Lovett Square Condominiums, Houston, Tx

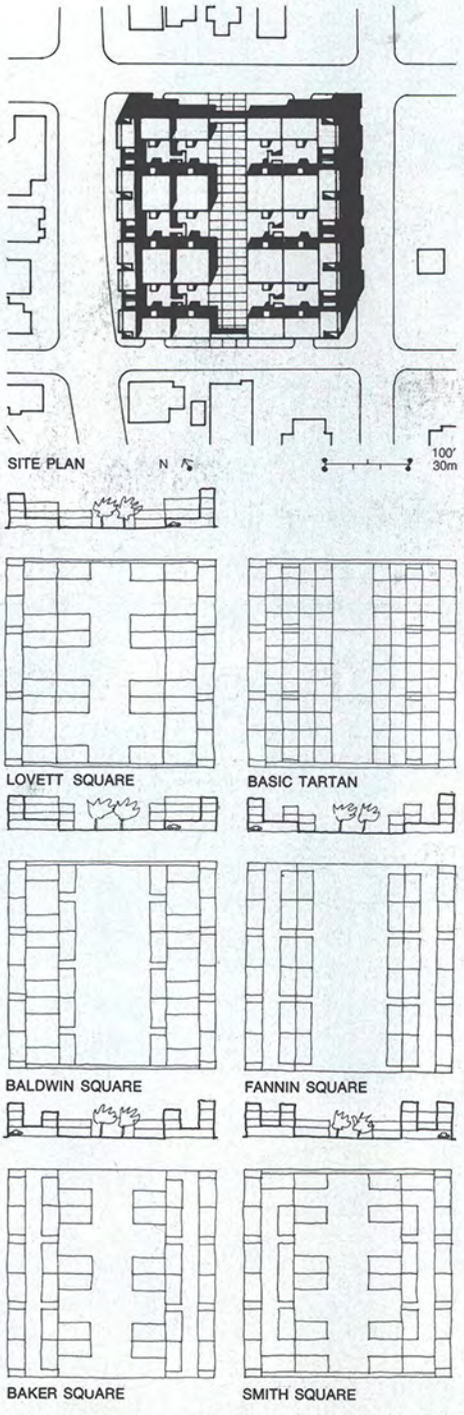
Compound interest

Changing realities in the housing market are beginning to produce new responses in architectural form. This transitional project suggests the shape of some things to come.

Housing in Houston, Tx, has generally taken the form of the single-family residence, and any historical survey of housing types there produces a distinctly antiurban impression. Apartment housing, even condominiums which physically resemble the image of high-rise, high-density housing, has never caught on. A favorite has been the duplex, and its contemporary version has emerged, even in condominium form, as the "garden apartment," a somewhat higher density development where group form defines a series of related courtyard spaces.

Within the last half-decade, changing realities of urban living have begun to create the need for new responses in housing. Houston has begun to have its share of transportation problems. But, as a city where 40 percent of the incorporated area is undeveloped land, the potential for infill development or housing more closely related to centers within a dispersed network has given rise to new forms to fit a changing context.

As was reported in *Harper's* (December 1978), "The price of land has consistently risen faster than the consumer price index. Land values are outpacing population growth by a ratio of ten to one. At the end of last year, the average price of residential land was rising two to four times faster than the price of the house that would sit atop it." In addition, financing costs—interest rates—have nearly doubled since the late 1960s, and sales prices have gone up correspondingly. Sociological patterns have also indicated an enlarging market of people who are willing both to live closer to work and to have less outdoor space directly associated with the dwelling unit. All of these pressures have contributed to a need for higher-density housing forms, making greater use of available land in desirable locations and better efficiencies in development and construction.



Transitional prototypes

Because of a variety of historical circumstances, Houston contains fairly large tracts of land in proximity to the Central Business District and with easy access to multidirectional freeways. These tracts now contain a hodgepodge of uses (since Houston has no zoning), yet readily could lend themselves to more intensive redevelopment. As extensions of the original city tracts, the majority of these blocks are 250 ft square.

