CHILD SUPPORT FACILITIES
FORT BRAGG ARMY BASE NURSERY VILLAGE

BASIC DATA

Client United States Army
Address P. O. Box 122
Sicily and D Streets
Fort Bragg, North Carolina 28307
(919) 396-2856
Director Hazel Dunn Miller
Architect Anonymous
Date 1940s (currently being remodeled)
Users 330 daily, 290 at one time;
170/day in preschool M, W, F, or Tu, Th;
160/day in daycare
Size 19,526 sq. ft. total daycare and preschool
Cost Not known
People Interviewed Hazel Dunn Miller, Director
Kenneth E. Lewis, Nursery Board President
Amado P. Diaz, Community Services Branch
Capt. Malcolm L. Penny, Master Plans,
Directorate of Facilities Engineers,
Several parents and children
Fort Bragg Nursery Village provides a variety of services to Army personnel families. These include: full- and part-day daycare, drop-in care, and preschool education. Their published goal is to provide a safe environment and enriching and warm-loving care for the children. The daily routine includes year-round use of outdoor areas, but the staff also bring children in for inside gym in poor weather.

The facility is being upgraded to meet state certification requirements and to receive federal benefits and additional funding in order to support low-income soldier families. (Funds cannot be used to pay fees at an unapproved facility.) The services of the facility are seen as an important part of the reenlistment program.

The Base Command has observed a general increase in working couples at the lower ranks, both military and military-civilian couples. The families use the extra pay to survive and need daycare services of some kind to be able to work. Older children (6-12) occasionally participate in the program but they have other choices that are more attractive to them.
FACILITY DESCRIPTION

The phrase "Nursery Village" adequately describes the collection of five separate buildings that comprise the center. As shown in the plans, three are connected by an enclosed walkway and the other two by a covered walkway. The facilities are in the process of a staged remodeling to meet state child care agency requirements.

The buildings range in size from just under to just over 4000 sq. ft. One 4,300 sq. ft. building is devoted to preschool. The other buildings house 6 month to 2 year olds, 2 to 3-1/2 year olds, 3-1/2 to 4 year olds, and 4 through 12 year olds.

All of the buildings are of wood construction with plaster or gypsum board walls and ceilings. Each building has either a sprinkler system or smoke detectors.

OBSERVATIONS AND INTERVIEWS

COMMENTS FROM INTERVIEWS

Hazel Dunn Miller, the Nursery Village Director discussed various aspects of her facility and made a variety of recommendations for a new facility.
Mechanical Systems

Heating and cooling should be combined to give better and more efficient control. Hazel Miller recommends a system that creates warm floors especially in the toddlers areas. Individual space control for the teachers is an important moral factor. Electrical outlets are important and should be available on each wall because extension cords are not allowed. Placement should be above a wainscotting (about 5 ft.) and unused outlets should be covered.

Acoustics

Sound treatment in large rooms especially multi-use gym rooms is necessary because children get upset by a lot of noise and it starts a cycle of generating more and more noise. Clear noise separations between the nursery and the other spaces and between the entry and other care spaces are needed for the same reason.

Natural Light and Views

Natural light is important to children's orientation and it is a symbol of energy consciousness. Windows have to be low for the children and therefore safe against falling and breaking.
Modularity

It is a good idea, she felt, to have some repetition and regularity to orient the children and reinforce their familiarity with the space.

Flexibility

Flexibility means being able to bring groups together for large group activities and to expand the building. Cross-age group interaction at meals and play times is good.

Interior Design, Finishes, and Graphics

A 30 in. high wainscot that is paintable and repaintable would be good to keep the place looking new without having to paint the whole room. Avoid dark panelling--its too moody for children. Murals, not just pictures on the walls, are nice. Vinyl walls in the dining room and in heavily-used areas like the halls are necessary. Some areas should be carpeted to support activities but for flexibility, carpeted areas should be over a finished floor not just a sub-flooring.

Storage

There should be a central, locked, food-supply storage area. Each child-care room should be self-contained including toilets and storage. A lot of storage should be built in. Children should have their own storage for coats and belongings. (When they are low enough for the children to get at, they are called "cubbies.")

Safety and Security

The Fort Bragg Nursery Village has been burglarized and it is easy to break into the current facility. An important security issue is who is allowed to pick up the children. This is a major function of the people manning the entrance desk and a centralized entry check-in place is very important.
Energy Conservation

Double-entry spaces (vestibules) are important because there is so much going in and out by all the children, especially the drop-off children. At Fort Bragg, neither heating nor air conditioning is needed for about one-third of the year, but air-conditioning is a must in the summer.

Best Aspects and Worst Aspects of the Facility

One of the best aspects of the facility is that it can be painted or remodeled pretty much as the Center requires because the Base Command doesn't make the building a prestigious showplace. The worst aspect is the lack of sheltered connectivity between spaces.

Siting Recommendations

The Director pointed out some siting considerations that would probably apply to other bases.

- At least one daycare center should be sited close to the hospital. Children aren't allowed in the hospital and one function of the daycare center is to act as a drop-off facility for the hospital.

- At least one daycare center should be near the commercial services area including the commissary and the post exchange. Since many families live on very tight budgets, payday becomes shopping day. Children slow the process down if there is a lot of shopping to do. (This recommendation recalls the "Forum" in the downtown shopping center in Columbus, Indiana that includes a large contemporary indoor playground as part of the overall shopping center design.)

- Facilities should also be located as close as possible to enlisted family quarters both because there are more of them and they tend to have children in the appropriate age groups.

- A relationship to schools is important for the children who come after school for extended daycare. Most come by bus. If there is a school immediately adjacent, they walk to the center.
- Having a site that is enroute to work for the parents is very important. Convenience, safety of drop-off places, and effects on traffic flow should be site selection and site design considerations. Very often a military husband and wife team will be dropping their children off at 6:00 to 6:30 a.m. during a fairly heavy rush hour.

The following criteria are from a review of a schematic plan the Director developed in anticipation of having a new facility:

- smallest children should be closest to the Director and the office

- a usable outdoor porch space should be included to provide for covered play space in poor weather

- there should be movable partitions in some of the spaces
- sunlight would be nice in a big glass-domed central space

- one main entry should be provided for drop-off and full-day care, but the preschool program should have its own entry and drop-off area, in part because they pay only once each semester whereas daycare fees are paid each day; this would help the congestion at the main check-in station

- the entrance to each child-care space should be as well considered from the children's point of view, their anxieties, etc. as the main entrance and the image of the building as a whole

- a concept for the dining space might be to have it be less like a cafeteria and more like the kinds of food places that children like with booths

ASSessment

Village or Campus Concept

The Director is very proud that the facility is a collection of buildings and not a single monolithic one that would overwhelm children and adults. The concept of a nursery village or campus may prove to be an important one for designers trying to control the image and personality of their designs.
Entry Desk

A revealing comment from child-care directors is the importance of the entry desk and the entry. Fort Bragg has given the issue serious consideration and like Fort Hood (next) has the welcoming person seated at eye level with the child. An additional feature is the padded edge on the desk that encourages children to lean on it and discourages parents from saying "no, no" when the child does. The following sketch dramatizes the difference that eye-level greeting makes.

Porch

The porch is appreciated as a space that provides flexibility in the scheduling and monitoring of the children. It is enough outdoors to allow children to play "outdoors" during poor weather. In nice weather it becomes an art room or special projects room. Covered porch space is desirable for all age groups.

Importance of "Cheery" Graphics

Of all the military care centers visited, this facility and Alameda Naval Air Station had the most outstanding graphics, painting, and decorating. The murals are simple, direct, and not merely a sentimental collection of "doggies and kitties" pasted as decals on the wall. The windows have been decorated to complete a carousel-theme and the whole place benefits from the fact that effort goes beyond the standard architectural solution of painting a few walls with accent colors.
Image and Reputation

Ironically, even with the village concept and the interior decoration, this facility has to work hard to overcome a negative image. The use of converted barrack space carries with it the stigma of being second-rate and a fire trap. The quality of the program and care can't always overcome the simplicity of such a stigma.
FORT HOOD ARMY BASE CHILD CARE CENTER

BASIC DATA

Client 
United States Army

Address 
Building No. 415
Fort Hood Army Base
Killeen, Texas 76544
(415)685-6037 or 532-5187

Date 
1940s

User 
269 at one time (350 a day)

Size 
13,000 sq. ft. on a 3/4 acre site

Cost 
Not available

People 
Gurda Nahalila, Director
Interviewed H. H. Smith, Chief, Army Community Services
Several parents
PROGRAM DESCRIPTION

The Fort Hood Child Care Center is primarily a drop-in facility providing full-day care to military and civilian employees at Fort Hood. Age groups include infants and toddlers, preschoolers, and a few children up to 10 years of age. The staff receives annual Red Cross training, participates in internal orientation sessions and workshops, and about 10% of the staff is enrolled in or has completed a C.D.A. (Child Development Associate) program.

PHILOSOPHY

The daily greeting and welcoming to the center is an important part of making the transition from home to day care. The check-in person sits at eye level to the children and greets them first--and almost always by name--when they enter the facility.

Positive aspects of the program are the volunteer self-initiated staff training program and the focus on loving and affection given the children.

Program Features Unique to Military Bases

Personnel administration is not directly under the Center's control and changes are sometimes made without their participation. Army Regulations control the operation of the Center.

Provisions for the Handicapped

Children with handicaps are integrated into the program but the program is limited in what kinds and severity of handicaps it can accommodate. No regular programs for handicapped children has been established.

Non-Users

People don't use the facility for a variety of reasons including cost, the lack of a fully developed educational development
program, and, in some cases, worries about appearance and fire safety. Some others don't use the facility because it is frequently full and they get turned away. Infant drop-in care is the area of greatest demand over current available space.

FACILITY DESCRIPTION

CONCEPTUAL ORGANIZATION

Linked Buildings

Like most base child care centers, this one is located in remodeled space. The facility is in three linked buildings. Remodeling provided covered access to all the buildings and thus there is no major traffic through the playrooms.

Zoned-Separated Use

One building is for infants, the other two for preschoolers. Each has its own (second) check-in station. The outdoor playyards are between the buildings.

Central Entrance Control Point

Everyone checks in at the entrance to the facility before being taken to their appropriate rooms.
INDIVIDUAL SPACES

Director's Office

The Director's office is in an excellent location, right next to the entrance and directly off the lobby. It provides the opportunity to help the staff handle a problem situation, money, and other special issues.

Laundry

The laundry is a heavily-used room for frequent washing including bibs and rags.

Infant Room

The infant room has a well-designed changing table and conveniently-located storage cubbies for each child's disposable diaper-supply. The changing tables are relatively high to reduce staff backaches.

BUILDING SUBSYSTEMS AND FURNISHINGS

Acoustics

The acoustics deserve special mention because there is virtually no acoustic control in the building. In fact one room echoes terribly and even a little noise from play is amplified.
Windows

The windows, as in most remodeled facilities, are too high for children to be able to look out.

Safety and Security

Doors lead directly to the outside and ramps are provided from the infant area so the cribs can be rolled outside in an emergency. Because they are accessible under the building, vandals have cut the telephone wires several times, making the building unsafe through a lack of emergency communication. Occupants of several buildings near the day-care center have been held up, and there is concern about possible robbery.

Play Area Location

Play areas are next to the indoor activity spaces and their immediately accessible location supports the programmed use of indoor and outdoor space for day care.

OBSERVATIONS AND INTERVIEWS

COMMENTS FROM INTERVIEWS

• storage of food should be separate from storage of linen

• we like our child-scaled picnic tables as regular indoor furniture

• staff lounge should have its own toilet nearby

• staff needs some kind of locked storage for coats, purses, etc.

• soda machine is nice for the staff, or a small refrigerator

• a big center needs lots of toy storage space

• home-care centers should be developed that provide temporary home-care (and Foster Care) for families
• the design guide should reflect the latest information and new trends in child-care and early childhood education

Worst Aspect of Program

The problem of mixing full-day care and drop-in care in the same space was mentioned vociferously.

Worst Aspect of Facility

The plumbing is completely inappropriate for the facility. There aren't enough fixtures and the present ones don't function properly.

Site Choice Criteria

Child care facilities should be centrally located. Proximity to a hospital allows one to be used for drop-off care by people visiting the hospital. One should also be close to commercial activities like the P.X. for drop-off while shopping. At Fort Hood almost everyone will be arriving by automobile or bus.

Comments from Parents

A child care center should have adequate space for the following:

• a variety of activities
• preparing and serving food
• a designated area for naps and rest
• a separate, isolated space for children who are ill and waiting for parents
• a staff lounge for the workers
• a coat storage area for workers only
• a designated area for television viewing only
Comments from Pre-Design Conference

- interior design should parallel facility design
- low-maintenance floors means no waxing
- children's equipment that comes in on the lowest bid doesn't last as long as well-built equipment
- problems with sealed air-conditioned buildings because of the frequent times the equipment either doesn't work or is shut down for energy conservation
- all day care facilities should have their own HVAC systems, both administratively and mechanically separate from base-wide rules and systems
- parking and driveway configuration is a major design problem--it is important to control congestion and provide safety for both buses and cars
- covered play areas with protection from rain and sun are desirable
- some furniture should be adult-scaled, e.g., high-chair height is important when a staff member feeds 20 or more children while on her feet; pick one high enough so adults don't have to lean over to feed them
- centers need a good intercom system
- in infant areas all care should be capable of being provided without the caregiver leaving

**ASSESSMENT**

Large Room Syndrome

According to a recent HUD-sponsored study, child-staff interaction is less frequent in large rooms with many children while staff interaction is more frequent. The study suggests there is a serious decrease in the quality of child care when adults don't focus their time on interactions.
with children. This phenomenon was observed for all age groups, including infants, at Fort Hood. While the staff and the program are being developed to encourage infant stimulation and early childhood development, the large undifferentiated spaces will predictably continue to inhibit these efforts.

The very hearty mulberry trees the Director planted 11 years ago are a good reminder that a planting plan can contribute to the overall quality of a facility in just a few years.
## FORT LEWIS ARMY RESERVE CHILD CARE CENTER

### BASIC DATA

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<th>United States Army</th>
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<tbody>
<tr>
<td>Address</td>
<td>Building T-2166</td>
</tr>
<tr>
<td></td>
<td>Liggett Avenue</td>
</tr>
<tr>
<td></td>
<td>Fort Lewis, WA 98433</td>
</tr>
<tr>
<td></td>
<td>(206) 967-3781</td>
</tr>
<tr>
<td>Director</td>
<td>Susan Bowlin</td>
</tr>
<tr>
<td>Engineer</td>
<td>Directorate of Facilities Engineering/Fort Lewis</td>
</tr>
<tr>
<td>Date</td>
<td>1940s, conversion in 1973</td>
</tr>
<tr>
<td>Users</td>
<td>Children ages 3 mo.-12 years, mostly 2-6 yrs., cross-section ethnically and economically; families of young officers, young enlisted, and civilian employees. 200 average at one time; 260 capacity; overflow up to 315. 2000 different children pass through the center in a typical month. 2 administrators, 5 supervisors, 5 assistants, other on-call, part-time staff.</td>
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<tr>
<td>Size</td>
<td>18,000 sq. ft. plus ca. 26,500 sq. ft. outdoor playspace on a 3 acre site</td>
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<td>Cost</td>
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### Interviewees

- Susan Bowlin, Director
- Marlene Scavo, Past Director, and now Director of the Fort Lewis HEW Study
- Betsy Diffendal, Consultant from Anthropology Department, Evergreen State College

Also present: Marla Bush, Community Services Officer, Office of the Adjutant General, Washington, D.C.
PARTICIPANTS

Children

The children at the Fort Lewis Child Care Center are dependents of active duty or retired personnel and of civilian government employees. They range in age from 3 months to 12 years, with most being preschoolers 2-6. Very few have any handicaps or learning disabilities. They represent a cross-section ethnically and in terms of family income. Most are children of young officers, young enlisted, and civilian employees in that order.

The Center accommodates 200 children at a time, with a capacity of 260 plus additional overflow on special occasions, like New Year's Eve (up to 315).

In a typical month, 2000 different children pass through the Center.

The child groupings and staff/child ratios are as follows:

- infants: 1/8, ave. 1/6
- 2 to 3 yr. olds: 1/12, ave. 1/10
- 3 to 4-1/2 and 4-1/2 to 12 yr. olds: 1/16, ave. 1/15
Staff

A minimum of 2 supervisory-level staff open the Center. Other staff are called as needed. The staff is comprised of a Director, Assistant Director, 5 supervisors, 5 assistants, and other part-time on-call staff. The level of education varies from high school through M.A. degrees in early childhood education plus in-service training. The part-time on-call staff have a minimum of 1 full-day training. Many staff hold Red Cross First Aid Certificates. Professional consulting and staff training is provided through an affiliation with Clover-Park Vocational Technical Institute.

Hours

Though having many children who are regulars, the Center operates on a drop-in basis—no prior appointments are needed; parents simply drop their children off. An escort service is also provided for after-school children coming to the Center from Clarkmoor Elementary School and the Fort Lewis Pre-School, both on base. Hours of the Center are as follows:

Monday-Thursday  6:30 a.m.-11:00 p.m.
Friday            6:30 a.m.- 1:00 a.m.
Saturday          9:00 a.m.- 1:00 a.m.
Sunday            Closed
Other hours include Sundays and holidays by appointment.

Remarkable features of the program are its ability to handle and manage the ebb and flow of children and the tremendous number of children without necessity of prior appointment, and still to maintain a calm, loving, developmentally-oriented atmosphere. As children arrive exceeding the desired staff/child ratios, more staff are called in, and arrive within 30 minutes. As children leave, staff go home, perhaps to return later in the day.

Fees

Fees are set on a complicated scale but never more than $.60/hour, with reductions for extra children from the same family, full-day participation, weekly and monthly rates.
Staff salaries account for 80% of the budget. Due to the on-call system of staffing, the Center is self-sufficient.

PHILOSOPHY

The Center works on an open, eclectic philosophy serving all the needs of children. The Parent's Bulletin sums it up: "Arrival and dismissal decided by you, the parent, and essentially self-directed play in between." After signing in, parents take the children to their room and are encouraged to talk with the staff and spend time with their children. Children are provided with a full range of developmentally-appropriate opportunities in the form of "interest centers," daily and weekly events, special events, monthly celebrations, field trips, art weeks, picnics, etc.

Though the Center is committed to providing a healthy, safe environment, and with good nutrition for the children, the primary goal is clearly to provide developmentally-enriching experiences and warm, loving care. The interviews indicated a slight emphasis on creative activity, language development, social skills, music, fine-motor development, and the development of self-concept.

No academic programs are offered. There is a formal academically-oriented preschool at Fort Lewis, but unfortunately it was closed and no provisions were made for us to see it or talk to its staff. The Preschool and Child Care Center are quite separate geographically, organizationally, and apparently philosophically.

For the parents, in addition to encouragement to talk with staff and play with their children and their friends, there are also parent seminars, supervised informal observation and discussion of their child's activities and development, and, if necessary, a referral service to outside agencies.

According to the staff interviewed, the most important parts of the program are the open, child-centered philosophy, flexibility to the needs of children, the on-call staffing system, financial self-sufficiency, and the warm, caring relationship of the staff for each other and for the children despite the
very large numbers of both staff and children and the drop-in, part-time, on-call nature of the Center's operation. The consultant, Betsy Diffendal, also offered that the sensitivity of the Director and staff to cultural variations was a very strong aspect of the program; the staff itself is culturally varied, she said, is sensitive to children, and naturally without trying creates an uncontrived atmosphere which fits cultural differences.

FACILITY DESCRIPTION

SITE

The Fort Lewis Child Care Center is in the center of the commercial "town center" of Fort Lewis. A long parking lot and parade ground is in the center of town, surrounded on the north side by a library, cafe, garden shop, PX, bank, commissary, clothing store, thrift shop, and multi-use hall, and on the
south by a theater, bowling alley, roller-skating rink, and the Child Care Center.

A street and an off-street parking lot are directly adjacent. There are no trees, and only limited other vegetation. The entry to the Center is from the parking lot.

There is a narrow play area on the west side running along the building, and a large, climatically unprotected play area to the south. Chain-link fences with barbed wire on top surround the play areas.

Siting to take advantage of the semi-rural quality of Fort Lewis is non-existent, and though there are lots of heavily treed areas on the base, this building and play area have none.

CONCEPTUAL ORGANIZATION

The building is a wood frame reconstructed recreation hall built in the 1940s and converted in 1973. It is 240 ft. long by 75 ft. wide (18,000 sq. ft.) with 26,000 sq. ft. of play space on an approximately
3 acre site. It is a long building with a double-loaded corridor opening at the south end into a gymnasium/multipurpose/sleeping space. Private offices and staff lounges are across the gym. The entry is midway on one side; the children pass through a lobby and then move through the hall to their rooms.

INDIVIDUAL SPACES

Children are divided into five age-group rooms:

- Tiny Angels 3 to 14 mo.
- Little People 14 to 23 mo.
- Noah's Nook 23 mo. to 3 yrs.
- Sesame Street 3 to 4-1/2 yrs.
- Happiness Pad 4-1/2 to 12 yrs.

The rooms don't interconnect; except for staff movement, all circulation is by the hall.
Food preparation and eating was a designated space in each room. In most cases this took 1/3 of the area, except in the infant room which used half the space for cribs and half for two crawling areas.

The outdoor play space is accessible from the gym, the staff area, and one passage-way between storage and laundry rooms. The play space is in two parts: a narrow grass strip running along the entire west side of the building, and an open, exposed square area to the south. Little equipment is available, is scattered, and is of the traditional metal kind.

BUILDING SUBSYSTEMS AND ELEMENTS

Natural light and views are minimal. Walls are all washable. Toilets are child sized. The infants' changing area, sink, and disposal system are specially designed. Storage is minimal. There are few adequate display spaces. Ceilings are 14 ft. throughout, with overhead fluorescent lighting (on all the time in the infants room, even when napping), and no task lighting.

OBSERVATIONS AND INTERVIEWS

Due to the relatively short time at Fort Lewis (1 day) and the value of the interviewees (next, plus separate interviews in a later section), it was not possible to observe all spaces carefully. Some casual observations, therefore, are all that can be offered:
- Very inadequate provision for outdoor play; poor equipment, not enough of it, no overall design, poor access, poor sitting; this space was understandably underutilized and when one of our team went onto the playground, he was mobbed by little children clamoring for attention, novelty, stimulation, hugging.

- No staff member was seen to actively play with the infants in either of the two crawling areas; this might be due to the separation of these activity areas by rows of cribs from where the staff congregated near the changing areas, because of the 2 ft. walls, or due to random occurrence during our visit.
• The gym double-functioned as a mass sleeping area (fold-away cots) thus preventing its use by older children for gross-motor play or by staff and others crossing it to go to offices and lounges.

• Surprisingly large groups were seen to be with staff members (in one case 15 or so to one staff member); the rooms were not functionally well-differentiated into activity or interest centers, and internal circulation was not well differentiated from activity.

