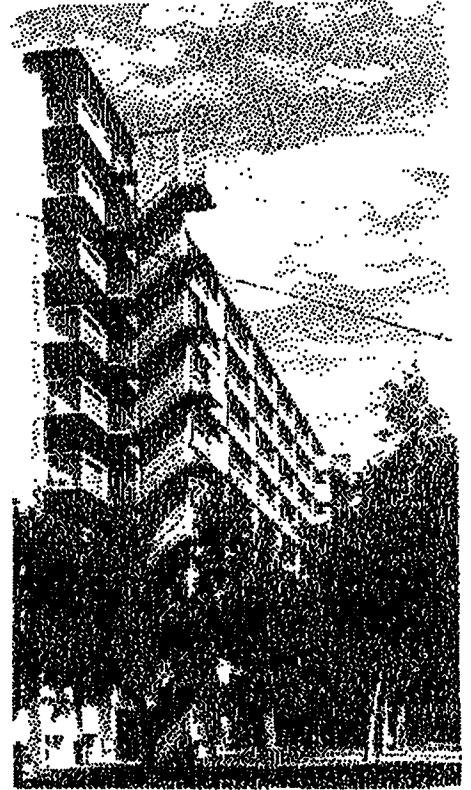


*Victoria Plaza Revisited:
Lessons for the Evaluation of
Housing for the Elderly*



Frances M. Carp
Arza Churchman, Editor

*Institute on Aging and Environment
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Contributors

Min Kantrowitz

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LESSONS FOR THE EVALUATION OF HOUSING FOR THE ELDERLY**

Editor Arza Churchman

Contributors Frances M. Carp, Min Kantrowitz, Gerald D. Weisman, and Habib Chaudhury

Abstract

This monograph is based upon a workshop sponsored by the Institute on Aging and Environment at the 1994 EDRA Conference. San Antonio is the home of Victoria Plaza, the first public housing facility specifically designed for and limited to older persons, where Frances Carp conducted a nine year longitudinal study of the effects of the housing on its residents. The convening of the 25th Annual Meeting of the Environmental Design Research Association in San Antonio in March of 1994, offered the opportunity to use the occasion to mark the significance of the Victoria Plaza study and to reflect on the substantive and methodological lessons that can be learned from it. The monograph includes Frances Carp's reflections on her pioneering experiences with Post Occupancy Evaluation and the lessons applicable today. Min Kantrowitz and Gerald Weisman present their comments and conclusions.

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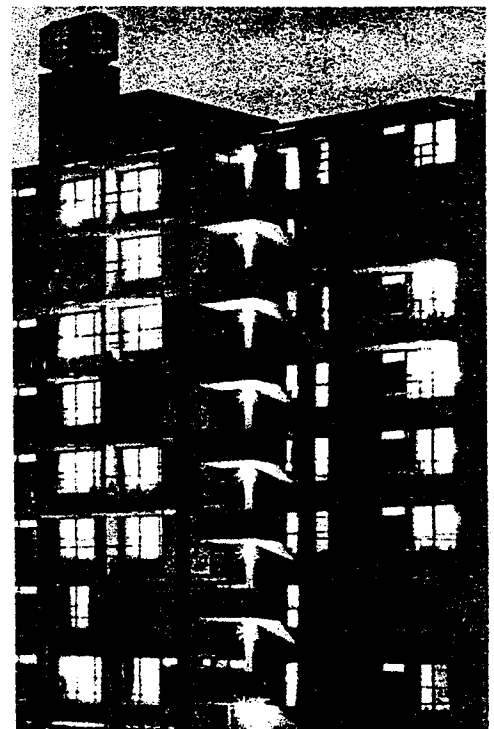
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Victoria Plaza Apartments, brochure of
San Antonio Housing Authority, 1961.

Introduction



INTRODUCTION

Arza Churchman

LEARNING FROM HISTORY

From its inception, the field of Environment-Behavior Studies has been a future-focused field. It asked how we could change the world to make it a better place; it was in some ways a utopian world view (Schneekloth, 1994). As such, there has been a tendency to neglect the past, forgetting that even a young field has a history, and that much can be learned from history. Furthermore, only recently have we begun to move from an ahistorical approach, to one which recognizes the importance of the cultural, political, economic, technological, temporal context of the phenomena studied in the past and those being studied in the present (Altman & Rogoff, 1987).

