

**“Technical Research and Development for Road Policy Quality Improvement”
Study Summary**

No.	Title	Principal Researcher
No.28-5	The Design and Operation of Urban Streets with the Functions of 'Place' in Asian Cities	Yokohama National Univ. Prof.Fumihiko NAKAMURA

The major research goal is to realize a human-centered road space design and management at transit points and their walking sphere. To achieve the goal, the research conducted the surveys shown as follows.

- (1) Clarifying the concept, plan, and operation of "Place"making and evaluating the urban activities on the road in Asian cities by applying the "Place" making concept
- (2) Suggesting the possibility of acceptance of the Asian ‘Place’ elements into transit point operation
- (3) Setting up the proposal and practicality verification of a tool to support the operation of such transit points.

As a Conclusion, it developed a technology package that can introduce the planning and operation of "Place" on road facilities at the local government level.

1. Backgrounds and Objects

This research reconsiders the road space at transit points and their walking sphere in Asian cities as "Place" , a hub for urban activities for people.

Specifically, it develops a technology package that can be introduced at the local government level as a method of redistributing road space, utilization and maintenance for pedestrians and public transportation users. The package follows 4 points.

- 1) The method of deriving optimal road geometry corresponding transit-point patterns
- 2) The operation reflecting the climate and cultural background of areas
- 3) The Spatial design of road network promoting citizens modal shift
- 4) The human resource development for conducting 1)-3)

In addition, a social experiment is going to be conducted to examine the feasibility of technology package .

2. Activities in Research Period and Study Results



- (1) The theories for "Place" making in the international researches and their application situation to the road administration were clarified.
- (2) Survey of transit points operations in Asian cities and Proposal of technology package for "Place" making : assess the applicability of Asian ‘Place’ elements into transit point operation
- (3) Through the pilot experiment at the Southeast Asian urban transit point regarding (2), verified the proposal and practicality of tools supporting the planning and operation of such transit points.

Figure1: The situation of Pilot Experiment

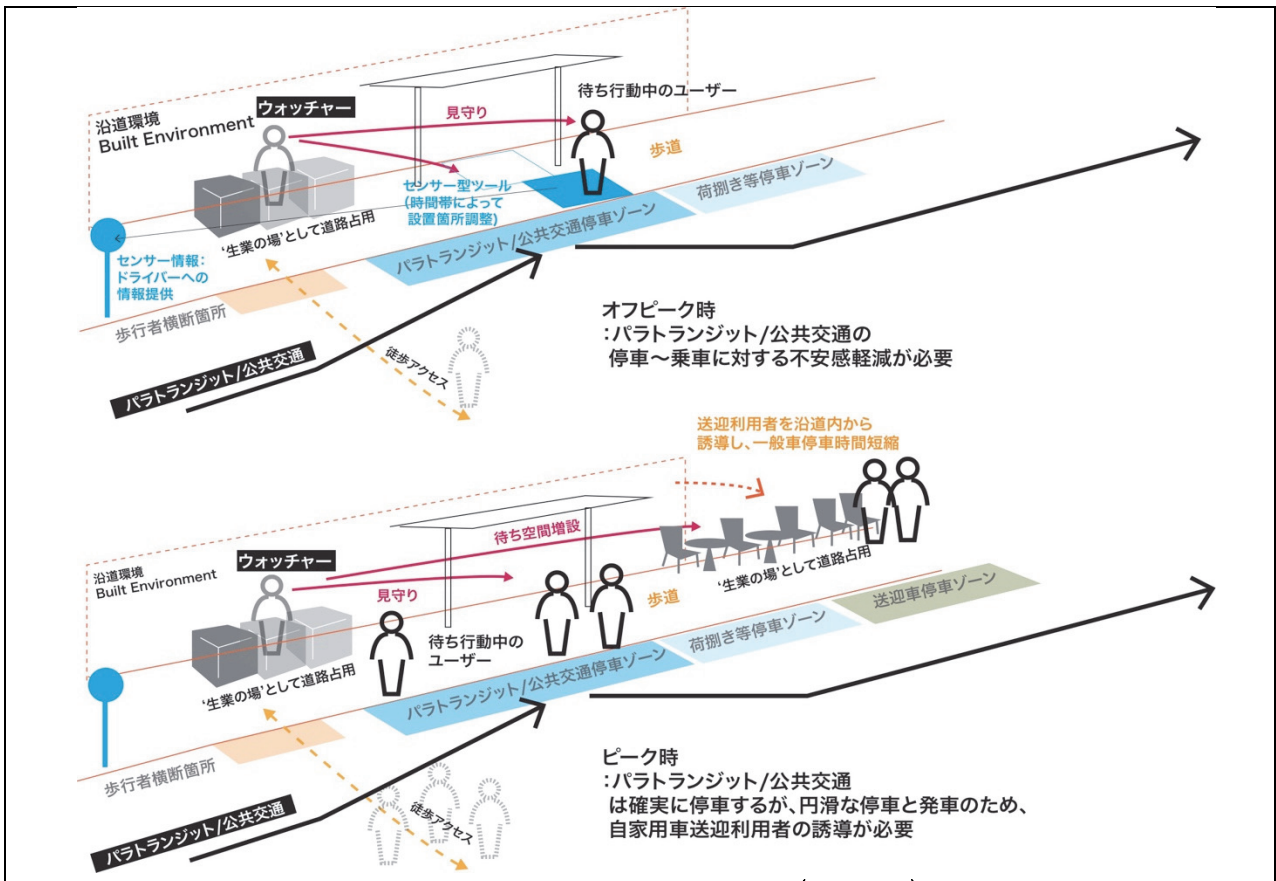


Figure 2 Proposed Transit Point 'Place' Concept (in Japanese)

3. Peer-reviewed Papers

①Nobuyoshi FUJIWARA, Fumihiko NAKAMURA, Shinji TANAKA, Shino MIURA : A STUDY ON THE MECHANISM OF VIBRANCY AFFECTED BY SPATIAL CHARACTERISTICS OF BUS TERMINALS AND SURROUNDING AREA, Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)73(5), I_909-I_919, 2017

②Pattamaporn WONGWIRIYA, Fumihiko NAKAMURA, Shinji TANAKA, Shino MIURA : The Pattern of Travel Behavior in Khon Kaen City, The proceedings of Eastern Asia Society for Transportation Studies conference, 2017

4. Study Development and Future Issues

In this research, basic data collection for "Place" making process has been achieved. For future theoretical development, the improvement of package and pedestrian data acquisition by continuous application in specific municipalities are needed.

It is essential to position "function of place" in the local government regulations which is not considered sufficiently by the existing road-related laws for the full-scale operation of the guidelines utilizing the package. The draft guideline will be organized in collaboration with the MLIT committee in 2019.