COMMENTS FROM INTERVIEWS

The staff and others present for the group interview were generally pleased with the location of the Center and its indoor facilities, though not with the outdoor areas. Some highlights:

Location

The location near the center of the town, near commercial facilities, and on the main bus lines was seen as a definite advantage.

Size

The largeness of the Center didn't bother anyone. Though they are somewhat in favor also of smaller, neighborhood-based family day care centers, they felt there were potential problems of safety in unconverted barracks and that family day care centers were perhaps better for evening care.

More space for activities was seen as a real need (the present size is 50 sq. ft. of usable space per child when the normal 200 children are present, or 38 sq. ft. per child at capacity of 260).

Soft and Private

The staff complained about a lack of quiet private spaces for one or two children, and that they were not allowed to have soft pillows, over-stuffed chairs, stuffed toys or other warm, inviting furniture and materials.
STRENGTHS AND WEAKNESSES

The overriding strength of the center is in its program, staffing arrangements, range of activities, responsiveness to cultural diversity, convenience for parents (drop-in), low-cost, and financial self-sufficiency. It is the subject of a current HEW/DAAG demonstration and documentation project.

All things considered, the strengths of the physical facility seem to be its central location, adequate size (50 sq. ft./child under normal conditions), excellent entry sequence, and separation of age groups. Weaknesses include the outdoor play areas, lack of any indoor-outdoor connection, poor site design, uninspiring renovation, non-child-scaled spaces (14 ft. ceilings, high windows, etc.), lack of clearly defined activity spaces in rooms, very low utilization of the gym-multipurpose room (isolated at one end of the building), inadequate storage, and poor placement of the staff areas (private, but the only access being across a space frequently used for mass napping).

LESSONS

• at least partial separation of rooms allows children of different developmental abilities to focus on activities appropriate for them; in a large center this may be necessary (though other evidence points in the opposite direction for smaller centers)

• location near where parents can easily drop-off children, including those using public transportation

• siting should—and can—respond to local and natural cues

• a change in exterior image can be valuable in communicating a radically changed function for a building

• spaces should be child-scaled
• outdoor play spaces should have easy access to and from indoor play spaces if they are going to reach full utilization

• a clear entry lock aides in control of perhaps unwanted adult entry, and in efficient processing of children before entering activity rooms

• multipurpose spaces are underutilized for activities if they are removed from other activity spaces and if they are forced to double-function as sleeping areas

• main activity areas, care areas, and places where staff may congregate should be intermingled in order to discourage any possibilities of ignoring children, especially less-demanding infants and children

• activity spaces in rooms should be functionally differentiated from each other and from circulation paths

CONCLUSION

This facility, like many other Army Child Care facilities, is hampered by being housed in a very old building not designed for its present use. This is piecemeal renovation, which is done thoughtfully and addresses the most pressing needs, but in general the facility is constraining. Playground access from the primary rooms is cumbersome, and there is little natural light. The rooms are not rich with developmental equipment, nor do they have quiet spaces for children to withdraw in or well-defined separation of activity from circulation.

There is no natural fit with the beautiful setting present on the base, but the location close to the commissary and center of town is very convenient.
## BASIC DATA

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<thead>
<tr>
<th>Client</th>
<th>United States Army</th>
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</table>
| Address      | 14th and Chamberlain Streets  
Fort Meade, Maryland 20755  
(301)677-3407 |
| Director     | Barbara J. McGinness |
| Date         | 1940s               |
| Users        | Daycare children of 6 months to 5 years  
of age and casual care of 6 months to 12 years; 172 maximum, 75-100 average per day |
| Size         | 5200 sq. ft.       |
| Cost         | Not available      |
| People Interviewed | Barbara J. McGinness, Director  
Captain Frank J. Klarnet, Personal Services Division  
Georgianna H. Price, Superintendent of Volunteer Army Community Services  
Major Delbert L. Collins, Army Community Services  
J. E. Parks, Assistant Army Community Services Officer  
Marie Locke, Director, Pre-School Facility  
Mrs. Mead, Base Master Planner  
Several parents |

Also present: Marla Bush, Community Services Officer, Office of the Adjutant General, Washington, D.C.
The Army Community Services at Fort Meade has three separate programs for children:

- special program for the handicapped
  and mentally retarded
- preschool program
- child care program

Special Program

The special program for handicapped and mentally retarded children is the only one at an Army base in the country. It serves about 35 children with a wide age span (4-21 years). Service personnel with special children frequently request assignment here because of the variety and quality of medical support available in the immediate region of Baltimore and Washington, D.C.

Preschool Program

The preschool program, called the Little Red Schoolhouse, is an independent program of formal preschool activities for several hours a day. Some children commute from the child care center by bus to and from the preschool. The existing program is housed in several remodeled WWII barracks. An additional building is being remodeled into a daycare center for the 20% of the preschool children also needing before and after-school care. The preschool has its own director and staff.

Child Care Center

The child care center provides full-day and drop-in services for its base. The program provides services to several age groups including infants, preschool-age children, and school-age children before and after school. Children are considered to be participants in the child-care rather than drop-in program if they are in the facility more than 25 hours a week.
Child Care Program Philosophy

The primary goals of the child care program as stated by the director in a parent's pamphlet are to provide "a safe and healthy environment, enriching experiences, and warm special care for your child."

An infant stimulation program is scheduled for the fall of 1978.

For both child care and infant care, since the casual users tend to be more insecure, they need special attention. If their activities are combined with full-day care, they require time that should be given to the full-day children. The caregivers are acting as "parents" for the full-day children because of the amount of time they spend there. Thus this Center seeks to develop separate programs for full-day and drop-in users.

The program does not include a food program beyond snacks.

The programmed use of time includes use of outdoor areas, mostly for free play, and in bad weather the use of an indoor gym.

A special feature of the overall program is its special room for those school-age children who come before or after school, or even both.

FACILITY DESCRIPTION

OVERALL CONTEXT AND SITE

The facility is located in a remodeled servicemen's club at the east edge of the base between a major base road and a public highway. The highway is heavily traveled and has a high accident rate. Parents have expressed concern for the safety of the children in the playground. The long narrow site has many large mature trees and a large sandy play yard. There is an additional play yard on the site across the parking lot. It is only occasionally used. The facility has a convenient drop-off place and enough overflow parking space to handle peak times.
CONCEPTUAL ORGANIZATION

As shown in the plan and the diagrammatic sketch, the facility has been zoned to separate as much as possible the children both into age groups and into full-day and drop-in casual care. To the extent possible, the infant area is subdivided into 18 month to 3 year day-care and 18 month to 3 year casual drop-in care; infants from 6 to 18 months are combined.

The largest spaces have been subdivided into smaller spaces more appropriately scaled to group size.

After-school care is a separate space conceptually and in location. It is the only functional space on the second level. The children participated in its decoration and furnishing and the space is affectionately called "the den" by the users.
BUILDING SUBSYSTEMS

Structural System

The structural system is old wood trusses and wood frame. The wood trusses are good for hanging things.

Mechanical System

The radiators are covered, the building has a sprinkler system for fire safety, and the building is air conditioned with individual room air conditioners for summer comfort.

Acoustics

The acoustic treatment in the infant rooms helps control the multiplier effect of one child's noise and activity overstimulating the others.

Natural Light

None really--many windows are painted out to reduce heat gain. Others, even though they look "standard," are too high for children to see out.

Interior Design

During the site visit, the facility was in the middle of a paint-up fix-up program, the work being a volunteer effort by Explorer Scouts.

Safety, Security, and Fire Evacuation

The infant area has ramps for egress for cribs.

Energy Conservation

The existing building was insulated for energy conservation when the air conditioners were installed. The insulation was very expensive
Display Space

The caregivers and children take advantage of the open trusses and hang objects from them. In addition, the ad hoc nature of remodeled facilities allows more inventive and spontaneous decisions about display and temporary decoration to happen without upsetting anyone.

OBSERVATIONS AND INTERVIEWS

OBSERVATIONS OF USE

Where to Sleep?

The following discussion is about the advantages and disadvantages of locating sleeping (napping areas) in the "play room" versus in a separate room.

Sleeping in the playroom, cots (or alternative) stored in a storeroom:

Advantages:
- less total space
- less staff
- more play space

Disadvantages:
- loss of setup-time
- child must fit room schedule
- special room for storage of cots can't be used for other things

Sleeping in a designated room:

Advantages:
- fits children's individual schedules

Disadvantages:
- might require more staff (monitoring 2 rooms)
- more total space
- less usable play space
- children have to be taken to space

Playground

On this Child Care Center play area, the staff can see the children easily, but there are no places for children to hide. The pre-
sent configuration favors large-muscle development play. It seems that every center needs an indoor gym. The gym at Fort Meade is scheduled for use all day and provides a valuable play space for poor weather.

Circulation

Circulation patterns should be clear because parents need to be able to take their children to the door of the space without disturbing other activities.

COMMENTS FROM INTERVIEWS

The following is from our focused interview with the Community Services personnel on the base.

Changes in Program Use

The Child Care Center previously was used only as a drop-in center. More parent couples now work, and there are more single parents with custody of children who need full-day service. There are about 60 single parents on post. About 20-25 of these are soldier mothers.

Changes in Demand

If the Army continues a policy of "enlisted parents," the need for child care services will grow. Army policy will be the prime factor affecting future demand, they thought. There is a waiting list for both the child care services and the preschool. The waiting list would be even longer if the programs were less expensive. If the child care facility were new, larger, and less expensive, the demand might reach 900.

From an interview with the Director of the facility:

Best Aspects of Program

The best aspect of the program in the eyes of the Director is the separation of casual users from full-day users. This is important
because the caregiver is really the "parent" for children staying 8 to 12 hours a day at the center; if they are distracted by the short-range anxieties and needs of children coming and going from the facility, the quality of care for the full-day children suffers; ultimately the children suffer.

Program Changes

The center needs a more active infant program and a breakfast and lunch program which is not possible because of a lack of qualifying kitchen facilities.

Best Aspects of Facility

The building is large enough to handle the children served. The separate upstairs room makes it possible to have an appropriate place for the after-school children that they can call their own.

Worst Aspects of the Facility

The bathrooms are poorly located. They are noisy and the plumbing smells. There should be more bathrooms and they should be more central.

Location of Future Care Facilities

New facilities should never be located in heavy traffic areas, Barbara McGinness argued. They should, however, be central to the base and should be central to the destinations of parents dropping off children.

Missing Spaces

A kitchen and "cubby" storage space for children to keep their personal things in are the most missing spaces. A library space would get used because it could easily double-function as a conference space, parents room, and so on.
Location of "Cubbies"

If a facility has cubby spaces, they should be decentralized to reduce problems of loss. A centralized cloak room will guarantee complaints about lost and stolen items.

From several interviews with parents who use the drop-off services:

Why do your children come to the day-care center?

- need the service (involvement in community affairs)
- casual
- convenient

Do you know someone who does not use the facilities? Why don't they use it?

- used to have a bad reputation
- used to have a bad child-staff ratio (much better now)

Satisfaction with the present program and range of activities:

- casual day-care--satisfied
- full-day care--don't know
- preschool--very good

What do you most dislike about the building?

- overall image of an "old building"

What do you think about the outdoor play area?

- reasonable

What sitting considerations should be considered for new facilities?

- central to housing
- far from highway
Separation of Full-Day from Drop-In Care

Given that there was a worry on several bases that the needs of drop-in children take time away from the continuing needs of full-day children, a major achievement of this program is the separation of the two groups into their own programs and areas, though they share a common entry.

Large Open Spaces

Most of the program is housed in two large rooms subdivided by partitions, some high (5 feet), some low (3 feet). Although adequate visual isolation is provided by the partitions, the large rooms do not provide an adequately quiet environment where individual activities can happen without interference from other activities. The juxtaposition of the gym next to two of these areas may keep the children in those areas overstimulated with noise from the active gym area.

Indoor Gym

The designation of a gym area is seen as a major and useful accomplishment by the Director. It has scheduled use throughout the day. An active "gym" activity area for programmed use, as well as for bad-weather play, should be seriously considered as a functional space in any child care facility.
Club Room for After-School Use

Another special accomplishment of the center is the provision of a special space for the older children who come before and after school. Although they don't have their own entry, their room is isolated—it is the only facility on the second floor—and they participated in decorating and furnishing it.

Outdoor Play Area

Although the play yard is large and has a fair number of pieces of equipment, and even a play house, it is not used effectively and not arranged or zoned in a way that reinforces a variety of activities.
OAKLAND ARMY BASE NURSERY

BASIC DATA

Client United States Army

Address 10th Street
Oakland Army Base
Oakland, California 94626

Director William Mosier
Consultant Contractor (in lieu of an on-site
director)
Center for the Study of Child Development
Vallejo, California

Architect None

Consultants Col. Larry Wanberg
Chief, Department of Social Services
Letterman General Hospital/Presidio, San
Francisco

Date Unknown; renovated minimally in 1975

Users Children of Army and civilian employees;
35 full-time children, 10 drop-in, 50
maximum at one time; ages 6 mo. to 5 years.
Children of low to middle-income enlisted
families, some from single parent families.

Size 5,000 sq. ft. plus 4,600 sq. ft. play yard;
no additional site area

Cost Unknown

People interviewed
William Mosier, Consultant Contractor
Col. Larry Wanberg, Consultant
Lt. Cynthia Conners, Chief of Community
Services (until July 31, 1978)
Lt. Cheryl Worch, Chief of Community
Services (after August 1, 1978)
PARTICIPANTS

Children

This Army Nursery serves children of Army and civilian employees. Most are from low- to middle-level enlisted ranks, and some are from single parent families. Racially they are balanced between Black, Oriental, and Caucasian. Very few have any handicaps or learning disabilities. Age range is from 6 months to 5 years, with a very few after-school drop-ins. The center is mostly a full-day child care center accommodating an average of 35 and a maximum of 50 children. Fees are $.75 a day for drop-in and $1.00 for full day care.

Certain people are not using this facility. At one time it was boycotted by officer's wives. Some families cannot afford the fees, and still there are no children of officers.

Staff

This is a unique center in that it has no real on-site director but is run by an off-base consultant contractor who is hired by the community services. He has a master's degree in educational technology, some training in early childhood education, and experience in a range of early childhood centers. The resident staff are not well trained: 4 are called "learning facilitators" for the preschoolers; 2 are "infant caretakers." Some have teaching credentials. Staff turnover is very high, every 3 mo. on the average.

Increased Usage

Five things were seen as necessary to increase usage:

- reduction in fees
- publicity
- better staff
• improved building image—a cottage image rather than a barracks image was suggested

• attractive play yard

Mothers are said to be restrictive on the base. The playground is vacant on weekends. Apparently there is little for children to do, except beat up on each other; some hang around the Youth Center.

PROGRAM PHILOSOPHY

The program philosophy, organized by the consultant contractor, is very self-consciously child-initiated eclectic. The center is considered an environment for learning; development is considered to come from an interaction between maturation and environmental stimulation. Ideas from Skinner to Piaget, with a large dose of the human potential movement are incorporated.

Four goals are paramount in this program:

• development of mutual respect, including staff-child interactions

• language stimulation

• development of self-concept

• sensory stimulation for all primary senses

Field trips off-base are also used a lot. Staff training by specially designed videotapes and some group growth seminars are considered very important.

The children are subdivided into 3 age groups: Infants 3-13 mo.; ambulatory toddlers 13 mo.-2-1/2 years; and walking-talking preschoolers 2-1/2 to 5 or 6 years.

Activities

Activities for the preschoolers begin in the morning at self-directed learning stations of the child's choice. Mid-morning the staff announce some new day-long or week-long theme activities, either indoors or outdoors. Lunch is 11:30 to 1:00, with a 5:1 ratio at tables. After
clean-up the children are free to return to learning centers or play outdoors. On field-trip days, like to the zoo or arboretum, all preschoolers go together.

FACILITY DESCRIPTION

SITE

The Oakland Army Base is a military overseas shipping terminal which uses part of the adjacent Port of Oakland wharves and commercial carriers. Thus the base is primarily warehouses, train-to-dock transfer points, and truck unloading docks. Six blocks contain all the family housing, recreation, and offices for the 110 families on base.

The Nursery is at the south end of the family housing area, at the south end of the base. It is across a street from housing, and directly fronts the street with no set-back. On the non-street side behind a chain-link fence is a truck garage and extensive black-top. To the immediate east across a narrow dirt road are the main rail lines to the Terminal. Some limited on-street parking is available, plus a small parking lot to the east across the street. A few trees are on the north side but none on the south or near the playground.
CONCEPTUAL ORGANIZATION

The Nursery is housed in half of a very long, narrow, grey, wood-frame, one-story, pitched-roof, partially renovated barracks. The Nursery is 200 ft. by 25 ft. with two street-side entries and no internal hallways; rooms lead one to another in box-car style; and the playground is off the far eastern end of the building. Due to an internal boiler room, it is necessary to go out a back door and along the edge of a parking lot to get from one half of the building to the other, or from the older children's area to the playground.

Grouping is by age in one of 3 main rooms. Other smaller rooms are provided for staff conferences, offices, sick isolation, and coats and boots.

There is very little connection between interior spaces and the play yard, even from the room adjoining it. Windows are high, and doors are standard widths.

SPACES AND BUILDING SUBSYSTEMS

One room had folding doors for subdividing the space. Other rooms made use of "L" shapes and furniture for partial functional differentiations.

Observations about building subsystems:

- exposed electrical outlets
- unprotected gas space heater in the middle of one room
- no bathroom facilities in the infant room
- inadequate toilets in general
- one-half of one room has no lights at all (and even bulbs must be changed by the local Facilities Engineering Office, we were told)
- no special acoustic features
- no views out windows--too high and nothing to see anyway
- no large interior storage area
- no outside storage
- no attention to interior design finish, colors, or graphics (everything has been done by staff with apparently little base help)

- no special provisions for safety or security--e.g., large hole and on exposed cable wires in the playground which no one could get the Facilities Engineers to fix, exposed heater, etc.

- building has posted map for fire evacuation, but no sprinklers as other fire prevention system

- no accommodation for the handicapped

- display space is limited

- playground was 2/3 asphalt, 1/3 packed sand with a few scattered pieces of play equipment--a play house, two rabbit cages, a jumping area (into soft foam), and a concrete turtle

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**OBSERVATIONS AND INTERVIEWS**

Other than a few infants, children who were drop-ins, and two caretakers, all the children and staff were away on a field trip the day of our site visit.
COMMENTS FROM INTERVIEWS

The consultants and Chiefs of Community Services were all very enthusiastic about the early childhood development program being implemented at Oakland, but were very dismayed at the physical facilities. There was some indignation about the lack of Base cooperation to improve facilities. No one could say anything good about their facility, and they raised many serious objections all the way from safety features to architectural organizational considerations (linearity makes for difficult communication among staff and peer-interactions among children).

The staff, however, has done remarkably well with a poor shell--staff-and child-initiated graphics and drawings adorn most walls, plants are hanging near windows, a colorful model airplane floats over one room, and when official budget was lacking, materials, soft objects, and furniture has been scrounged.

ASSESSMENT

Special strengths about the facility are few; special weaknesses have been noted above.

The best aspects of the center are its program philosophy, staff training, and well-stocked, child-scaled learning centers.

The worst aspects are its very limited outdoor play space and inadequate equipment, the terribly inadequate bathrooms, the lack of separate, quiet napping areas, the lack of clear separation between interior circulation and activities, the inadequate box-car arrangement, the siting, and the many specific building subsystem problems listed above.

Causes, we were told, for these problems are lack of Base support, but even with existing materials, and the very good work of the staff, the minimal renovation, lack of color, lack of acoustic treatment, inadequate space differentiation, etc., show the critical importance of expert architectural design guidance in both renovation and even just equiping and setting up spaces.
LESSONS

- provide clear separation between circulation paths and activity spaces
- provide inviting access between indoor and outdoor play spaces
- elongated overall plans seem to minimize staff interactions and child peer interactions
- learning centers should be child-scaled
- washroom facilities for children should be adjacent to main activity spaces
- site location should be away from noisy, noxious and dangerous elements
- drop-off and at least some parking should be near main entrance
- a separate staff area is useful for meetings, offices, and retreat
SUMMARY

In general, this was the most depressing physical facility that the West Coast team visited. It is disjointed and totally inadequate for its new use. Its location is in a service yard area of the Base. The setting of the outdoor play area is terrible and the area itself was depressing.

The program, however, is receiving lavish attention and, with its extremely limited funding, is well-stocked with specific child-scaled activity areas and material. A continuous staff training activity is comprised of films, growth groups, and occasional weekend sessions. This activity might be important as a prototype for other centers, especially new or expanding ones.

(Since this site visit was completed, we have learned that there may have been a sudden change in staff, and that some attention may be given to the outdoor play space.)
ALAMEDA NAVAL AIR STATION CHILD CARE CENTER

BASIC DATA

Client  Alameda Naval Air Station, USN
Address  Building 135
         NAS Alameda, California
         (617)869-2435
Director  Marie Ladd
Architect  None
Date  Unknown
Users  Children of 200 families, mainly from
       officer ranks, and mainly white; 2 months
       to 10 years old, majority 5 years and
       below; 80 regulars for 11 hour day;
       150 average, 200 maximum; very few handi-
       capped children served; exact numbers
       unknown
Size  15,000 sq. ft. plus 17,000 sq. ft. outdoor
       play area on a 1 acre site
Cost  Not available
People  Marie Ladd, Director
Interviewed  Several staff and children
PARTICIPANTS

The Alameda Naval Air Station Child Care Center serves an average of between 80 and 150 children at a time. It is primarily a drop-in service, though 80 children are regular attendees. Ages range from 2 months to 10 years, with most being below 5 years of age (older after-school children mainly use the Community Center Building and playing field next door). Most children are white (the base is 70% white). Few handicapped children are served. The children are mainly of officer-level families. Children of low- and middle-income families are not using the facility. A sliding price scale is seen as opening possibilities for lower-income families.

The staff is mainly qualified Department of Defense Child Care Attendants, most with certificates.

There is reported to be very high child abuse and child neglect on the Station, attributed to very low wages, fathers being at sea for long periods, parental discord during brief times of reunion, and many mothers needing to work off-base at distances making for an 11-hour day away from their children.

PROGRAM PHILOSOPHY

"The primary mission of the day care center is to meet the need of military children for experiences which will foster their development as human beings," reads one of the Center pamphlets.

Staff/child ratios are set at 1:4 for infants; 1:8 for toddlers 18 months to 3 years; and 1:10 for 3 years and up.

The curriculum is "teacher and child mutually controlled." Specific developmental goals are printed for each age group, along with percent of waking hours in which the infant or child is to be engaged in activities relevant to those
goals (e.g., small and large motor activities, 50% of infants awake hours; one hour a day of planned art activities for 3 to 7 year old, etc.).

The program is organized around what they call flexible "learning centers". At the beginning of the day (for the 80 regulars), each staff member announces what she or he will focus on. Children follow staff. They are free to move between groups. The staff member and followers move from space to space, activity to activity as the group votes to move. Team teaching is encouraged. Socialization is stressed throughout, but no particular approach or philosophy is followed slavishly.

