

Tod Auliero

Laurence Lowry

In the early 1960s, when the dream of a new Modernist world was still alive, Josep Lluís Sert distilled this vision in his Peabody Terrace housing at Harvard. With some 500 graduate student apartments and their shared facilities, the complex is virtually a community in itself, combining both architecture and urban design and marking the campus-city boundary. Even today it exudes the confidence of its time in design based on economy, technology, and abstract reason.

By the 1990s, however, Peabody Terrace had become something of an embarrassment to Harvard, the last resort of graduate students who couldn't find a better place to live. But High Modern buildings such as these resist renovation; their cellular spaces, tailored to ear-

lier standards and bounded by monolithic exposed concrete, would not easily accept the kind of improvements the firm of Bruner/Cott was called upon to carry out.

### Modernist Mainline, Contextual Twists

When this housing was designed and built, it was noted more for its departures from the Modernist canon than for its adherence to it. While the International Style to that point had sharply distinguished low-rise structures from towers, Sert Jackson & Gourley's Peabody Terrace scheme melded them seamlessly, assembling all parts of the complex from the same structural modules. As *P/A*'s October 1964 feature on the just-completed project observed, this massing yielded "a fluent continuity from low to high, and from old to new structures." By wrapping the housing structures around the shared open spaces, the architects subordinated the geometrical integrity of the architectural objects to the defining of the voids (and not incidentally recalled the massing of Harvard's nearby Georgian Revival undergraduate "houses").

While the streets that crossed the site were closed, in line with the superblock mentality of the time, a broad public walkway through the complex made a prophetic effort to restore the previous permeable street grid. In playing down Modernism's accepted distinctions between high and low, existing and new, object and field, Peabody Terrace foretold an emerging respect for history and context.

Although the project's evolutionary advances in design seem less daring in hindsight, its image as an exemplar of Modernism has been more persistent: Sert's gridded façades never ceased to make charming patterns, by day or night lighting, articulating the modular units. The casual massing and meandering open spaces seemed to mitigate the high density of 85 units per acre. But to its neighbors, the complex was merely a concrete highrise, and inside it, all was not well.

Conceived as a much needed haven for "married students," the complex had come to house any graduate students – alone, in groups, or in families. As private rehabilitation broadened off-campus housing options, the curtain walls of Peabody Terrace leaked



Peabody Terrace's three 22-story towers are not freestanding like their Modern predecessors, but embedded in low-rise masses that define open spaces. A garage and a visitor parking lot along the project boundaries (see site plan) blunted Sert's effort to relate the project to the community. The three-year renovation effort here involves concrete problems typical of 1960s buildings.



more cold winds, the spartan interiors seemed increasingly bleak, the concrete began to spall, and the cockroaches revealed in the casually abandoned food containers. The development's notoriety struck home when a prospective student calling from Baghdad begged not to be placed there.

### Rehabbing Over a Three-year Period

But how to rehabilitate such a complex? The administrators, Harvard Real Estate, Inc., and the architectural team led by Bruner/Cott & Associates faced multiple challenges. The economically optimized Modernist interiors and the structure that contained them offered virtually no tolerance for reconfiguring rooms or installing new systems. The prominence of the complex in the *oeuvre* of Sert, who had chaired Harvard's architecture department, precluded any drastic design revisions. And, the university could not spare these 500 units for an academic year.

