Architects are generally conscious of this state of affairs, and they do their best to find intelligent solutions within the limits of their contracts. Buildings are becoming more energy-efficient, the ecological footprint is shrinking, the circular economy is taken more seriously, and there is a growing awareness that functionality must include societal motives such as community cohesion. These concerns affect all kinds of projects, whether housing development, office building, a sports complex or an educational facility. The question is whether the project successfully stimulates encounters, or whether the physical design leaves people feeling excluded.

Inevitably, architects are likely to encounter the limits of their métier when taking on these challenges. Whatever intentions they may have to contribute to a better, more harmonious and open world, they still depend on their clients and on the rules of finance and economy that dominate the production and commerce of real estate. To put it more bluntly, the architect has little choice but to dirty his or her hands in the building process. The impact of architecture on the environment is profound, and the pressure to use polluting and energy-hungry resources is hard to avoid. Some architects, however, are willing to defy these constraints and to push the envelope of their profession. In their outlook, the process of change is too slow and the innovations are too cautious, too superficial or too ineffective. With small-scale and largely inexpensive projects, they interrogate the fundamentals of architecture and propose new attitudes to building materials, to the dominant culture, to the natural surroundings and to the building or the locale in which the project is situated. The work of these architects is usually termed experimental or critical. Other architects too can profit from their example: their radical research yields a rich source of ideas that may inspire others to approach their projects differently.

Many villages and neighbourhoods in China have been demolished without a second thought. People were forced to leave their houses, with the result that social ties of tight-knit communities have been destroyed and layers of history are lost forever. Courtyard House Plugin by People’s Architecture Office (Beijing) is an award-winning prefabricated modular system for urban regeneration. By using a house-within-a-house approach, the system offers an inexpensive alternative to short-term profit-driven redevelopment. It is the main feature of the Dashilar Project, an initiative aimed at upgrading a neighbourhood in the historic core of Beijing.

Dashilar is characterized by narrow alleys and old courtyard houses. The hutong has resisted change, giving it a rare charm. But the area also has limited infrastructure, no sewage lines and houses with little insulation. To face this dilemma, People’s Architecture Office developed a prefabricated composite panel that can incorporate structure, insulation, wiring, plumbing, windows, doors, interior and exterior finishes. Within one year, fourteen Plugins have been completed. The panels are light, easy to handle and inexpensive to ship. They snap and lock together with a single hex key. The entire Plugin structure can be assembled by a few people in just one day, requiring no specific skills or training. The result is a well-sealed and insulated interior that reduces energy costs by one third. The costs of a Courtyard House Plugin are half those of a renovation and about a fifth of a new courtyard house. It can be applied to derelict properties that have been vacant for years, as well as to houses of local residents who want a higher standard of living without having to relocate. Residents who opt for the Plugin system are offered a subsidy as an additional incentive for investing in their house.

Architect: People’s Architecture Office

Photo: People’s Architecture Office