Strategies for Quality in Urban Space, Excellence in Design, Performance in Building

Housing for Europe - Strategies for Quality in Urban Space, Excellence in Design, Performance in Building gathers the results of the Urbact II Working Group “Hopus – Housing Praxis for Urban Sustainability”. It is a multi-disciplinary reflection on urban development, encompassing strategies, governance models, guidance instruments and assessment tools, all considered in the wider framework of current European policies on the city, housing and building technology. The looking glass of a two-year transnational exchange project, bringing together universities and local administrations, allows us to understand the great challenge lying ahead in the 21st century: the quest to create cities which are beautiful, healthy, and attractive places to live.

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Housing for Europe
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Strategies for Quality in Urban Space, Excellence in Design, Performance in Building
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Recent institutional initiatives for the relaunching of housing policies have once more brought to the fore housing policies and highlighted the need in our country for a redefinition of intervention models in social housing. More than 80% of the entire Italian stock is owned, while the remaining 18% circa is rented: a threshold that places our country near countries like Greece, Spain and Portugal and where spending on housing consumes a monthly average of a 29.5% of income, a cost that already today risks being unsustainable whether as a mortgage rate or rent.

The functions of social housing and the general state of demand outstripping supply of low-cost housing are however common to all countries. Problems such as the deficit of new builds, greater access to owned property and the general increase in the cost of renting represent the principal factors that are leading to the increase in demand for low-cost housing to which can be added shared social and demographic tendencies.

The assessments reported here highlight the two lines of housing policy: an emergency demand (the homeless, those in precarious housing conditions) and a demand of intermediate difficulty (new families and families who rent and/or are single-income and unable to access the free market thanks to the prices reached in recent years).

In these two segments of the housing market we can recognise the evolution of the needs framework that is leading to – in functional, morphological and technological terms – a significant restructuring of the social housing market and conforming to a new model of offer characterised by:

- a housing policy on the part of public bodies, able to integrate actions of support for families in emergency
situations, with new models of subsidised housing involving no-profit housing bodies;
- a policy of offer regulated for the old and new segments of the demand in difficulty, in better conditions than the emergency demand but unable to gain access to the free market.

What appears central is that the housing policies should be based on the concept of limited profit housing, that is: supporting the growth of bodies with moderate expectations of profit, through interventions aimed at containing the costs of production and acquisition of the areas, widening an area of the market that is able to intercept the weakest segments of the demand to buy and rent but also some sectors of social demand.

This intervention on the system of the operators and promoters of the interventions of social housing should be accompanied by a focused innovation of this sector of building production since the segment of residential building production at the national level is still strongly characterised by a traditional sort of productive organisation. The low technological complexity of residential building allows operators to continue to intervene with traditional technologies, that are consolidated and scarcely innovative, employed by a workforce with limited skills all at a limited cost. The low level of industrialisation of these interventions, the historical conservative tendencies of the promoters, both public and private and their constructors, has led again in recent years to promotion on the market of traditional models of buildings, that are reassuring in
terms of their proposed image, in the technologies and plant solutions employed, absolutely invariable in their typo-morphological organisation both at the level of urban planning and distributive planning at the level of the dwelling. Where on the other hand technical-constructive solutions have been attempted, the building organism has evolved in a manner that is absolutely indifferent with respect to its typological characteristics.

The theme of social housing is characterised by the extreme diversity of solutions proposed at national and regional level, both as regards the construction of the housing units and their assignation. The absence of a shared definition of social housing and EU legislative framework on the subject contributes to render even more difficult the identification of shared scenarios. Only last year the European Parliament pronounced on the argument, recalling the need to use as widely as possible European financial instruments (such as Jessica and Jeremie) for the construction of new buildings and the redevelopment of the areas that house pre-existing buildings.

The process of urban regeneration still appears to be incomplete in numerous Italian, Spanish, Polish and Hungarian settings, but the urban dimension of the problem is without doubt one of the few common traits that can be identified in all the member states.

The existence of a dynamic of growth in residential demand continues to sustain the market and the value of the productive investment in housing. In Europe this pressure has stimulated the development of many typological, constructive and technological experiments on the theme of housing. In particular the sustainable drive has imposed on residential research an important acceleration in all the aspects of the building organism involved in the control of energy management, in the reduction of the human impact of establishments and in the improvement of the conditions of comfort of the users. Differently in the Italian context the recourse to more or less integrated industrialised constructive systems, shows up today as one of the factors that is useful in reducing the costs of the intervention, responding with contained construction times to that need for affordability that is typical of operators in the limited profit housing sector, such as public bodies and cooperatives.

