IN SUPPORT OF A NEW LIFE: A SHELTER FOR VICTIMS OF DOMESTIC VIOLENCE

Ben J. Refuerzo

Stephen Verderber

The design of a shelter for victims of domestic violence is presented. The shelter design is based on a three year investigation of the building type which consisted of empirical survey research, post occupancy evaluations of numerous existing shelters, the development of design guidelines, and development of prototypical design responses for various site and program contexts. The work is presented as a basis for further research-based design for this rapidly evolving building type. Research and design limitations are discussed, as are opportunities for further work.

INTRODUCTION

The problem of domestic violence against women and children has risen to alarming rates in recent years. The National Coalition Against Domestic Violence (NCADV) reports that in the United States, a woman is battered every eighteen seconds (1989). Approximately 880 shelters whose purpose is to provide refuge for those rendered homeless because of battering are currently in operation in the U.S. The majority of shelters operate well beyond capacity (Vapnar, 1980; Pleck, 1982; NCADV, 1989). Shelters are located in urban, suburban, and rural locations; most are in buildings adapted for re-use, and few have been designed specifically for this purpose (Greer, 1986). Most shelters are "secret places," since anonymity is preferred as a way to protect shelter occupants. For the most part, architects and other designers have lacked adequate information to deal with this complex, emerging building type.

This report documents one component of a two year research project on the architectural needs of shelter staff and residents (Refuerzo and Verderber, 1988a; 1988b; 1989a; 1989b; 1990a). The results of this project are significant from the standpoint that: it is the first empirical investigation of environment-behavior transactions in shelters and of user response to the design and imagery of shelter facilities; it is the first attempt to summarize prior literature on the battering experience in terms of its architectural implications, on the assumption that a critical need exists to create a safe and secure environment supportive of shelter counseling programs (Martin, 1977); it is the first attempt to study a number of shelters from a national case study perspective. Post-occupancy evaluations were conducted and the research team also provided programming and/or design services; and it is the first set of detailed architectural guidelines developed for the planning and design of shelters. The guidelines address the major issues of community context, site design and landscaping, architectural imagery and configuration, internal spaces and spatial relationships, and the highly specialized needs of residents and shelter staff. The guidelines (149) are based on quantitative and qualitative field work; the majority of the work can be generalized easily to other shelters for women and their children. Due to space limitations the reader is referred to the multi-volume research report which documents the project, including an in-depth discussion of the guidelines (Refuerzo and Verderber, 1988a). Individual phases of the work have appeared in subsequent publications (cited below). Guidelines specific to site planning and the incorporation of landscape have been reported elsewhere as well (Refuerzo and Verderber, 1988b).

Data were gathered in the Washington, D. C. area, St. Louis, New Orleans, Austin, Alaska, and the Los Angeles metropolitan area, giving the new knowledge generated by this research a national focus. Clients who have commissioned the R-2ARCH team's research-based architectural design work for implementation, at this writing, are located in Louisiana, Texas, California and Maryland.

A series of post-occupancy elevations were conducted in the aforementioned locations. Interviews were conducted with residents and staff, and a user needs analysis survey of occupant-user satisfaction was conducted. Each setting was documented via photographs and drawings (Zeisel, 1981). The results of the empirical field work were analyzed separately and collectively.

Personal status, a subset of daily activities, and one's use of his or her shelter were examined relative to staff and resident assessments of satisfaction (Refuerzo and Verderber, 1989a). Causal relationships were explored via a series of regression analyses. Among the findings, residential satisfaction was found to be predicted by one's psycho-emotional condition and the

status of one's children. Site-locational aspects associated with satisfaction included the quality of outdoor play areas for children and the sense of safety in the immediate neighborhood. In general, residents were more directly influenced by their shelter compared to staff, and second, personal status is a more useful indicator of residential satisfaction than the ways in which occupants actually use their shelters.

In response to the need to explore person-environment transactions in shelters, an empirical investigation was developed (Refuerzo and Verderber, 1990a). A photo-questionnaire was completed by 101 respondents (staff and residents) in shelters in Los Angeles and in New Orleans. This yielded nine factor-analytic dimensions addressing preferred shelter exterior architectural imagery and amenities, five factors on satisfaction with one's shelter setting, and five factors on one's psycho-emotional status and patterns of shelter use. A number of staff-resident differences were identified. Few regional differences were detected. Parallels are drawn between these data, the battering experience, and the potential for the shelter environment to function as a source of therapeutic support.

CHARLES COUNTY CRISIS AND REFERRAL CENTER, WALDORF, MARYLAND

Waldorf, Maryland, located approximately 20 miles south of Washington, D. C., is increasingly seen as part of the greater Washington, D. C. metropolitan area. At present, no residential shelter facilities are available in Charles County or in neighboring counties. In response to the outcry from the community, however, the County has generously donated a 3.5 acre wooded site for the construction of a shelter for victims of domestic violence.

The shelter complex includes staff and counseling offices, a community cluster, residential places, a child day care facility, and abundant storage. All components are set into the site with a logic that grows from the site program and the design guidelines. The public sphere of the complex looks out to the visitor and outside community, while private spaces look inward. Each major area has its own exterior square which acts as both a transitional space and extension of the interior. The reception area and administrative offices act as the gate-keepers and protective buffer for the remainder of the shelter complex. The "wall" (actual or implied) surrounds the entire site, embracing all the house forms and providing security and sense of community. The highest priority for the overall design was to respond to the challenge of creating a secure yet homelike environment.

Site

The actual site has many advantages. The location is not easy to find, it is spacious, relatively flat, and shrouded in vegetation. The site has excellent potential for community resource linkages since a high school and elementary school are only a quarter mile away, the county police station is nearby, and the potential for transportation linkages is good (Figures 1 and 2).

Upon first approach to the shelter complex, one is immediately aware of both the actual and symbolic sense of the inhabitants being "safe" within the "wall." The entry wall of the shelter is meant to be formidable to the batterer. The single formal entrance asks visitors to pass through a series of gates symbolic as well as real, before they can enter the more private areas of the shelter community.