THE VICTORIA PLAZA STUDY

This monograph focuses on one study from the very early beginnings of the Environment-Behavior field, one unique then and unique even now in many of its aspects: Frances Carp's longitudinal study of Victoria Plaza, that tested the effects of living in new and better housing on the health and well being of the elderly residents, over the course of nine years.

San Antonio is the home of Victoria Plaza, the first public housing facility specifically designed for and limited to older persons. The approach was innovative too in that the building was designed with facilities for a range of medical and social services on the ground floor. Today the notion of age-specific residential or whole communities and the combination of housing

and services is quite common, but in the late 1950's it was much less common, and unheard of in public housing. Victoria Plaza was an unusual and pioneering situation in another sense. Thanks to the Hogg Foundation for Mental Health at the University of Texas, behavioral scientists were recruited and funds provided for a pre-post study of the applicants for residence and their evaluations of the housing.

***REVISITING VICTORIA
PLAZA***

The convening of the 25th Annual Meeting of the Environmental Design Research Association in San Antonio in March of 1994, offered the opportunity to use the occasion to mark the significance of the Victoria Plaza study and to reflect on the substantive and methodological lessons that can be learned from it.

The Institute on Aging and Environment of the University of Wisconsin-Milwaukee sponsored the conference session at which Frances Carp presented a paper, an expanded version of which appears in this monograph. The comments of the two discussants at the session, Min Kantrowitz and Gerald Weisman, both with much experience in the fields of post occupancy evaluation and design for the elderly, follow her paper. We also include material on the physical design of the building and on the original intentions of the San Antonio Housing Authority.

***LESSONS FOR THE FIELD
OF AGING AND
ENVIRONMENT***

Our knowledge about the elderly and about their housing needs is much greater today than it was in the 1950's, as evidenced by the many books and publications that have appeared since, particularly within the last ten years (Altman, Lawton & Wohlwill,

1984; Carstens, 1985; Newcomer, Lawton & Byerts, 1986; Carp, 1987; Regnier & Pynoos, 1987; Blank, 1988; Cohen & Weisman 1991; Heumann & Boldy, 1993, representing only a partial list). It seems incredible now to read in Carp's paper, that the attitude then was that the elderly could not adapt to new things and to new environments. This sounds especially strange to us today, since the age considered 'old' then, would now be considered 'young elderly', to say the least.

However, lest we be too complacent, it should be noted that misconceptions about the elderly still exist, among professionals as well as among the public. For example, a number of people working in the area of geriatric rehabilitation argue that much ageism exists in the field of rehabilitation (Becker & Kaufman, 1988; Olson, 1986). The restoration of normal function and return to self-sufficiency, which is one definition of rehabilitation, is thought to be unlikely among elderly persons, and failure to return to function is considered to be acceptable for the elderly. This misconception is unfortunately held also by many of the elderly themselves; whereas, in fact, early rehabilitation intervention is considered to be more important for the elderly than for younger patients (Clark & Siebens, 1993), and rehabilitation can maintain the independence of older people in the community (Kemp, Brummel-Smith & Plowman, 1989)

The lesson to be taken to heart is that we must be cautious in our assumptions about the elderly or any group of people, and be sure to make those assumptions explicit and, where possible,

formulate them as hypotheses to be tested.

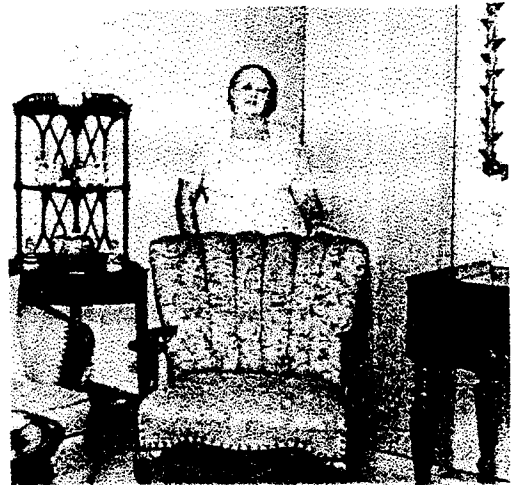
The fortuitous combination, at a particular point in time, of an enlightened housing authority, an enlightened foundation and a creative researcher, all willing to break new ground and take risks, resulted in a special place and a special study. We hope that this monograph will serve to remind us of the lessons to be learned from that.