Starting with these assumptions and following these good practices a number of attentive regions and councils in Italy are expressing themselves within the panorama of social housing with experiences of planning, designing and producing innovative constructive
systems for social residential building, finding new points of coordination with management bodies but also a new collaboration between public bodies and new generation private bodies such as foundations.

And it is to these institutions, such as, for example, the Fondazione Cariplo in Milan, that a number of councils in the North are making available areas for free, thus lowering the costs of building and rental to recuperate as soon as possible the costs of investment. In this sense the most advanced and practised experiences become, for operators in the sector, interesting and verified methodological traces of the financial channels and procedural means through which to carry out interventions in social housing throughout the country that are able to respond clearly to:

- an increasingly diversified housing demand and one of a social character: houses aimed at both the weakest sectors of society and the welcoming of workers from abroad, as well as middle-low income groups (young couples, old people, students, etc.) for whom the means and terms of access to public residential housing are being proposed;
- the need for a great efficiency and functionality in the dwellings which implies a characterisation both in operating terms (referring to materials and the technical solutions to adopt) as well as in terms of a new architectonic image;
- the need for an improvement in the dwelling standards as demanded by the new needs of users;
- the need to rethink the whole eco-energy life cycle and planning of the built in respect of the criteria of bioarchitecture (lower energy management costs) in the light of the emission of EU directives on energy saving;
- the need to prefigure technical modalities not only in the phase of building the project but also in the management and maintenance of the built in terms of low economic impact and complexity of the maintenance interventions.

In parallel to this encouraging procedural and financial model, new players can be seen in the residential building market who have come together in cooperative and consortium arrangements that increasingly carry out a sharing of knowledge and awareness, employing their skills and experience and introducing on to the market “proprietary building systems” defined by the integration of the specific technical components of each single producer.

Having satisfied the requisites that were non-negotiable, the matrices of compatibility are defined for the various technical elements and components in the light of their actual performance and their constructive characteristics – as in the case of elements for dry assemblage, prefabricated structural components or of innovative and high-performance materials that enter the market. The matrices of compatibility thus elaborated represent a first instrument for the verification of the technical feasibility in operational terms of industrialised specialised constructive systems.

The organisation of the building system remains clear and recognisable but the technical elements of the residential building evolve in terms of typo-technological innovation through:

- the optimisation of the constructive processes with a return to a sort of “soft” industrialisation of a new generation;
the innovation and/or trying out of innovative constructive solutions or techniques whose aim is the reduction of environmental impact and water and energy consumption and the promotion of rational use of natural resources;

- the promotion of passive strategies for climate control, the proper use of natural illumination and the increase of acoustic comfort internally and externally;

- the use of ecologically compatible materials and technologies that can be reused and recycled in line with LCA procedure;

- the improvement of the operating performance and energy consumption through the efficacy and efficiency of the new plant networks;

- the operational evaluation, both in advance – through the simulation of their performance in situ – as well as through the verification of the efficacy of the finished process, in terms of cost controls and production and setting-up times, through forms of certification on the Leed® model.

The diversified building systems we made reference to above, actuated through the innumerable modalities and possibilities of the building market, today undoubtedly represent qualifying aspects for the project: the technology chosen, starting from a few invariable elements, can in fact permit a great flexibility and wealth in the internal and external fittings of dwellings, both in terms of initial flexibility and flexibility of use and in time. This characteristic also becomes qualifying for the user who, when varying their housing requirements, can intervene on their dwelling in a relatively simple manner, economically or assisted by the management in the transformation of their dwelling. This sort of building system privileges the widest architectonic variability of buildings and of the different dwelling models, ensures the adoption of a series of technical solutions that come with a clear architectonic identity and recognisability and respond to the planning needs that spring from the varied demands of the housing market.

We can catch a glimpse then of a building culture that evolves in the production of catalogue systems where it is possible to recognise the traceability of the elements and producers: construction systems that are able to noticeably lower the costs of production and the times of execution guaranteeing all the same both the architectonic quality as well as the sustainable and ecological quality of the intervention, and the economic and financial sustainability of the projects.