

Research on Heat island phenomenon at neighborhood space and anti Heat island
measures by community based city planning

Shin AIBA (Associate Professor, Tokyo Metropolitan University department of
Architecture and Building Science)

Satoshi NAKAYAMA (Assistant Professor, Tokyo Metropolitan University
department of Architecture and Building Science)

[Abstract]

Various short-term anti Heat island measures are practiced today, however long-term measures are incompetent because of lack of city planning method and community participation method. The study aims to clarify cause and effect between Heat island phenomenon and neighborhood space and to develop community participation method. The study consists of three parts.

- 1) Four times field research on distribution of temperature by walking.
- 2) Continual research of temperature at 40 "Cool spot" points and evaluation of 22 "Cool spot" points.
- 3) Development of workshop method and websites to share information with citizens.

There are two realization methods of city planning, "zoning control" and "urban facilities". Zoning should be decided considering distribution of temperature and Cool spot should be set up as "urban facilities" by city planning. Cool spot especially can be a good and affordable practice by community based city planning. Because of the spots are mostly located at private land lot, the spots should be set, created or maintained by citizens.

A rich citizen network exists at research field. Heat island measures by community based city planning will be realized by empowerment of the network, sharing information with the network and supporting local citizen's partnership.