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**Housing Older Persons:
The Victoria Plaza Experience**



HOUSING OLDER PERSONS: THE VICTORIA PLAZA EXPERIENCE

Frances M. Carp

COME, ENTER THE TIME WARP

It is autumn 1959. The San Antonio Housing Authority requests help from The Hogg Foundation for Mental Health at the University of Texas in Austin to evaluate a novelty, public housing for the elderly, which had been under construction in San Antonio since late 1958 and was due to open in 1960 — a matter of months! Unless something was done immediately, an opportunity for obtaining important information would be lost.

This was 35 years ago. There had been little interest in studying the housing of the elderly. Adolescence was the “hot topic” in social science, and the consensus was that when the complex changes of that interesting life stage were completed, the person was pretty much what he or she would be for the remainder of life. Further development was not expected. With increasing age, people were thought to become more “set in their ways,” less affected by circumstances and less able to adapt to new things. Environmental change, even improvement such as that intended at Victoria Plaza, was considered by many as potentially detrimental to older persons due to their rigidity.

This “ivory tower” view was being challenged by social policy. In the 1930s, as one response to the Great Depression, Federally-funded public housing had been instituted. Due to the prevalence of extreme poverty and grossly substandard housing among older

persons, a disproportionate number of them qualified for public housing. Theirs was the generation that fought World War I, tried to remain employed while they raised families during the depths of the depression, and for whom Social Security was instituted too late for them to attain more than the minimum benefit.

In view of the disproportionate need for subsidized housing among the elderly, sensitive managers (e.g., Thompson, 1992) reserved for older persons a proportion of public-housing units. These set-asides did not solve the problem, because design features in traditional public housing caused difficulties for tenants with age-related sensory-motor decrements. Late in the 1950s, the Public Housing Administration authorized construction of facilities designed and designated for older persons. Victoria Plaza was the first to be completed.

There were no housing evaluation guidelines or environmental gerontologists. In response to the Housing Authority request, and recognizing the need for external evaluation, The Hogg Foundation asked two fairly green psychologists and a more mature sociologist to develop and carry out procedures to test the assumption implicit in the concept of public housing for the elderly — that older people *can* adjust to a new environment and that better housing has beneficial effects on them - as well as to evaluate this facility.

In recognition of the inconvenience to staff that would be inevitable with outside evaluators, and to insure independence for the

research, the Hogg Foundation also provided funds to the Housing Authority to hire a social worker for the new project. Sister Frances Jerome of Our Lady of the Lake College, Al Carp of the Personnel Research Laboratory at Lackland AFB, and I prepared and pre-tested a procedure for data collection and analysis. Unfortunately, requirements of Sr. Frances Jerome's Order caused her to withdraw, and the Pentagon preempted Al. Trinity University accommodated to the demands on my time, and excellent research assistants and data collectors were selected and trained.

With luck and hard work — we chased each other around our dining-room table the night before data collection began, assembling pages of the instrument — we met the deadline imposed on the research by the building schedule. On the theory that attitudes may change when you know you are a “goat” or a “lamb,” we interviewed all applicants whom the Housing Authority certified as eligible for Victoria Plaza *before* the Housing Authority decided who would be offered apartments there. Later, we debriefed the persons to whom the Housing Authority first offered apartments, after they toured the facility. We re-interviewed both in-movers and others at one-year and nine-year intervals. The National Institutes of Health funded the later stages of the study. Despite our naivete and short lead-time, the study answered questions and raised issues that have proved important in the now prolific field of environmental assessment. This paper includes not only results from the study of Victoria Plaza, but also findings of subsequent studies that stemmed from that experience.

