

Lightness of Building: Furnishing a Regenerative Architecture

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Australian architect Richard Leplastrier has suggested that the primary act of the architect is not to order, express, delineate, coordinate or even design, but to furnish.

furnish, *v.t.* **1.** to provide or supply, often fol. by *with*: to furnish one with needed time. **2.** to fit out, a house, room, etc., with necessary appliances, esp. furniture (3).

By furnishing or fitting out the architect is practical and responsive, chooses what is necessary, eschews originality for its own sake, and allows innovation to emerge from an unselfconscious meditation on the problem at hand. Creativity requires not so much invention as receptivity to what is already provided. As theorist David Leatherbarrow has stated *Uncommon Ground*: “Within its own economy design need not provide the means of this accomplishment (creativity), nor does it need to provide differences within its own resources; they are the gift of the project’s milieu. When design strives for difference the result is affectation (4).” When the architect has finished a work it should take on a passive presence, designed so as not to seem designerly in our everyday cognition. As with furnishings that “disappear . . . when most vitally present, insofar as they are taken up or absorbed into the human body’s various projects,” the gift of architecture comes to light paradoxically when it slips backstage, into the recesses of the unconscious of daily ritual (5).

The milieu to which Leatherbarrow refers—the environs of a particular building project—has room-like qualities, and any configuration of introduced (built) elements will participate in this context. Before we intervene, our first task should be to observe and identify the size, complexity, orientation, materiality, color, structure, plumbing and quality of light of this room. These qualities have a profound ability to condition—shelter, screen, brighten and envelop—the to-be-designed subspaces that will likely serve as the nexus of human activity. The earth, trees and sky of this larger room are not only analogous to the

floor, walls and ceiling of a building, but may assume these primary architectural roles.

In adhering to Leplastrier’s understanding of our “fundamental task”, HOW would we go about furnishing this larger room? What might our initial moves be? To begin, we might assign characteristics to architectural elements that we typically attribute to contemporary furnishings, qualities such as lightness, unpretentiousness, durability, and even portability and replaceability. Yet where traditional furnishings such as tables and stools relate primarily to immediate bodily operations and arrangements, furnishing-like building elements might relate ourselves to larger physical constructs. Components such as window and bay assemblies, awnings and shade elements, walls, partitions and screens might be configured and modified to allow sensitive, comfort-providing adjustment in an elegantly purposeful way. These could serve as the interface between sheltered and preexisting space, where desirable environmental phenomena—cooling summer breezes, winter sun, etc.—are admitted while undesirable phenomena—rain and hail and direct summer sun—are prevented from entering inside. These built furnishings may express degrees of perceptivity commensurate with the subtle environmental forces that are the impetus of our making.

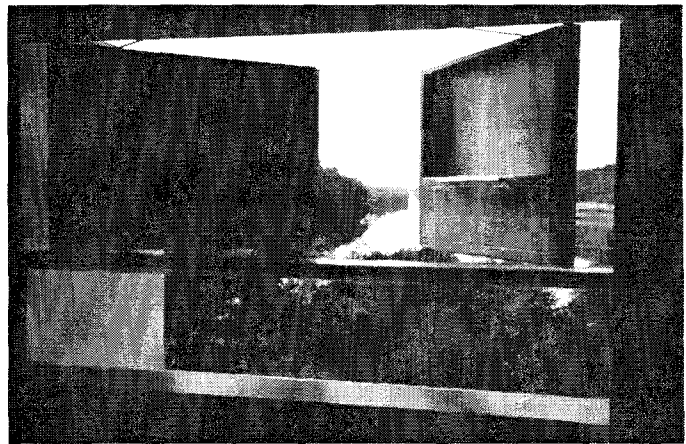
The recognition that the room exists and that it provides some measure of comfort liberates the architect at the outset of the building investigation to “pull apart” a building program and question the degree and manner of space conditioning and climate control needed in arriving at acceptable levels of comfort. For student groups working on a gallery project in Bundannon, New South Wales, in the first Glenn Murcutt Master Class in July 2001, the view of the role of the architect advocated by co-tutor Leplastrier encouraged a critical reexamination of the program. In a “friendly” climate such as that of the coastal ranges of southeast Australia, do spaces such as hallways, restrooms, the café and storage needed the same level of environmental control and separation as the galleries?

Students recognized the screen of mature eucalypts lining the northern edge of the site would provide some measure of shade and shelter to the site, that summer breezes passing above the nearby Shoalhaven River would create an evaporative cooling effect: that with only minimal architectural provisioning (of shade, of shelter) an acceptable level of protection and comfort for the majority of the spaces was realizable. By conceiving the gallery not as an object in a field but as an assemblage of purposefully furnished “activity settings” in a spatial continuum that includes the meadow site, nearby buildings, the tree-fringed meadow and the River, students discovered opportunities not only for energy savings but a heightened thermal and visual architectural experience.