1. Outdoor Refuge: Places for reflection, intimacy and privacy; territorial needs of residents of utmost priority.

2. Visual Buffers: Landscaping provides protected transition from site to building.

3. Environmental Sound Control: Screens out unwanted noises, reinforces sense of protection and refuge.

4. Site Security: A refuge, safehouse, and home.

5. Protected Public Parking: Buffered from view with landscaping; controlled access; direct visual access from shelter.

6. Serialized Entry: Transitional approach unfolds in sequence, coordinated with parking area.

7. Direct access to community resources: Stores, jobs, health care, schools, etc.
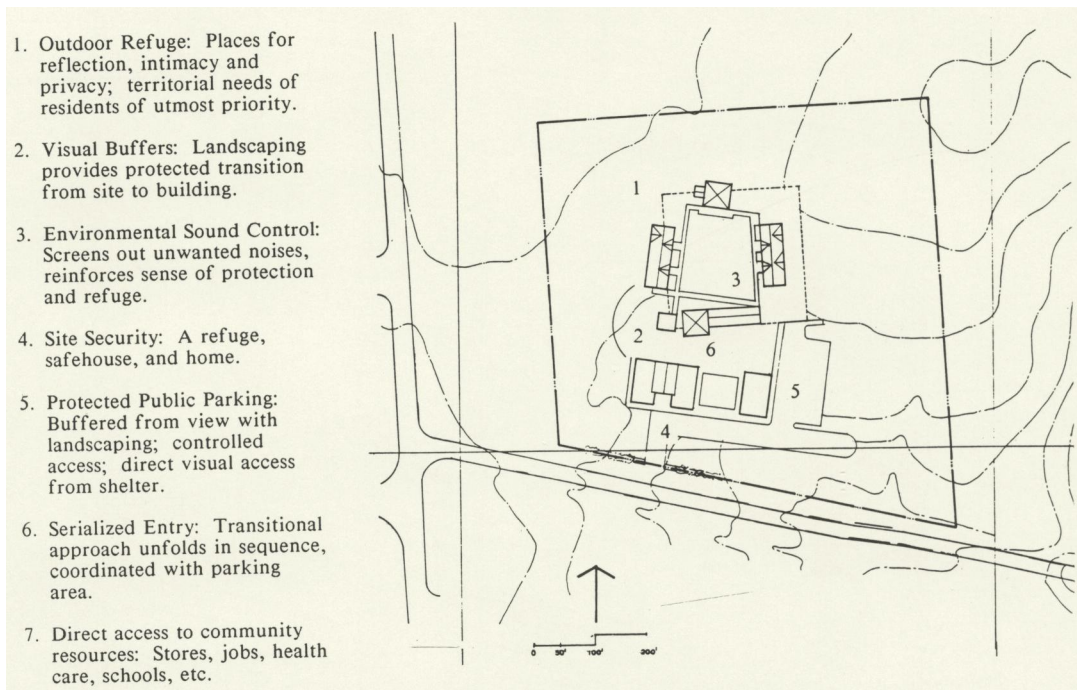
FIGURE 1. Site plan of shelter and immediate environs.

As one circles the perimeter of the complex, the wall begins to soften since the house forms actually take on the role of the wall still maintaining security and enclosure. The lower wall around the courtyards is further softened on the interior through the plantings of hedges and trellises. The wall not only becomes part of the building, but varies in height and materials.

Reception/Counseling Center

Entry into the shelter complex is through the reception/counseling center: the public entrance is clearly defined and serves as the actual transition from the public to the private sphere. This transition is reinforced by a change in materials from the sidewalk to the first exterior space. The gateway represents the entering women and children's first bridge to the healing process (Figure 3).
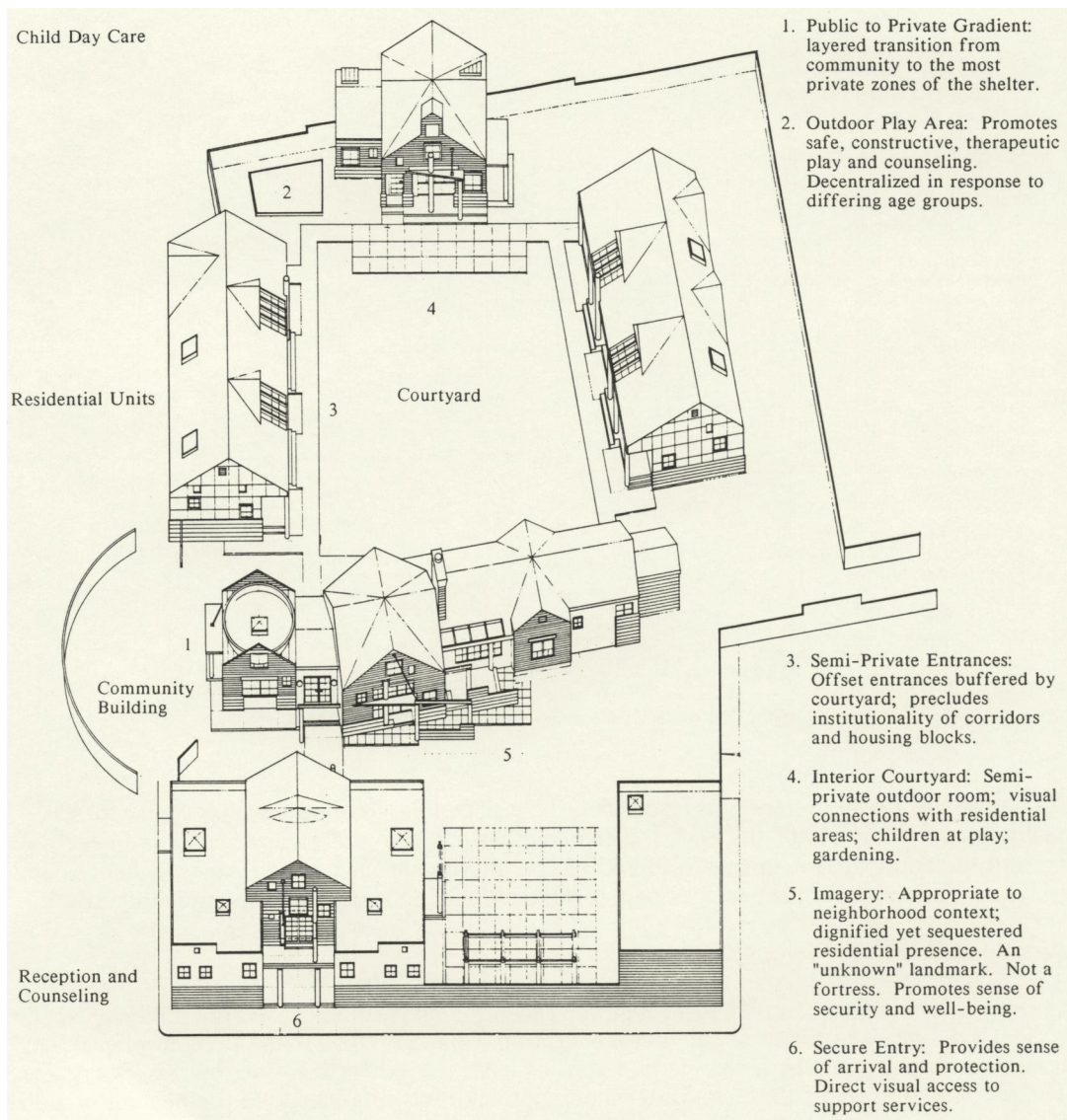
Child Day Care

Residential Units

Community
Building

Reception and
Counseling

Courtyard

1. **Public to Private Gradient:** layered transition from community to the most private zones of the shelter.

2. **Outdoor Play Area:** Promotes safe, constructive, therapeutic play and counseling. Decentralized in response to differing age groups.

3. **Semi-Private Entrances:** Offset entrances buffered by courtyard; precludes institutionality of corridors and housing blocks.

