



2021 | ISOCARP Student Award Special Mention

**Customized Community Regeneration
Improving Spatial Diversity Based On digital portraits of population,
Case Of Yuejianglou Community In Nanjing, China**

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LOCATION AND BACKGROUND

As China's urbanization enters a phase of "quality and efficiency", the renewal of community-based public spaces is becoming a key element in achieving sustainable community development. Yuejianglou Community is a **typical high-density living community with traditional Chinese "extended family" form of neighbourhood relationship**. It is located in the northwest of the city center of Nanjing, China, with the Yangtse River ecological shoreline to the west.

WORLD

Global urban development trend from urban renewal to community renewal



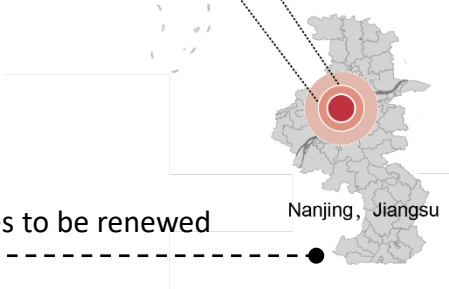
COUNTRY

Representatives of community renewal in high density areas

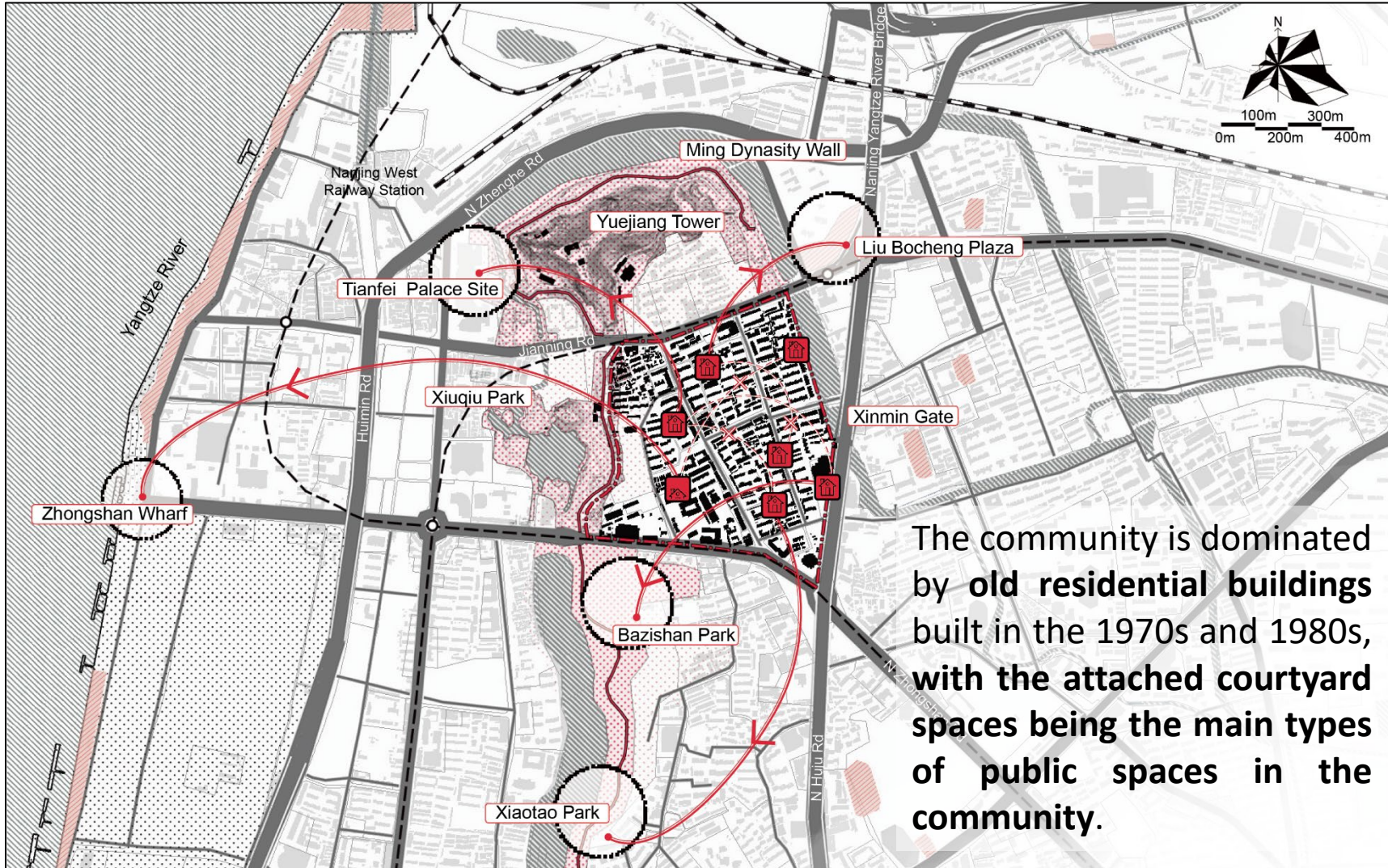


CITY

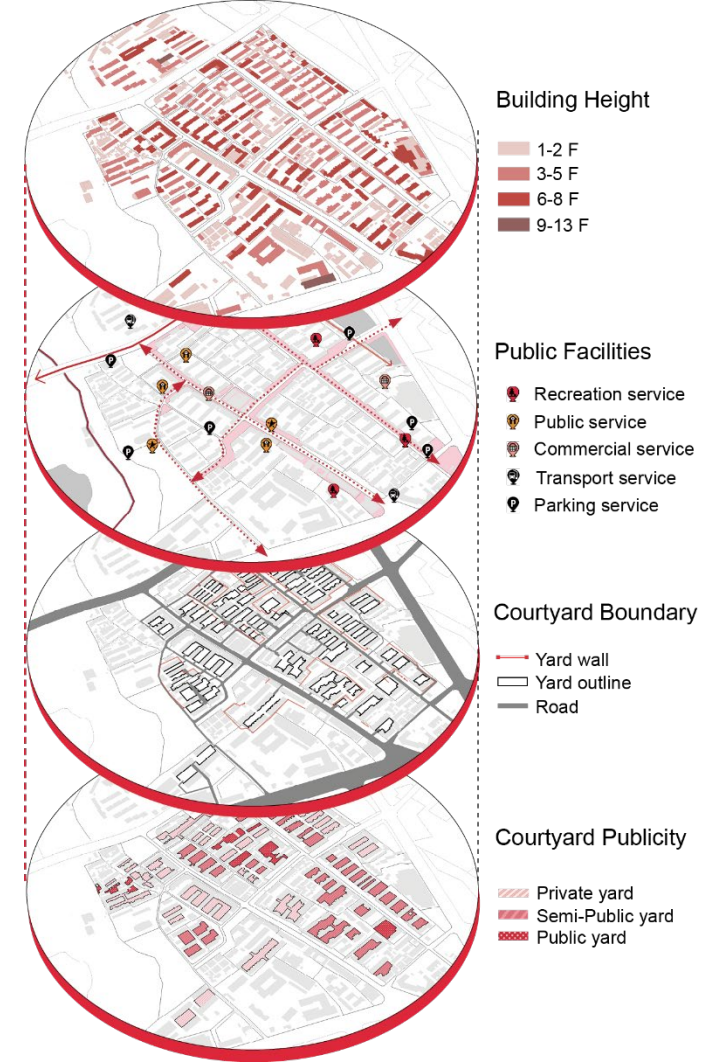
Key areas of old communities to be renewed



STATUS ANALYSIS

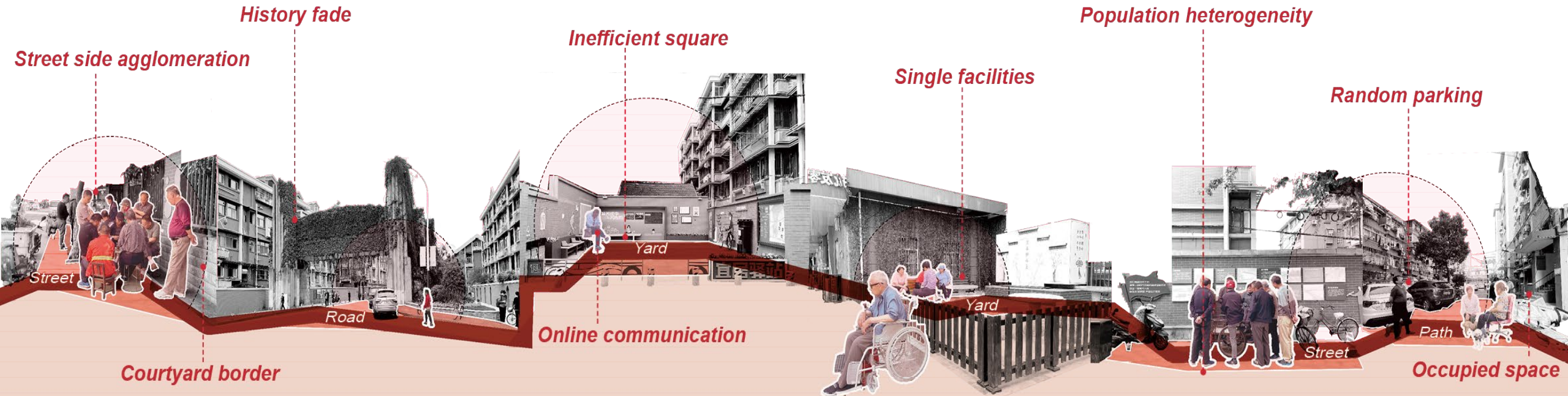


The community is dominated by **old residential buildings** built in the 1970s and 1980s, with the attached courtyard spaces being the main types of public spaces in the community.