DISTILLATION

Not far from the gallery site (annexed to the meadow room) and facing the Shoalhaven River sits the Riversdale Educational Retreat Center, designed by Leplastrier’s friend and long time colleague Glenn Murcutt (with Reg Lark and Wendy Lewin, 1999). The experience of staying at Riversdale has been likened to a camping, and the project may be understood as an assemblage of sensitively situated furnishings (6). There is no heating system, the ‘hallway’ between the sleeping quarters and the main meeting space is a covered verandah, open at its sides, and operable elements throughout enable generous connections to be made between interior and exterior space. Galvanized steel fins project beyond the building’s west façade, providing afternoon shade. These fins also house sliding doors that can divide a four-person room in half. Within each sleeping space, an alcove pairs a bed with a window assembly that consists of a bed-length low fixed light (at bed height) with hinged wooden shutters above. When the shutters are open, one has unobstructed access to breezes, light and views of the River. Within these shutters are smaller framed screens that can be opened to allow natural ventilation and protection from insects when the shutters are closed. This simple constellation enables countless adjustments in response to ambient conditions and inhabitant activity. Riversdale is not a steady state environment, but a place in flux, where temperature gradients exist. Because you are encouraged to manipulate basic architectural elements in obvious ways to affect microclimate, the building encourages physicality or an awareness of one’s physical presence in relation to this highly particular and constantly changing environment.

As with so many of Murcutt’s projects, visual expression depends on the subtle manipulation and thoughtful and restrained detailing of the profile of the skin. Riversdale takes on a Miesian clarity, yet Murcutt acknowledges and accommodates a great variety of local environmental factors as a basic design necessity. This could be understood as a form of distillation—of multiple responses into one coherent and



Figs. 1 & 2. Window and shade assembly of a typical sleeping quarter. Riversdale Educational Retreat Center, Bundannon, New South Wales, by Glenn Murcutt with Reg Lark and Wendy Lewin, 1999.

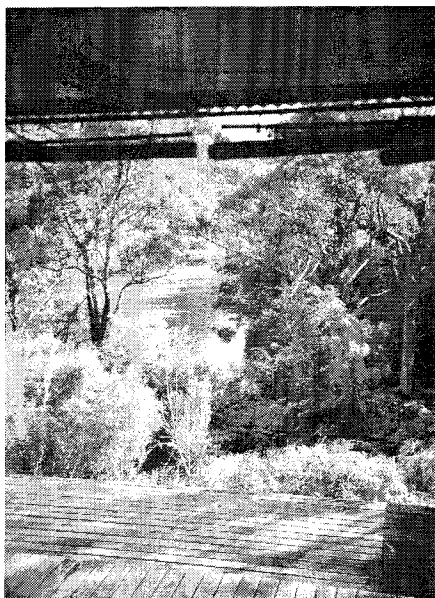
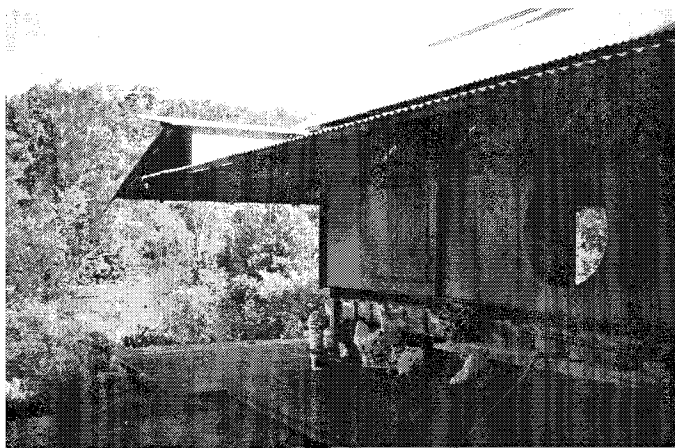
multifaceted arrangement—versus a reductivism that Mies’ Farnsworth House might seem to represent.

