Reflecting the values after the current periodic trend -Presenting a "New town in town" planning concept for unplanned densely-built wooden residential area

Leader: Takaaki Kato
(Associate Professor, International Center for Urban Safety Engineering,
Institute of Industrial Science, The University of Tokyo)

Synopsis

There are many keywords that represent the next era, namely, "population decline", "responses to climate change issues", etc. On the other hand, the development methods including the improvement of densely-built up areas (concentrated urban areas) remain as before, and are not adapted to the current era. Until now, the discussions on densely-built wooden urban areas have been based around improving the fire-prevention functionalities through fire-proofing building facades and widening of narrow streets; there is a dearth of discussions that consider requirements of the new era. As we near the limits of the traditional urban adjustment methods, it is becoming clear that new values of the new era need to be added to the existing model. This research considers these new values based on the periodic trends and investigates the possibilities of a new development model for densely-built wooden urban areas.

In considering new possibilities, we have done literature review of projected societal trends, observation studies of traditional densely built-up urban areas, consideration of applying fire-prevention regulations set at a building scale to a larger scale of urban area, qualitative and quantitative analysis based on questionnaire surveys of the residents of the area, and experimental urban planning led by research team members.

As a result, considerations like: a localized community were the elderly can participate in community activities; creating quality residences by way of thorough maintenance; an urban area safe from fires and earthquakes; assuring continuity of local culture; securing safe pedestrian spaces; ensuring smooth succession to the next generation; realization of an urban area without wasted spaces; maintaining residents' health by considering walking time were revealed as the new images and goals of the future. Especially, by combining the versatility of wood with the ability to secure safe pedestrian space through widening narrow streets, the possibility to integrate the old with the new and increase the value of densely-built wooden urban area were made apparent.

In regards, to the problem of low fire and earthquake resistance capacity of densely-built wooden area, the possibility to increase the areas' resilience to fire by installing fire-prevention measures at the town level in addition to local community fire-prevention activities were revealed through the study. Similarly, the surveyed area also showed great potential for increasing earthquake resilience through local activities.

However, the current study as a whole requires further work to strengthen the basis of the arguments, and we hope to connect these to concrete policy recommendations in the future.