***THE PRIOR HOUSING OF
APPLICANTS TO
VICTORIA PLAZA***

The majority of applicants lived in “apartments,” most of which consisted of one room in an old two- or three-story residence that had been divided to maximize rental income, plus access to a shared bathroom and kitchen, often on a different floor. Generally the buildings were old, had not been well maintained, and could not be kept clean of dirt or free of vermin. Many were unsafe. (An interviewer arrived just in time to help extricate her interviewee, who had fallen through the floor where it was weakened by leakage from the ice-box). Ventilation was poor in this climate of intense summer heat, often as the result of partitioning each big room in an old-fashioned house into several “apartments.” (An interviewer fainted during a September interview in a tiny third-floor “apartment” with a single small, high window — which could not be opened.) Most applicants were provided with heat, though it was not always adequate or safe; an inside commode (usually shared with several others); an ice box or refrigerator and a cook stove in the shared kitchen; and hot and cold running water in bathroom and kitchen.

Washing machines were available to one applicant in five, and drying lines in the back yard (down a full flight of stairs from the main floor) to even fewer. Half did not have a sanitary means of garbage disposal, and those facilities were inconveniently located. Neighborhood food stores are not prevalent in San Antonio, and were even sparser in the neighborhoods of the remodelled older houses. In addition to the demands on older persons’ physical resources to walk to fetch food and other necessities, including toting them upstairs on return, they were easy prey to street crime

which had high rates in the parts of town in which most applicants lived. Generally, then, applicants' housing was deficient in enabling them to meet the basic, viscerogenic needs whose satisfaction is necessary for performance of the *activities of daily living* requisite to continued independent living (Carp & Carp, 1984).

Their housing was similarly inadequate in resources for meeting higher-order or psychogenic needs, whose satisfaction is requisite if life is to be of satisfactory quality rather than simply continued existence (Carp & Carp, 1984). Lack of *privacy* was a common problem, attributed to shared bathrooms and kitchens, and paper-thin partitions. At the same time, *loneliness* was prevalent. Because of the quality of dwelling available to older persons with limited financial resources, and its location in the city, applicants were isolated from friends and activities with other people. Most lived on upper floors to which access was by old, steep, dark stairways, often made more treacherous by frayed and torn carpeting. (The interviewer was the first person, besides the Chinese-speaking grocery deliverboy, with whom one applicant had spoken in three months. She had broken her hip trying to negotiate the stairs, feared to attempt them again, and would not allow her friends, as old as she, to do so.) Some did not want their friends to see the conditions in which they lived, and kept their whereabouts secret. Generally they did not want to associate with "the kind of people" under the same roof.

For other applicants in substandard housing, the need most urgently felt was for *security* of tenure. They lived in areas where

buildings were being torn down to be replaced by office buildings, parking lots and expressways, and these folks feared most greatly the loss of even the housing they had. The ugliness of their dilapidated, unkept, dirty surroundings of all those in substandard housing left the *esthetic* need of most applicants unmet.

Nearly 20% had housing that was adequate or even comfortable, but which isolated them from friends and desired activities, and involved painful interpersonal relationships. *Independence* was their greatest desire in regard to housing. They were renting rooms with money given them by their children, or more commonly living with the children, and felt they were imposing on — or being imposed upon by — younger generations. (One woman had signed over her home to her son, with the understanding that it would be “her” home during her lifetime. She was relegated to the maid’s room, and expected to do the maid’s work for her room and board.)

Applicants were long-time residents of the city and lived in one residence during most of their adult years, but two-thirds had been at the current address less than a year. Transiency began when they were forced by reduced retirement incomes to leave the homes of their earning years. From then on, the dreary succession from “apartment” to “apartment” continued. Some found themselves depleted, financially and physically, searching for a better place, being disappointed, searching again. Others made a series of involuntary moves as one after another of the old build

ings in which they could afford to live were razed for urban renewal.

In view of the objectively unsatisfactory condition of their housing, the problems they experienced with it, and the continuing search for something better, it seemed surprising that in rating their current housing on a five-point scale, the common response was the mid-point, "OK." Comments suggested that "OK" meant they were doing as well as they - or anyone else - could do in the situation. An important implication for housing evaluators is that a response such as "OK" does not necessarily indicate satisfaction on the part of the tenant or adequacy of the housing.

***HOUSING IN VICTORIA
PLAZA***

The following description is of the newly completed building. The structure remains the same, but through the years there have been alterations in the use of space on the ground floor, as the tenant group aged and other forces came into play. This developmental utilization of ground-floor space was made possible by the insistence of the Housing Authority director and the architect that the Federal Housing Administration relax its criteria and approve a large undeveloped "storage" area.