4. **Interior Courtyard:** Semi-private outdoor room; visual connections with residential areas; children at play; gardening.

5. **Imagery:** Appropriate to neighborhood context; dignified yet sequestered residential presence. An "unknown" landmark. Not a fortress. Promotes sense of security and well-being.

6. **Secure Entry:** Provides sense of arrival and protection. Direct visual access to support services.

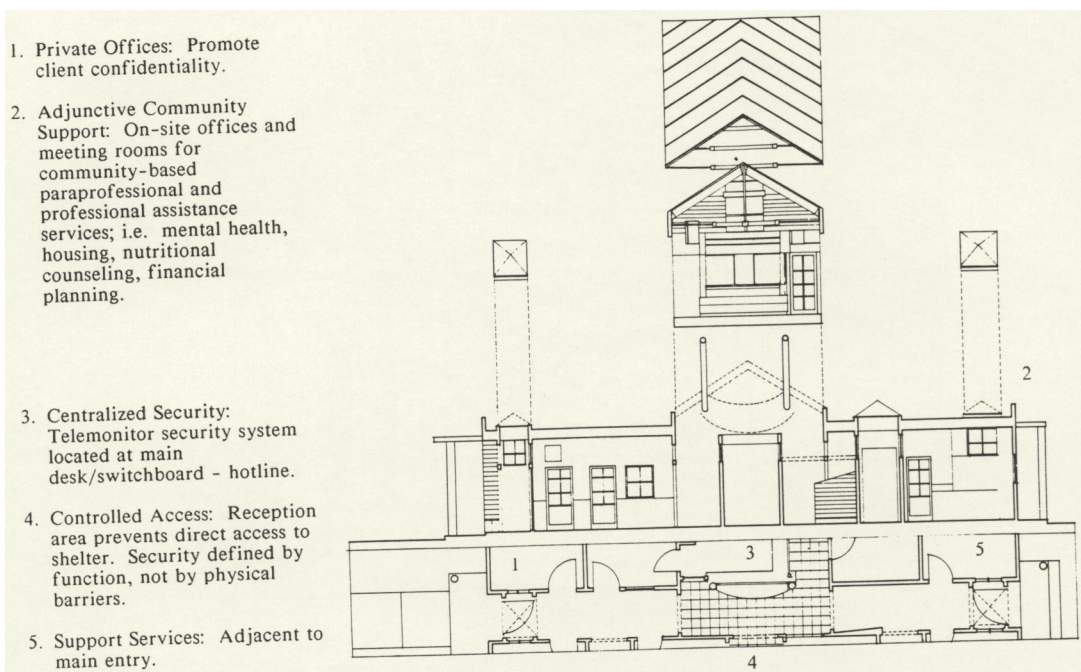FIGURE 2. Axonometric view of shelter depicting public to private gradient in building siting and configuration.

1. Private Offices: Promote client confidentiality.

2. Adjunctive Community Support: On-site offices and meeting rooms for community-based paraprofessional and professional assistance services; i.e. mental health, housing, nutritional counseling, financial planning.

3. Centralized Security: Telemonitor security system located at main desk/switchboard - hotline.

4. Controlled Access: Reception area prevents direct access to shelter. Security defined by function, not by physical barriers.

5. Support Services: Adjacent to main entry.

FIGURE 3. Reception and counseling (partial view) spaces non-institutional in scale and imagery.

The reception station clearly serves as the "eyes" for the entire complex and answers the priority for security. As one enters this area, light, height and space resound with a greeting of welcome (Figure 4).

Flanked on both sides of the central reception are the administrative and counseling offices which further reinforce the strength of this first house both in activity and form (Figure 5). This perimeter location responds to the need for a clearly identifiable entrance for easy access by outside ancillary service providers coming in and out of the complex as well as the counseling process being seen as instrumental in preparing one to re-enter the outside community (Figure 6).

Directly east of this center is the "tranquility arbor," which is designed as a square exterior room. Again, this space is secured by the actual wall on the outside and a hedge wall at the north edge of the square. The space will be used by resident and staff alike.
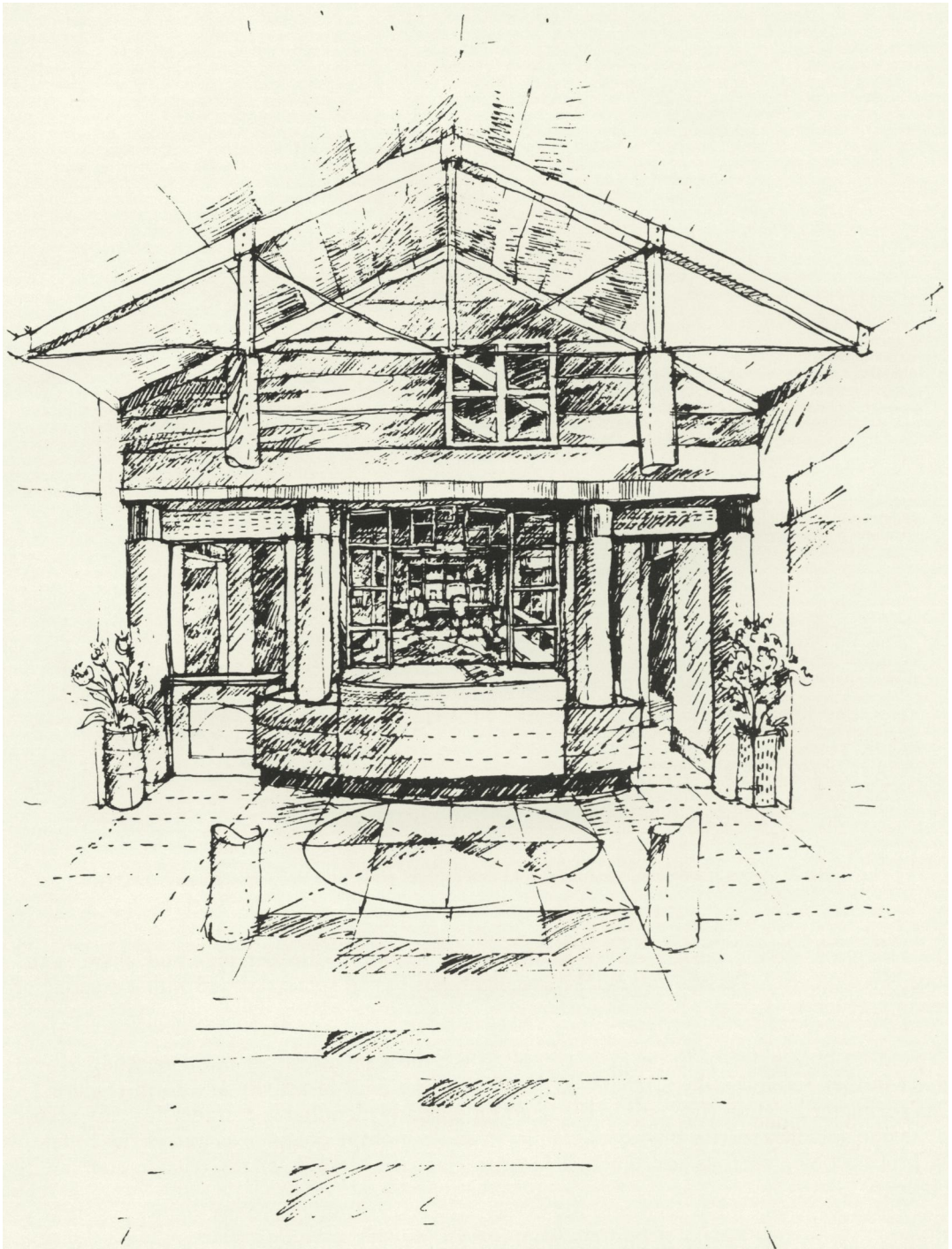
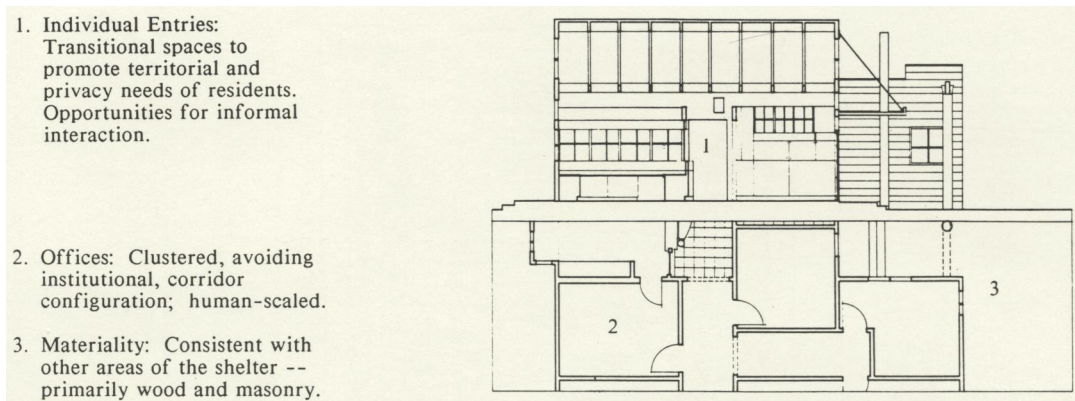FIGURE 4. Reception area centrally located adajacent to counseling and support spaces.

