JULIA GILL

EDITED STANDARDS
A Plea for Greater Individuality in Standards

Dr. Julia Gill conducts research into the conditions of production and appropriation strategies in housing. She teaches and lectures at various universities and is a member of the board of *Netzwerk Architekturwissenschaft.*

As regards the supply of social housing, the residential buildings erected after the Second World War and up to the 1970s in West Germany and until the 1980s in East Germany are indispensable today. All in all, these buildings comprise more than 10 million apartments—more than a quarter of the entire German housing stock.[1] Almost half of these are in what are known as large estates, consisting of more than 500 apartments. Generally, these ensembles were erected by large construction companies using industrial construction methods as part of "social housing construction" programs or to "solve the housing question as a social problem." Today around 8 million people live in these buildings, most of whom are dependent on reasonably priced housing.[2]

These estates were built on what, at the time, were the fringes of the city or on inner-city sites that had been cleared of the ruins left by war-time bombing—both locations which "many planners [...] saw as vacant sites on which demands for 'light, air, sun' could finally be met without hindrance."[3] Concerns about air raid and catastrophe protection that resulted from war-time experiences and the renewed threat of the Cold War[4] led to a preference for open and mono-functional urban planning layouts interspersed by a great deal of greenery, some of which today still appear like "projects, abstracted from the ordinary city and set apart."[5] These so-called dormitory towns or "concrete fortresses" do not have a good reputation: the developments are too large, too anonymous, and too inhospitable,[6] while the apartments are too small, too similar and too inflexible. Often, however, the view from outside that is used and strengthened by the media and frequently stigmatized does not match the view from inside of those who have established the personal center of their lives there.[7]

The total investment required to develop these large estates further in building terms is currently estimated at around 90 billion euros in the period up to 2030.[8] This figure includes measures undertaken in the buildings themselves, updating the infrastructure and surroundings in energy terms, removing boundaries and to better equipping the buildings—in short: an adaptation to meet present-day standards.[9]

1 See Statistisches Bundesamt, *Zensus 2011, Gebäude und Wohnungen, Bundesrepublik Deutschland*, o.O. (2011), 6, https://www.destatis.de/DE/PresseService/Presse/Pressekonferenzen/2013/Zensus 2011/gwz_zensus2011.pdf?__ blob =publicationFile; Statistische Ämter des Bundes und der Länder, ed., *Gebäude und Wohnungen in den neuen Bundesländern und Berlin–Ost. Vergleich der Ergebnisse der Gebäude– und Wohnungszählungen 2011 und 1995* (2014), 15f, https://www.destatis.de/DE/Publikationen /Thematisch/Bevoelkerung/Zensus/ZensusBuLaVergleichGWZ5121104119004. pdf ?blob=publicationFile; Statistisches Bundesamt, ed., *Bauen und Wohnen. Baugenehmigungen/Baufertigstellungen; Lange Reihen z.T. ab 1949* (2015), Tafel 1, https://www.destatis.de/DE/Publikationen/Thematisch/Bauen/Bautaetigkeit Wohnungsbau/Baugenehmigungen BaufertigstellungenPDF_5311101.pdf ?__blob=publicationFile.

2 See Bernd Hunger, "Weiterentwicklung großer Wohnsiedlungen, Großes Zukunftspotenzial, trotz erheblicher Investitionsbedarfe," *Die Wohnungswirtschaft* 8 (2015), 8. The number of apartments in large housing estates represents around 20 percent of the total number of rented apartments.

3 Wolfgang Kil, "Zwischenruf! Wie steht es um das Bild der großen Wohnsiedlungen in der Öffentlichkeit?" in *Leben in großen Wohnsiedlungen. Soziale Stadt–stabile Nachbarschaften–bezahlbares Wohnen*," edited by Kompetenzzentrum Großsiedlungen e.V. (Berlin, self-published, 2013), 47.

4 See Hermann Leutz, "Aufgaben des baulichen Luftschutzes," *Protar* 11–12 (1959), 117–120; Erich Hampe, *Der Zivile Luftschutz im Zweiten Weltkrieg* (Frankfurt am Main: Berhard & Graefe, 1963), 269–297.

5 Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage Books, 1961), 392.

6 See Alexander Mitscherlich, *Die Unwirtlichkeit unserer Städte, Anstiftung zum Unfrieden* (Frankfurt am Main: Suhrkamp, 1965).

7 See Andrea Benze et al., "Exzentrische Normalität, Zwischenstädtische Lebensräume," *dérive* 47 (2012), 4f.

8 According to a study by the Kompetenzzentrum Großsiedlungen e.V. in collaboration with the Deutsches Institut für Urbanistik (DIFU) from 2015 (Kompetenzzentrum Großsiedlungen e.V. 2015).