A GRADIENT OF OPPORTUNITY

Richard Lepaistrer’s own pavilion-like one-room house in Lovett Bay, near Church Point and north of Sydney, expresses perhaps to the fullest the notion of dwelling-among-furnishing in a larger room of great definition, of “an adjustable house that can be attuned to climatic circumstances like a yacht adjusting to changes in the wind (7).” The lone, simple roof, extending beyond wall planes to shade interior space during the hot summer months, is offset by platforms of varying levels that define distinct settings yet preserve spatial continuity. The slight elevation change—a step—that is the juncture of the main pavilion and the surrounding deck is at once a seat, a frame and a demarcation: a sectional jog that promises opportunities for repose and interaction, revealing orchestrated frames of view of the Hawkesbury River and layers of “bush” cloaked hills. Light and flexible screens—basic yet refined

environmental control in the benign Mediterranean-like climate of southeastern Australia—provide primary vertical space definition and shelter. The three constituent elements—pavilion-like roof, platform, and curtain-like screen—slip past one another, blurring distinctions between interior and exterior space, creating a gradient of comfort and opportunity that may be described as follows:

- Inside In sun Protected from wind
- Inside In shade Protected from wind
- Inside In shade Access to breeze
- Inside In sun Access to breeze
- Outside In shade Protected from wind
- Outside In sun Protected from wind
- Outside In shade Access to breeze
- Outside In sun Access to breeze



Figs. 3 & 4. Richard Leplastrier's House, Lovett Bay, New South Wales.

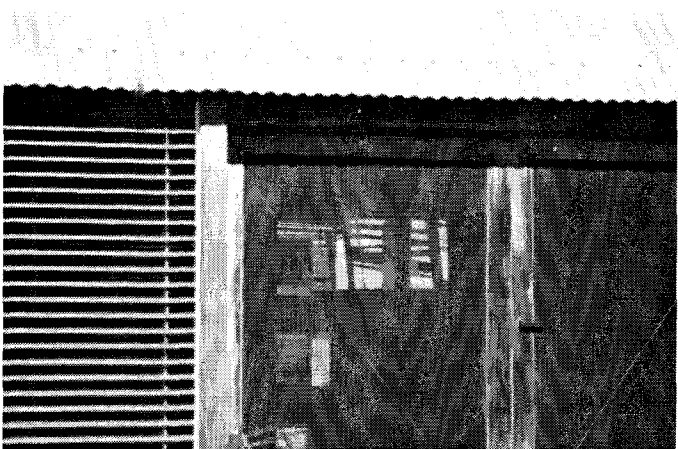
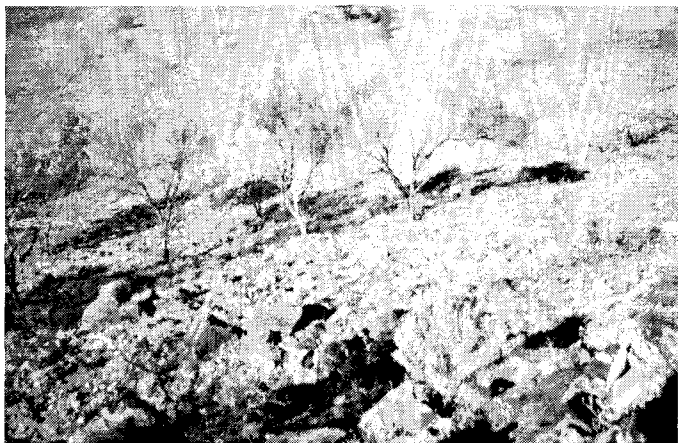
Leplastrier's house reveals the influence of Jorn Utzon, with whom he worked on the Sydney Opera House in the 1960's, as well the traditional architecture of Japan, where he lived and worked for two and one half years. Utzon and Leplastrier share an enthusiasm for the "lightness", modularity and craft of the traditional Japanese house, where resourcefulness and restraint are compatible with richness of effect and sophisticated performance, where with great precision a minimum number of minimized elements are thoughtfully brought into relationship with one another. To quote Utzon, "the floor . . . is a delicate bridge-like platform. This Japanese platform is like a tabletop. It is a piece of furniture . . . here you have the feeling similar to the one you have when standing on a small wooden bridge, dimensioned just to take your weight and nothing more (8)." Set nimbly on this platform are vertical space defining and conditioning elements such as *fusuma* and *shoji* partitions. Occupants replace these seasonally in response to changing ambient conditions, with lattice-clad partitions employed in summer to promote ventilation and thick rice paper clad partitions in winter to trap heat yet admit light. These screens are moveable and removable AND absolutely vital to the function and expression of the architecture.