1. Individual Entries:
   Transitional spaces to
   promote territorial and
   privacy needs of residents.
   Opportunities for informal
   interaction.

2. Offices: Clustered, avoiding
   institutional, corridor
   configuration; human-scaled.

3. Materiality: Consistent with
   other areas of the shelter --
   primarily wood and masonry.

FIGURE 5. Staff counseling suites configured to provide privacy and security to residents.

The Community Building

As one moves from the reception/counseling center to the community building, an outdoor grass area is traversed as if passing through the protected formal front yard of the complex.

The community place opens its house form slightly to this front yard with a series of enclosed patios. Entrance through the vestibule is meant to serve as another transitional element. This building is located on the grounds between the more public realm and the private realm, and is meant to be the focus for group interaction and activity. Here, women and children can come together to participate in organized activities, dine, attend group meetings or counseling sessions, or just "hang out" (Figure 7).

Although the community building is linear, it houses a number of activity areas and the majority of spaces flow smoothly together and are strongly interconnected visually.

At the center of the community building is the "grand room" which is like an exaggerated living room. The spaciousness of this room serves multifunctional and flexible groups desires -- or opportunities to create places within places; including chances to congregate or retreat to a niche (Figure 8). The scale changes, scattered alcoves and window seats within the room allow residents to sit alone or congregate in a small group while still feeling connected to the larger community. The room's double height ceiling adds an uplifting feeling intended to symbolize hope.