Bill Cannady, principal of William T. Cannady Associates, has had a personal interest in this issue for some time. As a professor at the Rice University School of Architecture, he has offered numerous design studios investigating the potential patterns for housing within the central city square block, hoping to discover some basic principles which reconcile intentions for good housing standards with the constraints of the actual marketplace and city requirements. In this way, the distance between theory (in the academic world) and practice (in the world of a small office seeking commissions) has been kept close, so that one aspect informs the other.

One bias which Cannady brought to the problem is toward a redefinition of streets by pushing building fabric to the edges of the blocks. However, Houston has no sliding scale ratio of the number of automobiles to the number of bedrooms, and the need to fully provide for parking as well as to create a direct parking-to-unit relationship was clear. The garden apartment model simply was not applicable in an inner-city context, since it generally separates units from parking and consumes

more land in the process. Wood-frame construction was dictated by the scale of the potential projects, limited to three stories in height (although actual height can be increased through a complex formula interpretation of "mezzanines") with two means of vertical egress.

An examination of the typical room program for the target market gave rise to some magic numbers which began to work well with the eity block dimension. A subdivision of 62.5 ft worked well with parking, and a unit dimension of 20 ft worked well with internal spaces as well as exterior space design. In terms of group form configuration, other contextual forces were responded to, primary among these being a recognition that north-south streets are generally one-way feeder streets to or from the CBD, while east-west streets have less traffic on them. This seemed to warrant a more uniform, tightly configured perimeter along the high-volume streets. Additionally, in terms of group form, the concept of a central open space as focus with modulating subspaces would define the vocabulary of exterior space configuration.

The sum of these principles led to the evaluation of a prototype "tartan grid" (see diagram) which contained within it a number system synthesizing aspects of program, vertical staircases, parking, a geometry of open space, and variations in building massing. This tartan grid became the tool with which a gradual evolution of specific solutions to the new urban housing problem could be developed.

Lovett Square (see P/A Awards, Jan. 1978, p. 79) was the first of a series to be designed from this grid; therefore, certain specific concessions had to be made to overcome market resistance as well as to respond to the particular transitional context within which the project would be developed. Its basic principles were the same as those which Bill Cannady and his design teams have used in subsequent projects within Houston's central area (see diagrams).

First steps

One of the first impressions of Lovett Square is its image, approaching that of an enclosed compound. By placing the parking along the perimeter north-south streets and constructing this portion of the project in concrete (with a three-hour rating), it was possible to develop three-story elements over this in wood frame (with a one-hour rating), resulting in a total height of four stories at the outer edges. It is these edges which read nearly continuously and contribute to the overall sense of enclosure. Parking at the lower level, which is organized as one-way in/out from the side streets, is enclosed behind metal grilles, which in turn will be landscaped and

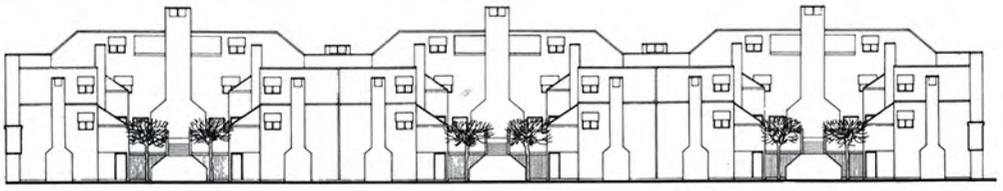
Image of contained compound (above) is emphasized by nearly continuous wall on periphery.

Visitors' entrance (above) leads into central spine connecting six clusters (below).

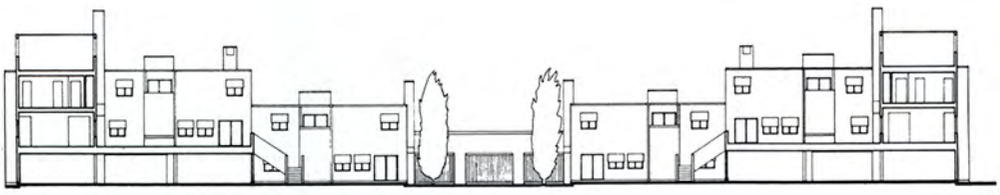
vine-covered. However, the essential reading at this scale is that of a wall.