The Center also plans to offer training programs for local high schools and colleges, and to provide advisory services for other regional agencies, and to start an in-home infant day care program, a regular house drop-in program, and parent training groups. The Center is self-sufficient financially (fees meeting expenses).

FACILITY DESCRIPTION

SITE

The Child Care Center is housed in a converted wood-frame former community services building (formerly classrooms, thrift shop, Navy exchange, offices, some limited child care etc.). The Center is in an area adjacent to the Officers' Club and Community Center Building and very near the entrance to "Officer's Country", the Officers' residential area. The site is flat, the building set back from the street on the south side. Parking is on the street only.
CONCEPTUAL ORGANIZATION

The portion of the building now used for child care is comprised of three long double-loaded corridors forming a "U" shape. Activity rooms, offices, etc. are 15 ft. wide by various lengths. The corridor is of uniform 4-1/2 ft. Most linear rooms are subdivided with furniture to mark more intimate and functionally differentiated spaces.

The children are grouped roughly by age and types of activities, e.g., there is a clear infant room, toddler's rooms, and then a variety of preschooler's activity spaces—named by the staff the "Game-Math Room," "Science-Music Room," "Drama Room," etc. There are also a combined Kitchen-Eating Room, a Parent-Staff Room, Director's Office, and auxiliary supply and storage rooms.
Two sparse play yards were adjacent to the building and enclosed by a chain link fence. Access was through a bathroom and a combination coat and observation room. Little interaction with the out-of-doors was evident here or at the main entry.

There were no special features in evidence for handicapped, vandal proofing, or security.

BUILDING SUBSYSTEMS AND FURNISHINGS

The most remarkable physical attributes about the environment were the bright and lively color scheme, the sensitive use of pillars, implied lines, and shelving to subdivide rooms into differentiated activity spaces, the great amount of materials for the children to use, and the general sense of order and stimulation everywhere. For example, the large Drama Room was subdivided into five functional areas, two different play house areas, building block area, drama/puppet set, and "Mr. Roger's Neighborhood Grocery." Natural light was filtered through translucent paper on the windows. (There were no views to the out of doors, however.)

The pillars and trim were painted in rich, deep matte colors (deep green, mauve, yellow, red, etc.), and children's work was seen everywhere as general decor (e.g., the walls of the corridors were lined with white construction paper along which the children had painted a lively mural).

Everything was carefully stored with children's access possible.

Fire prevention of this wood frame building was accomplished in part through exposed sprayed asbestos.

OBSERVATIONS AND INTERVIEWS

OBSERVATIONS OF USE

Careful observations of children's use of this facility were made for 1-1/2 hours during the site visit.
All children enter and leave with an adult at the reception area, where the child is checked in, cards are filled-out, fees paid, etc. The Director's office looks into this space through a window and open door. Early morning children then go to the Large Muscle Activity Room, from where they follow a staff member to particular activity rooms.

As mentioned above, each activity room was subdivided informally by shelving, implied lines, area rugs, and in some cases locations of pillars. Children used these activity spaces in different ways, and normally in small groups of 3 to 5. The 15' x 30' Game-Math Room, for example, had three functional areas: 4-5 children working with small manipulative objects at one end, 1-2 children at the sand table in the middle, and 3-4 children with "Creative Playthings" toys on an area rug at the other end.

Three functional areas were also seen in the 15' x 45' Science-Music-Reading Room: a sharp differentiation between Reading and Music versus Science by 4-1/2 foot solid backed bookshelves, and a subtle distinction between a books-science table area and an animal area by means of plants hanging on a rod and implied lines from the doorway. Children lie down listening to stories and music in the Music area, and were seen to be tending to the animals or experimenting with science equipment in very small groups in the other areas.

Observations in other activity rooms confirmed the small group nature of most activities, the congruence between small group size and functional subspaces, and the apparent lack of conflict between different activities in adjacent subspaces.

Uses of some of the other areas are worth note:

- All infants activities were in one room. Conflicts were observed between sleeping and active infants.
- Groups of 6-8 children at a time came with a staff member to the kitchen. This seemed to facilitate many people
being able to use a small kitchen and small group identity and interaction.

- Lots of interaction between parents, children, and Director was observed in the entry/Director's Office area.

- Movement was awkward in the long narrow corridors, and seemed to be non-substance time, but the corridors did seem to help the sense of different moods occurring in different spaces.

- The Parent-Staff Room was valuably used for informal "training" sessions between a mother and one or more staff members. It also double-functioned as a storage-duplicating room, but despite the obvious possible conflicts here, none were observed in our short visit.

COMMENTS FROM INTERVIEWS

The interview with the very energetic and thoughtful Director, Marie Ladd, led to a number of design-relevant comments and suggestions, among them the following:

- Preference for center-based or at least group-home care in order to get the children and parents out of the house for awhile. Change and stimulation as well as opportunities to see how staff work with other children were cited as benefits.

- Opportunities for fairly free movement between activities, for group voting on activity preferences, and for mixed-age groupings (beyond the toddler stage) were cited for their benefits for cognitive and social development.

- The one infant room was seen as needing drastic changes, e.g., separation of napping, motor activity, quiet manipulative activity, and changing areas into different rooms or activity "pits."

- The preschool part of the Center was seen as basically adequate, with the exception of more space for arts and crafts, movies, and parent meetings, better outdoor playyards, larger rooms
generally, and more child-sized washroom facilities. High positive features included the number and variety of rooms, and the opportunity for internal changes, both through furniture movement and the temporary quality of walls and partitions.

- Ms. Ladd argued in favor of Child Care Centers being located in residential housing areas, not on main streets.

- "Smaller is better," she said, advocating centers of no more than 60 to 80 children.

- Drop-in care should be separated at least functionally from early childhood development programs.

- Play areas should be located directly off each age group's inside areas; thus 3 playyards at a minimum.

- The scale and image of Centers should be child-oriented (e.g., at Alameda the corridor ceilings were "lowered" by gaily hung crepe paper, so that we had sometimes to duck slightly in order to move about).

**ASSESSMENT**

**LESSONS**

In addition to the Director's recommendations above:

- outdoor play areas need direct and immediate connection to interior spaces

- parent/staff rooms should be provided near entry/exit areas

- a variety of infant and toddler's types of spaces are required (see above observations)

- the Directors' offices work well in close proximity to entry/exit and sign-in areas
• small group activities seem to be facilitated by functionally subdivided spaces for use by 4-6 children

• movement between closely related activities seemed to be facilitated by only partially subdivided space, with intermittent visual connections

• spaces seen to be able to be functionally differentiated for children by subtle cues of shelving, hangings, aligned pillars, area rugs, and implied lines of closure

• access to and stimulation by materials seemed to be facilitated by lots of clearly-marked, orderly, open storage

• asbestos fire retardant should not be exposed

SUMMARY

This was the best Military Child Care Center we saw on the West Coast and seemed the least hampered by the necessity of using an old facility.

Before commenting on the quality of the services provided, it is essential to talk about those who can not afford the services and the quality of home life at this particular Naval Station. This facility is self-supporting and therefore the poorer families can not afford to send their children. Fathers are shipped out for 6 to 9 months putting stress on all families but particularly the poorer ones who do not receive income unless the husband has authorized it before he left. This leads to extensive child abuse and malnurishment in children of lower ranking people who can not use the child care facilities because of economics.

The center itself is very nice and for a large facility still maintains the flexibility of allowing children to choose activities. This is done on a group basis and therefore is not quite as nice as smaller facilities which allow choice on an individual basis but it is a good method and seems to work. By far the strongest aspects of this facility is
its development of clear activity centers with great numbers of things to do and reasonably small scale. Children's art and lively colors decorate all the walls which energizes the environment and makes it truly exciting.
# Basic Data

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<th>United States Air Force</th>
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<tr>
<td>Address</td>
<td>Bolling Air Force Base</td>
</tr>
<tr>
<td></td>
<td>Washington, D.C. 20332</td>
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<tr>
<td></td>
<td>(212)563-5309</td>
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<tr>
<td>Director</td>
<td>Diane Tucker</td>
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<td>Architect</td>
<td>U.S. Army Corps of Engineers</td>
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<td>Date</td>
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<td>Users</td>
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</tbody>
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The existing Bolling Air Force Base Child Care Center provides drop-in as well as full-day child care. The daily program emphasizes creative expression, directed play, and reading readiness for children 2-1/2 to 5 years of age. Although the more formal aspects are conducted from 8 a.m. to 11 a.m., learning areas provide developmental activities for children throughout the day.

The facility does not provide hot food. Children bring lunches with them. Light snacks are provided. Outdoor play is part of the daily routine, weather permitting.

PARTICIPANTS

The children are grouped according to age. Infants (6 months to 2 years) are in the crib room. Other groups are the 2 year group, the 3 year group, and the 4 and 5 year group. About 50% of the children are minorities, mostly black. Only two or three children have any kind of recognizable handicap, but no special program is available for them. There are a total of 25 employees who operate the Center in two shifts. The Center is open from 6:45 a.m. to 10:30 p.m.; 1:00 a.m. on Saturday.
FACILITY DESCRIPTION

The building is situated on a sloping, wooded site which contains large old trees. There is a side street with parking in front of the entrance. A conventional outdoor play area is located directly south of the building in the wooded area.

The building is a one-story, wood frame former Army barrack. The main "room" is open plan, subdivided with low, 36 inch partitions which form eight different areas. In addition, several conventional rooms create a T-shaped extension to the main room.

ASSESSMENT

The building is clearly outdated and its organization has an effect on the quality of the daily activities. Some key shortcomings include:
• Access to most primary spaces requires circulation through other activity areas.

• The open plan generates a high level of noise which is not controlled by any buffers. Although the users get used to this condition—including the constant noise from the near-by landing pattern of National Airport—our assumption is that the noise is taking its toll.

• The Director's "station" does not provide a place for work, reflection, and intimate conversation. Although visual control over entering children and parents is an important requirement, this particular arrangement and location provides no privacy for the Director. Its relation to the "entry and welcome zone" is remote.

• The reception station is clearly not at a child's scale. The tall forbidding counter is the first view for the entering child.

• Similarly, the ever-present cash register in this and other military childcare facilities is not contributing to the image of a school or home, which are the typical images Directors would like to project for users and visitors.
BOLLING AIR FORCE BASE NEW CHILD CARE CENTER

BASIC DATA

Client United States Air Force

Address Building 417
Bolling Air Force Base
Washington, D.C. 20332
(212)565-5309

Director Diane Tucker

Architect Vosbeck Vosbeck Hendrik
Redinger/Alexandria, Virginia

Date To be opened in late 1978 (90% complete)

Users Infants through after-school 12 year olds

Size 16,500 sq. ft.

Cost $649,684 (facility and playground);
$33/sq. ft. for the building

People
Interviewed Diane Tucker, Director
PROGRAM DESCRIPTION

The new child care facility at Bolling Air Force Base is one of the first Air Force facilities to be built based on a series of definitive plans. While a Director for the new facility has been designated, the facility hasn't opened. Some of the program issues that influenced the design of the new facility include:

- separating children into age-groups
- teacher-oriented program (parents leave children at the door)
- integrated use between indoor and outdoor activity areas
- mixing of drop-off and full-day children

FACILITY DESCRIPTION

SITE

The site is in the community activities area which is centrally located on the base and is near activities that might benefit from drop-off care service. These include a future P.X., the arts and crafts building, and a bank. The building will help enclose a planned plaza. The site is central to new base housing and is within 1/4 mile of the base hospital.

The site is flat and treeless with about 3/4 an acre designated for fenced outdoor activities. It is directly under one of the final approach patterns for Washington National Airport. There are automobile, fire truck, pedestrian, and bike access paths.

The play yard is enclosed by a berm instead of a chain-link fence. The berm is on the outside of a retaining wall made of large I-beams and railroad ties. The goal of this arrangement is to reduce the feeling of being in a caged play yard.
CONCEPTUAL ORGANIZATION

Clear Access to Outdoor Areas

The dominant pattern for the building is that all the major spaces have clear and direct access to a well-furnished outdoor activity area. This relationship supports the program's concept, typical of child care programs, that outdoor activities are programmatically equal to indoor activities.

Centralized Control and Screening

The second organizing principle is centralized control and screening as to who is denied access into the building, e.g., a child with a cold or an unauthorized adult.
Separation of Age-Groups

The third dominant organizing principle is the separation of age-groups. Infants, preschoolers, and youths all have their own designated rooms:

- infants 6 months - 2 years
- preschoolers 2 - 6 years
- youths 6 - 12 years

Zoned Playground

The playground separates children into different areas by type of activity. The children are not fenced into age group areas.

Balanced Light

The main spaces receive light from two window sources: large windows with a view into the playyard; and clerestory windows which bring diffused light into the room.

Director's Office Location

The Director's office is given a key position in the facility. It is connected on one side to the entrance and on the other to the health (isolation) room, staff spaces, and children's spaces.

INDIVIDUAL SPACES

Kitchen

The kitchen is large and especially well-equipped with commercial kitchen equipment, thus preparing it for 2 varieties of food programs not available in smaller remodeled facilities. The kitchen is larger than the dining/multi-purpose room which it serves.

Coat Room

A centralized coat room for all age-groups is provided.
Room Size

The new Director expressed concern in a letter to the visiting team about the size of the largest rooms. She predicts behavior problems due to the dynamics of children in large groups. Her concerns are consistent with the observations of several systematic studies on child care centers (see Prescott and David, 1976; Ruopp, 1978.)

Entrance Sequence

Once inside the building, the children still can't see anything particularly attractive (activities, children, friends, equipment) that might draw them into the facility. The only visible thing is a wall (blocking their view of the coat area) that is decorated with some colorful graphics that direct them (if they can read) to their age-groups. Not until they are actually at the door of their space are there any attracting elements. Once inside the space, the next sequential link between inside and outside is excellent.

Laundry

The laundry had no apparent way of handling the heat and moisture given off by the washer and dryer. The staff can expect the room to be unbearably hot and thus it won't work as a folding room for laundry coming out of the dryer.

Overhang

If the overhang along the northwest side of the building had been about 7 feet wide instead of just under 4 feet, and had been a continuous deck instead of pebbled landscaping, the facility would have gained an important usable space at very little cost.
Entrance Waiting Area

A small lobby for child drop-off is located next to a covered entrance porch.

Observation Windows

Observation windows (not one way) are provided for views into the junior room (2-6 years) but not into the infant or youth rooms.

Infant Room Activities

Areas for various activities are provided in the infant room, including a crawl space, general crib space, and a diapering alcove combined with a kitchen space furnished with residential-quality equipment.

ASSessment

Entrance Porch and Approach Sequence

The covered entrance is a very successful feature of this center. It is large enough to provide needed outdoor waiting space and protected enough to provide transition space for people using the building. This is especially important because the drop-off lobby is small.

The dark glass around the entry is inappropriate because it is ominous and mirror-like and not in keeping with the general goal of making the entry space a cheery, anxiety-reducing place. In fact, the whole building is foreboding upon approach and entry, more like a set for Bergman's "Wild Strawberries" than like a place for children.

Window Treatment

A window guard made of a heavy metal frame and chain-link fence is located in one floor-to-ceiling window apparently to prevent accidental collisions of high momentum. The guard is very obtrusive and could be replaced with other safety measures, if needed at all.
Clerestory

The clerestory windows (a strip of windows located high in a wall) will work well on cloudy days and in the winter. Unfortunately, they are on the southeast and will bring more direct sunlight into the room than will probably be desired or needed. Similar south-facing clerestory windows at other facilities tend to get covered with shades that as a matter of convenience don't get re-opened. Still, the clerestory windows, for those who value them, are an important light source for a room that would otherwise have glare problems from other windows. The value of having smoked-glass in windows to balance the light in the room is dubious.

REFERENCES


BIG SISTER LEAGUE
COLLEAGUES INFANT CARE CENTER

BASIC DATA

Client: Big Sister League for Human Development

Address:
711 S. New Hampshire Avenue
Los Angeles, California 90005
(213) 385-5104

Director: Marilou Conner

Architect: Sanford Hirshen & Partners, Architects/Berkeley; Jack Trumbo, Chief Designer

Date: 1977

Users: 42 infants, 6 wks. to 2-3/4 yrs., approximately 70% minority, plus professional and paraprofessional staff; 1:3 ratio

Size: 9,500 sq. ft. plus 10,000 sq. ft. underground parking and 8,600 sq. ft. outside developed space on a 1/3 acre site

Cost: $750,000 including parking and all site development; $40/sq. ft. building; $30/sq. ft. including outdoor developed space

People Interviewed:
Marilou Conner, Director
Evelyn Anderson, Program Director
Jerry Ferguson, Chairperson, Board of Directors
Sanford Hirshen, Architect
PROGRAM DESCRIPTION

The Big Sister League began as a residential center for pregnant, unwed girls. Since 1970 it has administered three programs:

- a residential program for single, low-income women, some of whom are pregnant
- a family day care program
- the infant care program

The former are housed in a Spanish Colonial two-story building next door to the Infant Care Center.

The Colleague Infant Care Center is a center of human development for infants of low-income single parents, most of whom are going back to work or are looking for work.

The building was entirely paid for by private donations. To maintain the program, applications are being made for state grants.

PARTICIPANTS

The infants range in age from 6 weeks to 2 years, 9 months. Capacity is 42 infants. Typically about 60% are minority (Black, Asian, Hispanic). There are no children with significant physical handicaps, but many of the children are suffering emotionally and in some cases have developmental disabilities due to parental neglect, loneliness and child abuse.

The parents are young, single, living under emotional and financial stress, and are often AFDC recipients, minority, non-English-speaking, and working at low or moderately-paid jobs, if at all. Unfortunately this is also a typical profile for abusive parents.

The staff is comprised of a professionally trained director, program director, a nurse, a cook, with 15 paraprofessional CETA employees serving as primary caregivers. Staff-child ratio is thus 1:3.
The Director mentioned a need for more professional staff, a minimum of one early education person with 12 months extra training in infant development per duplex. A highly dedicated and qualified Board of Directors oversees the Center, led by an environmental psychologist/architect Chairperson.

Infants are grouped into six houses of 6-7 children each, paired with another house to make three 12-14 child duplexes. There are 2 para-professionals per house.

PROGRAM PHILOSOPHY

Infant stimulation, guided development, loving care (especially for lonely or abused children), nutrition, health services, caregiver training, the dual concept of shared parenting and parent education, and socialization to middle-class values, an overriding goal for both the staff and the children, are the main program objectives of the Colleague Infant Care Center.

Mothers bring their babies to the Center and to their "house" and are encouraged to stay awhile to talk with the caregiver, share parenting strategies, etc.

The Center is committed to working on the prevention of child abuse by breaking the incidious cycle of abuse and neglect through parent education, role modeling, and the development of parenting skills. This occurs in a three-step sequence:

- development of trust and security between the primary caregiver and the infant
- development of the parent's trust in the professional staff
- parent education

This sequence is based on their conviction that the first year of the infant's life is the most important time for parental change of attitudes.
They also are very aware that current research on quality infant care indicates that "quality" translates into "actual caregiver-infant contact" and "ongoing caregiver training", which in turn translate into "cost," which therefore has to be high when working with infants. National research indicates a 1:3 ratio of actual contact with infants is necessary, that at least one of three caregivers needs professional training (12 months beyond an early childhood education degree), and that on-going training is necessary through seminars, films, discussions, visits, development of communication skills, knowledge of infant development, knowledge of the use of curriculum materials, and development of parenting skills.
CONTEXT AND SITE

The Center is located one block off Wilshire on the fringe of the center of Los Angeles near a large minority and single-parent population. It is sited tightly between the other Big Sister League building and a two-story apartment unit on an otherwise high-density residential street.

Parking is underneath the facility. Service is off a back alley. The entry for parents and infants is along a difficult-to-find path between the two Big Sister buildings. The building is separated from the street by a berm and concrete-walled play areas.

CONCEPTUAL ORGANIZATION

The Center is organized into four pods around a three-story 27 ft. community atrium with an additional 7 ft. skylight on top. Three of the pods are side-by-side "duplexes" of two-children's "houses"; the fourth is a service, staff, and storage area. The atrium serves as an indoor free-mix play area directly linked to a modest outdoor play area.

The houses in a duplex share a core food-preparation area, bathing and changing area, and outdoor napping area. Otherwise the houses are mirror images of each other. The two eating areas are visually and aurally connected by glass. The other play and sleeping areas are visually separated from each other by the shared core of facilities.
There is a controlled circulation ring between the duplexes and the free-mix area which also provides casual touring and observation space. Conference rooms, lounges, and special project offices are on a second floor, all looking down into the free-mix atrium through large windows.

INDIVIDUAL SPACES

Special resource areas are provided on the edges of the free-mix area—music, AV equipment, water play, block play, hydrotherapy area, small manipulables, large-motor activity equipment, and a quiet area behind sliding glass doors.

Each house has a central play area (which doubles as the main circulation in and through the house) surrounded by a smaller play area, napping room, eating nook, shared facilities core and exit to the private outdoor play space.

House ceiling heights are 8 ft. in the quiet areas and 9 ft. in the actual play spaces.
All furniture has been specially designed and most of it is built-in.

BUILDING SUBSYSTEMS

Acoustics

All walls and ceilings are hard. There are only scattered rugs, no drapes, no soft chairs, etc. Planned acoustic panels were a late budget cut. The central free-mix play space, being 35 ft. square by 27 ft. tall, and all hard surfaces, is an acoustic disaster.

Natural Light and Views

Natural light enters all spaces, but in most cases from above child height. The only views out are into the drab concrete-walled play areas.

Flexibility

Most things are built in, and there is no provision for subdividing spaces. There were complaints that this limited staff initiative and made it impossible for the free-mix area to be used by two or more groups.
Storage Systems

Storage was built-in, much of it above head height; very little open storage was accessible to infants in the houses.

Exterior Play Spaces

Private play spaces are connected to each house, but are mostly concrete-walled crib-like spaces. The staff complained about there being too much concrete and that the other material--sand--is not good for infants. No shade was provided because of budget cuts. A larger common play space with young trees and some natural materials is off the indoor free-mix area.

OBSERVATIONS AND INTERVIEWS

OBSERVATIONS OF USE

A fairly systematic 1 hour observation of the free-mix area and one typical duplex unit revealed the following about spatial behavior:
Free-Mix Area

- Despite the presence of some toys for cooperative play in the free-mix area most motor play was solitary or parallel.

None of the architecturally-scaled equipment demands any cooperative behavior--indoors or out.

- The two climbing structures are clearly the places of the greatest amount of active play.

- The partially-enclosed block-play area provides protection for toddlers' structures from adjacent motor activities, but at 80 sq. ft. is too small.

- Children in very small groups of 2-3 play quietly with a staff member at the small manipulative puzzle tables, but seem to be distracted frequently by the immediately adjacent large-muscle activities.

Duplexes

- The napping rooms are quiet and can be darkened, yet have possibilities of natural light, and are well-separated from major activities.

- Children seem to move quite freely between the two houses.