The grand room essentially has two foci -- the fireplace and the central courtyard. The fireplace serves both as a space definer and a "hearth" of family life. The oversized windows on the north side look outward to provide an emphatic connection to the outside central courtyard. Likewise, users of the covered porch immediately outside the big room are afforded a
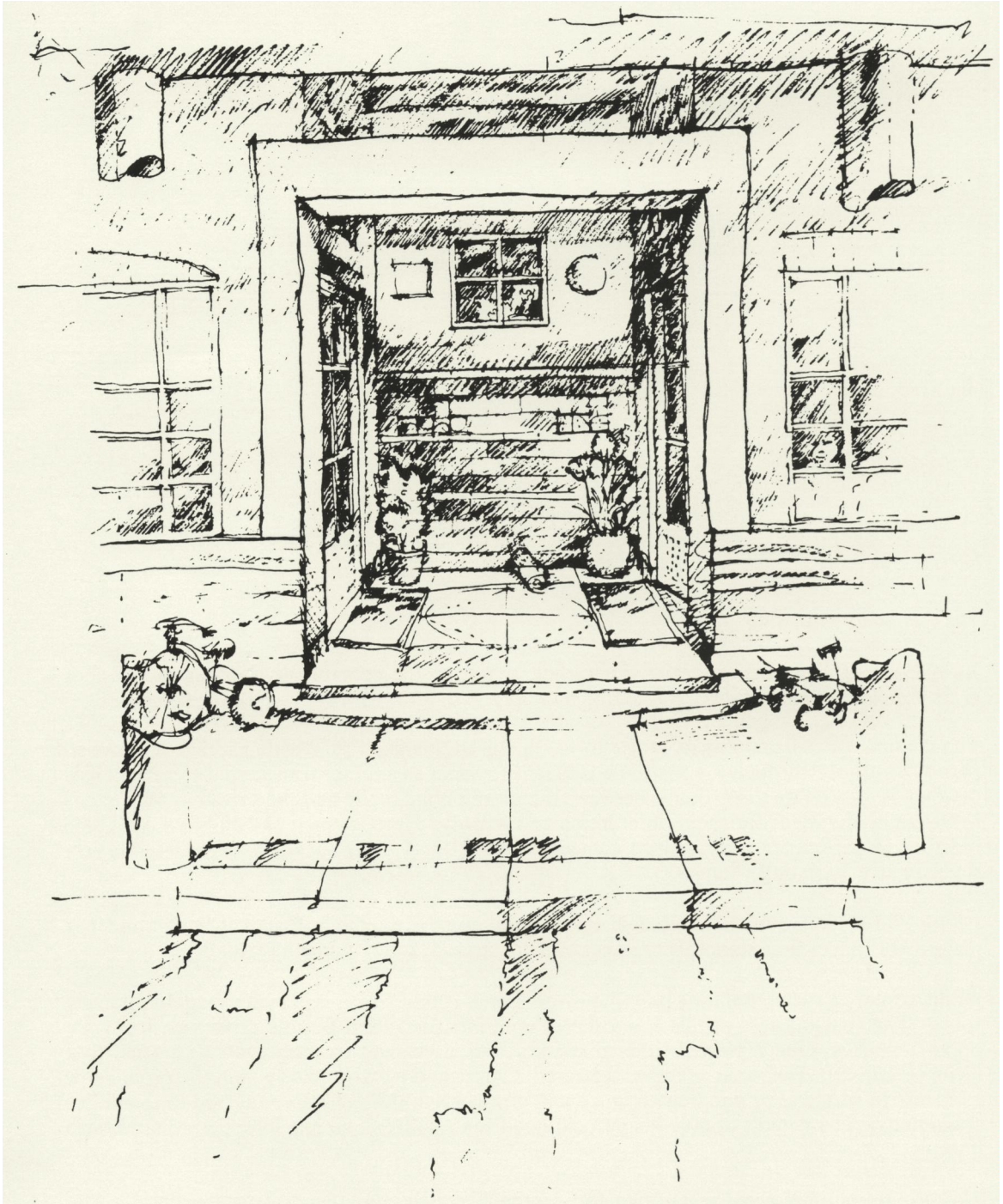
FIGURE 6. Entry to typical residence depicting semi-private transaction spaces and opportunities for personalization.
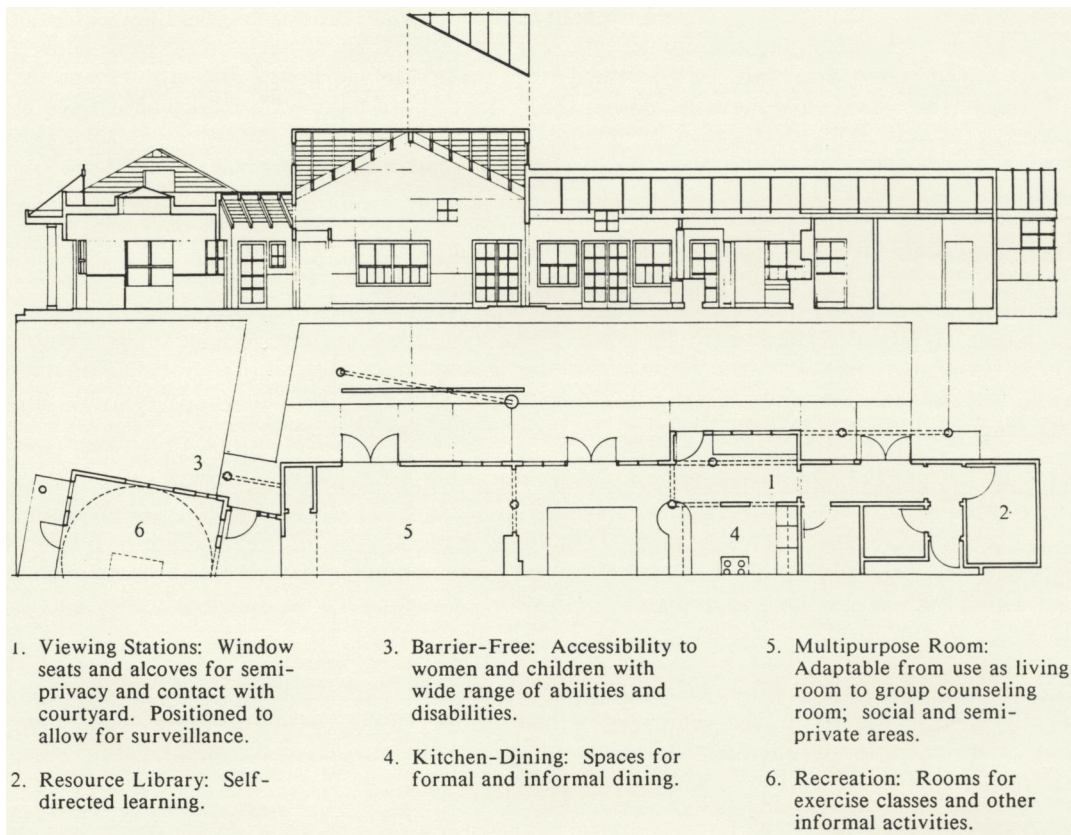
1. Viewing Stations: Window seats and alcoves for semi-privacy and contact with courtyard. Positioned to allow for surveillance.

2. Resource Library: Self-directed learning.

3. Barrier-Free: Accessibility to women and children with wide range of abilities and disabilities.

4. Kitchen-Dining: Spaces for formal and informal dining.

5. Multipurpose Room: Adaptable from use as living room to group counseling room; social and semi-private areas.

6. Recreation: Rooms for exercise classes and other informal activities.

FIGURE 7. Community building houses centralized activities of daily living functions and group counseling spaces.

view back through the community building. From both the interior and exterior point, mothers are offered an unobstructed view of all outdoor activities most notably, their children playing.

The dining and kitchen areas to the east of the grand room continues the theme of being both physically and visually connected to the other community building sections, as well as the outdoors. These areas are spacious enough also for residents to select to either gather around a

large dining table or if they prefer, to eat at small tables. Also located in the community building are the food pantry, laundry, and restrooms.

The rotunda directly west of the grand room is designed to be a resource center as well as large group meeting or therapy space. Its circular form symbolizes unity and is meant to bring people together in a non-hierarchal structure. Unlike the other spaces, it possesses a focus inward.

Central Courtyard

The central courtyard gives the whole shelter complex an internal focus and helps to create a sense of united community among the women and children. This space links the residential living areas, the school, and the community building. Windows of each house form allow a strong visual connection with the courtyard from many vantage points and strengthens the security of the whole environment. Within the courtyard are large and small scale spaces or niches to facilitate both socialization or personal reflection. Encircling the entire central courtyard, and connecting all the house forms, is a symbolic street; which, in turn, is encircled by a sidewalk (Figures 2 and 8).

Residential Units

The living and sleeping places for each family are designed to evoke a true feeling of "home." Each unit has a shared alcove entrance with a liberal (six feet) stoop overlooking the courtyard. These "exterior rooms" create a sense of belonging and connection to the larger community within the shelter. These areas also provide a special place for small children to play and still be near their mother (figure 9).

Interiors of the residential units are divided into three main zones. A small "living room" forms a buffer between the courtyard and the sleeping areas. A low wall separates it from the other zones. Of course, with very large families, this space might also be utilized as additional sleeping quarters. The sleeping areas are large enough to accommodate two double beds or a bunk bed with a built-in storage wall and chest of drawer. A seating bay with high windows softens the space (Figure 10).

The bathing area is shared by two units. It is located in a core adjacent to the living areas. Ideally, each family would have their own bathroom, but budget restraints limited that option here. Bathing is compartmentalized to allow for more than one person to use the bathroom at a time.

Child Day Care Building

This area is designed conceptually as one large multi-purpose room reminiscent of the one-room schoolhouse. It is a flexible room able to accommodate a wide range of activities responding to the children's needs for child care, play, education, and counseling. For example, art therapy and creative activities can be conducted in the "wet area." The softer, carpeted spaces might be used for group games, counseling, reading, block play, and other activities. Ample built-in storage ensures that resources will be available in this area.

