

BIRKHAUSER

# DESIGNING INTERIOR ARCHITECTURE

CONCEPT TYPOLOGY MATERIAL CONSTRUCTION

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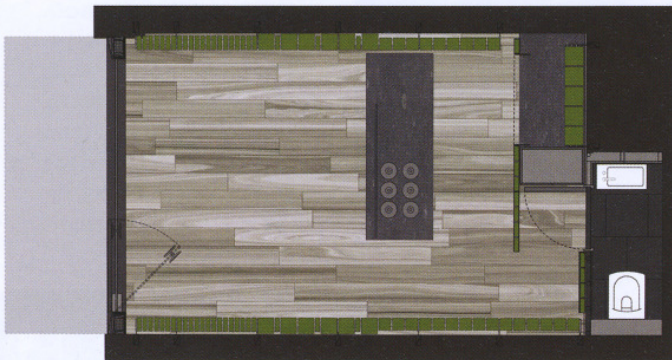
## CASE STUDY: FOUR SMALL PROJECTS, NEW YORK, USA

In the design of commercial interiors, the recent economic climate has imposed the dual constraints of small spaces and tight budgets. For some architects and designers, these constraints become opportunities. Three restaurant projects in Manhattan by the New York firm LTL Architects are exemplary in illustrating the use of tight spatial constraints as a point of departure for design and innovation: the Ini Ani Coffee Shop is 33 m<sup>2</sup> / 350 sq ft, Dash Dogs is 20 m<sup>2</sup> / 220 sq ft and the Tides Restaurant is 39 m<sup>2</sup> / 420 sq ft.



**One long counter stretches the length of the hot dog restaurant ...**

DASH Dogs, New York City, New York, USA;  
LTL Architects



**A limited palette of materials and minimal furnishings give this small room a pleasant feel.**

INI ANI Coffee Shop, New York City, New York, USA;  
LTL Architects



**... while here the walls are a storage space and design feature in one.**

XOCOLATTI, New York City, New York, USA; de-spec





“Rather than avoiding these obstacles through formal or logistical gymnastics, the tactic of catalyzing constraints generates an impassioned inquiry into the unavoidable limits of architectural production.”<sup>15</sup> Viewed as opportunities for “generative solutions”, these projects accept predetermined restrictions and shift the focus of design intervention elsewhere. The restrictions here included both a dimensionally limited envelope and economically driven requirements for the greatest capacity of seats, circulation and service space. In each case, the floor plans are organised simply so as to maximise programmatic requirements: the Tides Restaurant with a line of tables and built-in banquettes; the Ini Ani Coffee Shop with spare seating arrangements that differentiate the varied activities of the café lounge; in Dash Dogs, a single linear counter, strategically placed to direct the client traffic from door to order window to pickup and exit.

The design investigations instead focus on the interior skin, wall, floor and ceiling surfaces not required for programmatic functions. As a canvas for innovation, these planes are addressed as homogeneous internal membranes rather than as opportunities for the application of various treatments. At the Ini Ani Coffee Shop, two separate “surface treatment volumes” are created – one of corrugated cardboard strips, compressed in a steel cage, and the other of plaster, cast with plastic coffee-cup lids. In a single open space, these volumes serve to differentiate the lounge area with its self-absorbed WiFi clientele and the service counter with its bustle of take-out customers. At Dash Dogs, where the client space is only half as wide as its depth, an internal membrane is inserted to create order, both physical and visual, in a high-volume retail setting. The membrane, a band of steel strips, runs continuously from a sloping ceiling to the sloping floor, referencing the mechanical “people mover”. At the Tides Restaurant, an inner volume is created on the ceiling of an undulating topographical landscape of sea grasses, constructed from bamboo skewers. Optical film on the glass entry doors distorts the diners’ views, contributing further to the sensibility of shifting surfaces.

Xocolatti, a chocolatier in SoHo, Manhattan, NY, illustrates a similar approach to flexibility within a retail setting. In a 14 m<sup>2</sup> / 150 sq ft rectangular storefront, an inner membrane is created from walls of stacked green signature chocolate boxes. These walls of boxes – some closed and some open to display the sweets – simultaneously function as wallpaper, display, storage and kinetic art. As the boxes of chocolates are sold, the wall pattern mutates, forming a history of the day’s sales.

In embracing the notion of “small”, architects and designers search for increasingly complex and inventive solutions for the design of the compact structure. Inherently sustainable through size, small structures are not necessarily valued only for this efficiency. In 2010, the Victoria and Albert Museum invited seven international architects to design and build small full-scale structures in the museum, resulting in the exhibit “1:1 – Architects Build Small Spaces”. As a celebration of small space, the exhibition investigated “small-scale structures and how they can define and enhance notions of everyday experience and personal space”.<sup>16</sup>

## MODULAR MEANS

The energy efficiency of m-ch and other compact homes on the market today is due, in great part, to modular construction and prefabrication. Modularity as a method is one that successfully addresses wasteful processes in design and construction. Today’s compact houses are primarily modular. As in the Nagakin capsules, also fabricated off-site and hoisted in place, they are factory-fabricated and shipped to an intended site. The ecology of being small is coupled with the benefits of prefabrication – reduction of materials waste, reduction of construction waste, minimal structural foundations and lower embodied energy – all of which contributes to a smaller carbon footprint and a lower impact on the environment.

Modular construction is most often used in new residential applications. The benefits of modular construction are now extending to existing buildings as modular retrofit. In large and repetitive institutional projects, the use of modular units in retrofit is both economically and ecologically beneficial. In a systems upgrade project for a college dormitory, bathroom pods were fabricated off-site and hoisted through the windows. This method of replacement realised an enormous reduction of construction waste and time. On an individual scale, modular retrofit kits such as the Modular In-Home Office are used to create a room within a room. With the goal of minimising heating costs in home offices, the kit provides an innovative low-tech solution to zoned heating. Utilising the concept of the common greenhouse, the kit consists of wood frames, covered with an insulating wrap material, that serve as walls of an in-home office space. This kit is configured through creative geometry to an existing window. With the window serving as a source of heat and ventilation, a separate mechanical zone is created within the home, naturally heating only a single targeted location.