Leplastrier's architecture relates not only to Japanese domestic architecture, but to the sacred buildings of Japan as well, specifically in the way opportunities for renewal and regeneration are anticipated in design and construction. As Frampton has remarked, "due to the relative perishability of untreated wood, Japanese honorific structures were everywhere subject to cyclical rebuilding, the most famous instance being the monumental Naiku and Geku precincts at Ise that . . . are rebuilt in their entirety every twenty years (9)." There is similarly with Leplastrier's work the recognition of impermanence and both literal and symbolic potential for rebuilding, as "all connections are screwed, bolted or employ other removable fittings, with a minimum of glued joints and no nails, so that his buildings can be dismantled and the parts salvaged with no wastage (10)."

INHERITANCE AND CONCILIATION

Any accurate consideration of Leplastrier and Murcutt's efforts to realize a "situated" architecture—that which is "simple, direct and obvious"—must finally reference the regional culture and building traditions out of which their work has emerged (11). When colonists migrated from the coast of Australia to the great arid interior in the late Nineteenth Century, they found land in abundance, but lacked capital, labor and locally available resources with which to build. The station architecture that evolved—with its wood frame, sheet metal siding and ubiquitous verandah—was necessarily provisional and minimal, as much of what was needed to build had to be transported vast distances on wagons and the backs of mules.

Evidence of this tectonically light architecture can be seen in the work of Lepastrier and Murcutt today, with an important difference representing a change in attitude about the Australian landscape. The first euroaustralian settlers met the bush and parched desert with bewilderment and hostility, then a begrudging acceptance of this extreme and unpredictable environment when they had brought this landscape “under control.” Their architecture turns inward; only the narrow verandah—the light-filled addition to the house and the sheltered extension of the yard—acknowledges a day-to-day existence spent as much out of doors as in. Only in recent times do we see a contemplative appreciation of this ecology and an accompanying reassessment of and respect for aboriginal society that has flourished in this difficult land for tens of thousands of years. Murcutt and Lepastrier can be said to represent an approach to architecture that seeks to transition from a pioneer to a conciliatory building culture, to see fully in the landscape the room to operate. The ground that surrounds no longer threatens but rather signifies the figure; the figural furnishings in turn elevate our understanding of the uniqueness of what lies “just beyond.”



Figs. 5 & 6. Mulga scrub, Mutawintji National Park, New South Wales; Detail of Louvered wall and screen door, Marie Short Farmhouse, Kempsey, New South Wales, by Glenn Murcutt.

With his own house in Kempsey (originally the Marie Short Farmhouse), Murcutt has transformed the verandah of the station house—the space that is most ambivalent in its relation to “interior” and “exterior”—into the house in its entirety. Walls and even portions of roofs become louvered screens, directing light, channeling breezes and offering views. The farmhouse reveals the poetic and phenomenal potential of constructional lightness and openness to landscape as a primary architectural experience. Above all it suggests a lightening of the problem we need to solve through architecture.

LIGHTNESS OF BUILDING

Lepastrier and Murcutt’s architecture is original and extraordinary, yet circumstances in Australia that have influenced their thinking parallel in many ways developments in North America. In advocating a regenerative and situated architecture where we live, it would therefore recommend itself to consider their work and its relevance in light of our own inheritance. Their attitudes and strategies may also assist us in envisioning positive outcomes of larger trends in contemporary building practices.

As with Australian settlers who moved inland, many who migrated to the American West in the late Nineteenth Century encountered a new and unpredictable environment, lacking resources such as wood and water that they were accustomed to. In reading descriptions of initial encounters with this landscape, one senses an “unsettling” of the mind, an unmooring from traditional ties, even a liberation associated with levity. In Willa Cather’s *My Antonia*, the narrator relates such sensations upon arriving in the high plains of Nebraska:

“The light and air about me told me that the world ended here; only the ground and sun and sky were left, and if one went a little further there would only be sun and sky, and one would float off into them like the tawny hawks which sailed over our heads making slow shadows in the grass (12).”

Walter Prescott Webb in his 1931 classic *The Great Plains* describes innovations such as windmills and barbed wire that made possible the settling of this land. In quoting John Wesley Powell, he alludes to changes in building: “industrial civilization in America began with the building of the log cabins . . . and steadily . . . the log cabin zone moved westward until it reached the border of the Great Plains, which it never crossed (13).” As with the great interior of Australia, traditional building materials in the central and western US were scarce and had to be shipped long distances from points north and east. The light and flexible stick frame construction that emerged at this time facilitated a combination of mobility and quickness of construction that made mass migration possible. Look at any photograph of rudimentary settlement in the west in the late



Figs. 7 & 8. *Prairie landscape, Pipestone National Monument, Minnesota; Barn, Carrizo Plain National Monument, San Luis Obispo County, CA.*

Nineteenth century and you will in all likelihood see a provisional architecture of wood, tin, canvas and glass.