The large covered "porch" area can be an outdoor stage or an extension of the indoor area. The hard surface of this exterior space maintains its ability to accommodate both structured
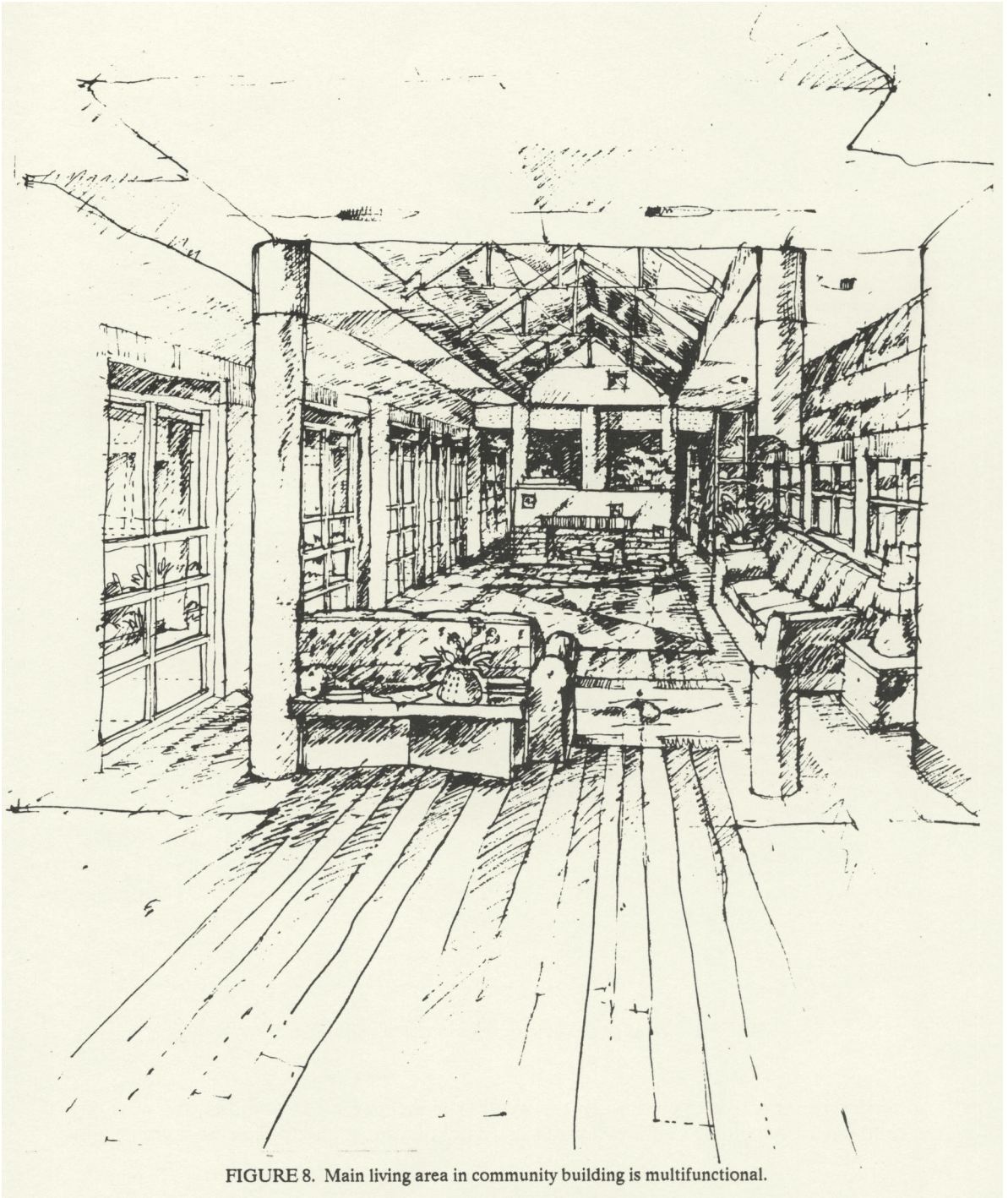
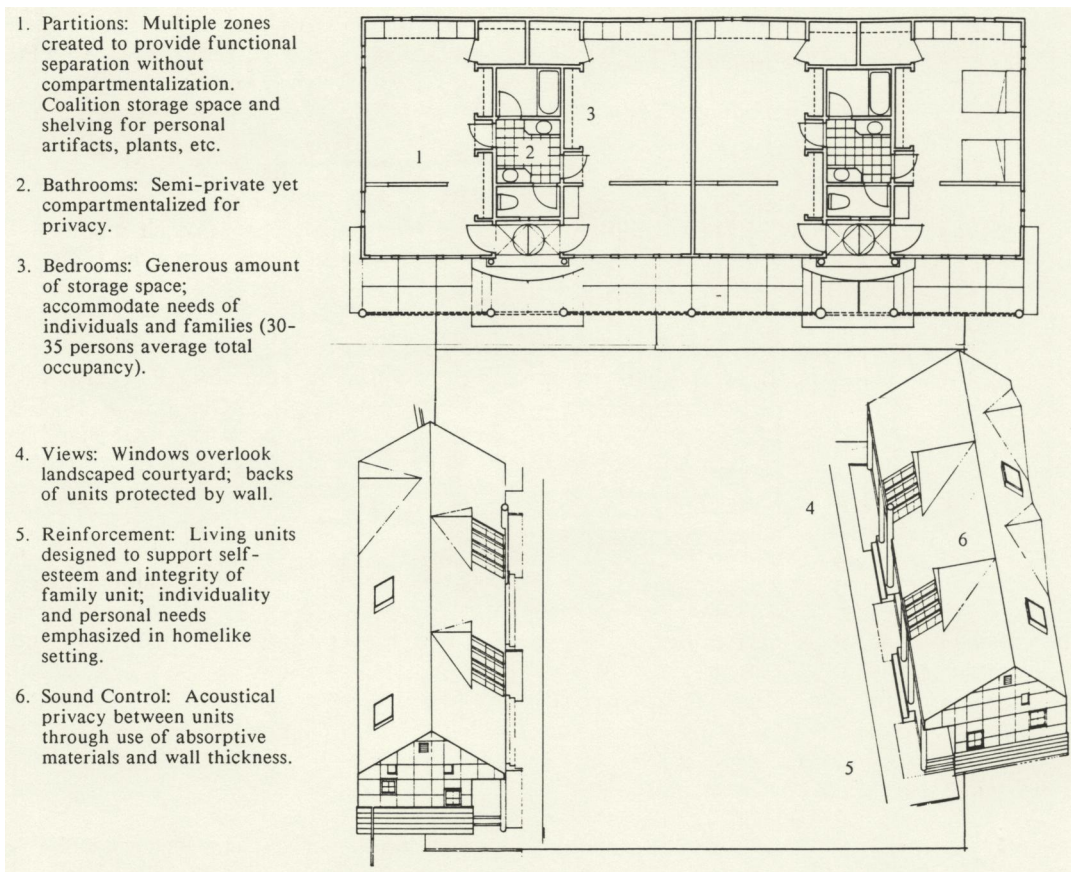FIGURE 8. Main living area in community building is multifunctional.