Contrasting with this is the step section which becomes apparent on the east-west, more quiet, tree-lined streets. Here one becomes aware of the principal interior court, the articulation of the six clusters containing six units each, and the circumstantial events of fireplace enclosures, stairs, and entry/balconies.

It was Bill Cannady's intention to develop exterior spaces without providing particular courts or patios for each unit. The developers responded positively, and the insertion of the perimeter parking level created secondary raised courts flanking the central spine. It is the footprint of the building over this arrangement which suggests an association of exterior space with individual units. It will be interesting to observe to what degree and in what fashion owners attempt to associate any of the court spaces with specific units. The central spine running north-south connects the two public entry points and ties the clusters together. In an elaboration of an earlier diagram, the crossing of the spine with the opposing courts of east-west clusters has become articulated as a kind of miniplaza. This is also the point where variations in planting will create separate identity for each cluster (redbud, sycamore, sweet gum, etc.). All of these slight elaborations would seem to provide sufficiently articulated spaces so that each unit can have a sense of associated space; this is furthered by the opposing step-terraces which create a false perspective and make the distance between clusters appear greater, or give the illusion that each individual unit might lay claim to a piece of the exterior without its actually being physically defined.



SECTION—NORTH/SOUTH



SECTION—EAST/WEST

20'
6m

Upper-level roof terrace (above) evokes truly urban character of high-density housing (below).

Defining your type

There are actually only two unit types, although the position within the section and relation to an end condition effectively provides six unit variations. Two-story "A" and "B" units differ in that the former have direct kitchen access from parking and the fireplace is rotated in plan. Otherwise, the end conditions also provide for minor differences between all three unit types. Unit "C" is a three-story variation and has among its features the largest exterior terrace, a true roof garden overlooking the entire complex, providing a diagonal view above trees to the CBD skyline.

The architect's role in the development process was an evolutionary one. As may be seen in the published plans for the "C" unit, the original concept for space planning called for the kitchen core to act as a divider. However, the developer insisted

on one large room, correctly so as Bill Cannady freely admits, since many of the owners are moving from large homes and the single space allows them to keep more of their furnishings. The "A" and "B" plans reflect the changes made as the project advanced; because of the single 20-ft truss-joist span, this change could be accomplished late into the project. This shift still permitted entries for "A" and "B" units to be defined as an interior threshold against the vertical staircase, but the gains for the "C" unit, because its vertical stair is located against a sidewall, have to be measured against an entry which unfortunately now opens directly into the living area.

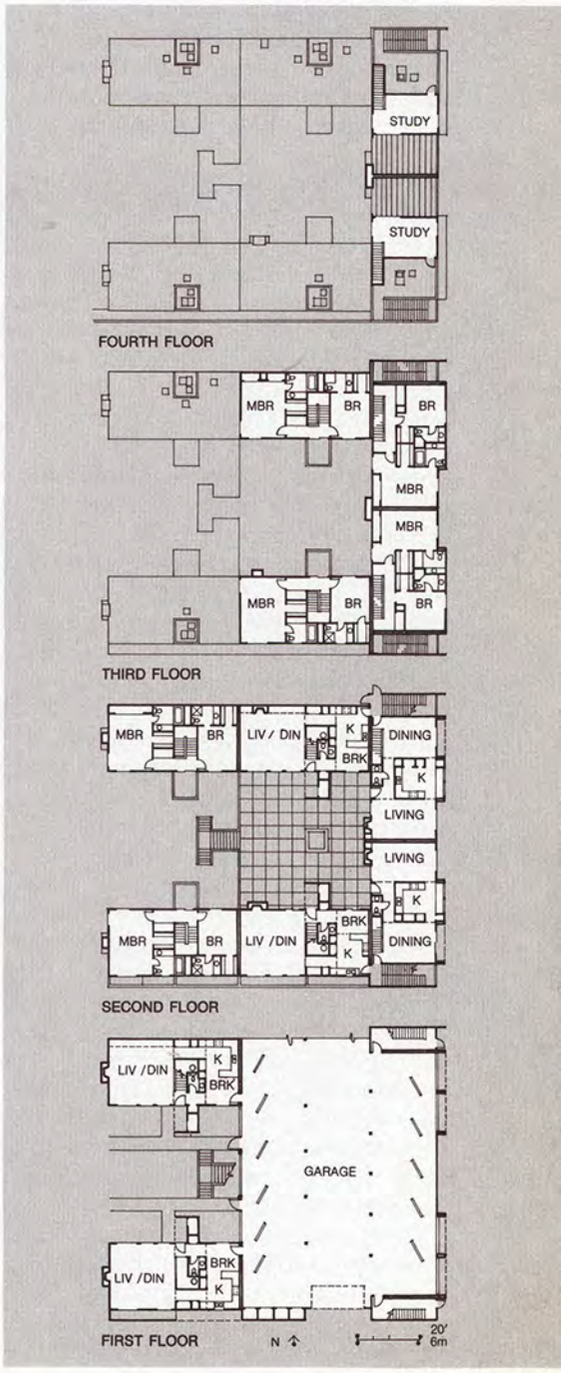
While the Cannady team was asked to provide complete plans and layouts for kitchens and baths, no interior elevations were made. Decorators developed interiors for owners so that, while most cabinetry was prebuilt, for example, there are some ten finishes. This does not include the selections of carpeting and wall covering which abound. Fortunately, the architects were able to continue the Saltillo Mexican tiles used for the exterior courts throughout the ground floor, and many decorators took the cue to trim the fireplace enclosures in the same finish.