9 See Hunger, "Weiterentwicklung großer Wohnsiedlungen," 9f.

STANDARDS

Standards define a recognized or targeted level of quality, which is or should be ensured for the public benefit and in the interest of overall social goals. Standards can refer to products and methods of production in the widest meaning of these terms, but also to social and cultural values. The areas to be examined according to quality standards are wide-ranging. The possibilities and circumstances under which the relevant criteria and methods of examination are applied are equally diverse. The norms and rules applied to the definition and examination of standards are based on the one hand on the recognized level of development of science and technology. As progress regularly leads to the discovery of new knowledge this level also changes continuously. On the other hand the standards and methods of evaluation are based on political, social, cultural, or also moral agreements, which also change over the course of time. Standards therefore also affect regulations; they are themselves dynamic and must be regularly checked.

This applies also to building standards in the field of housing. They were defined in the early 20th century—i.e. at a time when industrialization and urbanization in cities led to an urgent need for change to housing conditions in many respects.[10] Borne by a positive belief in progress and against the background of a building industry that was still heavily based on handcraft, the architectural avant-garde viewed the potential of industrialization euphorically. Convinced that artistic planning interventions would make an effective contribution to the development of a liberal society, their call for standards was not confined to technical areas and building construction but also extended to design and social questions.[11] In the process, the residents became a statistical subject in the planning of a better world, which architects and urban planners, fuelled by a revolutionary drive and working as diagnosticians and educationalists, designed on the drawing board: practical, well-lit and easily cleaned apartments in a green setting, designed for a physically and psychologically healthy life were to replace the damp, dark, disease-ridden tenements of the big city. Standardized floor plans and mass-production housing stood for cost-efficient building—and, consequently, for affordable housing.[12]

The building standards established at the time have influenced our building legislation and regulations up to the present day. This applies, for instance, to the separation of housing from industry, which is anchored in the BauNVO (German Land-Use Ordinance).[13] The requirements regarding self-contained dwellings and sanitary facilities in apartments or the size of living rooms and the amount of daylight they receive, which are to be found in the model and regional building regulations, also have their roots in this period.[14] The same applies to building and planning regulations that lay down the distances to be kept between buildings, as well as fire protection and escape routes. After the Second World War the latter were made considerably more stringent. In addition, requirements regarding energy efficiency,[15] noise protection,[16] and barrier accessibility[17] have been added in the past two decades. Alongside these legally defined standards, investors and housing companies argue for others, which, they contend, are necessary to ensure reliable sales. These apply, for example, to apartment size, layout of spaces, the fittings in bathrooms and kitchens, and finishes to walls and floors.

STANDARDIZATION AND STANDARD

The term *standardization* describes the process of making uniform products or methods of fabrication aimed at achieving rational and economic production while maintaining quality standards. Where this kind of standardization has taken place we speak of a *standard*: of standard products or processes. In the area of housing we encounter standardization processes at different levels: in planning, for example, in the repetition of the same floor plans or construction details, and in production in the form of industrially prefabricated building parts or standardized building elements and materials.

10 See in this regard the examination of housing carried out between 1901 and 1920 by the Berliner Ortskrankenkasse (from 1914 AOK).

11 See for instance Le Corbusier, "Mass-Production Housing," in *Toward an Architecture* (London: Getty Publications, 2007), 253–290.

12 While housing in this period was based on standardized floor plans using specific types and norms, the buildings were generally constructed according to the traditional brick-on-brick method. Cf. also Andrea Benze et al., *Serieller Wohnungsbau, Standardisierung der Vielfalt* (Berlin: Online Study, 2013), 8.

13 See Land-Use Ordinance from 23 January 1990, most recently altered 11 June 2013 with effect from 20 September 2013, in particular Section 1: Art der baulichen Nutzung (§§ 1–15), http://dejure.org/gesetze/BauNVO. Additionally, the idea of separating the functions of the city, which were originally structured on a small-scale and heavily mixed, was also anchored in the *Charter of Athens*; the paper, produced by the Fourth International Congress of Modern Architecture (CIAM) from 1933, exerted a considerable influence on urban planning internationally, both before and after the Second World War.

14 In the opinion of the Federal Administrative Court, the abolition of individual regulations does not signify that the standards defined in them should no longer be seen as valid, but means rather that such standards are "today taken for granted" (BT-Drucks, 10 / 2913, 13). This applies, for instance, to the requirements regarding minimum room sizes in DIN 18011, *Stellflächen, Abstände und Bewegungsflächen im Wohnungsbau* (withdrawn 1991), and to § 40 of the II. Wohnungsbau- und Familienheimgesetzes [Housing Construction and Family Home Law] (WoBauG) on minimum standards for bathrooms and electrical services in subsidized social housing, which was valid between 1980s and 1985; DIN 18022, *Küchen, Bäder und WCs im Wohnungsbau, Planungsgrundlagen* was replaced in 2008 by the guideline VDI 6000 Blatt 1: 2008–02, *Ausstattung von und mit Sanitärräumen–Wohnungen*.