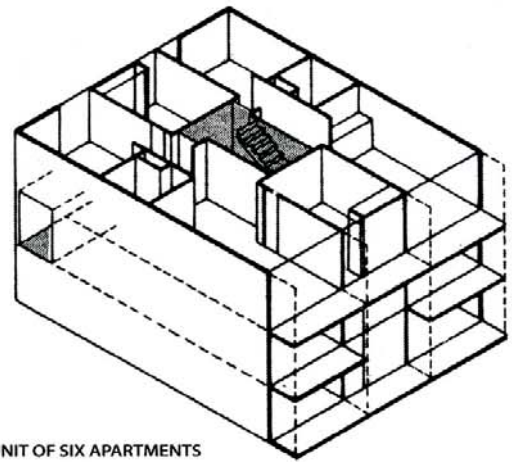
Fortunately for the rehabilitation effort, Peabody Terrace is divided into three fairly equal parts, around each of the towers. A decision was made to rehab one third each year, during the summer, when demand for apartments is lightest. The tight-knit team of architects, administrators, and contractors that accomplished the first summer's work is staying together for the remaining two. The 12-week schedule, they say, has necessarily eliminated squabbles, and the first phase has given them a rare chance to apply "20/20 hindsight" to succeeding phases. The first priority was to increase the resident appeal of these spare, minimally dimensioned apartments. Economy and the housing market of the 1960s had determined the 7'-5½" ceiling height, the exposed slab surfaces, the alcove kitchens, and other features in the monastic tradition of college dorms, but these units were no longer competitive on the local market.

Only limited improvements were possible: expanding the kitchens, replacing bathrooms, reconfiguring storage walls (see page 104). In bedrooms, exposed concrete walls were clad in gypsum board. Cable TV lines and wiring for Harvard's computer network were threaded through, with difficulty. Handicapped accessibility was required in 5 percent of the apartments, necessitating conversion of some two-bedroom units to one bedroom.

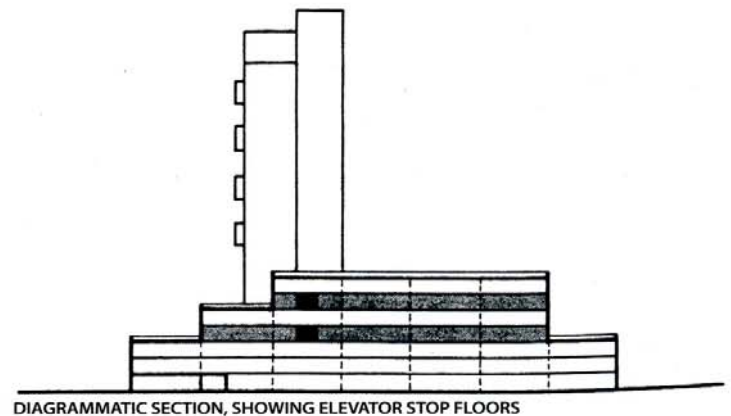
A major effort was replacing the extensive windows, installing insulating glass in thermal-break aluminum frames where there had been single panes in steel frames (page 105). A more severe technical challenge was the rehabilitation of the project's prominent cast-in-place concrete; judging from painstaking efforts here, it is not clear whether such concrete can ever be repaired without visible patches (page 106).

### A More User-Friendly Development

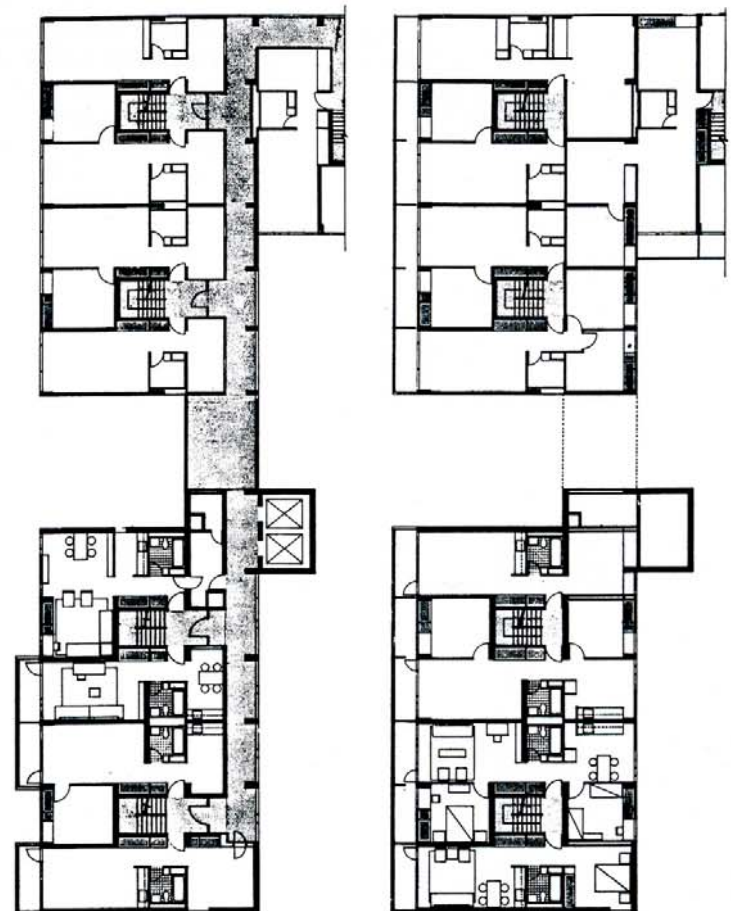
The austerity of the public spaces was seen as a liability. The dark surfaces of vestibules and corridors were replaced or repainted; new signage help visitors negotiate the labyrinth of stairs and hallways created by the skip-stop elevator system. The common room on the central plaza has been refurbished and made accessible, but the convenience shops that once activated a corner of the plaza – long since vacated – have not been replaced. (continued on page 105)