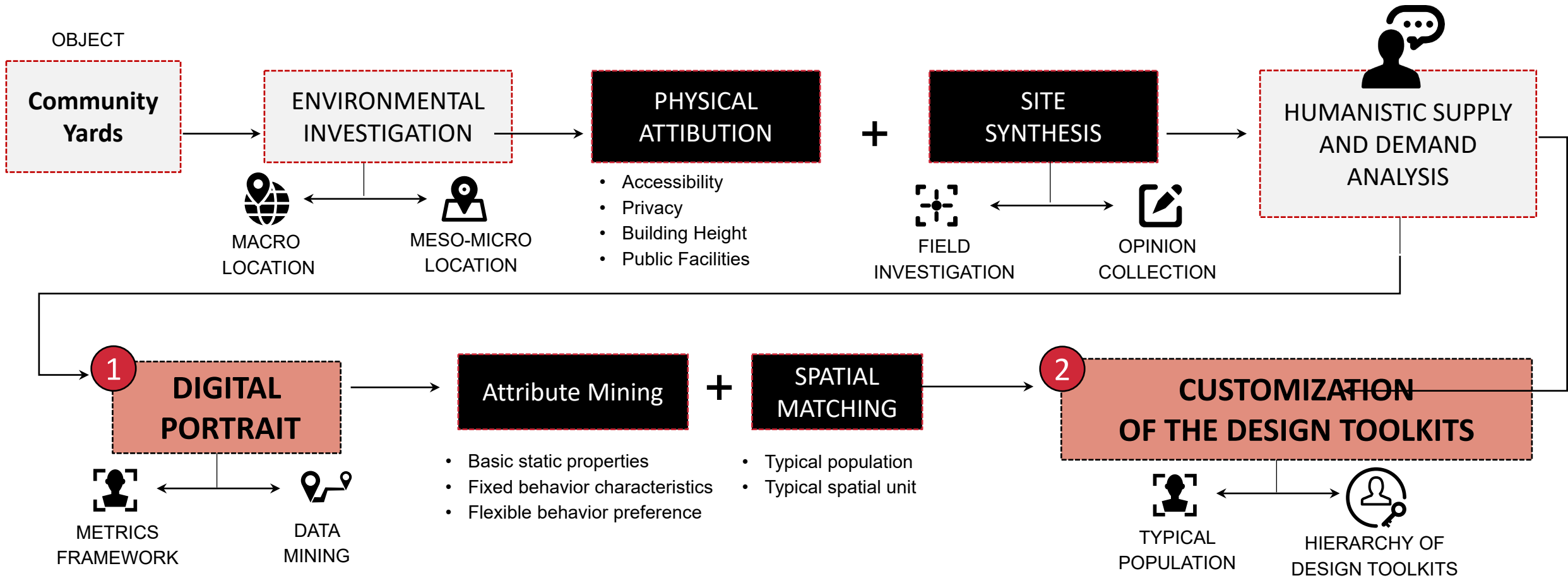


CORE ISSUE

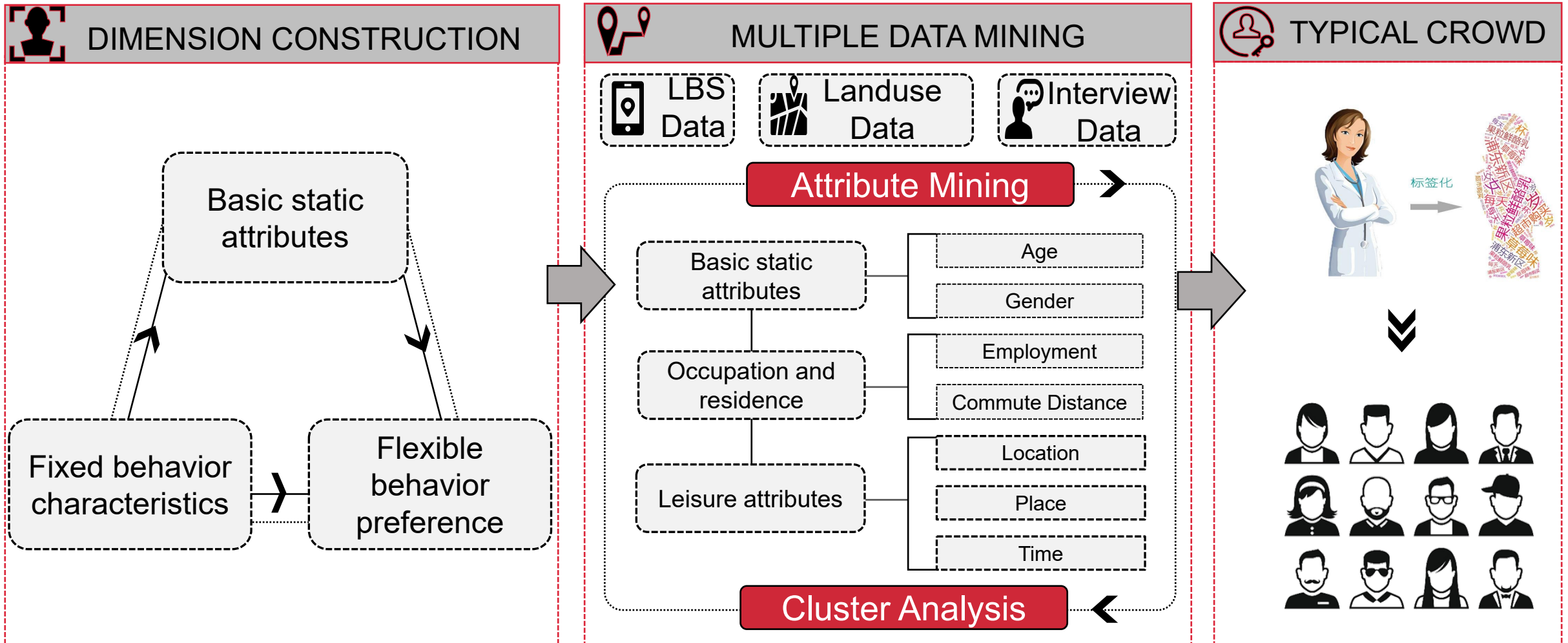
However, these precious public spaces are in conflict with the daily activities of the residents, and have become lost spaces with inefficient use. Most of the current courtyard spaces either assume **a single function** or become **unused fragmented spaces** due to their marginal location and closed nature. On the other hand, the complex characteristics of heterogeneous population in the area imply the possibility of conflicts in activities and needs of diverse groups.