Victoria Plaza is on a two-and one-half acre site seven-tenths of a mile from the city center (the Alamo), in a neighborhood with stores and churches, and across the street from a low-rise, family public-housing facility, Victoria Courts. The site is within the sector of the city identified as the domain of the approximately

half of the population that is Mexican-American. Nine stories high, Victoria Plaza was the tallest building in the city. Imaginative use of economical material created a pleasing exterior that capitalized on the changing patterns of light and shadow.

The main entrance, near a bus stop and a mail dropbox, opens into the lobby and the county Senior Center. Housing the Senior Center in public housing was another novel feature of Victoria Plaza (Carp, 1976a). This lobby-Senior Center area was furnished with comfortable, gaily covered furniture in conversational groupings, a pool table, a combination hi-fi and television set, and individual mail boxes for residents. A large veranda closed on three sides opens off this area to a shady garden patio surrounded by an eight-foot brick wall. In the north wing of the ground floor are the offices of the Housing Authority and the Senior Center director. Adjoining them is a hobby room with equipment for various crafts. Next there is a library. At the end of the wing is an eight-room clinic with a nurses' station and examining rooms for use by the Public Health Department. Just outside is a public patio with benches and a play area for neighborhood children waiting to be seen in the clinic. In the west wing are a small post office, two counseling offices, and a three-bedroom custodian's apartment. A community kitchen where food can be prepared for parties or meetings adjoins the recreation room. Here there are card tables and a piano, and a moveable stage with curtains. Beyond the recreation room is the "storage" area. Immediately, generous San Antonians donated equipment and tenant operators set up a beauty shop in one corner. The ground floor is air-conditioned.

Two self-service elevators connect the main floor and the eight identical residential floors. Each has an incinerator chute for waste disposal, centrally located by the elevator. There is a laundry room on every floor, with coin-operated washing and drying machines, and tubs and lines for hand washing.

Victoria Plaza was a novelty in San Antonio in that residential floors have exterior galleries with four-foot railings instead of interior halls. Residential floors are one apartment deep, and each apartment has a small individual porch outside the kitchen and on the side of the apartment opposite to the gallery.

The building's modified T-shape and orientation to the prevailing breeze, along with the doors and windows at the front and the back, provide cross-ventilation in every apartment (16 two-bedroom, 16 efficiency, and 152 one-bedroom). Apartments are centrally heated. 22-volt lines and phone jacks were installed, and tenants could provide air-conditioners and phones. The main area of each apartment can be turned into one large room or separated into areas by the placement of three movable closet units. The kitchen is separated from the living room by a fixed screen covered with easily cleaned material. The dining area is by a window opening onto the gallery.

Special Design Features. To support the safety, comfort and convenience of older tenants, special design features were mandated. For security of mobility, there are handrails along the halls

throughout the building. Due to the high incidence of arthritis and related conditions, doors have levers rather than knobs. In apartments, shelves, light fixtures and closet rods are lower than standard, to ease the strain of stretching old bodies. To reduce the need to squat or stoop, which becomes difficult with age, refrigerators are elevated 14 inches. There are “safety” electric cooking ranges. In bathrooms, for the safety of less sure-footed elders, instead of bathtubs there are showers that have Alaskan cedar seats and tempered doors rather than curtains. In case of emergency, each bathroom has a convenient button that rings an alarm bell on the balcony. Bathrooms are wheelchair-accessible.

***COULD THE ELDERLY
INMOVERS ADAPT?***

Were the elderly folks (average age 72+ years) who moved from substandard housing into new, modern Victoria Plaza with its special design features to accommodate their age-related decrements too brittle to adapt to it, so that its effects were deleterious? Did the objectively better living context make no difference in their lives? Or was the result greater satisfaction with housing, better personal functioning, and improved quality of life? The design of research to investigate these questions took into account that, particularly among older people, among whom decremental change over time is typical, favorable impact may be reflected in less loss as well as in more gain. The issue is whether those who moved to the Plaza were in better shape than they would have been had they not made that move.