MODULAR UNIT OF SIX APARTMENTS



DIAGRAMMATIC SECTION, SHOWING ELEVATOR STOP FLOORS



TYPICAL CORRIDOR FLOOR

TYPICAL OFF-CORRIDOR FLOOR

20'/6m

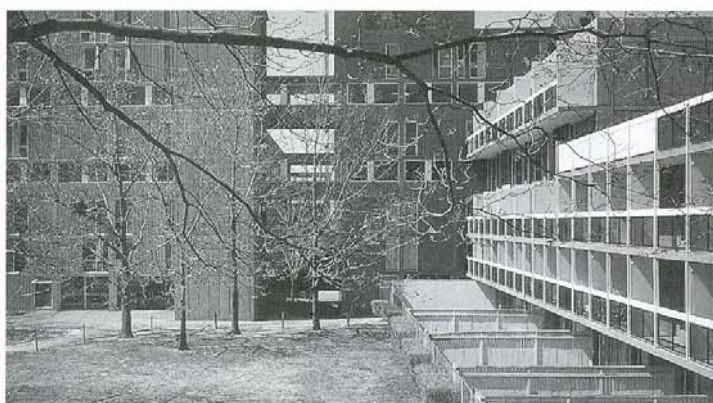




Steve Rosenthal



Steve Rosenthal



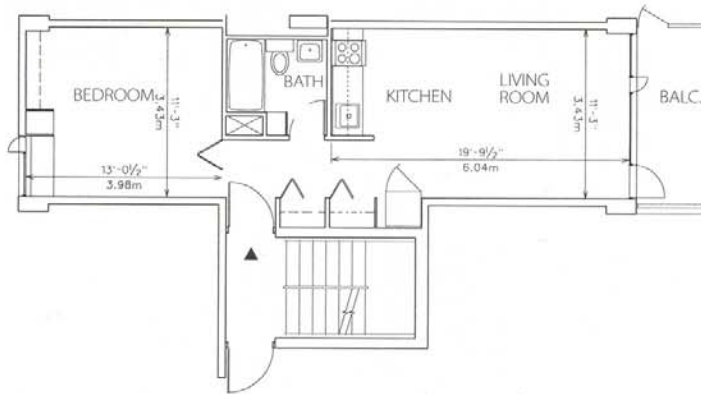
John Morris Dixon

The building block of the entire complex is a three-story, six-unit module (facing page, top) laid out around a central stairwell, with an elevator corridor only every third floor. Most apartments thus run through, with two distinct exposures. The standardized unit lent itself to very economically cast-in-place construction – about \$15 per square foot in 1964. There were so many variations in plan, wall treatments, and balconies that the rehab architects found 400 different versions among 500 units.