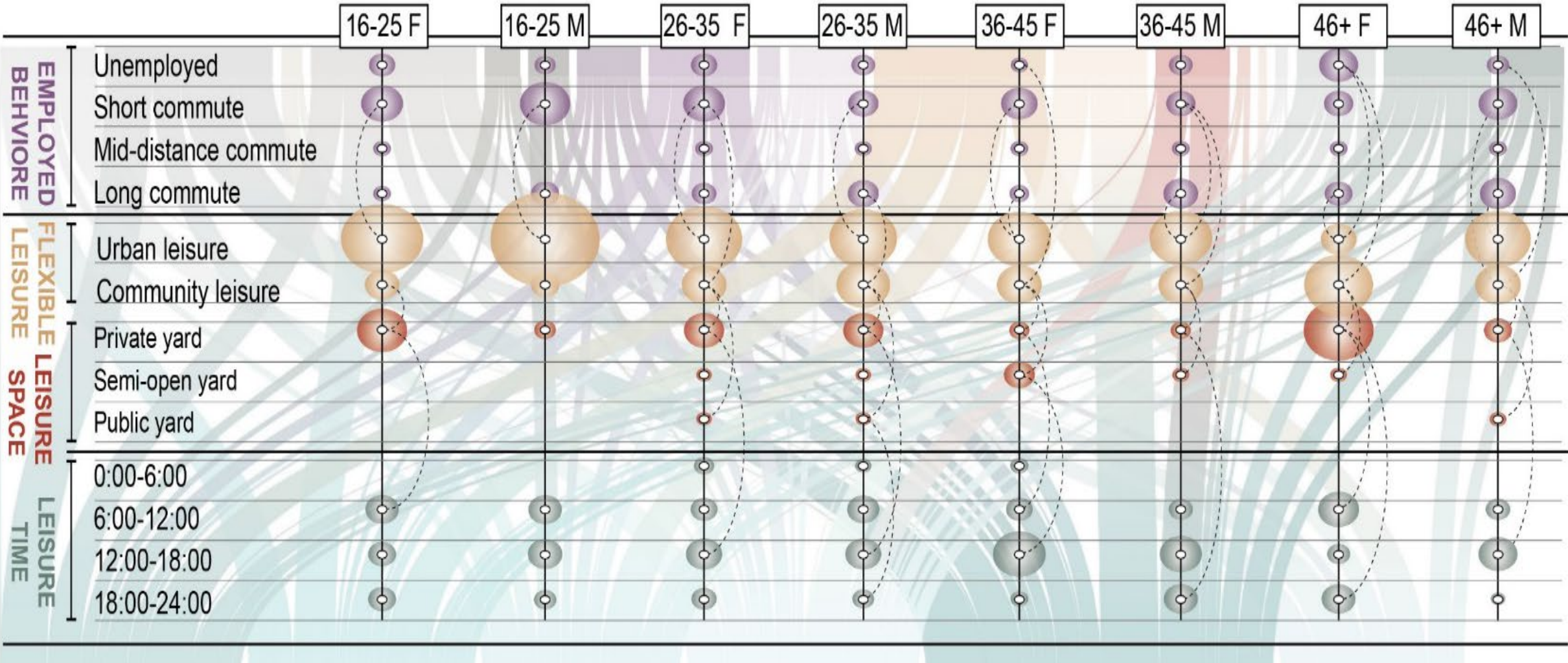
CONCEPT



STRATEGY

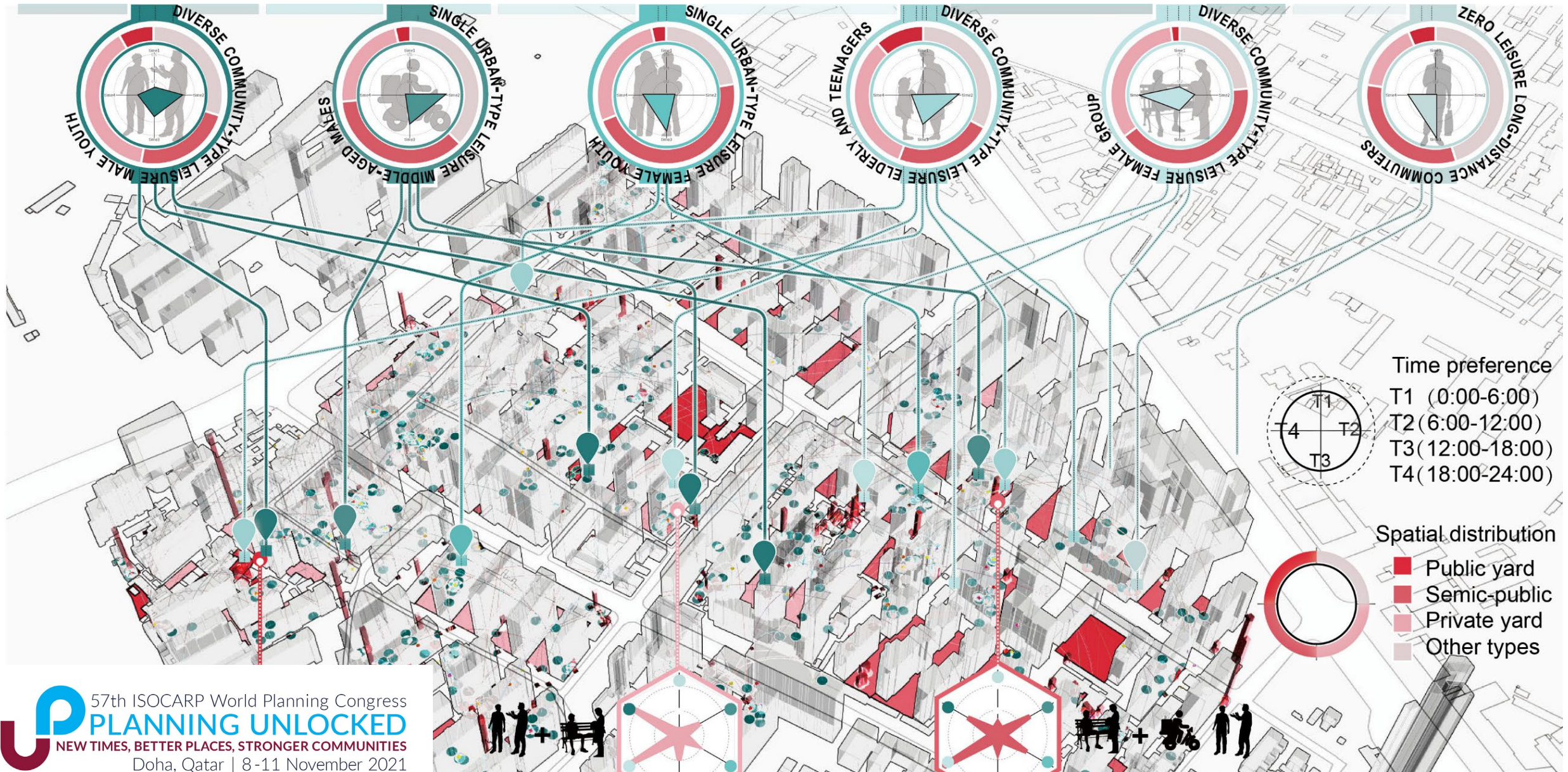


STRATEGY



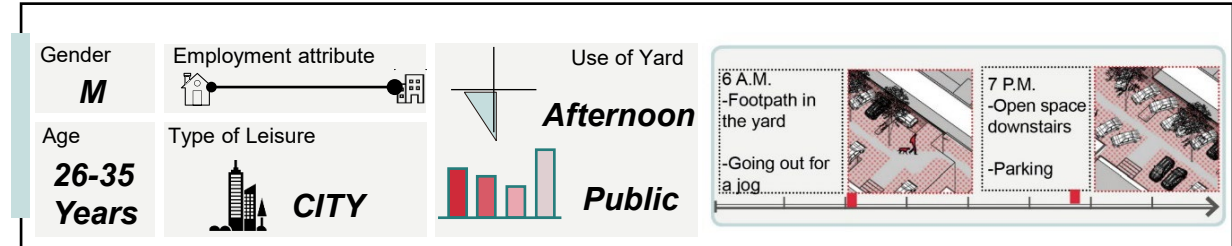
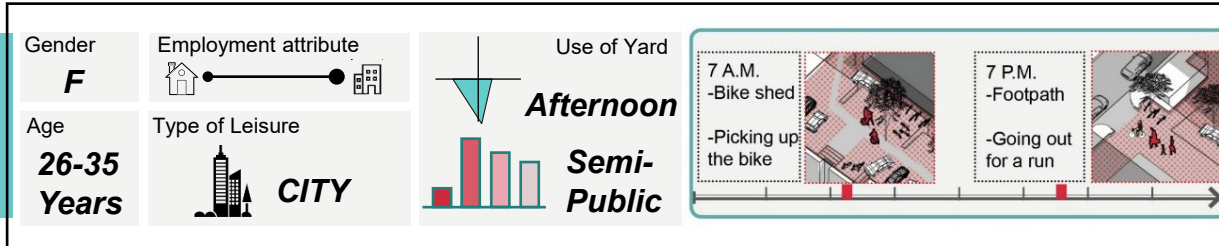