- There is a serious lack of child-moveable objects and display space throughout the Center.
- The bathing basins are functionally very adequate, but are too small and too high to allow any chance for the infant to play or to do anything other than be passively and quickly bathed.

- It was obvious that the windows between the lunch areas and the community space were intended to simulate houses, opening onto a central active court, or neighborhood space, but unfortunately views to the real outdoors are totally lacking.

- Circulation and activity in the central part of each house are in conflict.

COMMENTS FROM INTERVIEWS

Client-Architect Communication

The client felt very strongly that the success of a building project like an infant care center depends very much on the style and depth of communication between the architect and the client. A generic design guide is very valuable, but the interpretation of it and the additional specific information which client representatives and typical users need to communicate will make or break a project. In this case, they felt that the architect didn't adequately deal with suggestions made by the Board of Directors regarding the subtle--and not so subtle--needs of infants. One example cited is the amount of expensive built-in equipment, when staff and children thrive on moveable parts. Another example is the harsh business-like interiors, when the houses were to simulate soft, comfortable homes. They recommended, therefore, at a minimum, that there be frequent communication between program and final design, that the staff, not only the Board, should be brought into programming as early as possible, and that there should be an ongoing two-way interchange of goals, professional values, and design ideas.

Observation Space

For any center planning to begin shared parenting or parent education, observation spaces at ground level are necessary, as well as ones which will allow parents and
staff to follow a child around during the day. A good T.V. and sound recording system are also helpful.

Noise and Scale

An infant center, they thought, should be much smaller in scale than this one. The free-mix space is too large for groups of 6 or 7 infants, which because of occasional conflicts between the children is the maximum number who should use it. The atrium ceiling is much too high, making the children seem insignificant by comparison. Noise is an associated problem with spaces which are too large and have too many hard surfaces for the number of people in them. Softening should be everywhere.

Specific Places for Specific Activities

Despite the several corners in the houses, the staff complained that they lacked a sense of specific places for specific activities.

Details

The staff felt strongly that there was an overkill on details for little children, and that money would be better spent on upgrading staff, on staff training, and on toys and materials, than on carefully detailed built-in furniture requiring a cabinet-maker.

Air Conditioning

The forced-air air-conditioning system is inadequate for the large central space. Though the atrium works somewhat like a chimney, it functions more as a collector of sun and heat. Good exhaust systems are also required in changing and food preparation areas.

Storage

Need extra storage for stockpiling inventory.
Safety and Security

Although wall-to-wall carpet limits activities, rugs tend to slip. Gates need to be everywhere. But artificial barriers should be minimized.

Site Conditions

Quick parking and pick-up and drop-off verges are needed for parents. Outdoor play areas should be much larger, should be located adjacent to each house, and should include water, shade, inclines, textures, natural things, clear paths for movement, space for bikes and wagons, and separation between infants' and toddlers' areas.
The Big Sister League Colleague Infant Care Center is a nice facility but is extremely expensive to build and run and is questionable as an architectural demonstration model.

The house concept seems to orient a child to one or two adults and to six or seven children. The joining facilities between houses, however, really seem to make the duplex the unit to which infants and staff identify, not the house. Napping areas are well separated, but play areas are dismal and much too small.

The houses and duplexes do not feel at all like "homes"; organizationally they have the layout of homes, but aesthetically and emotionally they are very harsh and institutional.

The central community space is central, but again because of harsh--though careful--detailing, it does not feel like a vibrant, soft, community space. Acoustics and visual hardness are definitely a problem.

While it is realistic to think of the center as a demonstration center for its program, there are some real design problems affecting infants. Additionally, the expense, size per child, and cost per child are unrealistic on a national scale.

Furthermore, it seems decadent to provide infants a Mercedes when they can't yet recognize a car. Money is better spent on staff, program development, and materials--architecture does make an important difference to programs, staff morale, and children's behavior, but this facility far overdoes it and makes serious mistakes in the process.

The building was described conceptually by the staff and in the architect's master planning report as trying to help the infant identify with one primary caregiver, then to a group of other children in a home-like setting, and finally on increasing scales to other children and adults in a community. Organizationally the building was thus divided into houses, duplexes, and a community common space. Some exterior play areas were related to each house and some
to the community as a whole. The general philosophy of the individual child relating to a primary caregiver and unit of people seems sound. Organizationally (see the plan and plan diagram) the concept comes off well. But the lack of any home-like qualities in detailing, in finishes and colors, in lack of flexibility, in lack of easy access to a multitude of materials, mitigate against the successful architectural realization of this idea. It is an expensive and in some ways a beautiful building, but as an image, it seems more a model of a humane institution than it does as a community of intimate homes.
BING NURSERY SCHOOL

BASIC DATA

<table>
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<tr>
<th>Client</th>
<th>Stanford University</th>
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<tbody>
<tr>
<td>Address</td>
<td>Stanford, California 94305</td>
</tr>
<tr>
<td>Director</td>
<td>Edith Dowley</td>
</tr>
<tr>
<td>Architect</td>
<td>Clark, Stromquist, Potter &amp; Erlich/Palo Alto</td>
</tr>
<tr>
<td>Landscape Architect</td>
<td>Royston, Hanamoto, Mays &amp; Beck/San Francisco</td>
</tr>
<tr>
<td>Consultants</td>
<td>Research Psychologists/Stanford University</td>
</tr>
<tr>
<td></td>
<td>School Planning Laboratory/Stanford University</td>
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<tr>
<td>Date</td>
<td>1963</td>
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<tr>
<td>Users</td>
<td>270 pre-schoolers in one of three different sessions</td>
</tr>
<tr>
<td></td>
<td>84 average at any one time</td>
</tr>
<tr>
<td></td>
<td>14 full-time staff</td>
</tr>
<tr>
<td>Size</td>
<td>Ca. 10,700 sq. ft. on a ca. 6 acre site, including 3-1500 sq. ft. activity rooms</td>
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<tr>
<td>Cost</td>
<td>$370,000 including $65,000 for site development, landscaping, street improvements, and outdoor play yards, $10,000 for fixed furnishings, and $9,500 for movable furnishings. $28/sq. ft. including furnishings; $11,000/acre for site</td>
</tr>
<tr>
<td>References</td>
<td>Bing Nursery School: the child's view. School Planning Laboratory Reports, March 1966, 1 (Whole No. 23).</td>
</tr>
</tbody>
</table>
The school's program is based on discovery learning; the child is treated as an individual, then as a member of a social group.

Children enter from the parking and drop-off areas into a central planted atrium, with three playrooms radiating outward from one side and research spaces on the other side. Children enter the center by a different door from staff and researchers, thus insulating the child-private areas from the researcher and student-researcher-public areas.

The activity-playrooms are large, somewhat sparsely furnished, with high ceilings and bright clerestory lighting; they are not interconnected.

Each half-acre playyard is directly off an indoor activity space, is connected with extensive covered transition space, and each offers the child a different environment and set of experiences.

The playyards are sculpted, well-landscaped, and shaded in child-scale, and offer different types of play equipment and spaces.

Interior environmental control is maintained by independent systems: radiant heating in the floor and cooling by natural cross-ventilation in the activity rooms, air conditioning in all research spaces, and a unit heat ventilator system in the reception, library, and conference spaces.

Lessons

- advantages of indoor activity spaces opening directly onto independent though connecting outdoor playyards
• advantages of playyards being well-landscaped, well-shaded, sculpted, well-furnished, and child scaled

• advantages of extensive indoor/outdoor covered transitional space for play in shade and protection from rain

• the most remarkable aspects of the playyards were their distinct styles, their many sub-spaces defined by unobtrusive landscaping allowing active and quiet pursuits, and their being scaled very closely to the child

• different HVAC systems including natural cross-cutting ventilation for different activity types
BLOCK SCHOOL FOR PRESCHOOL EDUCATION

(Currently converted into a bi-lingual pre-and elementary school)

BASIC DATA

Client: New York City Board of Education
Address: 1062 Winthrop Street
Brooklyn, New York 11203
Director: Carol Harris
Architect: Hammel Green & Abrahamson/New York
Date: 1972
Users: Inner city, pre-school children
Size: 6,000 sq. ft.
Cost: $90,000
$15/sq. ft. renovation


A New Lease on Learning. New York: N.Y. City University, n.d. (Film).
A vacant synagogue and a store in an inner city, rapidly changing neighborhood were converted into a pre-school, with the assistance of a federal grant.

The interior has been remodeled with new construction that fills the room with a landscape of level changes and partial partitions to create spatial variety both vertically (cubbies & escape places) and horizontally (spaces for special projects, classes, etc).

ASSESSMENT

RENOVATION

This is an example of a low-cost, parents' assisted renovation of a "found space."
Structural changes were minimal, while most of the spatial change was achieved by carpeted wood platforms, and low plasterboard partitions.

Acoustics

While the large open space is successfully landscaped and divided into areas without creating rooms, more sound absorbing materials would further improve its use. Noise is a current problem because there are more children than originally planned.

Color/Light

The most successful space in the building is the second, smaller classroom. Originally used just as a gym, it is a lot cheerier than the larger classroom because it has both natural light and bright colors. The light is high-side light and fills the whole room with fairly high quality, evenly distributed daylighting.

The bright colors on the front of the building as originally pictured have now been repainted much duller colors and the image of the whole facility as a special place in a fringe community has been compromised.
DAUGHTERS OF AFRICAN DESCENT DAY CARE CENTER

BASIC DATA

Client       Daughters of African Descent
Address      Essex Street on Hegeman Street
             Brooklyn, N.Y.
Architect    Frank Williams/New York
Date         c. 1970
Users        105 pre-school and school children
Size         18,000 sq. ft.
FACILITY DESCRIPTION

This is one of a series of day-care and after-school centers for the City of New York. The program separates day-care-preschool services on one level and after-school drop-in services on another. Most of the children walk to the facility.

The day-care-preschool rooms are up a half level clustered around a "multi-purpose" hall room on the large end of an "L" shaped site. Administrative offices and other support spaces are along a south-lighted single-loaded corridor. The roof is enclosed with a fence and provides the play space not available on the tight lot. The lower level contains the after-school program.

ASSESSMENT

Separate Program Entrances and Image

The most significant idea expressed in the design of the facility is the clear separation of entrances and thus of the day-care and after-school programs. One potential benefit is a clear image of the place and of their own program in the minds of the participating children.
Missing Daylight and View

Unfortunately, the services on the lower level are all delivered in windowless rooms. A split-level scheme should have been able to provide daylight for both levels. The spaces for half of the facility are awful in contrast to the ordinary but pleasant spaces upstairs.

The Missing Porch

The Architectural Record article on this building notes a front porch concept that presumably would make an "invitation to the neighborhood." While the building is built as shown in the plan, there is no "front porch," nor is there any sense of space for community use.

Construction Quality

Although the magazine article suggested a good working relationship with the contractor, the building has a continuing problem of water leakage through the concrete-covered metal decking that then allow water and rust to stain the suspended ceiling.
BASIC DATA

<table>
<thead>
<tr>
<th>Client</th>
<th>U.S. Office of Education</th>
</tr>
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| Address        | Federal Office Building #6  
                  400 E. Maryland Ave., S.W.  
                  Washington, D.C. 20202  
                  (202)-245-7785 |
| Director       | Evan Nelson              |
| Architect      | Hammel Green & Abrahamson/New York |
| Date           | 1972                     |
| Users          | 40 children (ages 2-6) of federal employees |
| Size           | 2160 sq. ft. (indoors)   |
| Cost           | $125,000 including playground |
| References     | Educational Facilities Laboratories.  
                  Learning through design. Progressive  
| People Interviewed | Evan Nelson, Director  |
PROGRAM DESCRIPTION

The educational program in this facility is influenced mostly by Piaget according to the director's description. However, she suggested that because of the long duration of the typical day—10 1/2 hours—the staff employs ideas and concepts from other educational theories. The eclectic approach, she said, helps to bring sufficient variety to the daily routine. The favorite educational approach is a "modified Piaget," called by the director, "teaching at the teachable moment."

FACILITY DESCRIPTION

The program is housed in the remodeled basement of a federal office building in downtown Washington. Even though the area is built intensively with high rise office buildings, the Learning Center has its own generously equipped outdoor area to compliment the interior space.

The interior is basically a single, windowless open space that has been landscaped with platforms of various heights that divide up the space into different activity areas. Small spaces for "children only" are provided and there is an open home-like kitchen surrounded by a counter that is used as the center of the activities area.

After the multi-level platforms and the yard, the most important physical feature is the porch. The porch is wide enough to provide a significant covered play area that extends the potential for using outdoor play as part of the program almost all year.
OBSERVATIONS AND INTERVIEWS

COMMENTS FROM INTERVIEWS

Location

Child care at job location has several advantages. First is the shared time experience between parent and child while traveling. Second is the immediate availability of the parent if something happens to the child that requires parents' attention.

Open Planning and Group Size

Ms. Nelson, the director, suggested that 30-40 children is as large a group as an open planning unit should accommodate. The younger children (2 years olds) are overwhelmed by a variety of things including the numbers of staff, the impact of the older children, the size of the space and the number of children in their own group. Still, open planning has some advantages over contained classrooms. Cross-age grouping for some activities is very good. She believes that it helps social development especially. The following groupings were therefore suggested:

- 3 years-5 years
- 6 years-8 years

Level Changes and Platform Interior Landscaping

The platforms are good but some or all could have been on coasters rather than being fixed features which do not allow any flexibility.

Private Spaces

The private spaces that the platforms make are good. Children like spaces that are obviously "just for kids" where adults can't quite stand up. Too many and too small and enclosed spaces create the potential for loss of teacher's control and visual contact with the children, however.
Equality of Indoor and Outdoor Activity

The program benefits from having outdoor space clearly included as a part of the whole concept for both the facility and the program. A field for ball games should be available. Some of the outdoor equipment should be movable and some loose play materials as well as water should be available.

Safety

Children should be taught safety rather than having the facility so overdesigned that it isn't fun or flexible.

Carpeted Stairs

Carpeted stairs are good especially for helping little toddlers develop motor skills. Short flights are best.

A Program Use for a Kitchen

The kitchen with its sink and counters is a prime potential play space for children at home. Some regulations require, however, that children be kept out of the food preparation area. By having the kitchen in the open with an open counter, children can view activities and materials without actually entering the kitchen, and then can experiment and participate in preparation at the adjoining area. Water and counterspace are available and children pick up stuff and take it to their work tables. Children participate in making their own snacks, an important social and confidence building activity.

Counter Heights

Ms. Nelson recommends either having the counter at children's height (regular counters are gigantic barriers) or having movable platforms to pull up to let the children get up closer to adult eye level.

Porches

Ms. Nelson is very happy with the porch to the play yard as a multi use space that
significantly extends the potential for "going out" and thus maintaining the outdoor part of the program through more of the year then would be possible if there were a clear demarkation between indoors and outdoors.

Flexibility

More things should be movable for benefit of the children and staff.

Cubbies

Be careful not to build the cubbies too high. The little ones can't reach high storage. Provide a sitting bench to help children get their clothes on and off, located near both the main entry (1st priority) and the playground entry (2nd priority).
HAROLD E. JONES CHILD CENTER

BASIC DATA

Client  Institute of Human Development
         University of California and Berkeley
         Unified School District

Address  2425 Atherton Street
         Berkeley, California 94520
         (415)642-7031

Director  Dorothy Eichorn

Architect  Joseph Esherick & Associates/San Francisco

Date  1960

Users  Children 3 - 5 years; 100 total, 25 per half-day in each half of the building

Size  ca. 19000 sq. ft. building on a 1/2 acre site of which the children's indoor area is ca. 3,800 sq. ft., and the outdoor play yards total ca. 9,700 sq. ft.

Cost


People  Dorothy Eichorn, Director
         Interviewed Barbara Scales, Head Teacher
The Harold E. Jones Center houses two mirror-image facilities with somewhat similar programs. The Center opened in 1927 and moved into the present facility in 1960. The building is owned by the University of California. The east side is run as a progressive University Child Study Center—a research and demonstration center. Children are from middle- to upper-middle income families, most of them affiliated with the University. The west side operates as a parent-cooperative nursery school program run by the Berkeley Unified School District. Children are from lower-middle to middle-income families. In addition there are research rooms used by students and faculty of the University of California. Infants are sometimes brought to the center for studies, but are not enrolled in a program. Thus ages are from 3 to 5 (6 in the summer). Children come for a half-day only—3s in the morning, 4s and 5s in the afternoon. There are 25 children in each side at a time, for a total of 100 students per year.

The staff is comprised of well trained, experienced head teachers, most with MAs, some working on Ph.Ds, and graduate student assistant teachers, all under the direction of an on-site Administrator and a Director at the University, who is a nationally-known child development researcher.

PROGRAM PHILOSOPHY

The program of the University Nursery School is designed to enhance the total person of the child—social, physical, and intellectual development. It is grounded in a combination of the theories of Froebel, Montessori, and Piaget. The children's interests are considered primary, though the staff works hard—and successfully—to present alternatives and challenges for development, and, occasionally, more formal preschool activities. The program of the Berkeley School District Nursery puts more emphasis on formal learning about reading, number skills, and problem solving. Parents play an important role in activities.
Research activities are a big part of both programs, in the Berkeley case in lieu of rent, for the Center is also maintained as a research and demonstration school for faculty research, and local and national demonstration projects. The Center welcomes hundreds of visitors from around the world each year, so every day is in part a research day and a visitor's day.

The Center also hosts community-based meetings and workshops on early childhood education.

FACILITY DESCRIPTION

CONCEPTUAL ORGANIZATION

The building is a mirror-image of itself east-west, separated by a long, narrow observation corridor. A trellis-covered walkway running east from the street further divides it into children's spaces on one side and staff offices and research rooms on the other.

The main children's activity room is "L"-shaped around an interior court. A large play yard is off the large side of the activity room connected by doors and floor to ceiling small-paned windows.
INDIVIDUAL SPACES

Activity Rooms

The main activity room is functionally subdivided into seven activity areas for the most part by furniture, heavy but moveable shelving, and subtle architectural cues. One quieter room is separated by a glass wall. The areas are:

- blocks, sand, and manipulables area
- mathematics-science area
- arts area
- reading area
- 2-story playhouse
- preparation and snack alcove
- quiet and music room

Thus there is an average of only 3 to 5 children per activity space. These spaces are in total about 3000 sq. ft., or about 100 to 150 sq. ft. per activity plus circulation and storage.

Internal circulation is a well-defined "U"-shaped path from the cubbies around to the quiet room.

Outdoor Play Yard

The outdoor play area is a rectangular 4750 sq. ft. yard with easy access from the interior. Mostly asphalt based and with architecturally less defined circulation or activity spaces, it has a covered "transitional" play area of approximately 1000 sq. ft. (with five activity areas well-defined because of 8 x 8 in. posts), a central sand pit, a large climbing structure on grass, and other scattered equipment, mostly somewhat ambiguous moveable "stage-set" equipment. There is a vague suggestion of a tricycle path around the periphery. The Berkeley side has a large rolled tarpaulin which can be lowered from the covered play area to give wind, rain, or sun protection from the sides.
OBSERVATIONS AND INTERVIEWS

When E.F.L. published a case study of this facility in 1970, Abramson waxed totally enthusiastic about this Center--inside and out--and said that short of a space for parents to congregate, both staffs were totally satisfied with the space and there were no weaknesses.

We were, very unfortunately, unable to see the Center in action as the school term had just ended. But two very kind and thorough interviews given us by the Director and Head Teacher yield a more complex and complete picture.

We asked how the children actually used the space, where--if anywhere--the environment could be said to have a stimulating effect on the children, and what were the best and worst aspects of the facility.

Good aspects far outnumbered bad.

Best Aspects of Facility

- neighborhood setting, in area near population actually using it

- indoor areas flexible and easy to re-arrange

- designed for minimum staff if necessary--can see all from one vantage point--even the toilets are open

- playhouse with its two stories is used a lot, and very imaginatively, especially the lower story which doesn't suggest any particular theme

- good balance between large and small areas, potentially noisy and quiet areas

- open quality of space allows free mixing of children on activity basis, yet functional definitions provide clear clues to activity spaces.

- materials and settings have a warm, child-scaled home-like quality, yet the spaces and materials are different from home
• observation galleries are good, and are used by parents with teachers, etc.

• cubbies are handy to entries

• storage is excellent—plenty of it, organized, and visually accessible and enticing

• clear separation between research area and the children's area—entries and doors are clearly seen

• excellent visual connection and free movement between indoors and outdoors

• year-round rain-protected outdoor play area

• large climbing structure allows hanging or attaching other things—swings, nets, cloths, etc.

• good balance between ambiguous and specific play equipment—

• the different sand play areas are excellent—one area inside and four outside—each for 4-8 children at a time, and each with different accessories and equipment

Aspects Needing Improvement

• need area where parents can get together informally with each other and with staff (This stemmed from a staff desire to be able to talk to parents on a regular, informal basis without leaving the area. A home-like kitchen with a table and chairs might have been just the thing.)

• need off-street parking in any busy area

• circulation in outdoor play area may be a problem—a way to run from door to major event like the climbing structure without interfering with other activities; and a clear way to move among activities (observation of actual use would be necessary)

• need outdoor running and trike areas not interfering with other activities—ball games seem to have little sustaining interest for children of this age

• need space, proper exposure, and good soil for gardening
• outdoor transitional play area, or semi-shelter to protect on three sides from wind, rain, and hot sun

• need extensive lockable storage outdoors—comparable to quantity of indoor storage

• need some large trees for natural, filtered protection from sun

• surface of play yard should not be all macadam (asphalt), nor is tan bark acceptable (combinations of some concrete or brick, sand, and grass is better)

• need fence which discourages trespassers and vandals, and yet barbed wire is unacceptable

• drainage must be excellent

• lots of space is required near cubbies, and out of the way of circulation

• separate basins are not as convenient for washing (including brushes, etc.) as one trough

• light bulbs should be protected against shattering

• there might have been too much glass area; in a number of instances small furniture was pushed up against the glass indicating that the window need not have gone to the floor

• as in most children's centers, there was little in the way of natural environments to explore—a space, like the interior court before the entry, might be developed into this if it is large and varied enough

SUMMARY

This is truly a beautiful setting for children. There is plenty of natural light, good indoor-outdoor access, and a strong sense of place for children. The building is unimposing, very much like a home-like background for activity. The scale is lovely, and the wood and architectural detailing reinforce the intimate child scale. The scale and architecture give a relaxed set-
ting which allows the smaller furniture to dominate the space in the minds of the children.

The entire floor space is subdivided into seven distinct functional activity areas and the covered outdoor space is too. Smaller furniture and architectural cues (mostly posts) are used to subdivide these spaces. Most of this furniture is not moveable by the children but the staff move it weekly or monthly to provide interest and entertainment in the environment without making it seem new and confusing every day. Most of the smaller furniture and toys are generally suggestive of activity, and not explicit or uni-dimensional in use.

Visibility indoors and outdoors is excellent—there is an adult area with controlling views of the bathroom, indoor, and outdoor play areas. The playhouse and general room size allows the development of quiet activities and places for children to withdraw.