15 EnEV (2002 / 2016).

16 DIN 4109–1, *Sound Insulation in Buildings* (1989 / 2013).

17 DIN 18025, *Barrier-free Dwellings* (1992), today a part of DIN 18040, *Construction of Accessible Buildings* (2010).

The housing stock looked at here is standardized in two regards. Fed from the "double inheritance of modernism and National Socialism,"[18] the apartments, which were needed quickly and in large numbers, were designed to meet the standards described above for a supposedly homogeneous target group—the typical small family. Functional apartment floor plans were developed which are generally characterized by a rigid arrangement of box-like rooms: small bedrooms and a somewhat larger living room and minimized, simply equipped bathrooms and kitchens. Stacked in large numbers beside and on top of each other, the apartments were erected with extensive use of serial building methods and industrial prefabrication. The standardized floor plans and apartments are not particularly successful in outwardly depicting social diversity, and the scope for customizing of the floor plans, which are functionally optimized and minimized for the specific intended use, is greatly restricted. Nevertheless, they offer the individual person space for development—and indeed perhaps even stimulate the "individual's need to shape his or her world anew."[19]

INDIVIDUALITY AND INDIVIDUALIZATION

The term *individuality* describes the fact that a person (or thing) is unique and differs from other people (or things). In our pluralized society we place great value on being different. Consequently, we wish to display this outwardly—for instance in the design of the world we live and dwell in. Here both the wish to be different (from other individuals) and, equally, the wish to belong (to certain status groups) are reflected: the relationship between belonging to and being distinct from groups is therefore ambivalent. Here the term *individualization* becomes important. As regards industrial manufacture it describes "making individual" what was previously the same, while *retaining* serial production. Where standardized models are used as a basis, however, residential worlds planned according to individual wishes or based on the principle of mass customization often result in uniform solutions.[20]

In relation to the transformation of the existing buildings looked at here, individualization would mean changes to standards. This can be done by reorganizing the buildings—for example by redesigning, combining or separating existing dwelling units to achieve greater typological variation.[21] Against this background the development of flexible built-in furniture and fitting-out systems—similar to the systemized furniture designed back in the 1950s and 1960s by Rudolf Horn along with the Deutsche Werkstätte Hellerau (MDW) and produced for many years—or the integrated furniture and fitting-out system (AN 20) for "variable living,"[22] could offer great potential, particularly for prefabricated panel buildings. The high level of standardization in these buildings and a structure that, for the most part, does not need load-bearing internal walls, allows the sensible design and economical use of furniture systems of this kind.

The wishes of tenants could also, conceivably, be included in the planned refurbishment measures—although thought should be given here to how sensible this would be as regards rented models. Individual "production of space" by residents could be supported in other ways, for instance through regulations for the customizing of standard apartments—with regard to the layout of space and the design of the surfaces—that are more relaxed than is possible in the framework of standard rental contracts. While this would increase the amount of administration work needed, it would contribute to the desired mix of residents: the apartment floor plans could be adapted to suit different needs and the fitting-out of the apartments matched with individual budgets.[23]

These reflections make clear that standards and standardization must not necessarily be seen as antithetical to individuality and individualization. On the contrary, a connection of the different aspects offers great potential—for instance the individualization of standard apartments or the adaptation of standards for greater individuality.

EDITED STANDARDS

In addition to the area of equipping and fitting-out of apartments referred to above, the standards that are currently applied to apartment size could also be revised. Apartments erected in the 1960s and 1970s may seem too small for current standards. But is this really the case? Small living areas produce low living costs and the fact that the per capita floor area of living space in Germany has roughly tripled in the past 50 years,[24] takes no account of either climate protection goals or current population developments. Seen from this perspective, these apartments are perhaps exactly the right size for many people—and they are organized in an extremely functional way. The tightly dimensioned floor areas could be expanded by

18 Sabine Kraft, "Die Großsiedlungen, Ein gescheitertes Erbe der Moderne?" *ARCH+* 203 (2011), 52.
19 Peter Sloterdijk, "Architekten machen nichts anderes als In-Theorie, Peter Sloterdijk im Gespräch mit Sabine Kraft und Nikolaus Kuhnert," *ARCH+* 169/170 (2004), 17.
20 Julia Gill, "Traumhauskataloge," *dérive* 47 (2012), 26f.
21 The contribution by Erik Stenberg in the project section on p. 54 offers various proposals for redesigning the existing housing stock.
22 See Rudolf Horn, "Variables Wohnen, Ein Experiment im Plattenbau, Rudolf Horn talks to Sabine Kraft," *Arch+* 218 (2014), 144–152.
23 For an example in new-build see the self-build projects *Wohnregal* (IBA 87 Berlin, Kjell Nylund, Christof Puttfarken, Peter Stürzebecher) and *Grundbau und Siedler* (IBA Hamburg 2006–2013, BeL Architekten). For the application of private ownership models to rental apartment construction work done by the users could be compensated in the form of rent reductions.
24 See press release from the Bundesinstitut für Bevölkerungsforschung 2013.