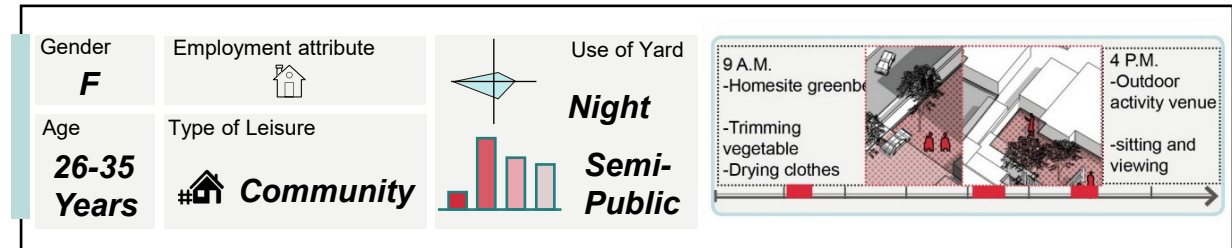
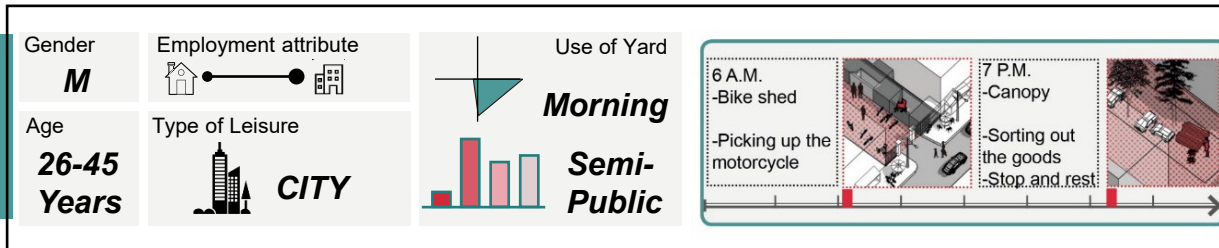
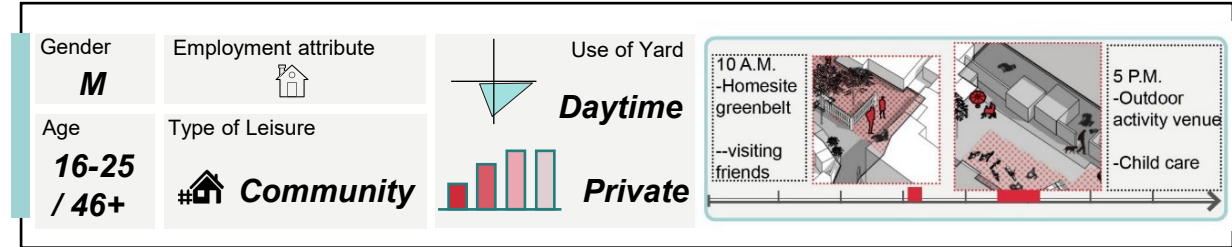
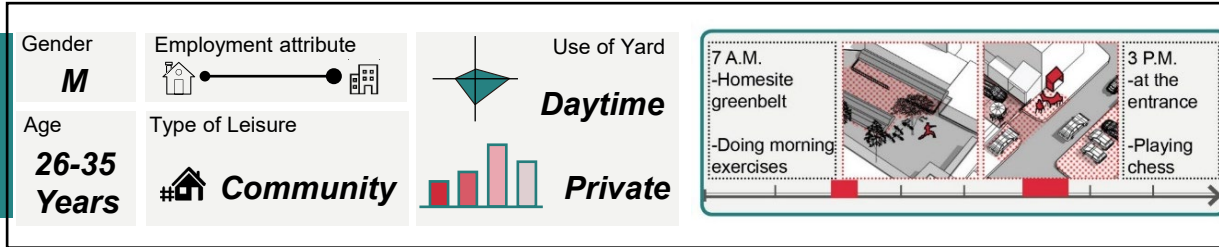
STRATAGY