Access and visual connection to the outdoor play yard is excellent. The covered play area allows outdoor activity in sun and rain.

Except for the far less successful play yard, the negative points do not detract from the overall superb architectural quality of this center, though they certainly are points warranting attention in other centers.
HELEN OWEN CAREY CHILD DEVELOPMENT CENTER

BASIC DATA

Client Park Slope North Child Development Center, Inc.
Address 71 Lincoln Place
          Park Slope, Brooklyn, N.Y. 11217
          (212)638-4100
Director Adler B. Toussaint
Architect Beyer, Blinder & Belle/New York
Date c. 1973
Users About 200 pre-school children, 35 school-age children, and 45 adults
Size 22,000 sq. ft.
References Park Slope North. Architectural Record, April 1972, 151, 135.
PROGRAM DESCRIPTION

One of a series of day care and after school centers for the City of New York, the program separates daycare-preschool services from the after-school drop-in program. Most of the children walk to the facility. The program handles 250 children with a staff of 45 adults. The rate is $40 a week but most of the parents pay nothing due to various support programs.

FACILITY DESCRIPTION

The facility is a three story building in a residential neighborhood on a small site. One playground is on the roof and a very small playground is located in a tiny backyard. Entry is dramatized, the same as the New Life and Daughters of African Descent Centers, and provides split-level access to two of the three levels. A basic floor consists of six care rooms. Four of them form a module with a shared widened hallway to provide extra bad-weather play space. An interesting feature is the use of interior windows between the rooms and the hallway. The windows "borrow space" from the other rooms. Although the rooms are basically the same size as those in the other New York centers visited, they seemed larger. The director reported an additional advantage of using the hallways as relatively unobtrusive ob-
servision booths. The ability of parents to observe their children in action is often useful in giving parents and children counseling.

ASSESSMENT

There is a variety of lessons to be learned from this facility.

Borrowing Space

Interior windows can make rooms appear larger. They also can allow informal observation. The view out the door of the room is into a brightly-lighted rather than dimly-lighted wide corridor space that further enhances this effect.

Graphics Make a Difference

In contrast to the New Life and Daughters of African Descent Centers the bold "supergraphics" painted on the wall are important to the spirit of the place.

Double-Functioning Conference Room

The staff conference room doubles as a display gallery for children's art work. It is a good idea and would work even better if the door were directly off the circulation area and not off the hallway.

Sleeping

The director suggested that the required nap time does not fit all children and that not all children can sleep in a room with other children. In a center this large (230 children) the director recommends a place for the "can't nap" children to play (like this center's play lobby) and a quiet room (not used as a punishment room).
Public Telephones/Reception Area

The center supports two public telephones in its reception area. The reception area could function as a parent's room if it were furnished.

Teachers Stations

Teachers need storage for their winter coats and purses, etc., in their care rooms.

Noise

The center does not have sound absorbing ceilings and is noisier than it should be.

Floor Color

The light floors are difficult to maintain. A darker floor would be easier to maintain.

Flexibility and Moveable Millwork

A lot of things that could be built in millwork should really be moveable to provide some flexibility to the care givers in personalizing and arranging their rooms.

Irregular Rooms Preferred

The corner nooks in the otherwise regular and almost square rooms that are made by putting the toilets in the other corner become important activity spaces and facilitate zoning of activities in a way that a simple rectangular shape couldn't.

Location of Director and Bookkeeper

The director and bookkeeper should be located at the reception entry.

Roof Play

Nothing but trouble with the roof play area. The "Latroturf" surfacing cracks
and leaks, in fact the opening of the whole facility was delayed because of the roof leaking. Unfortunately, it still does. There is also some doubt as to whether or not the roof could actually support the proposed play equipment.

Maintenance of Lights

A simple error that costs the center a lot of money is the location of lights in the two-story lobby. They cannot be changed without erecting special scaffolding and taking a full day to do it. This is too much money for a day care center to absorb for simply changing a light bulb.

Kitchen and Food Programs

The kitchen is large and well equipped. Since the center shops for its own food on a very tight budget, adequate storage space, both cold and dry storage, is absolutely critical.
MISSION ANNEX NURSERY SCHOOL

BASIC DATA

Client          San Francisco Children's Centers,
                San Francisco Unified School District

Address        421 Bartlett Street
                San Francisco, California

Director       Kristine Simmons

Date           Mid-1970s

Users          Preschool age children, mostly 3-5

Size           ca. 4000 sq. ft. on a 1/6 acre site

Cost           Not available
FACILITY DESCRIPTION

This is a wood frame structure basically with its back to the street and opening onto a partially covered central court and play area. Each of the indoor activity spaces is focused on the court. The building is flush with the front and side property lines, except for an angled set-back entry and a service path. A 6 ft. wooden vertical slat fence masks the service area and separates the play area from a back lane. The scale and basic roof shapes are in the character and scale of a contemporary house.

Interior circulation is around the window walls, with one and two-story activity spaces in recessed areas.

ASSESSMENT

This facility, which we only saw from the exterior after school hours, is a pleasant building, nicely scaled and detailed. Its strong back to the street and high fence around the play area seemed in response to general neighborhood vandalism and a tight site. A very inward-looking scheme, and the indoor-outdoor relationships seemed strong. Curiously, the partial outdoor roof neither connected to the exits from the activity spaces, nor did it cover the main play area, though it did allow light into the interior windows.

The outdoor play area was handsomely constructed and well detailed, but seemed to be oriented only to large motor development.

The scale and integration with the neighborhood in a contemporary idiom seemed the strongest features of this modest scheme.
NATIONAL CHILD RESEARCH CENTER

BASIC DATA

Client National Child Research Center
Address 3209 Highland Place, N.W.
          Washington, D.C.  20008
          (202)363-8777
Director Emily MacCormack
Architect Chapman & Miller/Washington, D.C.
Date Initial remodeling 1930
Users 120 pre-school children
Size ca. 4,000 sq. ft.
References Educational Facilities Laboratories.
          Found Spaces And Equipment For
          Children's Centers. New York:
People
Interviewed Emily MacCormack
PROGRAM DESCRIPTION

The original goal of the National Child Research Center was to provide a space and a program where young children could be observed in a preschool setting. The original school received a variety of research grants and was used as a laboratory setting for several universities. The current program still delivers preschool education but no longer seeks research grants. The students are mostly middle class with about 10% minority and occasional handicapped children. The philosophy of the school is eclectic emphasizing both individual attention to children's needs and social situations for children to participate in. Thus the daily routine emphasizes development of communication and social interaction skill.

FACILITY DESCRIPTION

OVERALL CONFIGURATION

The program is housed in a handsome Victorian mansion on a generous heavily wooded suburban lot. The original house was remodeled specifically to provide centralized observation booths for research. The current director's office was moved from an isolated location at the back of the building to a place right next to the entry (very similar to Fort Hood).

The facility includes a generous yard that has many large trees. A special aspect of the program is the use of a cottage at the rear of the site as a combined kitchen, dining, and napping facility. The director asserted very strongly that the separation of the two areas created an important break in the children's day for both eating and napping that contributed very positively to managing the flow of the day's activities.
INDIVIDUAL SPACES

The individual spaces benefit from the qualities of light, windows, and level of detail that were a part of the original structure. More importantly, there seems to be clear space usage benefiting from the implied spaces that the vestigial walls, porches, bay windows, found corners and unused hallways provided by a remodelled facility. Some "classes" use and move through several adjoining rooms which easily accommodate potentially conflicting activities.

A porch about 6 ft. wide surrounds most of two sides of the house. It is an important flexible activity space for both good and poor weather. The individual spaces are arranged into activity areas by low storage and play kitchen equipment. The center has collected a more than adequate amount of play equipment, low dividers, and toys. There is a current program for adding outdoor play furnishings to the several they already have.

ASSESSMENT

Importance of the Porch

In addition to the fact that a Victorian house can be remodeled into a very usable preschool, the porch deserves special mention. It is truly a multi-functional
place, providing a transition zone for entry into the building, an informal meeting place for parents and leaders, an activity center for some art and building play, a large-muscle play space on days when the grounds can't be used, and a general activity space for use during scheduled outdoor time.

Importance of Outdoor Areas

The planned use of outdoor space is an integral part of the pre-school program and is not an extra amenity.

Importance of Atmosphere

The facility benefits from a positive home-like image in the minds of the children, the staff, and especially the parents. The director finds that anything like colors or windows or natural light that makes association with interesting home-like settings in a definite advantage to the program.
NEW LIFE CHILD DEVELOPMENT CENTER

BASIC DATA

Client         Woodbine Block Association
Address        295 Woodbine Street
                Brooklyn, New York
                (212) 821-3448
Director       Leslie Wood
Architect      Paul Heyer, AIA/New York
Date           1972
Users          110 inner city children, ages 3-12
Size           ca. 12,000 sq. ft.
                Active spaces. Interiors, December 1975, 135(12), 84-87.
PROGRAM DESCRIPTION

This is one of a series of day-care and after-school centers for the City of New York. The program separates physically and conceptually day-care and preschool activities from after-school drop-in activities. There are 95 preschoolers in an all-year program, 3-5 years old, and 65 after-school users, 6-12 years old.

FACILITY DESCRIPTION

SITE AND CONFIGURATION

The facility is a three-story building on a tight urban site in the Bushwick section of Brooklyn. The dominant feature from the outside is the entrance forum and the adjacent large communal entrance.

On the inside, each floor has a large, communal space, a widened hallway for bad-weather use, and during the visit the forum was being used as a three-wall handball court. A roof play area supplements a dismal, paved outdoor play area on the ground floor at the back of the building.
Several aspects of the building deserve note:

Maintenance

The building did not show its 6 years of heavy use, even though it had not been painted since completion. Very dark, burnt-maroon brick cladding was used indoors and out. Painted concrete block surfaces follow the same dark burnt-brown color scheme supplemented by navy-gray. The color scheme could have been awful and dreary but for some reason wasn't. Perhaps the windows which stretch across the rooms help. Still, it was not a cheery building compared to others the team observed.

Kitchens

Kitchens and nutrition programs are an integral part of a facility's program. Feeding the 170 children and 28 adults that populate the building requires an institutional kitchen (like the one at the new facility at Bolling Air Force Base) and not just a large family kitchen.

Multi-purpose Spaces

The multi-purpose spaces in this building are not large enough to be effectively used for activities.

Staff Spaces

Facilities that deliver a wide range of services to the children and their families like this one require more adult space than expected. The New York City centers that were observed, Helen Owen Carey, Daughters of African Descent, and this one, all had 6-10 rooms specifically for staff, administrators, and special programs.
Child Scale

The preschool rooms included a room with a intermediate floor added so that it would provide a small child-sized reading nook. The nooks looked usable and used but also had an institutional appearance because of the materials and detailing.

Wall Space Energy Conservation

The walls that would ordinarily be all glass in a traditional school room have been redesigned as a combination or clerestory windows and windows to see out. There are two benefits from this: reduced energy loss and heat gain because of less overall window area, and additional display space or storage space which are two features frequently requested in teacher evaluations of preschool facilities.
NORTH RIDGE CHILDREN'S CENTER

BASIC DATA

Client
San Francisco Children's Centers
San Francisco Unified School District

Address
Captain William P. Shorey Bldg.
1030 Oakdale Avenue
San Francisco, California

Director
Kristine Simmons

Architect
Marquis & Stoller/San Francisco

Date
1971

Users
Preschool children 2-1/2 to 5; after school up to 12

Size
ca. 4,000 sq. ft. on a steep 4 acre site

Cost
Not available

Reference
Child Care Centers. Architectural Record, March 1971, 149, 136-137.
FACILITY DESCRIPTION

A brick bearing wall structure on a leveled area of a very steep hill, this children's center is walled off from the surrounding community. Above it is very fine row housing (also by Marquis and Stoller) while below is burned out and destroyed housing.

Controlled hard surface play areas are adjacent to each of four interior activity spaces, and serve as the only circulation between spaces. A multi-purpose room is used for activities, eating, and final food preparation (trucked in from a central kitchen and warmed at the center).

The very steep slope of the site is used to provide additional play space on a deck structure under existing trees.

ASSESSMENT

Another after-hours cursory visit (once called a "drive-by"), it is impossible to evaluate this center through the activities of its children. A few impressions, nevertheless.

The quality of the interior spaces was mixed; nice natural lighting fell on rooms which at 500 sq. ft. seemed too large and undifferentiated from our earlier case studies.

The "L" shape to the building (a product no doubt of the very steep and tight site) left the multi-purpose room isolated from the other activity spaces, and the offices hidden down a separate corridor caught in the crook of the "L".

The lack of visual connection or ease of movement between rooms would have bothered children and staff in many other centers, but might be an advantage here if the center is run as a formal academic pre-school.
The play spaces seemed totally lacking in stimulation, challenges, or even opportunities of things to do. The small designed pathways on the hill behind the center linking it to adjacent housing were unusually varied, child-scaled, and rich in possibilities for children's exploratory and fantasy play, and indeed it was here that most of the children were seen.

SUMMARY

This is a nice modern building, somewhat walled off from the surrounding community, which seems not to have been greatly influenced by the needs of children in the social interaction and cognitive exploration phases of their development.

As a medium-sized center, it gives--to the adult--a feeling of a smaller center by strongly separating activity rooms, but this creates problems of curculation, staff interaction, and informal contact among children. It has good indoor-outdoor connection, but the outdoor areas are not well developed for play or child development.

It looks nice architecturally, but still it seems not as relaxed or child-scaled as it could be. As an attempt to simulate a residence--which was Architectural Record's assessment of it in 1971--the building is a bit too formal, large, and harsh.
PACIFIC OAKS COLLEGE CHILDREN'S SCHOOL

BASIC DATA

Client
Pacific Oaks College

Address
714 W. California Boulevard
Pasadena, California 91105
(213) 795-9161

Director
Ulanda Torres

Architect
Anonymous, with renovations and play yards by parents and staff

Date
1945 with constant minor changes since

Users
About 200 diversified children 6 wks.-9 yrs. in 4 different programs from infants to extended-day programs; 11 head teachers and various staff aids

Size
5 buildings varying from 1000 to 7200 sq. ft. plus seven play yards from 4000 to 15,000 sq. ft. on a 1-1/2 acre site

Cost
Not known

References


People Interviewed
Ulanda Torres, Director
Elizabeth Prescott, Director of Research
Several children and teachers
HISTORY

Pacific Oaks College and Children's School began in 1945 as the Pacific Oaks Friends' Nursery School founded by seven Quaker families in the Pasadena hills north of Los Angeles. Some of the families lived in the four former houses which comprise the main part of the school. They were pacifists who during the War wished to raise their children in an atmosphere of peace. They used the backyards between the four houses together with the porches and the former lane as their Nursery.

Under the first director, Evangaline Burgess, fame quickly spread that this was indeed a place where children were treated differently, where they were listened to seriously, and given messages that they and their ideas were important. As more and more people came to be part of this educational experience, nursery-school services and workshops were given, which later led, through a series of steps, to the founding and incorporating of Pacific Oaks College.

The College, still small and intimate, is comprised of two small campuses woven out of Greene and Greene houses and other fine old simple California redwood and cedar homes. Spiritually, the Children's School remains at the heart of the College, but beyond this, both are part of a community of children, parents, students, professional staff, and researchers all committed to human development. The College takes students only after they have completed two years of college elsewhere, is highly selective, and offers degrees--B.A., M.A., several specialized teaching credentials, and an external Ph.D.--only in Human Development. The distinction with education is felt strongly. The faculty still believes that a teacher or worker with other children must know the whole of the life continuum.

Although the School and College are no longer formally Quaker, a few staff members are Friends, and the spirit of its' history shines clearly.
PARTICIPANTS

There are four developmentally-oriented programs at the School:

- two infant-toddler groups, 6 wks.-2 yrs.
  (see also Pacific Oaks College Infant
  Care Center)

- four preschool groups, 3-5 years

- two kindergarten through grade 3 groups,
  5-9 yrs.

- one day-care group including after-school
  extended day care

There is also a small transitional program
between toddlers and preschool. Between
125 and 140 children from infancy through
9 years of age are enrolled in groups of
about 15 with a head teacher and several
student assistants. The staff-child ratio
is a very enviable 1:4 or 1:5 and 1:2 for
infants.

The head teachers all have M.A.s in early
childhood development. Aids have a minimum
of 2 years in child development all the way
up to returning experienced teachers who are
M.A. candidates.

Children are selected to insure a range of
cultural, ethnic, socio-economic, multi-
cultural, and special needs backgrounds.

GENERAL PHILOSOPHY

"At Pacific Oaks we care about people rather
than things," reads one teacher's statement,
while another says, "Yes, we manipulate en-
vvironments but not children."

The values underlying the Pacific Oaks'
Children's School are:

- the belief in the unique importance of
every human being

- the feeling of brotherhood with all persons
everywhere

- the acceptance of simplicity and harmony
  as intrinsic to living the good life

- the understanding of development as a
  lifelong process
Children, parents, students, staff, and researchers all share in a process which can best be described as "responsible community living" from its beginning in the family to its application in the larger world community.

Programs are arranged to give children abundant opportunity to experience the world they live in—both the physical and social worlds. Children are encouraged to form their own understandings of how people and things work. They test their ideas with each other, and what is gained is real experiential knowledge—knowledge of, not just knowledge about, as John Dewey might have said.

Natural, simple, and authentic environments are highly prized. In the family, and at the School, the child learns about social situations and physical events by watching, thinking, feeling, explaining, testing, imitating, questioning, criticizing, and cooperating.

Based on a philosophy of human equality, harmony, and peace, there are no competitive games, no winners and losers, and guns are not allowed. Hurtful acts are diverted into a constructive resolution and children are encouraged to settle their differences, not exacerbate them. Everyone is on a first name basis. There are no grades but there are extensive written descriptions and suggestions. And all decisions are made in the Friends' tradition of consensus meetings.

The Infant/Toddler Program

For the infants and toddlers, learning in the natural outdoors is stressed, while parents are involved in a staff-parent cooperative forum.

The Preschool Program

For the preschoolers, development of self-image and socialization skills are emphasized through language, dramatic play, listening and reading, problem solving, and exploration with open-ended materials and environments.
The Kindergarten and K-3 Programs

For the K-1 and K-3 children, the use of manipulatives and language experience and reading are part of the foundations of an academic program. Mathematics is introduced gradually in a non-stressful, non-competitive way related real-world situations. Group social consciousness is also emphasized.

The Day-Care and Extended Day-Care Program

For the day-care and extended day-care children, a wide variety of developmental experiences are provided, including structured and unstructured periods, active and quiet times, helping with meal planning, food preparation, and other typical home experiences, and sharing in a vibrant day-long micro-community of children of various ages, staff, and students.

Mainstreaming

Their concept about mainstreaming for their several special children is to stress what is normal about a child and make minor modifications for handicaps as necessary.

FACILITY DESCRIPTION

The children's School is a cluster of 1930s redwood and cedar houses on a wooded site (Pacific Oaks) in the residential area of Pasadena, California. Though in a hilly area, the 170 x 400 ft. 1-1/2 acre site is level and just slightly pitched to the south.

Off-street parking and space for dropping off children are provided at the northwest corner of the site, from which entries lead past the main office building directly to the play yards. A little-used formal walking entry leads to the main office building. Another entry leads directly to the play yards on the south end. Over 3/4 of the site is devoted to the seven outdoor play yards.
First--and Remaining--Impression

One's first impression of the site is of a number of small, intimate outdoor spaces filled with quite active children. The spaces are defined by the natural features of trees, rocks, and redwood fences. The visitor can't see very far for the heavy foliage and pattern of filtered light. Later a few humble redwood and cedar buildings appear through the trees, staff members are seen to be working closely with the children, and the full diversity of the School emerges.

CONCEPTUAL ORGANIZATION

The site is organized along a central spine from the parking lot and north entry to the south entry--this is known as Shady Lane and was indeed a former public-access lane. Conceptually on the four corners of the site are the four primary buildings (and a small fifth building). Between the buildings, linking them to each other and to Shady Lane, are extensive play yards. Thus as a child, parent, or visitor enters the site, they move along Shady Lane to the play yards, and pass through the yards to the steps and proches of the various buildings.

The buildings, respective play yards and programs are as follows:

- A: former infants and toddler's programs and main offices, lounges, and seminar space for students
- B: preschool program
- C: day care program with offices above
- D: kindergarten and extended day programs with research offices and student seminar spaces above
- E: transitional 4 year old's program and shop

The buildings are all rustic 1- to 2-story wood-frame structures. Each has a variety of internal spaces. Every entry-exit to the outdoors has a porch or series of steps used as an activity space. Texture is everywhere--in the horizontal redwood and cedar siding, the small windows, overhanging
eaves, cedar shingles, wood fences, wood decks, wood play equipment, brick and stone walls, and the lush vegetation.

INDIVIDUAL OUTDOOR SPACES

As the most important spaces of this School are its outdoor play yards, although the indoor spaces are very good also, we will describe the play yards in greatest detail.

Shady Lane

The lane which connects all the play yards is lined with 4 ft. wood, brick, and stone walls, gates to the yards, and the porch and steps of the day care building. The surface is a packed sandy soil. Trikes and wagons line its length. Large outdoor storage bins are built into the wood fence at various intervals. The width varies from 10 to 15 ft., and it is indeed shaded for most of its length by large oak trees.

Infant and Toddler Play Yards

On the north of the site, immediately adjacent and connected to interior spaces are the 35 x 45 ft. infants' play yard and
the 35 x 70 ft. toddlers' play yard. The former is primarily a wood deck and grass play area contained in a curved brick wall, a sand and grass play area, and a set of large textured steps for crawling. The latter is comprised of a large sand box and small-scale climbing apparatus. Various small tables and easels do the yard.

North Play Yard

Associated with the preschool, the north yard is comprised of a 5 ft. high, 70 ft. long, "L"-shaped animal hutch and lots of area to tend to and play with the ducks, rabbits, and other small animals kept there, a 3-story climbing-swinging-jumping-play structure made of wood with an 8 x 8 ft. central cargo net, storage below the structure, several tree swings, a pair of basketball hoops, various activity tables, and some open areas for small, informal ball-games.

North Day-Care Yards

Just north of the day-care building, this quiet and intimate yard is dominated by a boat, spiral ladder, and look-out tower built around a tree. A 3 ft. high stone wall around another tree provides casual sitting space a few feet away from outside easies attached to one wall of the building. Across the 30 ft. western outside fence is a garden of vegetables, corn, sunflowers,
and squash. Low tables, milk crates as chairs, and another play house complete the yard.

South Day-Care Yard

This 45 x 50 ft. yard is the smallest, and most secluded and private of the play yards for the preschool-aged children and is made up of two main areas: a large outside deck raised two small steps off the ground with adjacent open storage shelves; and a small play area with a 40 ft. garden of herbs and small vegetables and bamboo on one edge. This yard is used by the younger day-care children.