RESEARCH DESIGN FOR TESTING THE EFFECTS

To estimate effects of living in Victoria Plaza compared to what

might have been had the tenants not made that move, in-movers were compared to the qualified applicants who did not move to the Plaza but who (fortunately for the research effort) were similar at baseline to in-movers on the items considered by the Housing Authority in selecting them. (These admission criteria were the most likely sources of difference between in-movers and others; see below.) As a further safeguard on conclusions, analysis of covariance was used to test differences in change over time between Plaza residents and comparison applicants. Use of this statistical tool removed the effects of any initial differences that might have existed in variables on which comparisons were made.

The research team played no role in qualifying applicants as eligible for apartments. The San Antonio Housing Authority staff made those decisions and gave the research team the names and addresses of eligible persons. When the building was ready for occupancy, the Housing Authority had qualified 352 applicants, and the research team had interviewed them. The Plaza could not accommodate them all, and Housing Authority staff selected the tenants from among them. These decisions, made independently of the research effort, defined its comparison groups: 204 who moved in and 148 who did not.

To assess the baseline similarity of in-movers and others, we compared them on all the items in the Housing Authority's legal criteria, using data in the research files: capacity for independent living, age, income, savings, length of residence in San Antonio, date of application, veteran status, and severity of housing need.

In addition to the legal requirements, the Housing Authority tried to select applicants with “good ability for adjustment to close community life.” Admission personnel took into account the applicant’s physical and mental health as appropriate to such a congregate environment as Victoria Plaza. Using research data, we compared the groups on multiple indices of such variables as education, physical health, memory, mental alertness, mental health, present and desired participation in group activities, cleanliness, and sense of humor. Though plans for statistical treatment provided for initial between-group differences, the small number and modest size of obtained differences was highly satisfactory from a research point of view. The Housing Authority admission personnel also tried to “normalize” the neighborhood being created by giving preference to single men and married couples. There was no difference between in-movers and others in either status. The group that moved into the Plaza was very similar to the group that did not.

***EARLY EFFECTS OF
RESIDENCE IN VICTORIA
PLAZA***

About nine months after they moved in, residents were asked to rate, on a five-point scale, their satisfaction with Victoria Plaza as a place to live. Only three people were less than “satisfied” and most were “very satisfied.” Since this might be a “honeymoon” reaction, the same question was put to them three months later. This time only one Plaza resident’s rating was as low as the midpoint, “OK.” (This woman insisted on being interviewed but refused to answer nearly every question, including her marital status. She was the only applicant who refused to give her age.)

At both times, no control group member gave a positive rating of current housing, and most gave the "OK" response they had given in baseline interviews.

There was dramatic improvement in residents' satisfaction with arrangements for performance of the *activities of daily living* necessary to independent living: garbage disposal, maintenance and repair, shopping, laundry, housekeeping, sleeping and eating; but control ratings did not change. Tenants said they were getting better housing for their money and felt more secure financially (though their incomes had not changed and half were paying more for rent than they had as applicants). Beneficial effects of residence in Victoria Plaza were clear also in regard to satisfaction of psychogenic or *higher-order needs*. Residents joined more social groups and organizations, participated in more activities, paid more visits to friends and received more visits from them; had improved attitudes toward their families; were less lonely; and had higher morale, self-esteem and self-perceived health, compared to controls. Housing as a "major life problem" almost disappeared among residents, but increased among controls. Plaza tenants' reduced concern about housing was not offset by increase in other "major life problems." Concerns about money, health, companionship and personal adjustment also diminished among Victoria Plaza residents compared to controls, and the number of residents who reported no "major life problem" increased (Carp, 1966). As the single most outstanding effect on their lives, security was named by the greatest number. Others mentioned independence, dignity, self-respect, the oppor-

tunity to make friends and join in activities, and longer life expectancy. Beneficial effects such as these of better housing are not unique to Victoria Plaza but have been found elsewhere as well (e.g., Lawton & Cohen, 1974).

**LONG-RANGE EFFECTS
OF RESIDENCE IN
VICTORIA PLAZA**

These were not “honeymoon effects,” but persisted at the time of the final follow-up interviews, nine years after the first (Carp, 1975a, 1975b, 1976b, 1978, 1987). In addition, the last follow-up demonstrated a clear advantage in *life expectancy* for Victoria Plaza residents (Carp, 1977). Thus the “soft” psychological test, self-report and rating data showing positive effects of residence in the Plaza were consistent with the “hard” data of being alive or dead on a given date. Obtaining the necessary data on controls was difficult. The Relocation Agency had information on not one. The persistent and resourceful interviewers located and visited or determined from official records the date of death of every one. A tip to those doing longitudinal studies: from the start, arrange to maintain contact with each respondent.