1. Partitions: Multiple zones created to provide functional separation without compartmentalization. Coalition storage space and shelving for personal artifacts, plants, etc.

2. Bathrooms: Semi-private yet compartmentalized for privacy.

3. Bedrooms: Generous amount of storage space; accommodate needs of individuals and families (30–35 persons average total occupancy).

4. Views: Windows overlook landscaped courtyard; backs of units protected by wall.

5. Reinforcement: Living units designed to support self-esteem and integrity of family unit; individuality and personal needs emphasized in homelike setting.

6. Sound Control: Acoustical privacy between units through use of absorptive materials and wall thickness.

FIGURE 9. Plan and axonometric views of typical courtyard residences.

and unstructured activities even when the weather is inclement. In addition, the west end of the child day care building contains a water and sand play area; and to the east, a grassy area.

The walkway around the perimeter of the courtyard links the child day care center back to their homes and the community building (Figure 11). An overhead view of the entire facility illustrates the siting and scale of its constituent parts (Figure 12).

DISCUSSION

This design for a shelter is but one of many variants which would be plausible based on the empirical research foundation developed prior to the design phase of the work. Urban, suburban and rural variants are possible within the options of choosing to construct new, to add on to an existing structure, or to renovate an existing structure. No two shelter programs are alike, although the battering experience is, geographically, markedly unvaried as a national problem in contemporary variety. Ultimately, this design response is a response to the unique architectural needs of one program, and additional design responses are necessary, based on these criteria, in order to comparatively assess the salience of one variant over another. This work in this sense represents a beginning. New and renovated structures housing shelters that are based on the same research baseline and assumptions need to be comparatively evaluated using post-occupancy evaluation methods.

As mentioned, limitations of space preclude a detailed listing here of how each of the 149 guidelines were incorporated; for a detailed discussion of shelter planning and design guidelines the reader is referred elsewhere. In terms of site planning and shelter site selection, for the design reported here, the site offered a quiet locational presence. The building is set back from direct view from adjacent streets and is located near stores and recreational areas. Parking is screened from direct view from the street so as not to reveal the identity of residents' automobiles. Autos are not to be parked on lawns or otherwise in places that detract from a residential ambiance. Protected play areas for children allow for a mother's surveillance of her child. Landscaped spaces that serve as "outdoor rooms" are to be maintained on a regular basis.

Architecturally, the image of a residence, a safe refuge, is conveyed, not an institution. It should be unobtrusive within its neighborhood context, and its interior spaces flexible and expandable to meet high-activity uses. A security system coupled with windows provides views of the outside without sacrificing occupant safety. Adequate personal space for each family and individual is provided. A cheery homelike atmosphere is of high priority. A variety of individual and group counseling spaces, spaces for the storage of personal belongings, including furniture if need be, and a commercial-grade kitchen space for informal as well as formal dining is provided as are quiet alcoves for residents to talk on the phone. Entrances are protected, but need not be raised per se.

Some limitations of the study warrant mention which could direct future research on shelters. First, the survey could have been broader in scope to offer examples from more situations and varied building types in terms of their adaptive potential as shelters. Second, more shelters could have been studied, if access to them had been granted. And a longer period of observation across a period of one or two months would perhaps yield a more detailed picture because these refuges for women and children are extremely volatile in their own right, and things can change quickly from day to day. Specific design features could then be correlated with specific factors. This would then have become an empirical link between the POE and survey data. In summary, additional empirical work is needed combined with a measure of common sense throughout the design process.
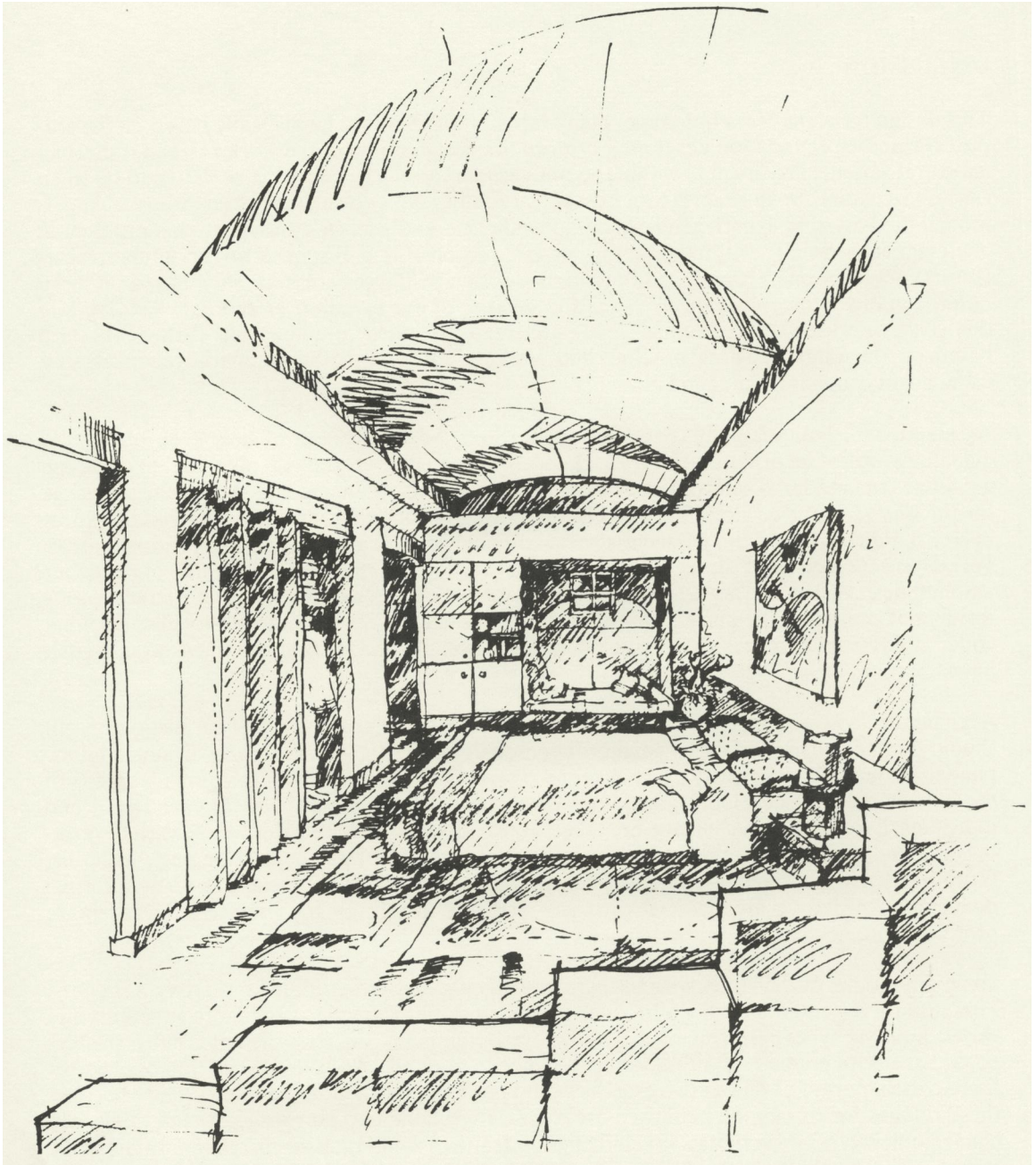
FIGURE 10. Interior of residence is adaptable to residents' territorial and spatial support needs.
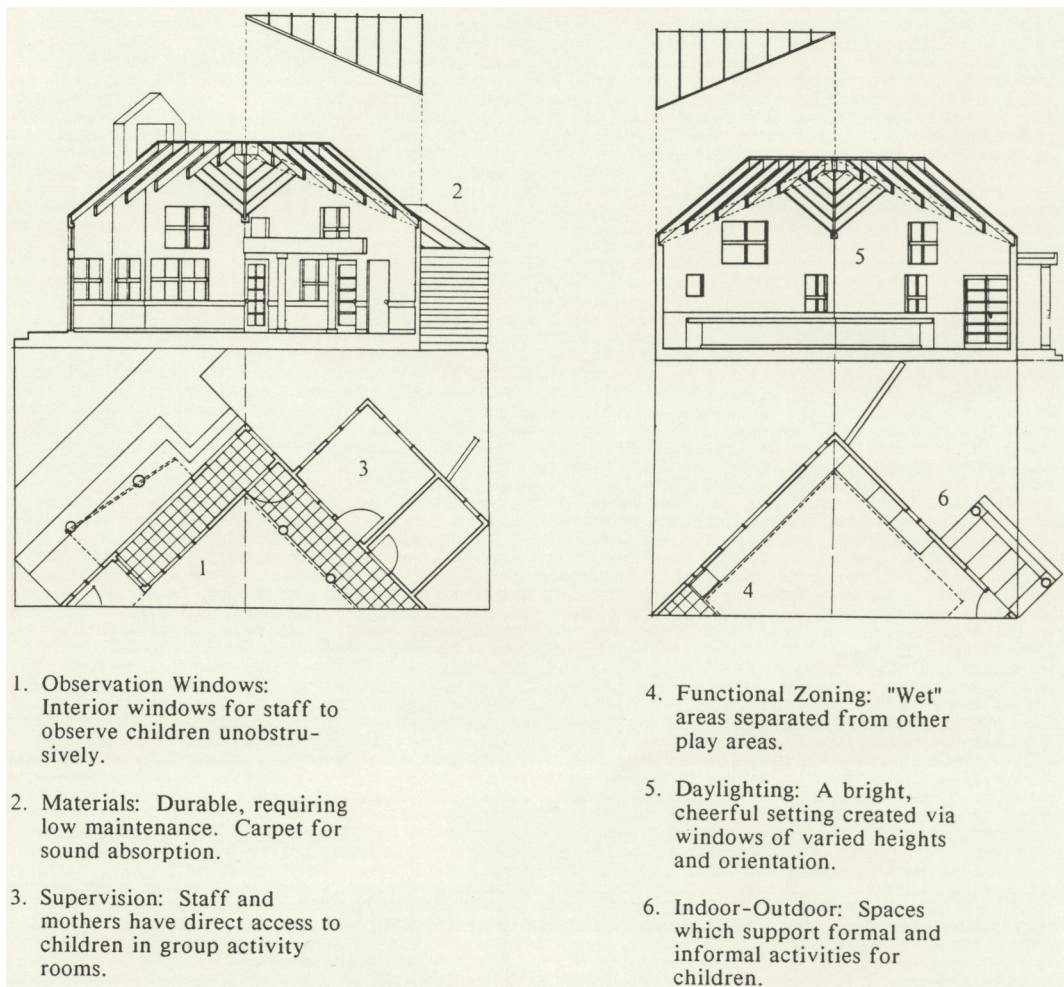
FIGURE 11. Child day care provides protected enclosure to courtyard in close proximity to residences.