South Play Yard

Across Shady Lane is the largest and most open of the play yards, the 80 x 120 ft. South Play Yard. Used by both the 4 year-old transitional program, and the kindergarten program, it has a swinging-climbing-sliding structure with sand underneath, another swing set in the trees, an art area with protected wooden lockers for storage, a play house, several open sand areas, and on the other side of some sand-filled tires on the ground as a partial barrier, a large open informal play space, and a climbing-chasing structure built of 12 degree ramps with physically handicapped children in mind. As with the other playyards, the surface is a packed combination of sand and soil, and circulation paths to the main building are clearly though subtly differentiated from activity areas. Due to the recent loss of a giant oak tree, this area is the sunniest, most open in feeling, and hottest of the yards.

Extended Day Play Yard

The southern end of the South Play Yard, only separated by a subtle path to the kindergarten-research-extended day building is the seventh play yard, comprised of a small 20 ft. animal hutch in an enclosed area, several large-muscle structures made of giant 12 ft. cable spools massed upwards on their edges on top of each other, an 8 ft. climbing structure, a treehouse, garden and open space.
Yard Near Main Office Building

The final yard, to the south of the main office area, is a combination garden, outdoor lunch area, and includes a small fruitstand used as a food cooperative among the friends of the School.

BUILDINGS

As mentioned, each building is a minimally changed former house. Upstairs bedrooms have become offices or two combined and the wall removed to make a seminar room. Lower kitchens are still used by staff and children to prepare snacks and lunches, old open box shelving has been expanded for children's materials, living rooms have become activity spaces, and so on. In a few cases, like the Burgess House (see plan), parts of former walls have been removed to provide open connections between adjacent indoor activity spaces, while still allowing spaces to retain their character and definition.

OBSERVATIONS AND INTERVIEWS

Spending a full day at Pacific Oaks, we were able to devote a morning to interviews and a full afternoon to observations of the children's and staff's use of space. Findings follow which seem to set Pacific Oaks apart from other child care centers.

OBSERVATIONS OF USE

Outdoors/Indoors

Given that the outdoor play yards are about three times as large as the buildings, it came as no surprise to see roughly the same relative use. Of all the centers visited, this one clearly made most use of its play yards; in fact, they became the spiritual focus of the School's activity space.

The yards are where parents and staff meet to informally chat as they walk down the Lane, and they are where informal, important interchanges happen among staff. Whereas
at most centers—including others in equally warm climates—the building is the center, the "entry" is to the building and yards are on the periphery of the site, and little used, at Pacific Oaks the form is totally turned inside out with the buildings on the outside and the yards being the core. Food is prepared inside, though much of the time snacks are brought outdoors and eaten around informal tables. Quiet activities happen in both places, though napping and most reading happen indoors. Art seems to happen mostly out of doors in natural light. Given the large amount of space outdoors, large-muscle and boisterous activities happen almost exclusively there.

Differentiations Among Yards

Children were seen to move freely between yards, and to use Shady Lane as both circulation and activity space, though they spent most of their time close to their own home building. What we began to realize was that each yard was developmentally-appropriate for the primary group using it, and yet that each yard provided different things to do and thus attracted children from different age groups. Fences and casual, self-closing gates helped to separate yards and yet to provide ease of movement. Careful use of design cues, like the row of tires in the south yard and the rock wall in the north day-care yard help to further differentiate between activity space in the same yard.

The Importance of Shady Lane

Shady Lane is one of the most effective organizational features of this School. Multiple-functioning as circulation, entry/transition area, and meeting and talking area for parents and staff, it also provides an ideal activity space for trikes and wagons. Considerable cooperative play was seen here (Pacific Oaks encourages this in part through providing wagons and flat "people-beds" rather than speedy modern trikes). As it is hard, slightly tipped to the south, connected to all other activity spaces, is linear, and is wide enough to accommodate two-way traffic, it is naturally an ideal
place for wheel-toy play. In addition, there are lots of places for children to watch what's going on from walls, steps, behind open slat fences, etc., always an important part of development.

Porches, Decks, and Steps

Porches, decks, and steps served as places for a staff member and child to sit quietly and talk, or for the staff member to point out to a child what other children are doing, and gently encourage choice among options, and as brief waiting spaces for the arrival of expected parents, i.e., they functioned truly as porches do in residential areas.

Separation of Infants/Toddlers from Older Children

The siting of the play yards not only separated the infants and toddlers so they could not be bowled over by the bigger children, but also isolated them from all but the remotest possibility of cross-age contacts (see site plan).

COMMENTS FROM INTERVIEWS

North Yard the Best

Both interviewees agreed that the north play yard was the best of the seven. Reasons given included the extensive animal area,
the variety of the things to do, the good flow between activity areas, the amount of things suggesting cooperation and sharing, the child scale, the shade, and the awnings off the west side of the preschool providing places for conversation.

Importance of Outdoors in General

Everyone mentioned the importance of outdoor play and activities. Air, soft ground cover, no ceiling, and heavy foliage make an ideal acoustic environment. The amount of space, number of distinct yards, and internal differentiations allow children and staff to do a wide variety of noisy to quiet activities, and group to individual activities without bothering each other. Children can be messy, noisy, or quiet with nature without anyone being perturbed.

Best Piece of Equipment

The piece of equipment judged by the staff to be the best was the combination platform-slide-swing structure in the south play yard near the 4 year olds' building (see site plan and photo). We observed why: the swing has a view of other activities. The platform is used for fantasy, and for just watching other children. The platform is large enough that it provides a place to chicken out. The variety of materials—all natural—provides tactile and sensory experiences. The sand underneath provides quiet imaginative play opportunities. Finally, the paral-
lel organization of platform and swings allows children doing different things to watch and talk to each other. No one is isolated, everyone is brought together, and yet diversity of activities is supported.

Indoor Space

Secondary space is important. The staff requested the ability to empty a space to allow for large-muscle activity (e.g., dance) and group rainy-weather play.

More space per child is needed for full-day care than part-day--35 sq. ft. per child is not sufficient, they felt; they need 40-50 sq. ft. per child for effective full-day care.

Keep in Mind How a Home Works

Day care should provide what a good home provides--including comfortable adult furniture ("it's a long day"), an open kitchen, and storage, some open, some closed for control and access, and private children's storage including for oversized art pieces. Small spaces are necessary for reading, cognitive activities, and quiet pursuits. The overall guide, Elizabeth Prescott offered, is to "keep in mind how a home works."

Adult Areas

Every center, they felt, needs some adult area for staff meetings, parents groups, and just to break away. Though respecting these places as adult areas, children should nevertheless always be able to know where adults are going to be.

Entry

A good example of an entry configuration, whether it is entry into an outdoor or indoor space is shown in the accompanying diagram. Shady Lane with its 4 ft. fences functioned beautifully in this regard. To a lesser extent, the kitchen with partial openings to other rooms encountered immediately upon entering the day-care building served in the same way.
Ratio of Activities to Children

It was suggested there should be a 5:1 ratio of possible things to do for the number of children present in any space.

Territoriality

The only territorial spaces thought to be valuable were the adults areas, children's personal storage, and a bounded nap-time area. It's not necessary for the same child to always have the same napping space--a few choices are good--but the area should be clearly bounded from other areas.

ASSESSMENT

The Pacific Oaks College Children's School is a most remarkable facility for all the programs it houses: infants/toddlers, preschoolers, kindergarten, day care, after-school care, parent groups, student seminars, and research. For all the reasons mentioned above, it is perhaps the best example of physical design for child care in the country.

The process of design at Pacific Oaks is interesting. No master plan has been adopted; no architects retained. As mentioned, the early history of the School evolved around the four former houses, their backyards, and a communal lane. All additions and changes have been evolutionary and incremental. All work has been done by parents and staff; all design likewise. The School feels fortunate to count two architects among their parents, and they have assisted in design and construction of equipment, and yet they acknowledge that one of the best pieces, the parallel platform-slide-swing structure was designed by a non-designer parent.

LESSONS

Several lessons which can be applied to new or renovated facilities will be summarized--the details are above:
a program philosophy emphasizing cooperation requires design to encourage cooperation

small indoor and outdoor activity spaces encourage small groups

a variety of programs can benefit by proximity

simplicity and harmony of design seem to make for a calm and peaceful setting

settings for dramatic play encourage the development of self-image and social awareness, and are valuable in indoor and outdoor settings

for the most part, mainstreaming doesn't require special situations or facilities

home-like settings are especially valuable for full-day care children, including opportunities for participation in food planning and preparation

drop-off parking allows parents a few minutes with staff and children

entry along a spine and into a casual space with visual connections to children's activity spaces allow parents to see what's going on without disturbing children or staff

medium low foliage provides acoustic and partial visual barriers while allowing awareness of neighboring activities

outdoor activity spaces, if well sited, landscaped, and differentiated from each other, provide a wealth of developmental opportunities hard to replicate in indoor spaces

child-scale environments can be achieved relatively easily in a house vernacular and with fine-grained, natural materials

sitting walls or other similar places near activity areas provide unobtrusive watching places for children
- a wide linear "lane can double-function as circulation and as activity space for wheel toys and certain games

- packed sandy soil works very well as the main base for play yards

- 70 linear ft. of animal hutch is not too much for 24-30 preschoolers

- private adult spaces should be providing, but in a location where children know where adults are

- private children's storage should include space for oversized art work

- specific fantasy-type equipment (the boat and look-out) may not be as conducive to fantasy play as slightly ambiguous settings (like the simple, open-fronted play house)

- careful positioning of a few tires in sand, or of a circulation path, can effectively differentiate activity areas

- services and facilities for parents can aid in the formation of community (food co-op, parent groups, seminars, opportunities to help in design and construction, etc.)

- partially separated, partially interconnecting spaces can provide special places for activities and yet encourage movement of children across peer lines

- correct siting and landscaping (per several of the above) can make or break an otherwise good building design

- porches, decks, steps and spaces defined by large overhangs or awnings and spaces are important transition, activity, talking, and watching spaces

- too great a separation of spaces eliminates cross-age contacts and stimulation

- outdoor storage should be large and locked
• equipment with multiple uses, with parallel uses, and with "breakaway points" will be judged superior developmentally to other types of equipment

• the ability to clear out a space is important for indoor dance and drama

• more space per child is needed for full-day then part-day care and should be in the neighborhood of 40 to 50 sq. ft. per child

• nap areas should be bounded and clearly differentiated from other spaces

• incremental growth and evolution through parent and staff involvement helps lead to the formation of community
PACIFIC OAKS COLLEGE INFANT CARE CENTER

BASIC DATA

Client  Pacific Oaks College
Address  6 Westmorland Place
         Pasadena, California  91103
         (213) 795-9161
Director  Jerry Ferguson
Designer  Jerry Ferguson
Date  1977
Users  Infants 6 wks.-2 yrs. in 2 sections of
       17 infants each
Size  ca. 1500 sq. ft. outdoor space and 700
      sq. ft. indoors on a 1/20 acre site
Cost  Not available
People
       Interviewed  Jerry Ferguson, Designer
PROGRAM DESCRIPTION

The Infant Care Center is a newly designed addition to a Pacific Oaks College classroom building (see History in Pacific Oaks College Children's School above). The infant program centers around physical and social stimulation provided by staff and by the built and natural environments.

FACILITY DESCRIPTION

SITE

Sited in a grove of birch trees behind an existing Greene and Greene building and using two renovated rooms, the Infant Care Center is small and intimate, built entirely of native California materials, and has a 3:1 ratio of outdoor to indoor space.

CONCEPTUAL ORGANIZATION

A strict motor developmental progression provides the underlying rationale for the organization of the outdoor area. The progression starts from the grass at the northeast corner (see plan) and moves westward across the site over slightly-elevated wood stumps to a sand area; up a textured crawling ramp, down a wide slide or up a wooden set of stairs to a platform, around, and down again to sand, and finally across an expanse to a concrete step, deck, and basins adjacent to the building. The youngest infants, e.g., the 6 week to 6 months children, are placed on the grass shaded from the southwest by the birch trees. As they master crawling, and crawling over the slight rises of the stumps, they will be able to move to the sand, and this development roughly coincides with when infants stop putting absolutely everything in their mouths, including potentially dangerous sand. Similarly, there is no way for the infant to get to the steep wooden stairs or even the slide until having mastered waddling up a textured ramp. A concrete step, dangerous for young infants because of potential spills, similarly cannot be reached until fairly large wooden risers which stand in its way, are mastered.
INDOOR SPACES

The indoors is made up of two small interconnecting activity spaces, a small kitchen, an open changing area, and infant-height toilets.

ASSESSMENT

Unfortunately our visit coincided with an off-day for the infants. The very interesting and reasonable developmental hypothesis underlying the organization of the site offered to us by the environmental psychologist/designer could not be assessed through observing actual use.

Indoors, the only interesting feature was the open changing and toilet area to minimize the isolation effect of toilet training, allow free talk while on the potty, and generally demystify the toileting process.

Outside, the environment was soft and rich in the now familiar Pacific Oaks' style, although unlike the Children's School, this area was designed and built from scratch. Natural textures were everywhere, and the quality of light filtering through the birch leaves added to the visual vibrancy.

A series of stepped fountains--specially designed and made--provided interesting developmentally-staged problems to be solved. Only taller children can reach the higher basins and faucets, but more interestingly, the operation of the faucets becomes increasingly more difficult as the child moves up the progression.
A good feature of the site is the lowered adult path around the periphery of the site so that parents can be on the same eye-level as their infants while informally observing or playing with them.
SATELLITE AMERICANA-
THE PRESCHOOL FOR EARLY LEARNING
(Formerly Community Learning Centers (C.L.C.)
Good Hope Road Center).

BASIC DATA

Client: Telephone Company employees
Address: 2503 Good Hope Road S.E.
         Washington, D.C. 20020
         (202) 581-1000
Director: Dorothy C. Bailey
Architect: Paul Curtis and Roger Smith
Consultant: Margaret Skutch
Date: 1971
Users: 50-100 pre-school children
Size: ca. 4000 sq. ft.
References:
Architectural Record, April 1972, 151, 140-141.
An old supermarket in a mixed neighborhood was converted into a pre-school facility for children of telephone company employees. The goal was to develop a developmentally oriented daycare center at (or near) work as a prototype for other "at work" daycare centers. The facility changed hands several times, and functioned for a while as a toy store, with most of the original renovation still intact. Currently the place is functioning as a commercial pre-school facility that emphasizes developmental day care.

CONCEPTUAL ORGANIZATION

The basically rectangular, one room (about 40 ft. x 100 ft.) space is divided by a continuous network of "space multipliers": elevated platforms, connecting bridges, storage spaces, nooks, and crannies.
INDIVIDUAL SPACES

The "space multipliers" both define space and allow for the sense of an overall room to remain. Visions blocked in some directions and open in others. Defined areas include reading, sand play, games, art, quiet areas, club and horse play.

ASSESSMENT

RENOVATION

This is an example of a relatively low-cost renovation of a simple, rectangular, one-room store. Most of the changes were achieved by interior wood structures.

Although the group makes regular field trips to parks and other areas, the lack of adequate outdoor play space is a serious deficiency.

SPATIAL ORGANIZATION

The subdividing walls, platforms, storage areas, etc. do a pretty good job of making the big room feel like a series of linked but separate spaces. This works especially well at the children's eye level. However, the sense of a large room is also there, especially because of noise, and the fact that the ceiling level isn't broken up. This is especially reinforced by the original linear lighting fixtures which run in three long rows parallel to the long walls.

A special interior feature is the large indoor sandbox and the large mural of a beach scene next to it on the wall. This seems to be an important feature for a school with no outdoor play space and maybe a possible prototype of major bad-weather play spaces for large new facilities.

LESSONS

The facility is a good demonstration of how through renovation to make a space that is much too large for children's developmental
activities usable and appropriate. Several changes would make the center much better.

- new task oriented lighting that emphasizes the areas (possibly the addition of a skylight to bring some natural light in)

- acoustical treatment of the overall room to reduce ambient noise levels

- development of an appropriate outdoor area

Scale

The most important lesson from the building is scale. The remodeling shows how a space, as large as the "middle room" at the new Bolling Air Force day care facility (see the Bolling case study above) may be at least partially repaired by interior landscaping treatment.

Level Changes/Space Multipliers

The other important lesson is level changes creating what we are calling a space-multiplier effect, as discussed above.
UNITED COMMUNITY DAY CARE CENTER

BASIC DATA

Client United Community Day Care Development Fund, Inc.
Address 613 New Lots Avenue
Brooklyn, New York
(212) 385-1201
Director Mrs. Hernandez
Architect Works/Robert Mangurian/New York
Date 1972
Users 180 school age children 6-12; 100 pre-schoolers
3-6; maximum total 280
Size c. 12,000 sq. ft.; c. 15,000 sq. ft. including basement
Cost c. $1,000,000, including $60,000 for land
References Per bambini learning center! Domus, Jualio


Citation. Progressive Architecture, January 1972, 53 (1), 94-95.

Build excitement into your school. American School and University, December 1975, 48,
20-21.

Mangurian, R. A celebration of space. Day Care and Early Education, November/December
1975, 14-16.

People
Interviewed Mrs. Hernandez
The United Community Day Care Center is a preschool program and one of several services delivered by a community organization called United Community Day Care Development Fund, Inc.

The program emphasizes learning and development through group interaction and makes use of fieldtrips and special experiences as a major component. The teacher guides and directs the group interaction and makes teaching materials available only as appropriate.

Significantly, there are no "activity corners" or areas where "finely graded" materials are kept out and available for spontaneous use.

The program was both the most rigorously presented and fundamentally the most different from any others visited. Although the director might disagree with the simplicity of the following analogy, the program seemed to be a mirror image of a "strict" Montessori school. Montessori programs emphasize individual discovery and learning through manipulation of finely graded and readily available teaching materials.

Social skills are a part of the program, but the emphasis is on individual responsibilities rather than group interaction.

Learning and Development Through Group Interaction

While the group size is usually very small, activities are done in groups. Materials are not openly displayed and the teacher retrieves them for the class. The program emphasizes fieldtrips as a major activity and the center has its own bus.

The program includes an afterschool center. As part of that program, children are frequently out of the building. Cooking activities are important components as well as woodshop activities.

In general, the children have freedom to move about and to explore the building, go to the kitchen, etc.
FACILITY DESCRIPTION

SITE

The site in a mixed-use area of Brooklyn reflects the community service and integration goals of the client. The site is very small and the outdoor play space for the center is on the roof. The street is a minor business street mixing stores, businesses, churches, and unused buildings. A major business-shopping street runs parallel to New Lots Road a few blocks to the north. As shown in the photo, this building and its neighbors are covered with New York's ubiquitous graphics. A school and its playground across the side street from the center occasionally get used as an extra play area.

CONCEPTUAL ORGANIZATION

Because the building fills the small site this is basically a one-story building for the preschool (offices in a partial basement and afterschool space for older children in a small second story) with play space on the roof.
The dominant feature of the building is a sky-lit double-loaded corridor called "the street." The street provides views for otherwise windowless spaces, an image for the facility that contrasts with the outside environments, and multi-use space for classes, water play, bad-weather play, dining and other special projects.
INDIVIDUAL SPACES

- multi-use community room--a very important room in the facility even though the street is also a multi-use space

- garage--housing a bus that is an integral part of the program for the center

- special purpose spaces--the nurse's (sick room) office, the supplies room, the library, and the kitchen relate directly to the street through windows or doors to reinforce the street as the conceptual and architectural ordering device

- class rooms, called "houses"--have movable panels separating them to allow for major shared activities and special events, Christmas, etc.

- woodshop--included for planned use by the children

BUILDING SUBSYSTEMS AND FURNISHINGS

- mechanical and electrical--exposed, painted mechanical and electrical systems; central airconditioned forced air heat

- play area--the main feature of the roof is a geodesic dome which provides covered outdoor play space

ASSESSMENT

Entrance

- frequently 25 children at one time are in the entry; thus it should be bigger and there should be a "reception-waiting room" as big as a small classroom for waiting parents and children

- the small, covered entry area is a welcome transition in poor weather (but on an urban site it and the other recessed entries attract unwanted trash and uses)
Multipurpose Room

- used a lot by the children, but the staff would like to have a gym separated from the multipurpose room

Sky-Lit Street

- the best aspect of the building, both programatically (providing borrowed multi-use space), and architecturally is using the "street" to make a pleasant and sane focus in a harsh climate and neighborhood that is not "schoollike"; it is, however, a little narrow for its many uses.

Play Roof

- not big enough to really work for boisterous outdoor play

- planter boxes are good but are too disruptive of play space.

- not designed to take the additional roof loads that future play equipment might require.

- the dome shelter doesn't function well; it is too hot, too small, too noisy, and its shape doesn't house functions well

Office Space

- not adequate in the original design, and thus added as an after-thought in a windowless basement

Kitchen

- too small, and the extra heat needs appropriate exhaust
- dishwashers should be counter height (not under) so the staff doesn't have to load and unload them, which can be critical when 200 meals are served a day

- freezers are important to programs buying food on sale

Folding, Flexible, and Movable Walls

- folding walls between classrooms are not frequently moved, and they tend to have installation, settling, and swelling problems

Storage

- not enough general basement-type storage to accommodate the stuff collected over the years.

Display Space

- natural wood walls provide an excellent display surface

Cubbies

- two children can't share a cubbie and have winter clothes in them

Energy Conservation

- some heat gain problems in the sky-lit street; the shades don't solve the problem but one or two panels of skylight that opened probably would

Mechanical Subsystem

- gives a nice atmosphere, especially as brightly painted (but collects dust and requires special cleaning and cost two
to three times more to repaint than the original painting)

Sinks

- rooms need multi-purpose sinks that are low, deep, don't splash, and have a spout children can get things under; stainless steel is best
- sinks are also needed in special program rooms like the "after-school" rooms

Acoustics

- some effort was made to make the walls the primary absorbing surface because the ceiling and the floors are hard; the wall surfaces are plywood with holes drilled so that the sound goes through the wall and gets dampened in the insulation and the space behind the wall; the holes are slightly too small to work as pegboard holes

Color

- bright colors are an important feature of this facility; color is a program issue not just an architectural issue

Floor Finishes

- the street has an applied elastic indoor-outdoor play surface which works fairly well except that it absorbs water and shows wear fairly quickly

Children's Door

- the location and shape of windows in doors allow children to see in and out of activity spaces
Overhead Doors

- overhead doors with glass are opened and closed to control privacy and noise, and work well

REVIEW

Architecturally this was the most inspiring facility on the East Coast trip, even though it had some serious planning errors like the lack of planned office and storage space and the difficult service arrangement of the kitchen. Still, the street concept, developed specifically for a tight urban lot, appears to be a very pleasant and flexible multi-purpose space and it is capable of handling general program activities, lunches, water play, bad-weather play, and functioning as a "borrowed" space for classroom activities when they need it. The street is analogous to the porches in size, shape, image of outdoors, flexibility, and usefulness found in other centers on urban and military sites.
Sanford Hirshen is a Berkeley architect and faculty member of the University of California. In addition to the Big Sister League's Infant Care Center in Los Angeles, his firm has designed a much less expensive infant center, remodelled and recycling old centers, and designed a series of 30 day-care centers for migrant workers in the California valleys. He has also co-authored two reports on infant centers for the Child Welfare League of America.