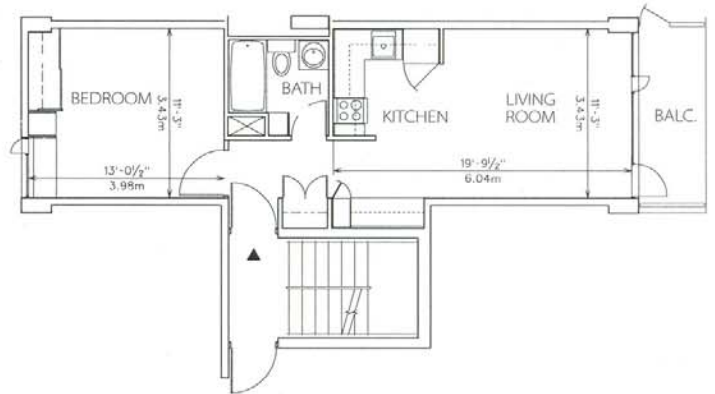
First-phase renovation included installing an iron fence around Peabody Terrace reminiscent of other campus fences, which violates the original concept of an uninterrupted ground plan. On the other hand, the original fences around individual yards (bottom left) are being removed and replaced by common fenced yards (above); the typically short-term tenants rarely gardened these tiny plots, which became unsightly.



## YESTERDAY'S PARADIGM, TODAY'S PROBLEM

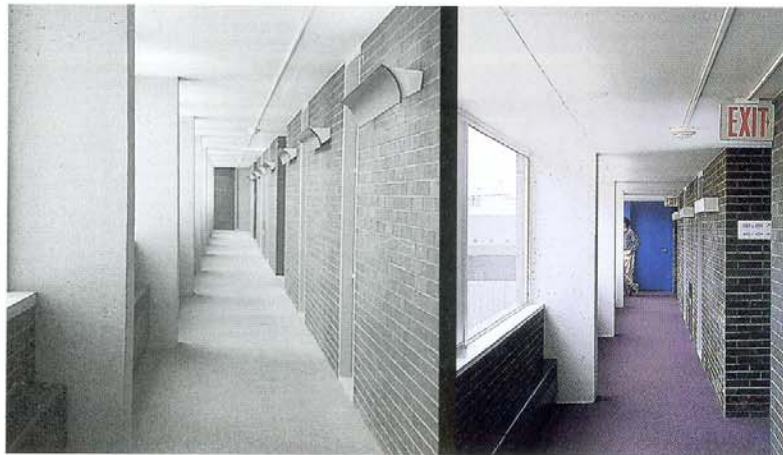


TYPICAL ONE-BEDROOM UNIT BEFORE



TYPICAL ONE-BEDROOM UNIT AFTER

10/3m



Color photos: Steve Rosenthal



Floor plans above indicate the modest extent of changes to typical units: folding bedroom door, intended to maintain fluidity of space, was replaced to give greater privacy and eliminate a maintenance headache; revised bedroom dimensions reflect the covering of exposed concrete walls with painted gypboard.

The bedroom window wall (bottom left photos) originally included a standard closet and desk, with a curtain that screened either or both, but could not cover the window while the desk was in use; the current arrangement of closet doors and window curtains is more conventional, but it works. The fin-tube radiator that originally ran along the closet floor is now housed in a convection base beneath a raised closet floor, so that the heat warms the room, not the shoes.

Kitchens (middle left photos) now require counter space for microwaves and other appliances. The original linear layouts have been expanded into Ls, with more cabinets on a facing wall; cabinets are faced with white laminate, and have hardware that architect Cott calls "battle ready." Vinyl asbestos floors were removed and replaced by new synthetic tiles. Previous improvements had included sprinklers, with pipes that remain exposed.

In the apartment corridors, concrete surfaces that had been painted gray after they dirtied were repainted white; wall lighting was replaced with similar new units. New signage throughout helps residents, guests, and even maintenance staff, find their way through the labyrinth of skip-stop elevator scheme, with stairs from the corridor to most units.