Digital portraits of the population



STRATAGY

Six typical groups were finally identified, namely diverse community-type leisure male youth, single urban-type leisure middle-aged males, single urban-type leisure female youth, diverse community-type leisure elderly and teenagers, diverse community-type leisure female group, and zero leisure long-distance commuters.



STRATEGY

On the basis of the results of the portrait, the project uncovered the common spatial demands of typical groups for each courtyard space. Furthermore, small data interviews with the identified typical groups was organized and the design toolkit was customized to match the needs of typical people.

Fixed basic travel needs

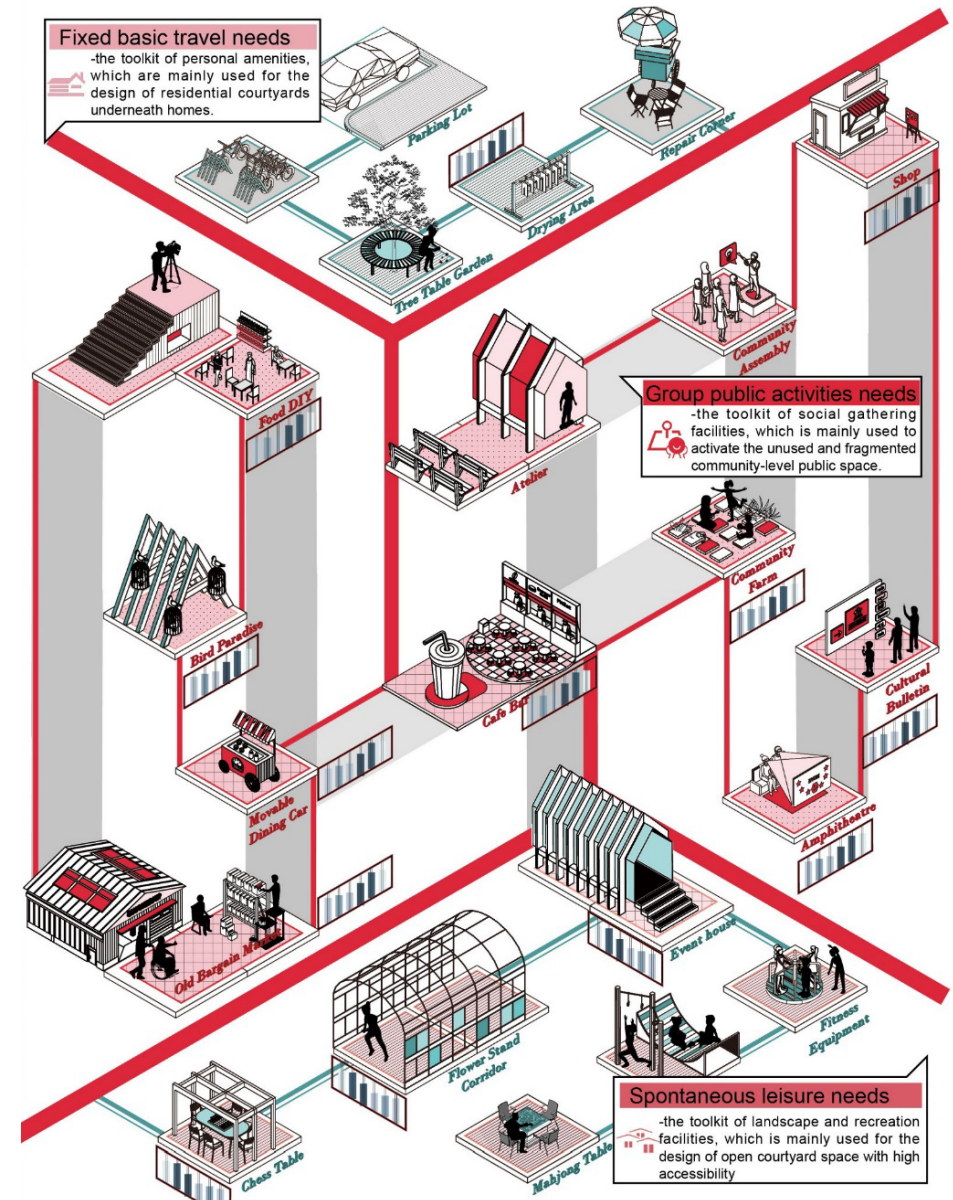
-the toolkit of personal amenities, which are mainly used for the design of residential courtyards underneath homes.