Although we didn't discuss the Infant Care Center in detail, he did share some of his thoughts and recommendations about child care facilities in general.

CHILD CARE SYSTEMS

Sandy Hirshen favors the creation of child care systems. The philosophical issue, he says, is between home care and large group care.

Politicians often favor home care; it's cheaper, uses small groups, and replicates American values of the home and the nuclear family structure. The problem is that many care givers and small proprieters don't take it seriously; they don't get licenced, and the level of service is often not very good--it's only custodial, not developmental. Thus there are lots of questions as to how to monitor home care, and how to guard against people only offering minimal babysitting.

Mr. Hirshen suggested that many developmentalists and educators therefore favor group care. They acknowledge that poor families often don't have a very good family situation [certainly the case from our interviews on several military bases]. Having children in a big center for socialization, nutrition, early learning, and a whole range of supportive social services is really essential. But the rub is, he added, that it's not home. The surrogate
parent issue and the value of home-like settings is currently being strongly debated internationally.

"But we really need both, need the whole range, plus there are intermediates between home and large group care," Mr. Hirshen concluded. "Plus," he added, "we need techniques to induce home care-givers to come in and be educated, like the Far West Lab's toy lending library which induces people to come in, see what's happening, get new ideas, and so on."

His recommendation: Army bases as well as civilian communities need an integrated system of child care services and facilities, including home care, small centers, large group care, educational resource centers, and other services, or, in other words, he recommends conceptually seeing the issue not as one versus the other, but as a variety of options within a comprehensive coordinated system.

ARCHITECTURAL ISSUES

Mr. Hirshen suggested there is a range of architectural issues to be considered from master planning right through to furniture design. Many issues are different for infant and child care, though some are general to both. A sample:

Size

Most good large group centers he has seen are in the range of 50 to a maximum of 100 children. Over that number, the quality of developmental opportunities seems to drop, he said.

Spaces for Developmental Grouping and for Cross-Age Grouping

Mr. Hirshen recommends home rooms or home bases organized on developmental groupings (not necessarily age groupings) and free-mix areas which children can mix it up with
all ages (as examples see the Pacific Oaks and Big Sister Centers). Large centers especially require separate rooms and big free-mix areas–places to be alone with one's peers in developmental groupings and at other times in cross-age groups.

Houses Within Centers

Mr. Hirshen spent a number of years living on three different Army bases in the U.S. The whole syndrome of "Army brats" always being on the move concerns him deeply, and he wondered if there is any good social-psychological research on this, and what it's impact should be on design. Intuitively he suggested the need for a "home" may be stronger for Army children than for others. (Not one person on a military base visited raised this issue.) To have a home base and an image of home as a somewhat stable entity may be most important during the formative preschool years. This suggests home care or at least neighborhood-based family day care centers, or, if not feasible, it may suggest he contended, a strong home group, a stable surrogate parent, and a "home" room in large group centers.

Quality of Staff Space

The quality of staff space and provisions of privacy for the staff may have a lot to do with the success of a center. Public programs are very underdesigned in this regard, he offered. A large portion of the success of child care centers, especially those without large personnel and operating budgets, has to do with morale and talent—with attracting talented staff and keeping them happy. The quality of staff space can directly effect this.
Nutrition and Food Preparation

Mr. Hirshen's recommendation here is that proper nutrition is very important, most kitchens are overly institutional and therefore that there should be two levels in food preparation: a major commercial kitchen, and sub-kitchens which take partially prepared food and make a meal. [The children's involvement in the second phase may be important to the development of good eating habits and understanding of foods, their sources, and nutrition.]

Flexibility

Sandy Hirshen may be the first person on this study tour to not immediately be enamoured with flexibility for child care centers. In assessing this view, we have to realize that he has been an innovator in flexible systems for a range of buildings. The issue, however, goes deeper than cost savings and ability to use a building for different functions at different hours, he maintains. It is a complex issue involving the advantages of community multiple use and yet children need the continuity of not always having their projects cleaned up.

Outdoor Play Areas

"Play design has gone sterile. Specialized companies are building this new wave log stuff, and it's everywhere. For example, the University of California Optometry Building's Children's Clinic has a piece of play structure in a special zone right outside the center and then there's a fence not 8 inches beyond the structure--an after-thought for children. Dropping a pre-fab out-of-the-catalogue play structure late in the design is like they're picking out a light fixture. It's so mindless. We went through a cycle of metal junk and then a good cycle of incorporating European ideas of adventure playgrounds and loosening things up, and now companies--it's so American--have taken all the good creative stuff'out of it, and they're selling it."
Programming and Funding

Money is a crucial fact of life, he concluded the interview. Most centers are drastically under-funded. Good progressive programming [both educational and architectural] often reduces to simplistic things like maximizing interior space and keeping enough money aside to do a decent play space— not just planting grass and praying.
In addition to our discussion with Emily MacCormack regarding the National Child Research Center, she also offered a number of recommendations about child care centers in general.

Emily MacCormack is Director of the National Child Research Center and has been a consultant to and director of several other child care centers.

FACILITY RECOMMENDATIONS

Activity Spaces

"L" shaped rooms with "dead end" spaces are preferred. More complex rooms are easier to arrange because they reduce the "race way" effect, but too many make things difficult to manage.

A large motor activities area is especially important for use in winter and poor weather. In fact, a large center could easily use several multi-use spaces.

Playgrounds should be designed so that they are zoned by their design for "natural" age grouping, and so the little ones don't get bumped to the edges.

Cubbies--storage areas for children's coats and their valued personal belongings--should be associated with their specific room not generally located.

Preschool teachers need some kind of station or territory for themselves in their spaces.

Flexibility

Don't build in furniture; both children and adults should be able to move things and change room arrangements. Program activities require water in each room.
Lighting and Windows

She recommends indirect lighting over flourescent (like Bolling Air Force Base). She suggests having as much window space as possible for both light and view. Windows should be high quality so when closed there is a minimum of infiltration.

Color, Display, Interior Finishes, Safety, and Security

Use color to reinforce possible space arrangements. Give teachers all the display space possible. Display space should be at children's eye level, level which provides a lot of space above it for other storage, color graphics, etc. She recommends dark floors, plain with no small patterns, for children to play games, puzzles, etc., on. Dark green is a good choice. Sharp corners on cabinets are at eye level for small children. Flammability of all certain rugs in classrooms should be checked.

Mechanical Systems

Radiant heating in the floor allows for increased floor use without carpets. Carpets can then be used to emphasize social areas. Wall-to-wall carpeting isn't adaptable or flexible enough for the variety of activities. She doesn't recommend air conditioning both for the initial cost and operating cost but individualized room heating control is very important for the comfort of the children.

Advice on water basins: don't make them too small -- children need to fill and clean stuff. A "wash" or janitor's sink is preferred to make it possible to clean fish tanks, clay boards, etc. They should be low enough for the children to use.

Toys

Select toys that don't fail. The high-quality carpentered hollow blocks outlast everything else.
INTERVIEW WITH MARLENE SCAVO/BETSY DIFFENDAL

In addition to discussing the existing child care program and facilities at Fort Lewis, we also interviewed Marlene Scavo and Betsy Diffendal about some of their ideas on ideal child care facilities. The interview lasted about 2 hours. Marla Bush from DAAG Headquarters in Washington was present, and her suggestions are recorded elsewhere. Susan Bowlin was also involved. Her comments mainly pertained to Fort Lewis, and are recorded in that case study.

Marlene Scavo is the former Director of the Fort Lewis Child Care Center and presently heads a major HEW study of Army Child Care Programs and Facilities. Betsy Diffendal is an anthropologist and child care specialist at Evergreen State College who has had extensive experience reviewing child care programs, regulations, and facilities nationally, and is a consultant to the Fort Lewis Center and the HEW study.

CENTRALIZATION VS. DECENTRALIZATION

The interviewees favored centralized child care facilities basically for three reasons:

- centralized curricular development
- safety of not having programs in dangerous unconverted housing units
- assumed cost efficiency

They accepted that there were certain advantages to small size and scale, to neighborhood location, and to a home-like atmosphere, but felt that unless their concerns could be overcome, center-based child care made more sense for Army bases (see also the interview with Sanford Hirshen).
PRESCHOOLS VS. DAY CARE

No clear opinion was given as to whether preschools should or should not be integrated with child care facilities, though there was a slight learning that academically-oriented preschools for 3 to 5 year olds might better be separated elsewhere on the base.

LOCATION

Child care centers, they said, should be located:

- near "downtown", close to major facilities and major streets, bus line, and on routes that parents use to go places
- near gate for off-base parents
- near natural areas, trees, and wooded areas
- near field-trip possibilities, e.g., library, medical center, fire station
- away from noise
- away from asphalt

BUILDING IMAGE

Both Marlene Scavo and Betsy Diffendal thought it very important that the building's image not be institutional or boxey, but rather that it should be soft in image, be small in scale, fit in with any quality architecture on the base, and, most of all, be recognizable by children as a world of and for children—a fun place to be.

SPECIFIC FACILITY DESIGN REQUIREMENTS

- possibilities for cross-age groupings should be provided
- private spaces should be easily accessible for children
• offices should be near reception, yet private

• the design should encourage parents to enter rooms, or to be able to see in without spying or disturbing activities

• children should be able to move freely among activities, yet should be able to be visible to staff

• access should be provided to outdoor play areas from all rooms

• provision should be made for indoor and outdoor large-muscle activity areas, including trikes

• food operations need to be centrally located

• children should be able to do cooking activities and to help with food preparation

• same place to accommodate and isolate a sick child must be present

PLAYGROUND LOCATION

Playgrounds associated with child care centers, they said, should be sheltered from rain, sun, and wind, secure from vandalism or pilferage, and accessible from all indoor child activity spaces.

SPECIFIC PLAYGROUND DESIGN REQUIREMENTS

• equipment should be provided with many developmental possibilities, including for individual play, social group cooperation, quiet play

• spaces should be provided for different developmental-aged children, with developmentally-appropriate equipment
BUILDING SUBSYSTEMS

A number of recommendations were offered regarding building subsystems, among them the following:

Electrical System

- lots of voltage for AV equipment, washers, institutional equipment, etc.
- recessed receptacles with tamper-proof slides
- indirect lighting with a dimmer in all infant spaces
- task lighting in many preschoolers spaces, especially reading or intense studying areas

Mechanical System

- individually controlled temperature for all rooms
- easy operating push-button water fountains, easy flush toilets; special equipment for special children
- faucets, etc. in activity areas (not toilet areas) may be developmentally challenging

Acoustics

- acoustic materials need to be highly absorbent, as with new rules on some bases, one can't rely on soft things being brought into the center

Natural Light and Views

- views very important, especially to outdoor play spaces
- lots of natural light
- natural light not necessary in nap rooms
• air should be fresh, and individually controllable

Modularity and Flexibility
• very important as believed to be cheaper for expansion

Interior Design, Color, and Graphics
• durability and washability is important of all surfaces
• colors should be interesting

Storage
• storage shouldn't look like storage
• storage needs include open storage for toys plus inventory, staff, and junk storage

Safety and Security
• people picking-up children must not be able to have access to children without passing a surveillance point
• safety glass or screen on all child-height windows

Display
• in addition to lots of child display space, need display space in an appropriate area for parents and for staff
INTERVIEW WITH COLONEL LARRY WANBERG

In addition to discussing the Oakland Army Base's Nursery with Colonel Wanberg, who is a consultant to that center, we also interviewed him about his notions for ideal early childhood development centers.

Colonel Wanberg is the Chief of the Department of Social Services at Letterman General Hospital in the Presidio, San Francisco. In addition, he is a regional consultant for child support service programs. He holds a Ph.D. in social planning, and is an expert in child care, having run centers and studied them in Scandinavia.

GOALS FOR EARLY CHILDHOOD DEVELOPMENT FACILITIES

Colonel Wanberg recommended eight principal goals for a good early childhood program and, by extension, for a good facility:

- active parental involvement, and spaces to reflect and encourage this

- integration with other parent- and child-oriented community service programs and facilities

- tied to career possibilities and to a Family Learning Center

- location of child care facilities--and play areas--in neighborhoods and where people work

- outdoor play areas thought of as outdoor classrooms, and thus to involve nature, water, textures, gardens, animals, sensory stimulation, and areas for exploration, self-discovery, dramatics, and group play
• relate program and facility to the natural environment—especially flora and fauna

• rich sensory stimulation everywhere

• indoor environment to have clear and not confusing spaces and learning centers, changes in levels, and use of the third dimension in a creative way

SPECIFIC SUGGESTIONS FOR BUILDING SUBSYSTEMS, ELEMENTS, AND FURNISHINGS

Electrical Systems

• wiring for center-wide sound and PA system

• wiring circuits in playgrounds for water pumps, extensive mechanical experiments, etc.

• variety of lighting, including different colors indoors

• task lighting

• track lighting

• all electrical wiring and outlets out of reach of children

Mechanical Systems

• toilets available to outdoor areas

• changing rooms not tied into toilet rooms

• child-sized commodes

Acoustics

• control noise reverberation

• soundproofing for staff area
Groupings

- family sized groupings in space

Views and Natural Light

- child eye-level windows to interesting, panoramic views
- natural light everywhere
- windows especially to playgrounds
- skylights

Modularity

- modular design and construction to allow program flexibility
- add-on modular units for 40-60 children

Partitions

- some walls without windows or other interruptions for display space
- an underground room
- some self-standing, movable walls, and some floor-to-ceiling moveable storage units
- other counters and storage maximum 36" for viewing over

Play Yards

- some outdoor covered play
- playgrounds which can change with the season
- easy access to play yards

Furniture

- boxed cubbies with recessed hooks
- raised play houses so child and adult can be on some eye-level
Parents and Special Cases

- easy access for parents
- transition space or room for first 3-5 days of a new child's exposure to center
- a quiet, calm isolation room for battered children
CONCLUSIONS

While the criteria for Child Support Facilities for Army bases will be developed more fully in the Criteria Document, several recommendations and conclusions can be drawn based on the site inspections. This section of the travel report attempts to identify some of the most significant patterns and lessons learned on the inspection trip. Each issue is introduced by a title or topic statement followed by a review of observations and facts that lead to a conclusion or recommendation.

PROGRAMS OFFERED

MILITARY SITES

All seven military sites visited had programs for:

- infant care
- full-day child care
- drop-in care

DEVELOPMENTAL SERVICES

Five of the seven bases visited were clearly pursuing developmentally-oriented programs, and the two others clearly had short-range goals to move in that direction.

AFTER-SCHOOL EXTENDED-DAY PROGRAM

All but Oakland Army Base offer after-school care, but few older children use either the Alameda Naval Air Station or Ft. Bragg Nursery Village after school because they "have better things to do elsewhere." At Alameda the older children sometimes go to the youth recreation building. Only the Ft. Meade Army Base Child Care Center has a special space and program
for after-school children—it is the only activity on the second floor of the center. The children participating in its program affectionately refer to it as the "den."

FORMAL PRESCHOOL PROGRAMS

Only three of the bases have formal preschool programs: Ft. Bragg, Ft. Lewis and Ft. Meade. Of these two are in separate locations and only Ft. Bragg has a formal academically oriented preschool at the Nursery.

Fort Bragg was very happy with this integration, while the other two realized it was inefficient to bus children across the base from preschool to after-school day care.

FULL-DAY AND DROP-IN OCCASIONAL PROGRAMS

Only one base, Ft. Meade Child Care Center has separate spaces and staff for full-day versus drop-in occasional care. But where opinions were expressed, the other directors consistently felt that the demands of part-day drop-in children were different from and took their staff away from working more attentively with full day children. Thus they would very much prefer separate programs, staff, spaces and entries.

PROGRAMS FOR THE HANDICAPPED

Two bases have special programs for severely handicapped children; the one at Ft. Meade is especially successful and along with the general location of Ft. Meade influences some personnel with physically or mentally handicapped children to request assignment there. Several bases recognized the material problems of children of single-parent families or virtual single-parent families in the case of Navy seamen, but no one yet had a specific program for emotionally disturbed or abused children.
PARENT EDUCATION PROGRAM

One west coast base, Alameda Naval Air Station, has an informal parent education program and at Ft. Lewis people spoke of beginning one in the near future.

CIVILIAN SITES

The pattern at the fourteen civilian child care facilities studied is for the most part very similar to military bases. Almost all centers offer developmentally-oriented programs for full- and part-day children. Most, however, do not offer infant care, and the most specialized facilities, like the Harold E. Jones Child Study Center in Berkeley, do not provide after-school care, though several inner-city centers do, like the United Community Day Care Center in Brooklyn. There are some highly specialized programs for severely handicapped children, like that associated with the Jessie Stanton Developmental Playground in New York, but most centers integrate children with minor disabilities into their regular program.

The caliber of developmental programs is very high at most centers visited and very few make any distinction between child "care" and preschool activities. Only the Pacific Oaks College Children's School had a separate preschool program and it is integrated with other early childhood programs by being part of a village or campus similar to Ft. Bragg's Nursery Village.

All the programs at Pacific Oaks are very developmentally-oriented and are based on a child-centered philosophy. The preschool program is more a distinction of age and that the children are only present for a part-day, than it is one of different types of programs. Other places did not even make a distinction between "preschool" and "scheduled part-day developmentally-oriented child care."

No civilian center made a sharp programmatic distinction between full-day and drop-in care. Most centers do not have the same legal or community-oriented commitment to
drop-in short term babysitting service that military centers have, and additionally most of the programs were full and had waiting lists for scheduled child care.

The Big Sister League College Infant Care Center is a prototype program for infants, and especially for infants from single-parent, low-income, or potentially abusive families. It and several other centers also have parent-education programs, counseling and referral services.

CONCLUSIONS

- Where a child care program is quality care and developmentally-oriented the distinction between "care" and "preschool" blurs and the character of the program becomes one of philosophy of child development and the role of adult intervention, e.g., child-oriented or adult prestructured.

RECOMMENDATIONS

- Comprehensive child care programs should have as their core, infant care, full-day child care, part-day scheduled child care, occasional drop-in care and opportunities for physically and mentally handicapped children. They also should investigate special parent education programs, clinical intervention for families of abused children, and other out-reach programs.

- Full-day child care and occasional drop-in care should be differentiated in terms of programs, staff, and (possibly) entries.

- Where several different programs are offered for early childhood development, they can benefit from proximity in a village or campus arrangement. The "campus" might include a formal preschool program.

ISSUES FOR DECISION

As the needs of school-age children and preadolescents differ greatly from those of preschoolers, and as they tend to have
"better things to do" than hang around a day care center, a decision should be made whether it is better to provide a conceptually and physically separate section of the building for them, or to integrate their areas into youth recreation centers.

DEMAND

MILITARY SITES

Few child care directors or base master planners were willing to offer a firm estimate about total demand for child care on their base, except to say, even at the larger centers, "We have only scratched the surface."

The Air Force definitive plan for child care centers carries a provocative rate:

<table>
<thead>
<tr>
<th>Authorized Area</th>
<th>Child Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,500 sq. ft.</td>
<td>500-1000</td>
</tr>
<tr>
<td>7,140</td>
<td>100-1600</td>
</tr>
<tr>
<td>10,500</td>
<td>1601-2500</td>
</tr>
<tr>
<td>12,500</td>
<td>2501 and above</td>
</tr>
</tbody>
</table>

Based on these standards, the Comanche II housing area at Fort Hood with 1000 units and an average 1.8 children per house (based on figures given by the base master planner) and a total of 1800 children, would qualify for a 10,500 sq. ft. center handling about 140 children capacity ($75 gross sq. ft./child). Thus, if the standards of the Air Force definitive plan were to be in lieu of a quantitative study of Army demand, and if they were applied to Ft. Hood (5000 family housing units on base) the base would need 5 or more centers handling an estimated total demand of 700 children/day.

It was subjectively suggested by several of the child care directors we talked to that if a new facility or facilities were sized to meet demand they might have to be very large (350-600 children, and even possibly 900 children on the larger bases). The estimates of both the directors
and the Air Force definitive dramatically differ from the facilities currently being planned (Ft. Bragg and Ft. Hood). Even after the new facilities are constructed each based will only be able to handle about 300 children.

Interestingly, although no one at Ft. Lewis made any guesses about ultimate demand, the base is comparable in size to Ft. Hood and it already has an average of 700 children.

These estimates of demand do not include children of military or civilian-base employed families living off base. The figures also do not include the fact that there is likely to be a very high demand for full-day care among young enlisted families earning very low wages where the second parent needs to hold a full time job just to make ends meet. It is also likely that demand would rise dramatically at centers meeting local and state qualifying requirements. If the center meets qualifications a soldier family can receive welfare funds to pay for day care, if the center does not qualify no funds are available. Apparently only 2 out of the 200 military centers even meet the military's own standards.

ISSUE FOR DECISION

- Demand for Army child care seems to be an unknown and to some extent unpredictable variable. A number of variables appear to affect demand: number of children on base, numbers of base personnel and civilian employee families, availability and convenience of service, cost, availability of state and federal welfare funds, program quality, and image of the program. Our site visits and research has simply helped identify the issue as one that needs more study. Some questions that should be answered include: How many eligible children are there on each base? What formula can be used to give a fair estimate of demand? What size and number of facilities should be built? How much demand will there be on the largest bases?
CAPACITIES OF SEVEN MILITARY CENTERS

<table>
<thead>
<tr>
<th></th>
<th>Capacity</th>
<th>Average at any one time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda Naval Air Station</td>
<td>200</td>
<td>150</td>
</tr>
<tr>
<td>Bolling Air Force Base (new)</td>
<td>182</td>
<td>unk.</td>
</tr>
<tr>
<td>(existing)</td>
<td>120</td>
<td>n.a.</td>
</tr>
<tr>
<td>Fort Bragg Army Base</td>
<td>290</td>
<td>250</td>
</tr>
<tr>
<td>Fort Hood Army Base</td>
<td>269</td>
<td>n.a.</td>
</tr>
<tr>
<td>Fort Lewis Army Reserve</td>
<td>315</td>
<td>200</td>
</tr>
<tr>
<td>Fort Meade Army Base</td>
<td>172</td>
<td>85</td>
</tr>
<tr>
<td>Oakland Army Base</td>
<td>50</td>
<td>45</td>
</tr>
</tbody>
</table>

National Military Average<sup>a</sup>

<sup>a</sup>Data courtesy of a doctoral dissertation in progress by Ms. Kathy Perry, School of Education, University of Wisconsin-Milwaukee.
MILITARY SITES

While all military centers serve the 2 to 5 or 6 year-old range, and most focus on this age range, two centers accept infants as young as three months and six of the seven centers have after school children as old as 12. Most centers serve a cross-section of children in terms of family economics, socio-cultural background, and rank (enlisted, NCO, and officer families). Understandably, there are slightly more children of young families in the lower enlisted and lower officer ranks. Three centers were 50-60% minority. One--Alameda--was mainly children of officer families due to cost, whereas another--Oakland--was once boycotted by officer families due to image.