The central plaza itself had been designed as an uninterrupted brick plane. By the time of this rehab, its austerity was seen as a drawback, and architect Paul Krueger, a member of Sert's original project team, was commissioned to make it more inviting. He has undoubtedly provided more greenery, plus some new places to pause or sit, but there is little to distinguish it from a thousand other plazas.

Modest efforts have been made to improve pedestrian routes through the project. Sert had conceived of the central east-west walk as a public route from the community to the river, but neighbors never seemed to feel comfortable on Harvard turf. Meanwhile, resident traffic typically entered from the north, along the edge of a parking lot, a route that has been widened and repaved to give it some dignity. And the "big eye" lights once mounted atop the towers for security have been replaced with lighting less suggestive of a penitentiary.

### Resident Opinions

Current Graduate School of Design students living in renovated units at Peabody Terrace generally appreciate the original design qualities and the success of the rehab. They find the space adequate for their needs – and perceptually expanded by generous windows and wide views – but they acknowledge that families must feel cramped. They feel that increasing the kitchen counter space was an imperative but the energy savings of the new window walls are reportedly countered by the widespread opening of vent panels to deal with excess heat from a system that is not adequately zoned.

Architect Tod Aufero of New York, one of many GSD alumni who have lived at Peabody Terrace, did a "critical redesign" of the complex as his master's thesis. His studies showed that all of the site's units could have been accommodated in four-story structures, and that the need for a garage could have been obviated by some additions to the original street grid, with resident parking stickers. High towers, street closings, and garage construction were not, in fact, necessities, but Modernist preferences.

### Landmarks Worth Careful Renovation

For all their flaws, the Peabody Terrace buildings deserve the meticulous renovation they are getting. While one could question the cautious redesign of the plaza and some interior resurfacing that blunts the original design, it is hard to argue with user satisfaction as a criterion.

It is particularly timely to reconsider the value of Modernist work such as this, based on Le Corbusier's example. Dating from a time when Modernism was tending toward the sobrieties of Miesian Classicism, Kahnian gravity, and Brutalist bulk, these buildings were maintaining an earlier Modernist vision of lightness, brightness, and moderate scale, even at large size. At the same time, they represent a pioneering, if tentative, recognition of context. Peabody Terrace may now be rehabilitated in terms of its place in history, as well as its function at Harvard. □

