

Nola Mach-Ya: A Multi-Use Duplex Prototype for New Orleans

KENTARO TSUBAKI
Tulane University



Figure 1. Street View (front porch, tori-niwa covered side porch/yard)

INTRODUCTION

This project aspires to develop a new housing prototype for post-Katrina New Orleans. It is based on the comparative research of vernacular housing types found in two unique urban contexts: New

Orleans and Kyoto, Japan, the shotgun house and the Kyo Machi-ya. The striking contextual, cultural and technological parallels and contrasts found in the two cities are the potent source of inquiry and knowledge informing the design.

APPROACH

The main objective is to develop a mixed-use, multi-unit housing prototype appropriate for standard 30'x120' lot, creatively addressing the post Katrina social-cultural and performative issues in the hot, humid climate. The central hypothesis is that the design principles and features found in Kyo Machi-ya can effectively be translated into a housing design strategy in New Orleans. The project promotes holistic approach to the sustainable housing design contrary to the current trend where

a product oriented techno-centric approach is the norm.

The Nola Machi-ya is a hybrid of Kyo Machi-ya and a shotgun house, an attempt to transpose, negotiate, and integrate the architectural considerations and features arising out of the two distinctive vernacular cultures, while addressing issues of context and time. Through a careful examination of the design process, the project demonstrates a performative design strategy for urban dwellings in the dynamic global context.

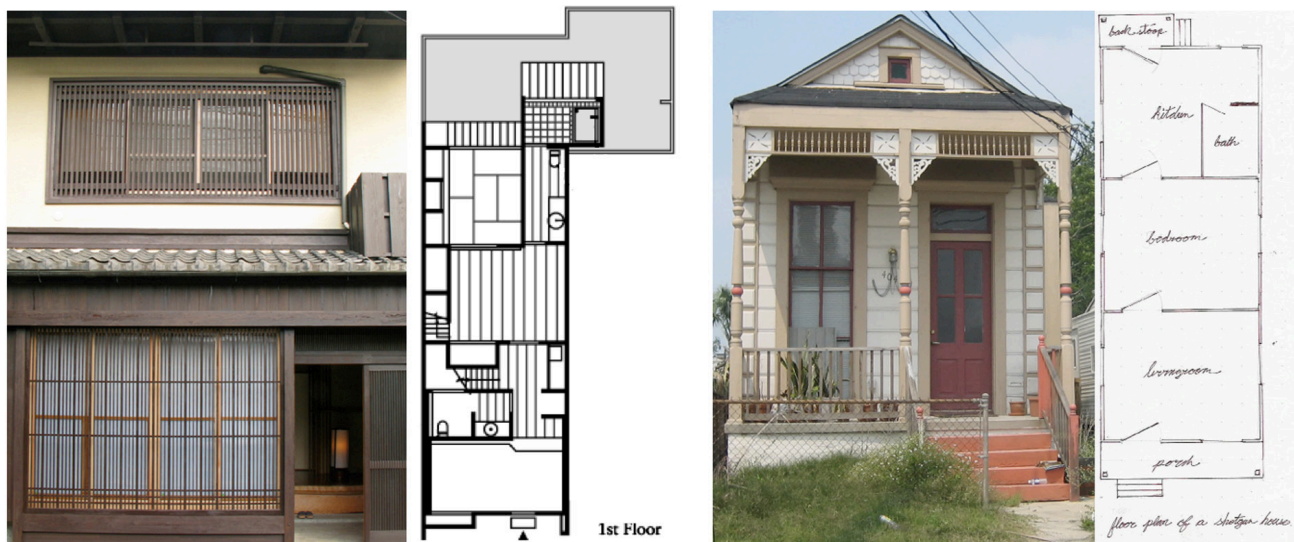


Figure 2. Typical Kyo Machi-ya and Single Shotgun House

DESIGN

Similar to the Shotgun House, the basic physical characteristic of Machi-ya is defined in terms of a very narrow and long urban lot it occupies. However, it employs several distinctive spatial strategies, such as **tori-niwa**, **tsubo-niwa**, and **en-gawa** to accommodate and take advantage of the limited configuration. Combined with the tectonic characteristics of timber framing and removable screens panels, these features foster impromptu community interactions, alleviate hot and humid conditions and celebrate the seasonal transitions, merging the spatial efficiency and climactic performance with dramatic visual esthetics for urban dwelling. The

post-storm population of New Orleans is skewed towards well-educated young creative types, singles and couples with no children. The study also indicates the relative success of various rebuilding programs. However, these programs were not intended to address pre-Katrina racial segregation and poverty. The city suffers with disproportionate numbers of unoccupied homes, yet, average rent in the city is still unaffordable. Nola Machi-ya addresses these issues through the design, programming and siting strategies. It is intended to foster economic development beyond its initial investment value, facilitating self-healing process of the existing urban fabric.