The capacities of the various centers are shown in the accompanying chart.

Thus the smallest center visited is the Oakland Nursery at a capacity of 50 children, and the largest is the Fort Lewis Child Care Center at 315 overflow capacity. Fort Lewis also has by far the largest number of different children passing through in a typical day, (3000 per month or approximately 700 in an average day). This is largely due to their "no reservations" policy, being open in the evenings and on Sundays and holidays and their ability to expand or contract hourly due to efficient organization, and a very dedicated on-call staff.

CIVILIAN SITES

Most civilian centers visited served between 50 and 100 children, with only the Helen Owen Carey Child Development Center (200) in New York, and the Pacific Oaks College Children's School (200) being of the scale of the average military centers, and none was in the scale of Fort Lewis (315, 3000/month) or the two 300 child centers being planned for Ft. Hood and Ft. Bragg.
Smaller civilian daycare centers find that the first financial break-even point is around 50 children. More importantly, two well-recognized extensive national studies have found that the quality of child care services suffers when centers are larger than 60 children (Prescott & Jones, 1967; Abt Associates, 1971). In centers which served over 60 children, as compared to those enrolling 30-60, it has been found that there is more emphasis on rules and routine guidance, teacher control was 2-1/2 times higher, teacher manner was rated neutral or distant, children were denied opportunities for cross-age group play, there were less activities to do per child, children were less interested and less enthusiastically involved, and so on. The Abt Associates (1971) study also found that, although larger centers cost a little less per child for operating expenses, they seem to find it harder to provide quality care even when they maintain favorable staff-child ratios.

The authors of those two studies have, nevertheless, seen some good large centers, and we have subjectively judged the following large centers to be very good: Alameda, United Community, Ft. Bragg and Ft. Lewis. Nevertheless, the conclusion offered by Elizabeth Prescott is: "Although a large center is much more complex, it has great potential for providing an impersonal, regimented environment. A large center must be skillfully administered and it must have space which permits privacy and autonomy to children. A large center does not work automatically. It has to be planned around the needs of small children."

CONCLUSIONS

- Conventional wisdom gleaned from the two pre-design conferences attended suggests that each base might only be able to expect funding for one new center.

- National Research has shown that quality child care is harder to achieve in centers larger than sixty children.
• Many current military centers exceed these sizes and new ones planned for the near future exceed these recommended capacities.

• Two of the large centers judged to be very successful and to offer individualized, sensitive developmental stimulations to the children; the Ft. Bragg Nursery village and Elizabeth Prescott's own Pacific Oaks Children's School are planned on a village or campus concept with different programs housed in different buildings each with its own qualified staff and head teacher and with the overall direction being to establish authority and yet allow autonomy.

RECOMMENDATIONS

• Every effort should be made so that centers will appeal to a cross section of base personnel and especially those of low-income, single-parent, or absent parent.

• Where possible, centers should be planned for a capacity in the range of 60 children.

• Centers planned to serve significantly more than 60 children (e.g., over 100 children) should be administratively, conceptually, and architecturally subdivided into programs (60 children maximum) in a campus or village concept. Separate buildings in the village might include infant programs, scheduled part-day child care, full day care, drop in care, and an after school program.

REFERENCES


WHO DOESN'T USE FACILITIES, AND WHY?

MILITARY SITES

There was no particular pattern to "who doesn't use the various military care facilities." There was, however, a very clear pattern of reasons offered by the directors as to why they thought some families didn't use the services.

The three most mentioned include:

- cost--too expensive for low-income families (4 of 7 bases)

- image of building--perceived as still being an old barracks, a fire trap, dilapidated, etc. (3 of 7 bases)

- quality of the program; only maintenance not developmental (2 of 7 bases)

CONCLUSION

- The main architectonic factor that influences why facilities are used or not used by certain groups, is their image (old barracks, fire traps, dilapidated, etc.). This is a major design issue for any program of renovation or adaptive reuse of existing structures and it may not be resolvable.

PROGRAM PHILOSOPHIES

MILITARY SITES

Of the five military centers that clearly offer developmental services, the program
philosophy of the two centers is child-initiated, one is teacher-and-child mutually controlled, one (Bolling Air Force Base) included a few hours each day of structured academic leaning, and one (Fort Bragg) had an integrated formal academically-oriented preschool program along with other less formal care programs.

No center follows a particular developmental theory; the names of Piaget, Montessori, Skinner, and the human potential movement were all mentioned. All the places are happily eclectic.

Four of seven centers use "interest" or "learning centers," which are places where children can go, and where specific materials are stored or set-up as to stimulate their use.

One center (Oakland) intentionally used field trips as part of its program, and another (Fort Lewis) said it would use more field trips if their facility were closer to interesting places.

Several centers encourage parents to observe their children and talk with the staff. One center (Alameda) has parent seminars and informal staff-parent meetings about things the staff wishes to discuss or suggest to the parents. Several other centers have plans to develop more outreach programs.

CIVILIAN SITES

A similar pattern emerges on civilian sites. All 32 offer developmental services, some being very sophisticated and led by head teachers with M.A.s and directors with Ph.D.s. None followed any single orthodoxy, though most seemed to be influenced more by Piaget, Montessori, and other interactionists than by strict behaviorism or laissez-faire nativism. No center visited by the team followed either a strict, academic program or a behavior-modification program, nor did any just let the children "do their own thing". Most centers stressed child-initiated and spontaneous behavior
with staff members being sensitive facilitators, arrangers of "learning centers," and guides for development. All programs made efforts to encourage social, intellectual, and physical development—many emphasizing language and socialization skills, mathematics and exploratory discovery, creative expression, and large- and fine-motor development.

Two centers had especially clearly articulated philosophies—United Community Day Care Center on the East Coast and Pacific Oaks College Children's School on the West. The reader may wish to review their program philosophies.

CONCLUSION

- Most child care centers are eclectic in program and philosophy. They combine a number of programs and theories. Most include and emphasize child initiated activities, use of learning centers, staff-child interaction, and child-environment interaction.

- Parent involvement and parent education is a growing trend in child care centers. Child care centers that feel confident about their program for children may wish to begin a variety of outreach programs to further improve their programs.

AGE GROUPING/CROSS-AGE LEARNING

MILITARY SITES

At most of the military centers visited children were grouped as follows:

3 or 6 mo. - 2 or 2-1/2 yrs.: infants
2 or 2-1/2 - 4 or 5 yrs.: young preschoolers
4 or 5 - 6 yrs.: older preschoolers
6 - 12 yrs.: after-school
Group sizes varied from 6 or 8 children in a group (with that group subdivided into 2 smaller groups of 3 or 4 children working together, e.g., the Alameda Naval Air Station Child Care Center) to some groups of 15 to 20 or more children together (observed several places.) For more discussion on this very critical issue, and the role of architecture in it, see Group Size.

The new Army Community Service regulations AR-608-1 suggest child-staff age ratios which make it easy to imagine age groupings of 6 wks.-18 mo.; 18 mo.-3 yrs.; 3-5 yrs.; and 5-12 yrs.

Our observations suggested that most military centers tend to keep children in fairly strict age groups in different rooms, sometimes even naming the rooms. Age group separation doesn't seem to be influenced by center size. Thus, Fort Lewis, for example, has five main rooms and five age groups:

- Tiny Angels 3-14 mo.
- Little People 14-23 mo.
- Noah's Nook 23 mo.-3 yrs.
- Sesame Street 3-4-1/2 yrs.
- Happiness Pad 4-1/2-12 yrs.

And even Oakland, the smallest military center visited, had three main age group rooms:

- Infants 3-13 mo.
- Ambulatory Toddlers 13 mo.-2-1/2 yrs.
- Preschoolers 2-1/2-5 or 8

In both of these cases, and most others, the age group rooms are quite separate from each other and cross-age groupings either don't occur, or occur only on playgrounds, and in central multi-purpose spaces. The socialization and learned benefits from age group mixing are not evident in the playgrounds because of the sparseness of equipment and playsettings.
CIVILIAN SITES

The pattern of age groupings at civilian centers was somewhat different. Infants and pre-stable ambulatory, pre-language toddlers are usually spatially somewhat separated from older children who might simply overrun the youngest children.

The centers judged to be the best programmatically, however, made few distinctions among preschoolers from 2 or 2-1/2 up to 6. Larger centers had a slight tendency to put children of different ages in different rooms.

Directors and staff interviewed preferred a separation between infants and older children but not isolation of age groups. Talking, walking preschoolers are models for infants who often understand their babbles before adults do. The older children can learn about roles, cooperation, and social responsibility through their spontaneous desire to be with and look after infants.

Directors and staff also clearly preferred a mixture of ages of children over 2. Children sometimes do want to be with their peers, but also have much to gain through cross-age groupings. Their view is consistent with recent research which supports the values of cross-age contacts in child care. Mixed age groups were also a feature of the best indoor care centers and outdoor play yards.

RECOMMENDATIONS

- Mixed age grouping benefits both the older and younger children. Caregivers should allow mixed ages to play together.

- Play areas should not be strictly separated by age and children should not be separated and grouped simply because staff-child ratios are different for different age groups (AR-608-1, Para. 8-5. c (1).)
• Although unsupervised access of older children to toddlers and infants should be controlled, provision should be made for children of different ages to mix and play together in developmentally appropriate play areas.

ISSUE FOR DECISION

• The weight of evidence from our observations of children's behavior on military and civilian sites and from our interviews with child care directors and national experts strongly favors opportunities for both indoor and outdoor activities in cross-age groups. Recent research is consistent with this view. This evidence is in slight variation to the new Army Regulation AR608-1, see especially Paragraphs 8-20e and 8-23a. Reference is also made to a letter of July 3, 1978 on these issues from Mr. Gary T. Moore to Messrs. Bill Johnson and Murray Geyer, DAEN-MCE-A and DAEN-MCE-P, with copy to Ms. Marla Bush, DAAG-PSC, and follow-up letter to Ms. Bush on July 27, 1978.

IMPORTANCE OF THE CHILD CARE PLAY YARD

MILITARY

All the military child support facilities had outdoor play areas. Only Fort Meade and the existing facility at Bolling Air Force Base had adequate traditional equipment to handle the number of children at the facility. (Others like Fort Bragg came close.) Interestingly these two were also the only ones that had significant natural amenities like large shade trees and some slope to parts of their sites.

The new facility at Bolling with its zoned play areas, landscaping, fencing and timber equipment is clearly outstanding in comparison although it has yet to be actually used and lacks large shade trees.
CIVILIAN

By comparison only two of the eight civilian facilities visited on the East Coast had pleasant or even minimal outdoor program areas. The play areas on the roofs of the centers in Brooklyn were awful. Even in the more benevolent climate of California only three of the facilities visited had quality outdoor space. However the best use of outdoor space was in California at the Pacific Oaks College Children's School.

CONCLUSIONS

While outdoor activities are conceptually touted as an equal partner with indoor activities, the space programmed for them and the equipment provided for them is usually poor and an after-thought. While the problem of providing adequate outdoor areas is most critical in civilian and urban facilities, the problems of low aspirations and lack of ideas for developing and furnishing outdoor areas are a significant problem for each. Even the new well furnished outdoor area at Bolling doesn't hint at the possibilities of gardens, animals, or a "work yard" of loose building materials that also fascinate and contribute to the development of children.

RECOMMENDATIONS

- Outdoor play areas receive budget allocations that reflect their developmental and programmatic role in day care facilities.

- That outdoor play areas cannot be categorically omitted as a cost savings move.

ROOM SIZES IN NEW FACILITIES

MILITARY AND CIVILIAN

The single "new" military facility visited (Bolling Air Force Base) had four relatively
large rooms. The largest is about 60 x 60 and can be subdivided to make two rooms of 30 x 60. The remaining two rooms are about 30 x 50. While these are the sizes recommended in the Air Force Definitive, they are also about twice as big as those found in the new civilian facilities. In addition older military facilities (Fort Hood, Fort Meade, and Bolling-existing) were not inspiring environments. New and well published facilities that have large open rooms like the Early Learning Center in Stamford, Connecticut, are made up of small modules under 200 sq. ft. each, that dramatically modulate and reduce the apparent size of the open space and benefit from being both open (flexibility) and enclosed (intimacy).

According to findings in a HUD Study (Ruopp, 1978) room size is a factor in the quality of day care programs with smaller rooms functioning best.

RECOMMENDATION

- Our recommendation is for small rooms of about 400 sq. ft. maximum.

- Larger spaces should be dramatically articulated with a combination of walls, transoms, ceiling height and floor level changes to define smaller spaces.

WELCOME MATTERS

CIVILIAN AND MILITARY

The quality of the entry space and the quality of the greeting given to children as they enter is very important in establishing the image and personality of the center. Several bases did a very good job (Fort Hood, Fort Bragg, Alameda Naval Air Station.) Eye level contact and a greeting by name between the child and the receiving attendant was a feature of Fort Hood and Fort Bragg.

It is also advisable to have the director very available. This is important to both children and parents. In fact most of the directors, both civilian and military, know all the children by name. The
availability of the director to intervene and resolve small problems about money, counseling times, etc. is an important service provided to parents as they pick up and drop off children. Frequent brief encounters set up a social relationship that makes it easier to handle bigger problems (Fort Bragg).

RECOMMENDATION

- An entry desk in a day care center should be both child- and parent-oriented and should probably have the receiving attendant at eye level contact with the child.

- A padded edge for the child to lean on is nice and if possible the child should be greeted first and by name.

- The director's office and the director should be visible through the open door.

INDOOR PLAY YARD

MILITARY

Several directors mentioned the desirability of having a place capable of being used for indoor play during bad weather when it is too hot or too cold. Fort Lewis and Fort Mead have gym spaces. At the pre-design conference at Ft. Hood and Fort Bragg the directors recommended an indoor gym. The existing gym at Fort Meade is highly used and programmed use has to be scheduled throughout the day even on days when the children go "out" to play.

CIVILIAN

The civilian directors were just as enthusiastic about indoor play yards. Those that have them include United Community and National Child Research, Big Sisters League, and Northridge Childrens Center.
All four of the large public day care facilities visited in Brooklyn had some kind of space, usually a hallway widened designated as a potential play space.

- Daughters of African Descent - "hallway room"
- Helen Owen Carey - enlarged lobby and room sized hallways
- New Life - widened hallway
- Block School - Special Room

RECOMMENDATION

- We recommend that an indoor play yard that gets multiple-use with one or more other activities be included as a designated activity space in child support facilities.

PORCHES ARE MULTI-USE SPACES

MILITARY

Several military facilities had porches, arcades, or covered outdoor play areas that were used and appreciated.

- Fort Bragg - screened porches
- Fort Hood - covered outdoor sand box
- Bolling Air Force Base - entry porch

The overhang at the new Bolling facility almost creates a usable porch for the care rooms but needs to be 4-5 ft. wider.

CIVILIAN

Several civilian facilities also had porches, arcades, or covered outdoor play areas that were used and appreciated.

- National Child Research Center - porch and entry porch
Federal Employees - arcade
Pacific Oaks Children's School - porch
Harold E. Jones - covered outdoor play
Bing Nursery School - porches

CONCLUSIONS

Porches, arcades, and covered outdoor play areas are highly prized and highly used features of buildings. They provide a tremendous amount of flexibility and area at reasonable cost. Porches are multi-use spaces.

RECOMMENDATIONS

• We recommend that play porches, arcades, or covered outdoor play areas be included in all schematic designs and be included as a required program space for child support facilities.

INFANT CARE

MILITARY

Three observations about infant care in the military deserve mentioning:

• The recommended ratio in the Army is 1:5. HUD and typical State Requirements of 1:3 are consistent with expert opinion as the ratio necessary for quality care.

• There is a tremendous interest on the part of day care directors to develop and improve infant stimulation programs (Fort Meade, Fort Hood).

• There is more demand for infant care relative to supply than for care for older children. Just how much demand is unclear.
CIVILIAN

Infant care is relatively expensive and more frequent in military than civilian settings, and the Big Sisters facility is too expensive to be used as a prototype. An infant care facility should be buildable that costs less than $20,000 per infant.

CONCLUSIONS

- too many infants is more apparent than too many toddlers
- no one would try to raise triplets or quadruplets without a lot of help yet triplets and a single mother is a child staff ratio of 3:1

KITCHENS

MILITARY AND CIVILIAN

The new facility at Bolling has a very large well equipped institutional kitchen. While the team's immediate reaction was that it was much too large for a day care center, visits to other facilities, both civilian and military, convinced the team of the necessity of a full institutional kitchen for programs providing full day care. When children are at the center 6 a.m. and aren't picked up until 6 in the evening the center becomes responsible for more than serving them their bag lunches.

Kitchens pose problems in planning a facility. While institutional kitchens are dangerous places and a child can easily be hurt there, kitchen activities, cutting, washing, cooking, cleaning, etc., are important developmental activities and a program that doesn't include them is missing a major and rich resource to the program. Unfortunately the new Army regulations don't allow children in the kitchen.
CIVILIAN

Civilian settings produced several examples where the kitchen was at least tangentially a part of the centers activities.

- Pacific Oaks - a kitchen in minimally remodeled house
- Federal Employees - open kitchen area with a counter all around, but children aren't allowed inside
- Northridge - two kitchens: one institutional and a "home" one
- Big Sisters - two kitchens: an institutional and a "home" one

RECOMMENDATIONS

- Plan for a large well equipped institutional kitchen in all day care facilities.
- Plan for kitchen and cooking activities by small children as a programmed activity of each center separate from the institutional kitchen.
- Allow children in the institutional kitchen for visits.

INTERIOR DESIGN (COLOR)

MILITARY

Two of seven bases had made a significant effort to improve the image of their facility through the use of color.

- Fort Bragg - includes murals
- Fort Meade - exterior on both the nursery and the pre-school

Fort Hood had also recently repainted its facility but had not used color. The new Bolling facility has some "supergraphics" mural work and uses color on accent walls.
Several directors identified color and lack of a "fixed-up" image as contributing to why some people didn't use the facility.

CIVILIAN

Color was a major aspect of three of four remodeled civilian day care centers.

- Satalite Americana - murals and furnishings
- Block School - walls and floors
- Federal Employees - walls, floors, furnishings

Of the three new care centers visited in Brooklyn two had used color in a "cheery" way.

- H. O. Carey
- United Community

The others have tan or navy gray and burnt brown-maroon brick as their color scheme. These colors have proved durable but dull.

RECOMMENDATIONS/CONCLUSIONS

- Color and decorations of facilities is an important feature valued by both parents and children.

- In new facilities the first repainting generates a problem because the institution doing the repainting usually doesn't have available the colors specified in the original contract and always seem to choose ugly dull substitutes.

ACOUSTICS

MILITARY

The acoustics at several military facilities deserve special note. Unfortunately they deserve note because they are so bad, the spaces multiply noise and even echo.
• Fort Hood
• Fort Meade
• Bolling (old)
• Bolling (new predicted)

The problem is basically having too large rooms with lots of hard surfaces. Children get "wound up" because of noise until the whole place is in a frenzy.

CONCLUSIONS

The advantages of flexibility, change-ability and the feeling and openness gained by having large spaces can easily be nullified if the spaces are built out of hard materials, and a room reflects and reinforces the sound. Since the results can be disastrous, the decoration of the classroom and design proposal must be analyzed for performance as appropriate acoustical environments.

SECURITY

Two types of security need to be discussed when talking about day care facilities, physical security and children's security.

Physical Security

Only two of the seven military facilities mentioned problems with vandalism, theft and robbery. One facility had actually been robbed. Physical security is much more of an issue at the civilian facilities located in urban areas. Doors are locked and are only opened by a buzzer system after the visitor is identified. One center had recently been broken into and vandalized.

Childrens Security

Directors of a majority of the military bases expressed concern about a child being picked up by the child's "wrong parent" as a way for someone to get child
custody in a divorce. Fort Bragg, Fort Hood, Fort Lewis and Alameda Naval Air Station had especially well organized drop-off and pick-up procedures that help control the problem. The smaller civilian settings rely more on personal recognition.

CONCLUSIONS

Security is a real problem at day care centers. The architectural implications include furnishing the center with secure lockable doors and windows and providing enough space to handle the checking in and checking out of children.

MODULARITY

CONCLUSION

Although there was some repetition of room size in some of the facilities visited and there was some regularity in the quickly built "temporary" buildings that house most military day care centers, none of the facilities, civilian or private could be used as an example of a facility designed around a clear architectural module.

REMODELING

MILITARY

All the military bases visited by the teams had remodeled facilities. The buildings had a variety of previous uses:

- Fort Hood - classroom
- Fort Bragg - hospital
- Fort Meade - N.C.O. Club
- Bolling Air Force Base (old) - housing
- Fort Lewis - recreation building and other uses
- Alameda - community service building and other uses
• Oakland - offices

Five of the facilities were single story structures. Of the two exceptions one didn't use the upper floor at all (Fort Lewis) and the other consisted of one room (Fort Meade) used as the "club" room for the after- and before-school children.

CIVILIAN

Four of the eight civilian facilities listed by the East Coast team were remodelings. The buildings had a variety of previous uses.

• Satalite Americana - grocery store
• National Child Research Center - Victorian house
• Federal Employes - office space
• Block School - grocery store, synagog

All three of the remodeled facilities were single story. (The federal employees facility was in the basement of a multi-story building but opened onto a court with access to the street and only the National Activity used upper floors for child care.)

CONCLUSIONS

• A variety of building types have been remodeled into child care centers.

• The smaller the program the easier the match.

• Remodeled facilities are almost always single story.

USE OF SPACE IN REMODELED DAY CARE FACILITIES

MILITARY

Large open spaces without much articulation or differentiation were found in three of the seven remodeled military facilities.
- Fort Hood - left open
- Bolling (old) - low partitions
- Fort Meade - low and high partial walls

CIVILIAN

Large open spaces were found in three of the four remodeled facilities visited by the East Coast team.

- Satalite Americana
- Block School
- Federal Employees

All three had dramatic multi-level interiors landscaped with platforms, partial walls and steps, and storage.

RECOMMENDATIONS

- Large open spaces while appearing to be flexible can be more difficult to utilize than smaller broken up spaces. Noise, lighting, and group over stimulation become critical problems.

- Efforts to "landscape" large open interior spaces with dramatic articulated multi-level platforms, nitches and sculptural walls have been fairly successful and should be considered a major part of remodeling facilities with large open spaces.

REMODELING COSTS

CIVILIAN

Remodeling costs for civilian centers vary. The following costs include dramatic multi-level interior partitioning.

- Block School  *$15/sq. ft.
- Federal Employees  *$18/sq. ft.

*Caution: these costs are almost 10 years old.
RECOMMENDATIONS

- Don't automatically assume remodeling is cheaper.

- Remodeling costs to get effective and functional space for day care centers can be fairly expensive, especially if kitchens and a lot of plumbing, electrical, or insulation is involved.
APPENDIX--RESEARCH FORMS

Copies of the research instruments--observation and interview forms--are available for $3.00 prepaid by writing Publications in Architecture and Urban Planning (address inside front cover).