Spontaneous leisure needs

-the toolkit of landscape and recreation facilities, which is mainly used for the design of open courtyard space with high accessibility

Group public activities needs

-the toolkit of social gathering facilities, which is mainly used to activate the unused and fragmented community-level public space.



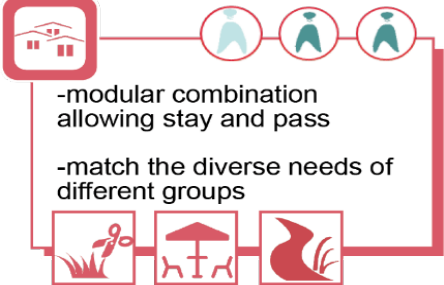
Customization of the design toolkits

VARIOUS MODULAR COMBINATION PLANS

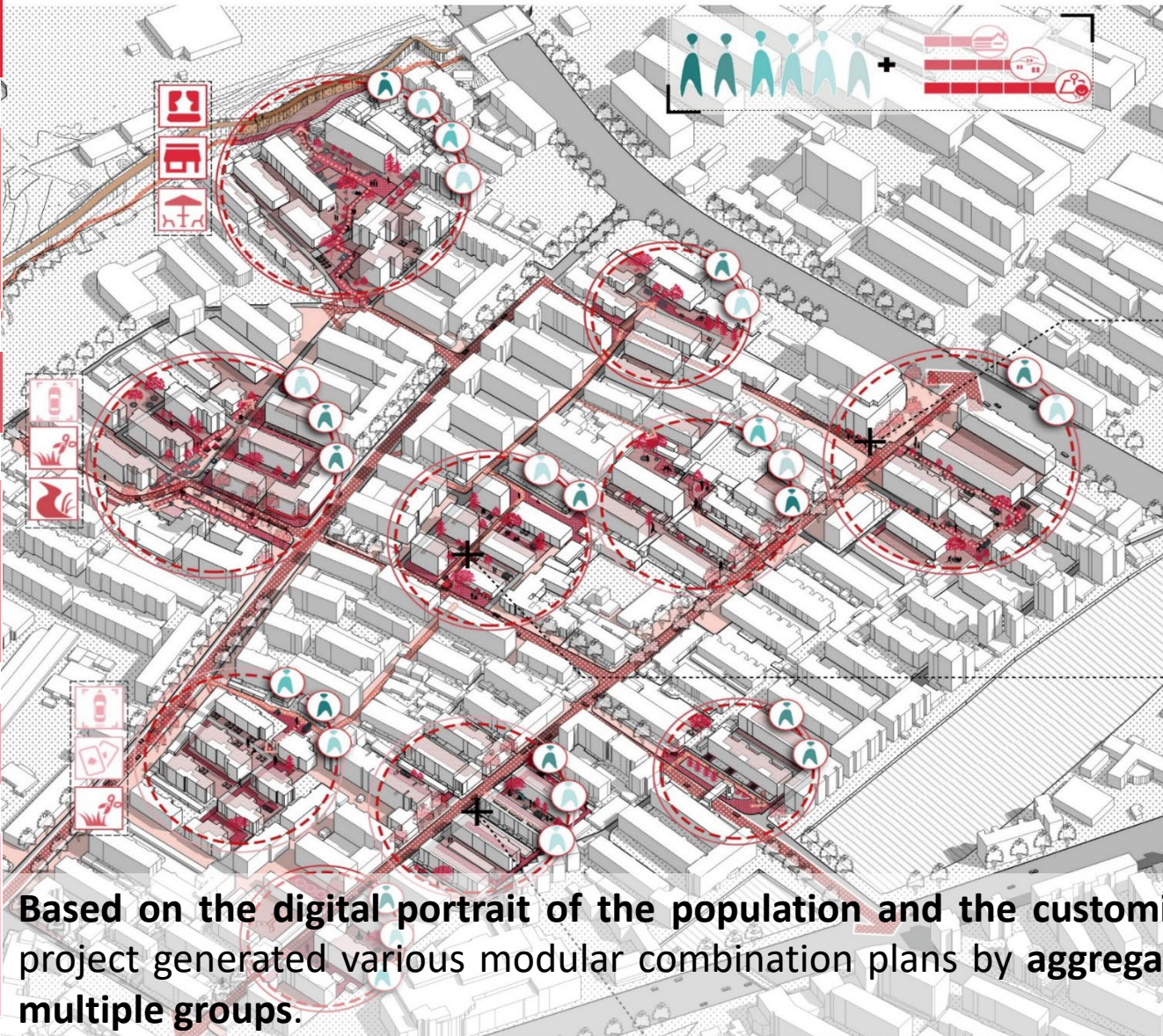
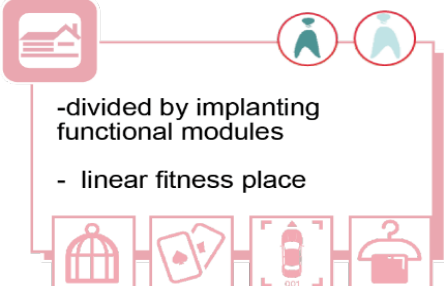
Public courtyard



Semi-open courtyard



Residential courtyard



Based on the digital portrait of the population and the customization of the design toolkits, this project generated various modular combination plans by aggregating the common spatial needs of multiple groups.



