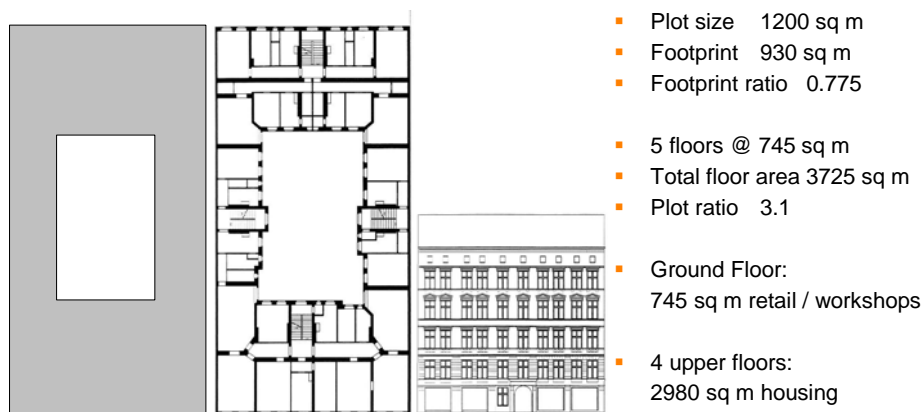


Illustration 3: the plot ratio

On this example, the plot size is around 1200 square metres and the footprint is about 930 square metres resulting in a footprint ratio – that is the area that the property is actually built on – of about 0.775, approximately three-quarters of the site. The five floors on this site result in a plot ratio of around 3.1 which is quite high. As is often the case, the ground floor of this building is dedicated to retail or workshop use, whilst the upper four floors are dedicated to housing (Illustration 3) thus providing a mix of land-uses on each plot.

Higher Density typologies The Berlin example

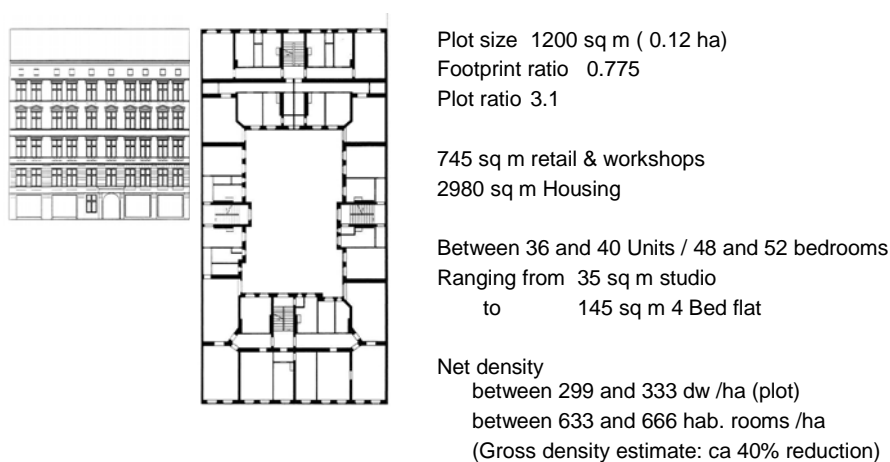


Illustration 4: the net density

The net density is between 299 and 333 dwellings /hectare and around between 633 and 666 habitable rooms/hectare. Allowing for the infrastructure, streets, roads, parks, schools and so on, the gross density is between 180 and 200 dwellings /hectare. It is quite interesting to see that this typology can provide mixed use development with a mix of accommodation types from studio flats right through to four-bedroom or even larger dwellings with very generous room sizes at comparatively high density.

Higher Density typologies The Berlin example

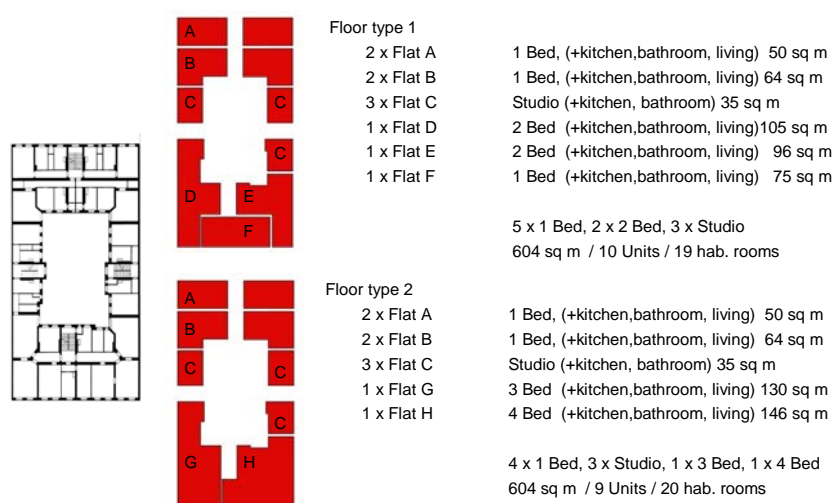


Illustration 5: possible layouts

Because the building has four staircases, and rooms are large enough to be able serve a range of different purposes, each floor can be configured in a range of different ways to vary the number and size of dwellings. In any given one of these buildings, you would find a mix of dwelling types including anything from a small studio, comprising one room with a bathroom and kitchen at 35 square metres, right through to a four-bedroom flat of about 146 to 150 square metres. Over the lifetime of the building, people might knock out internal walls, combine rooms or entire dwellings together, and subsequently split them apart again in a range of different ways. As a typology it is extremely flexible.

The economic background to this design is that these buildings were built to generate rental revenue over the long term so there was a great interest in flexibility because the developer would be able to rent this space out in any given scenario. Responding to housing demand, rooms could be joined together to create larger homes, or apartments could be split up to provide a number of smaller homes. In every event, the rental revenue could be safeguarded. Around 65-75% of homes in Germany are rented, which means that the vast majority of these homes are still occupied in rental.

This type of inner city housing is considered highly desirable in Berlin, not least because the apartments it provides are large enough to offer a real alternative to the (usually smaller) family home with a garden in the distant suburbs.

Cultural preference? I would like to dwell briefly on the issue of the so-called “cultural preference” for detached or semi-detached house types in this country. It is very useful to study these as typologies which have become very well-adapted to the British way of life and explore ways in which we can continually improve the quality of life offered by these types of buildings. However, in many parts of Britain society is becoming ever more culturally diverse, with residents viewing quality of life in different terms. If we assume that the housing market is functional and does not require further intervention, we might expect to see changing demographics and a greater diversity in the population to be reflected in a greater diversity in the housing market. It is also worth reminding ourselves that English culture is, perhaps – and I say this with trepidation - not entirely unrelated to equivalent culture in Ireland or Scotland and yet these countries do not seem to share the same apparent aversion to urban living in apartments, or doubts about prescribing certain space standards for new housing.