LEGEND

- 1. front yard
- 2. front porch
- 3. *mise* storefront/office
- 4. a. private gate
- 5. *tori-niwa* side porch
- 6. b. entrance
- 7. *en-gawa* porch
- 8. c. living
- 9. d. kitchen/dining
- 10. e. stair
- 11. f. powder room
- 12. g. rear porch
- 13. h. rear yard
- 14. *tsubo-niwa* courtyard
- 15. i. bathroom
- 16. j. bedroom
- 17. k. deck

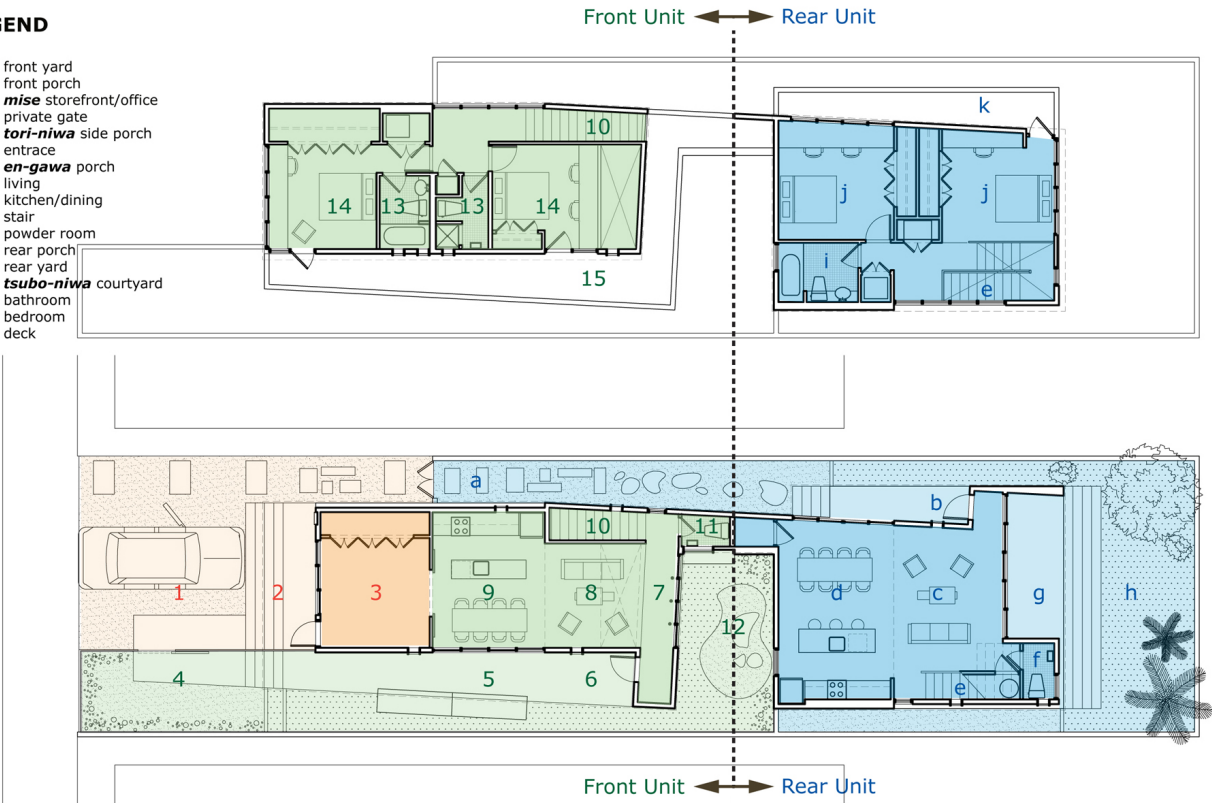


Figure 3. Floor Plans (lower and upper level)

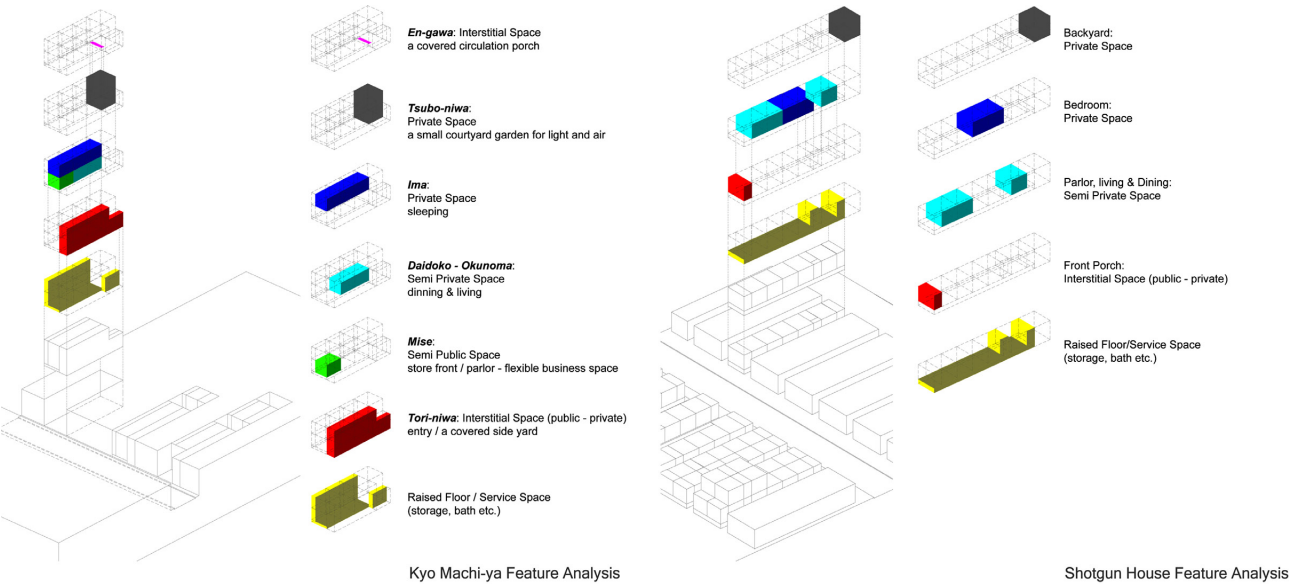


Figure 4. Kyo Machi-ya and Shotgun House



Figure 5. Transverse Section Perspective (looking towards the street front)



Figure 6. Longitudinal Section Perspective



Figure 7. Model (east elevation)



Figure 8. Street View (front porch, side access to the rear unit)

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