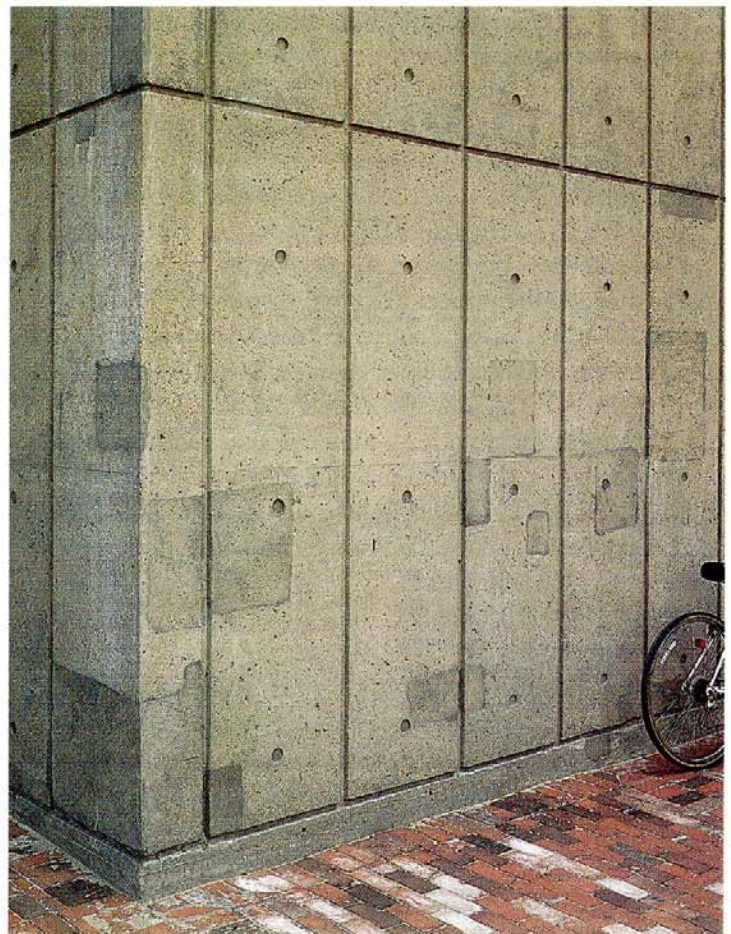
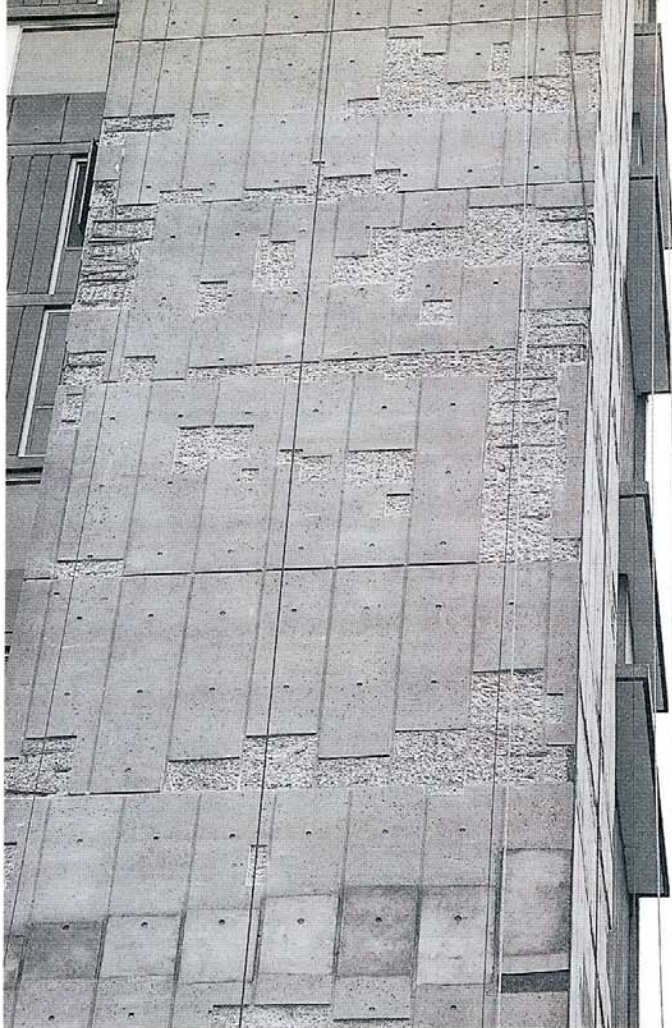


Sert's design of the window wall pointedly separated glazing from ventilation openings, which had vividly painted hinged panels. Exposure was acknowledged by putting all corridors on either north or east sides, balconies to south and west. To the south, limited glazing and balcony overhangs provided for sun control. To the west pivoting vertical louvers were used for sun control; most louvers had ceased to pivot at some point, but were repaired before this rehabilitation.

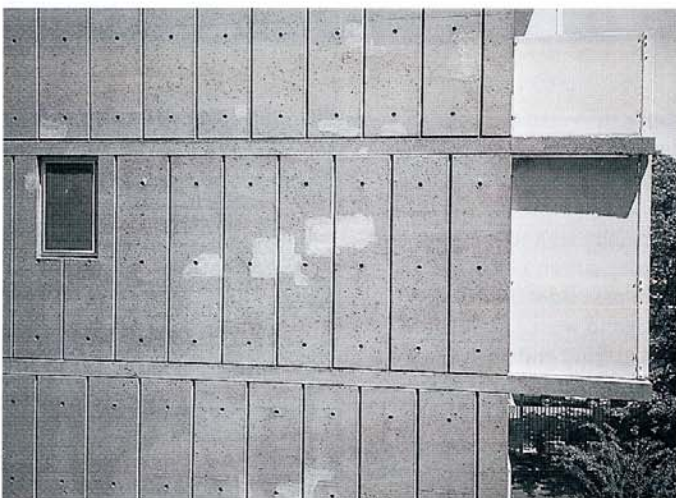
The apartment windows and ventilation panels have been totally rebuilt. Single panes of glass in steel frames have been replaced by insulating glass in thermal-break aluminum frames, which have been internally reinforced in order to maintain profiles similar to the original ones. The ventilation panels, originally simply sheet steel, have been replaced with insulated, weather-stripped aluminum units; the vivid red and green of these panels are now truer to the original colors than were intervening repaintings.