Academe was incorrect in its belief that older people are likely to “break” in a new situation due to their rigidity and brittleness. Instead, in-movers adapted readily to the dramatically different setting for their lives, and their housing satisfaction and overall well-being improved in the short-run and the long. Characteristics of the living environment *do* matter to older persons. These and similar later findings gave impetus to the field of gerontological environmental assessment.

***THE EVALUATION OF
VICTORIA PLAZA***

What were the characteristics of Victoria Plaza that might account for these effects on its residents? Evaluations of project features were made independently by residents, interviewers and Housing Authority staff; and a few paleolithic “technical” environmental assessments were taken. Each data source has its limitations and advantages. As we shall see, residents’ responses are influenced by a variety of biases; however, only they experience the environment 24-hours-a-day and it is their lives that are affected by the housing. Interviewers and staff are in some ways more objective, but they see characteristics of any particular housing through attitudes based on their own life experience, and they spend most of their time elsewhere; and staff have their own agendas regarding a facility, consequent upon their roles and responsibilities with respect to it. “Technical” environmental measures are completely objective, but they are meaningless unless they are demonstrably relevant to human experience and behavior.

This paper focuses on evaluations by residents as the most important ones, and discusses impediments to their validity and ways to minimize those impediments. It comments briefly on the primitive “technical” measures because of the recent advances in this approach to environmental assessment that show its potential.

**POSSIBLE SOURCES OF BIAS IN
RESIDENT ASSESSMENTS**

The purpose was to assess *Victoria Plaza*, to identify which of its characteristics had impact upon the persons who lived in it. We

quickly came to realize that our data might be confounded with characteristics of the respondents and of their situations, and might be heavily influenced by the question-and-answer format that was employed. Then results attributed to the Plaza would be contaminated with the personal traits and circumstances of respondents, and with data-collection strategies.

The Person-Housing Relationship

A Serendipitous Finding. A fortuitous event alerted us to the biasing effect on environmental assessments that results from the real or perceived relationship between the evaluator and the object of the evaluation. In the first interview with applicants, ratings of present housing were generally at the midpoint (OK) of a five-point scale, despite the fact that applicants were in dreadful housing from which they were struggling to extricate themselves through time-consuming and arduous procedures of application to Victoria Plaza. By chance, that rating item was included in a routine reliability check on the data-collection instruments. In the reliability check, about half the ratings remained at the midpoint — but others changed to “Poor” and even more to “Very Poor.” What had happened between the two administrations of the identical question? After the initial interviews but before the reliability check, the Housing Authority informed each applicant whether he/she was or was not offered an apartment in Victoria Plaza. No one had moved; they were in the same housing. The only difference was that letters of acceptance or rejection had been received. At the time of the second rating, successful applicants knew they had a way out of their problematic living situ-

ations, which freed them to give realistic evaluations of it. All the new negative ratings came from persons who had been offered apartments in Victoria Plaza.

Any human being who feels locked into a situation tries not to think about negative aspects it may have. For example, while they are under the icecap, submariners refuse to answer the negative items on sociometric instruments. That is, they will name crewmates with whom they would like to stand watch or share a beer, but refuse to name crewmates with whom they would *not* like to stand watch or drink a beer. Out from under the icecap, negative as well as positive responses are freely given (Sells, 1963).

All that was necessary to change applicants' evaluations of their present housing was to inform them that they could move out of it. Those who received letters of non-acceptance remained "trapped" in deleterious living situations and continued to describe them as "OK." We thanked our lucky stars for the decision to stop data collection before the Housing Authority announced its decisions regarding admission!

Personal Perception. A related influence is relevant. Once a person has made a decision, perception of the chosen object alters. It is now "mine," and the natural response is to defend the decision by praising the choice, not only to others but also to oneself (Bem, 1970). The decision to move to Victoria Plaza was made by the in-mover, sometimes without the knowledge or against the objec-

tions of family and friends. "Personal perception" bias would influence evaluations of the Plaza toward the "rosy" end. The mechanism: I chose it, so it must be a good choice, and if necessary I can give you 57 varieties of reasons why that is so.