generously sized, communally shared living and dining areas, guest rooms or something similar. Models of this kind are currently being tested in the form of what are known as cluster apartments, for example in Berlin Spreefeld.[25] It is not only spaces that can be shared but also objects. This applies in particular to things that are not needed daily, such as drills or books, hand trucks or juice makers. The individual interpretation of housing standards helps to save space and can develop a sense of community. The space for such functions—or also for ways of adapting districts to meet changing social and demographic needs—is, in some cases, already available in existing buildings or could be easily augmented. Ground floor zones that are otherwise difficult to use, or that were originally envisaged for "communal facilities" and today often stand empty, could be redesigned to serve this purpose.

And what if the apartments nevertheless need to be made larger? When carrying out an energy retrofit, instead of using a layer of expanded polystyrene, why not plan a new layer of space? This was the approach taken in refurbishing the Tour Bois le Prêtre in Paris.[26] Here a 3-meter-deep winter garden placed in front of the existing building functions as a climatic and acoustic buffer zone that also offers space for individual development. Thanks to the use of a simple construction that employs standard industrial materials, this measure could be carried out very economically. It also allowed the old facade panels to be replaced by large sliding glass elements, which give the apartments an entirely new design quality. This way of linking energy-related issues with spatially effective measures could be developed further by interpreting thermal insulation standards in a new way. Creating different climatic zones within the apartment could offer an opportunity to calculate heating energy consumption per apartment, which would accord with holistic energy concepts, rather than basing such calculations on a figure per square meter of external wall, as envisaged in the current EnEV (regulations regarding energy saving).[27]

In this country strategies for redefining standards are evident above all in the area of private housing initiatives introduced by the people who will use the apartments.[28] As the reduction of construction costs, has a direct effect on the apartment costs and orientation to an anonymous market is not absolutely necessary, in such situations it is easier to question conventional ideas and to arrive at specific agreements. But in the area of rental housing construction as well, questions of thermal and acoustic insulation or accessibility can be discussed in conjunction with reflections on alternative housing forms, (temporarily growing and shrinking) spatial needs, communal areas, and occupancy. The project WiLMa[29] in Berlin shows that negotiating the question about which standards seem sensible and non-negotiable with regard to individual and communal needs and which, by contrast, are dispensable or could be redefined, can be understood as a participation process that affects both building and social aspects.

Essentially, the standardization of the buildings, their compact form, and also the density of most of the estates, means that they already meet the requirements for climate protection, as this allows rational and economic building measures for the purpose of individualization. As many of the ensembles are still owned by housing companies, provided this situation does not change, one important precondition for agreed measures in the sense of long-term perspectives is already met. Defining refurbishment areas[30] would create the preconditions for the funding of building measures that are also socially effective. This instrument proved its worth in the development of the 19th century districts that are so popular today: it was the massive transformation of these buildings in terms of density and technical standards from the 1970s onwards and the application of certain social requirements, at least for a certain period of time, which helped them achieve their present-day attractiveness. It is possible to achieve higher residential quality, a greater sense of identification, and a wider reflection of urban diversity in large housing estates also—for example, through the strategies described here. However, without state involvement and long-term social commitment, a socially acceptable development of the existing buildings will not be possible.

25 Completed 2012 (Carpaneto Schöningh, BAR Architekten, FAT KOEHL Architekten); for a similar approach see also the housing buildings *R50* (completed in 2013, IFAU, Heide von Beckerath), and *M29* (completed in 2012, clemens krug architekten).

26 Erected 1961 (Raymond Lopez), refurbished 2012 (Lacaton & Vassal, Frédéric Druot); see also Deutsches Architekturmuseum, ed., *Druot, Lacaton & Vassal: Tour Bois-le-Prêtre* (English) (Berlin: Ruby Press, 2012).

27 For a detailed discussion of the design strategy of Lacaton & Vassal, Fréderic Druot, see project section, p. 82.

28 For examples in the area of new build see Kristien Ring, ed., *Selfmade City Berlin. Stadtgestaltung und Wohnprojekte in Eigeninitiative* (Berlin: Jovis, 2013).

29 Built 1974–1976, refurbished 2014–2015 (clemens krug architekten und Bernhard Hummel Architekt); see project section p. 62 for a detailed description of the project.

30 Cf. §§ 136 ff. BauGB as published on 23 September 2004, last amended 20 October 2015.