1. Observation Windows:
   Interior windows for staff to
   observe children unobstru-
   sively.

2. Materials: Durable, requiring
   low maintenance. Carpet for
   sound absorption.

3. Supervision: Staff and
   mothers have direct access to
   children in group activity
   rooms.

4. Functional Zoning: "Wet"
   areas separated from other
   play areas.

5. Daylighting: A bright,
   cheerful setting created via
   windows of varied heights
   and orientation.

6. Indoor-Outdoor: Spaces
   which support formal and
   informal activities for
   children.

The practitioner is engrossed in everyday practice and all the pressures (and exhilaration) this
brings to the extent that it frequently is difficult to "see the forest for the trees." It is essential
however, that one make the opportunity to acquire the broader perspective. A concurrent
macro-micro, theoretical/functional, or research/design operative construct, can potentially

FIGURE 12. Overview of shelter prototypem (aerial view toward South).

compel one to take cognizance of established reference points on a day to day as well as long term basis in the context of professional practice in architecture.

Despite optimistic prognostications put forth nearly a quarter of a century ago, the practice of research in architecture has yet to find widespread acceptance (Lang, 1987). Few are being cross-trained in both research and in architectural design; this has resulted in a situation where few have a theoretical overview of potential linkages in a professional context. Static conceptions continue to separate rather than integrate. One major consequence is that sustained efforts are lacking to push concurrently on the boundaries of research and its role in research design theory and practice, i.e. the debate over the function of deconstructionist design theory remains isolated from efforts to develop building type-based behavioral design guidelines.

Models are needed in which the theoretical aspects of research are accorded equal weight to design theory as a single process, connected by one or more translation steps. Such models should be governed by underlying goals: the components must be theory-based (not process based or based on formalism); the components must resonate and reinforce one another on a qualitative and quantitative level; each component must each stand on its own apart from the others; and each must be internally and externally generalizable on a poetic (cultural narrative) and pragmatic (functional) dimension. The need for integrative research-design paradigms in architecture has been examined by the authors and has been reported elsewhere (Refuerzo and Verderber, 1989b; 1990b).

An initial attempt has been made to empirically explore the imagery and use of shelters for battered women and children, and to develop a research-based design response. The architectural environment of a shelter is a potential cause of stress and anxiety for battered women and their children at perhaps the most sensitive juncture in their lives. Architects and other design professionals must focus efforts on maximizing the support that a well planned and designed shelter can offer to its occupants.

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Additional information may be obtained by writing directly to Professor Refuerzo, at the Graduate School of Architecture and Urban Planning, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, California 90024, USA.

AUTOBIOGRAPHICAL SKETCH

Ben J. Refuerzo is an Assistant Professor in the Graduate School of Architecture and Urban Planning, University of California at Los Angeles. Stephen Verderber is an Associate Professor in the School of Architecture and Adjunct Associate Professor in the School of Public Health and Tropical Medicine, Tulane University, New Orleans, Louisiana. The authors are co-principals of R-2ARCH (Research to Architecture, Inc.) Their work focuses on architectural research and design for specialized building types and user constituencies.