From this time to the present, we see a continued progression in North American building culture towards tectonic lightness – a lightness of construction that is our inheritance. If developments in wood building are revealing – an evolution from the log cabin to stick framing to the engineered truss, material efficiency, ease of transportation, speed of erection and minimal capital outlay are increasingly valued characteristics of our building systems. Endurance is a diminishing priority. That a contemporary builder can fit all needed tools in the back of a pick-up truck reveals how highly flexible the ubiquitous Type V construction is. Yet despite this tremendous workability, light frame construction has not shown itself to be nearly so efficient or clean when it comes to accommodating change – retrofits, remodels and other alterations – that are highly mobile society demands with greater frequency. We continue to design and detail buildings as if they were made of heavy and durable materials, fail to recognize the impermanence of our assemblies, and pay little heed to what will become of building

elements when they are no longer of service. As it stands, as we seek alterations in our physical environment we ‘consume’ and create waste. Yet if we are going to continue to use light elements in mass quantities and utilize and exhaust them more quickly – and there is every evidence we will – we need to anticipate in the furnishing of buildings ways of reusing and “upcycling” the products we use, as is the case with Leplastrier’s work (14). We must design into our work the opportunity for renewal. Such an architecture, acknowledging impermanence and alluding to the brevity of individual existence, will help situate us by a reassurance of the greater significance of collective endurance.

Of concern is not only the potential for regeneration in construction, but, as this paper has attempted to show, the responsiveness of our building systems to particularities of climate, topography and landscape. Ultimately our efforts to comprehend with care and sensitivity the nature of the larger rooms where we work, and our ability to outfit these rooms with nimble, minimal and flexible furnishings, will lighten the burden on and impact of architecture. How architects situate the “light” and manufactured products we choose will reveal the aesthetic potential of our human ecology. As David Leatherbarrow has written, “No technical object nor set of pre-made components ‘belongs’ to a particular site. Nor do buildings that incorporate them ‘arise’ from specific locations. Congeniality between modern elements and a site where it exists must be recuperated through design and construction (15).” This recuperation requires the thoughtful and provisional furnishing of that which existed long before us and that will remain long after our work is done. We leave behind the possibility of continual remaking, and enduring ideas and ideals for how to build and live.

NOTES

¹ Italo Calvino, *Six Memos for the Next Millennium* (London: Jonathan Cape, 1992): 16.

² Architects Richard Leplastrier and Peter Stutchbury assisted Glenn Murcutt in the two-week 2001 Glenn Murcutt Master Class, organized by the University of Newcastle, New South Wales. Students (including the author) spent the first week of the course at Murcutt’s Riversdale Educational Retreat Center in Bundannon, New South Wales, while working on the design of an art gallery at the meadow site a few hundred feet from Riversdale. A number of days were spent sketching and discussing the site with the tutors prior to designing. The property, formerly the home of Australian painter Arthur Boyd, was given in trust to the people of Australia. The proposed gallery will house Boyd’s work.

³ *The American Heritage Dictionary: Second College Edition* (Boston: Houghton Mifflin Company, 1982).

⁴ David Leatherbarrow, *Uncommon Ground: Architecture, Technology and Topography* (Cambridge, MA: MIT Press, 2000): 168.

⁵ Leatherbarrow: 157.

⁶ Glenn Murcutt made reference to the metaphor of Riversdale as a campsite in describing to Master Class participants the intentions of the design team.

⁷ Rory Spence, “Heightened Senses,” *The Architectural Review* (April, 1998): 70.

⁸ Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture* (Cambridge, MA: MIT Press, 1995): 247. The quote is taken from Utzon's article "Platforms and Plateaus: The Ideas of a Danish Architect", *Zodiac* (1962).

⁹ Frampton: 14-15.

¹⁰ Spence: 70.

¹¹ In an informal presentation to Master Class students, Architect Peter Stutchbury summarized his efforts to realize an architecture that belongs to the Australian landscape as a search for that which offers a "simple, direct and obvious" response to that landscape.

¹² Willa Cather, *My Antonia* (Boston, MA: Houghton Mifflin Company, 1918): 16.

¹³ Walter Prescott Webb, *The Great Plains* (New York: Grosset & Dunlap, 1932): 140.

¹⁴ William McDonough; Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things* (New York: North Point Press, 2002). In their pioneer work on the ecology of industry, McDonough and Braungart describe how the majority of resources that are recycled are converted from higher grade to lower grade uses. They argue for the importance of "upcycling" materials, where future and elevated roles of products are anticipated by product makers and designers.

¹⁵ Leatherbarrow: 54.

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