Case Study House
Domestic Situations
The house is a primary indicator of social, economic and political conditions beyond the broader context of simply “dwelling.” As a cultural symbol, the house incorporates technological and industrial developments and reflects attitudes toward space, time, and mobility. The evolution of the concept of home reveals changing demographic patterns such as marital status, birth rate, mortality, and cohabitation. Population trends from the past fifty years in the United States, for example, indicate that the percentage of married couples in the adult population is dropping, the average size of a household (family and non-family) is reducing, and the occurrence of non-family households (unrelated roommates) is growing. These shifting demographics, combined with the fact that Americans move every two to three years on average, suggest that the house must be flexible enough to accommodate a variety of living arrangements, domestic situations, and economic conditions. The notion of a “traditional family” perpetuated in the domestic sitcoms of the 1950s is increasingly impossible to define, if it ever existed at all. The changing demographics portrayed through television domesticity are reinforced by statistics of the U.S. Census and suggest that a household adapts and shifts, grows and shrinks.

As there is no “traditional” family, there is also no traditional “house.” The requirements of specific clients transform the house, whether in the form of owner, landlord, or tenant, for a duration of one, ten, or fifty years. The Cleveland Case Study House provides for the future of the domestic condition as a receptacle for the people and
the otherwise open landscape defined by agricultural hedgerows. At the scale of the individual plot, the space is perceived as having a subtractive quality as trees and vegetation are cleared for human occupation. This spatial structure persists even at the scale of twentieth-century urban development. Aerial photographs of the proposed site for the Case Study House, Cleveland (located in the first ring of residential development across the Cuyahoga River from the downtown) show the mile grid subdivided into twenty-five foot by one hundred foot residential lots.

The translation of the spatial conditions of this rich landscape into the design of the Case Study House occurred in two ways. First, by addressing the full site as a potential field of diverse activities. Then, by reversing the typical diagram from one where the house reads as a figure and the land around it as residual “yards,” to one where the exterior spaces take on three-dimensional properties. The yards, therefore, act both as exterior, volumetric figures dividing the open space of the first floor and as programmed volumetric spaces accommodating various leisure activities. The intrusion of the courtyards into the otherwise open landscape allows for a simultaneous reading of continuous space flowing unbroken through the glass-walled courtyards and, alternately, clearly-defined pockets of space delineated by the same objects that are brought to it, enabling spaces to be defined by actions and activities as opposed to constructed limitations.

**The Democratic Landscape**

Thomas Jefferson’s Ordinances of 1784 and 1785 created the regulations for surveying and land acquisition for the territory west of the Appalachian Mountains. The Ordinance established a one-square-mile grid oriented along the cardinal axes, within which each six-square-mile section of the grid constituted a township. For Jefferson, the grid was not simply a formal geometric system it was the armature that would give shape and structure to the complex relationships between individuals and society. Through the form of the grid, simple and accurate descriptions of individual properties would facilitate the private acquisition of land that would, in turn, guarantee the rights of citizenship in the new agrarian society.

This homogeneous division of territory did not, however, render a banal or monotonous landscape. On the contrary, a rich and seemingly boundless tapestry of woodlots, homesteads, and rhythmic patterns of furrowed fields emerged between these lines of measure that stretch to the horizon. At the larger, rural scale, the precision of the demarcated fields produces a distinct reading of three-dimensional volumes (woodlots, homesteads, agricultural buildings) dispersed within the otherwise open landscape defined by agricultural hedgerows. At the scale of the individual plot, the space is perceived as having a subtractive quality as trees and vegetation are cleared for human occupation. This spatial structure persists even at the scale of twentieth-century urban development. Aerial photographs of the proposed site for the Case Study House, Cleveland (located in the first ring of residential development across the Cuyahoga River from the downtown) show the mile grid subdivided into twenty-five foot by one hundred foot residential lots.

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These costs include a fabricator’s engineering fee of $1,750 (a one-time fee for getting state approval), a crane fee of $1,000 based on four hours at $250 per hour for a crane service, and a shipping fee of $1,250 per loft (varies depending on location of factory and site—estimate is from Marlette, Michigan to Cleveland, Ohio).

Our scheme, when built out with two or three lofts, takes advantage of the existing duplex zoning of the property. In the case of the two and three loft options, the possibility exists for one loft to serve as a rental apartment with private access from the service court. Based on current interest rates, we can assume a capitalization rate between 9 and 10%. This rate takes into account a 5% vacancy rate and all operation costs including taxes maintenance, etc. In the Tremont neighborhood we can assume an average rental rate for a one-bedroom apartment at $500 per month. This would set the value at $54,000 for the loft unit designated as an apartment. This is $32,000 greater than the cost of constructing that unit, adding value to the property and generating income that can offset the cost of the higher investment.

Courtyard Gardens
As an alternative to traditional building and site relationships, a series of courtyard gardens are integrated as positive spaces within the architecture. Garden and building are interlocked, elevating the role of landscape beyond its position as leftover space around a building. The typical frontyard/backyard relationships are extrapolated into a series of landscape spaces providing flexibility and experiential variety from both inside and outside the house.

The functions of the courtyards are flexible, but the plantings and materials are specific to the site orientation and climate. Gardens on the north side of the site are elevated allowing light and color to permeate the space: meadow grasses provide a roof-top alternative to the typical back yard; evergreen vines climb a two-story wall creating a vertical garden visually accessible on both floors; a pool of water reflects light into an adjacent room; a green lawn and an apple tree contribute to the neighborhood street.

Courtyards with optimal southern light have a flexible palette of seasonal activities and vegetation: a basketball court doubles as a service area as needed; a dining terrace supports
kitchen gardening and outdoor cooking; a defined lawn panel provides an enclose play area and relaxation zone surrounded by perennial plantings.

Notes

Project Data
The House: Case Study Cleveland Competition, 2002, was the winning entry to an invited exhibition and competition sponsored by SPACES Gallery, Cleveland, Ohio, funded by the National Endowment for the Arts, among others. With the goal of promoting architect-designed housing for the typical American family, the 1945 Case Study House program became a point of departure to re-examine the house in a twenty-first-century, Midwestern, post-industrial city. The competition jury included Jeffrey Stream, Robert Bostwick, Julie Langsam, and John C. Williams, and was headed by New York architect Rafael Vinoly
Location: Cleveland, Ohio
Construction Systems: masonry load-bearing walls with prefabricated wood frame
Area: 3,000 square feet
Construction Cost: $ 210,000
Materials include: masonry, storefront glazing system, Andersen windows, prefabricated frame system

Design Team
PLY Architecture
Craig Borum, Karl Daubmann, Gretchen Wilkins and John Comazzi
Landscape Architect: Elise Shelley
Assistants: Katherine Borum, Kevin Conway, John Fleming, Wei Hu, Randy Knight, Jen Maigret and Erin Ray

With generous support from the University of Michigan College of Architecture and Urban Planning.