Exterior treatment was developed initially by creating a "spec" for each room type, defining window size and location (e.g., center on fireplace) as well as special considerations (e.g., cross-ventilation). Variations were then introduced for particular circumstances, and the exterior pattern was developed by setting certain continuous lines by the expansion joints of the stucco finish and allowing certain interior elements on a regular system to read through (e.g., stairs, 20-ft bay dimension). In summary, the method was an interactive resolution between hard-nosed pragmatic standards and visual or compositional issues.

Such is also the case in returning to one of Lovett Square's fundamental criteria: the relation to parking. All units are intended to be entered through the public courts, and while the "A" units have the direct access already mentioned, the secondary fire stairs have also been located so as to be equally convenient within the parking garage and to serve in turn as a "back door" which, at the second landing, enters directly into the kitchens for "B" and "C" units. Therefore, there is both a diagrammatic clarity of the relationships to the intentions for group form, and a recognition of some of the more basic criteria for individual units.

It is through treading the fine line between realities of the development market and true innovation that the Cannady office has begun, in Lovett Square, to provide for a new form of Housing in the Houston context. The analysis of urban geometry as a potential for the elaboration of basic principles, in terms of specific projects, places Lovett Square as one of a series of explorations. The methodology, having its roots in a specific list of pragmatic criteria, has informed rather than constrained the decisions during the course of design; accepting the criteria of the marketplace is seen by Cannady as being essentially liberating, challenging those areas where the designer can be innovative. Their subsequent projects and further investigations will continue to be of interest in this regard. [Peter C. Papademetriou]

Organization as a series of clusters along a common linear spine is basis of scheme (above).



Data

Project: Lovett Square, Houston, Tx.

Architects: William T. Cannady & Associates, Inc. Design team: William T. Cannady, principal; Robert Anderson, Nonya Schwartz, Richard Beard.

Site: 250' x 250' block in low-rise residential neighborhood located at edge of downtown Houston commercial district.

Program: speculative housing project for upper middle class market. Thirty-six condominiums to provide a variety of unit types, privacy, security, and a sense of community for a primarily adult market.

Structural system: under-reamed bell footings, post-tensioned slab, precast concrete garage, columns, beams and slab, wood trusses and joist.

Major materials: stucco exterior walls, gypsum board interior walls, bronze-aluminum single-hung windows, ceramic tile floors, built-up roofing (see Building materials, p. 120).

Mechanical system: electrical heat and air-conditioning system with split coil condensers.

Consultants: Nat Krahl & Associates, structural.

Client: Beard, Joubert, Rathjen Development, Doyle Beard.

General contractor: Beard Construction Co.

Costs: approx. $1,800,000; $30 per sq ft.

Photography: Rick Gardner.