Steve Rosenthal



The massive cast-in-place concrete walls that figure so prominently in both the structure and image of Peabody Terrace posed a serious restoration challenge, prefiguring the problems hundreds of 1960s structures will present. (A nearby example is Harvard's nearby Carpenter Art Center, by LeCorbusier with Sert, where concrete is also beginning to spall).

In the early 1960s, there was apparently too much confidence and not enough experience in casting. At Peabody Terrace, some of the rebars bowed out of position, especially near the bottoms of pours, so they had an insufficient covering of concrete. The result was scattered spalling, typically just above floor lines.

Before this renovation, the university had commissioned a thorough survey of concrete deterioration, and all spalling areas had been patched with a concrete that was harder, whiter, and smoother than the original, so all too visible (bottom left photo). Now defective areas are being cut out and in many cases extended to visible form joints (top left photo), to minimize the patchy look.

Working with Boston Building Consultants, the architects and contractor determined to use sand from the original pit, with no coloring agents. The original texture was effectively duplicated by embedding soluble gelatin pellets in the new surface. In the only completed phase, a sample panel was not approved until July 1993, so that much of the actual patching did not cure completely before an unusually harsh winter. Faced this spring with patches that are too dark, especially around the edges (photo above), the contractor has been trying some bleaching agents.

Fortunately, as the complex was being designed, Sert's firm was making increased use of precast components. Factory fabricated with greater precision, the precast infill wall panels are virtually unflawed after 30 years of Cambridge weather.

It remains to be seen whether patches in Peabody Terrace's cast-in-place concrete can ever be rendered invisible. Architects restoring the many other concrete monoliths of the 1960s can look to this project for its lessons.





Steve Rosenthal

Sert's Peabody Terrace plan showed three major courtyards, two planted and the central one paved with an unrelenting brick surface (right) that he hoped might be a setting for meetings and rallies. (For children, there is a playground at the southeast corner of the site, and smaller play yards outside day-care areas.) In this renovation, Harvard wanted a more inviting central plaza (above) that might encourage residents to pause and socialize. Architect Paul Krueger has provided a variety of planting beds and seating areas; clearer definition is given to the original main pedestrian spine (right to left in photo above) and the more frequently used route linking the complex to the rest of Harvard (right side of photo above). The result is a more humane space, with a better sense of orientation, yet lacking strong visual identity. It is certainly not fortunate that one of the 22-story towers casts a midday shadow across much of this space (right; also aerial photo and plan, pages 100-101).



**Project:** Renovation of Peabody Terrace apartments, Harvard University, Cambridge, Massachusetts  
**Renovation Architects:** Bruner/Cott & Associates, Cambridge (Leland Cott, AIA; Lynne Brooks, Oliver Radford).  
**Original Architects:** Sert, Jackson & Gourley, Cambridge.  
**Client:** Harvard Real Estate, Inc. (Scott Levitan, Assistant Vice President for Construction and Plan-

ning; Susan Keller, Assistant Vice President for Residential Housing).

**Project Manager:** Harvard University Planning Group.

**Consultants:** Norton Remmer, codes; Foley & Buhl Engineering, structural; Zade Company, mechanical; Diversified Environmental Corp., hazardous materials; Krueger Associates, landscape.

**Construction Manager:** Barr & Barr, Inc.