TYPE NODE 1: PUBLIC COURTYARD

In the design of Type Node 3, considering the complexity and variability of its group composition, the project finally customized **flexible and variable toolkit of social gathering facilities** to adapt to the diverse functional needs of different residents at different times. For example, by placing tree tables and community stages in the spatial nodes near the food market, the project has turned it into a dynamic gathering place to serve diverse groups.



diverse community- leisure male youth

While waiting to pick up the children, we can sit under the tree table and watch the community rally

TYPE NODE 2: SEMI-OPEN COURTYARD

In the toolkit customization of Type node 2, the project implants several dynamic action movement lines, as well as several small-scale static leisure modules which not only increases the diversity of leisure opportunities for community-type leisure residents, but also compensates for the lack of time for long-commuting residents to enjoy public space in the community.



Commuting Residents

I like the scenery along the way to work, as well as convenient catering shops and billboards

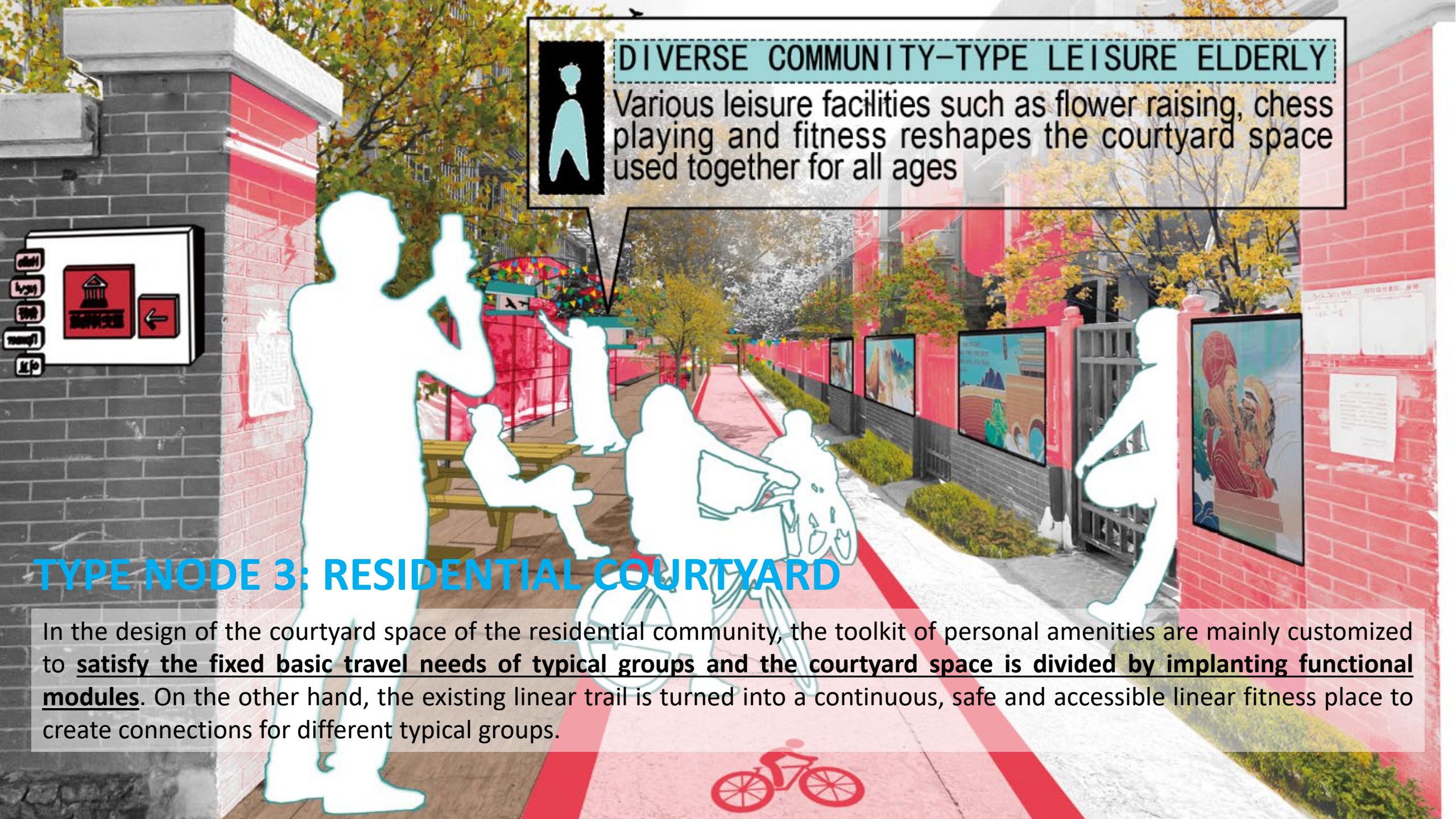


DIVERSE COMMUNITY-TYPE LEISURE ELDERLY

Various leisure facilities such as flower raising, chess playing and fitness reshapes the courtyard space used together for all ages

TYPE NODE 3: RESIDENTIAL COURTYARD

In the design of the courtyard space of the residential community, the toolkit of personal amenities are mainly customized to **satisfy the fixed basic travel needs of typical groups and the courtyard space is divided by implanting functional modules**. On the other hand, the existing linear trail is turned into a continuous, safe and accessible linear fitness place to create connections for different typical groups.



CONCLUSIONS

An aerial night photograph of a city. In the foreground, a large, multi-tiered traditional Chinese pavilion with ornate roofs is brightly lit with warm yellow lights. The pavilion is surrounded by dark trees. In the background, a dense urban landscape is visible, with numerous buildings and streets illuminated by city lights. The skyline in the far distance is filled with tall skyscrapers, some of which are also lit up.

Considering the population diversity and fairness, based on population portrait and modular customization, this project develops **a typological spatial design strategy that covers different groups of people**, thereby transforming the space from a specific activity scene to a place that catalyzes the occurrence of diverse social activities.

It provides a new approach and perspective for renewal of communities in international high-density urbanized areas.