The Sweet Lemon Fallacy. Long ago, Aesop wrote about a similar response tendency, attributed in the fable to a fox, but neatly descriptive of human behavior. The fox professed his sour lemons to be delicious. The fallacy: Regardless of its real attributes, anything that is mine must be fine. After the move, Victoria Plaza was "mine" to each resident. This perceived relationship might well influence the evaluations of the environment toward the positive.

Other Housing-Occupant Relationships. Subsequent studies have further explicated effects of relationships between occupant and housing, making it necessary for current housing evaluation studies to use research designs and analytic techniques to rule out or, alternatively, look at the extent of the effects of these factors (Christensen, Carp, Cranz, & Wiley, 1992). For example, owners report fewer housing problems (Newman & Struyk, 1983, 1984) and fewer needed repairs (Chen & Newman, 1987) than do renters. All applicants to the Plaza were renters, so this source of bias did not influence the study.

Desire to Remain in the Good Housing. Tenants had moved from substandard and often isolating housing or from painful interpersonal situations into a new, modern apartment building housing

204 age peers but with control over their privacy and choice of associates. They were grateful and feared to jeopardize their tenure. (Only one person moved out voluntarily during the first year of occupancy — the woman who refused to answer most questions but insisted on completing the interview. One was told to move because neighbors complained of his bringing prostitutes to his apartment via the highly visible fire escape.) It was obvious that residents described the Plaza with rose-colored ink and golden tongues. When they first rated it on a five-point scale, nearly everyone marked the most favorable pole. When first asked what was the best thing? “Everything.” What was the worst thing? “There’s nothing I don’t like.” When queried about the idyllic answers, justifications were vehement and along the lines of, “Anyone who would say anything bad about this place ought to be thrown out!”

Minimizing Bias from Person-Housing Relationships. To obtain a realistic view of Victoria Plaza, it was necessary to break through the stereotypically positive response tendency that was supported by so many factors. First, it was necessary to convince respondents of the total independence of the research from the Housing Authority and Victoria Plaza staffs. The Informed Consent Form described measures to assure confidentiality of all research material and provided opportunity for discussion of this matter. The Hogg Foundation’s decision to support evaluation independent of operation was vindicated. Naturally, staff members were curious about what tenants said (especially about them), and it proved important that the confidentiality of all data be established from

the first and maintained despite every blandishment. This is not easy in a longitudinal study in which the same data collectors and staff meet each other over a period of years. Requests from respondents for reiterated reassurances about confidentiality, especially from staff, documented its importance.

Another strategy was to portray living in Victoria Plaza not only as a personal boon, and negative comments not as shameful indicators of lack of gratitude, but rather to offer the interview as an opportunity to use the experience of living in the Plaza to benefit others in the future. The interviewer explained, “Other facilities similar to Victoria Plaza are going to be built in San Antonio and all around the country. You can use your experience of living here to help by suggesting ways future facilities can be made even better than your wonderful Plaza for the people who will live in them. Pointing out features that are not ideal is at least as helpful as indicating ways future projects should be like the Plaza.” The motive — to help others, and the phrasing — that avoided any implication of criticism of their own Plaza, seemed to work.

Feeling of Personal Competence. To obtain factual information about Victoria Plaza, it was necessary also to avoid contamination of responses by (probably unconscious) defensiveness on the part of respondents. Particularly in dealing with older persons, most of whom have physical problems and functional deficits, it is important to focus their attention on the *real* topic: the environment. We used the format: “How are the arrangements for _____ here?” As subsequent studies show, we might

have done better but we might have done much worse. For example, a format still in common use is that in the Campbell, Converse and Rogers (1976) landmark study on the quality of life in America: "How serious a problem is _____ for you personally?" Campbell et al. reported the "rosy response" from older persons and its incompatibility with their less desirable living conditions, and concluded that "The individual's perception of an attribute, for the most part, corresponds to the attribute itself" but that people 55 and older exhibit "a distortion between perception and reality" that is consistently "on the rosy side" (p. 261). Therefore their theoretical model of the determinants of life quality (including housing) applies only to people 54 and younger.

That model applies to a decreasing proportion of the adult population, and some reasons for its age-curtailment are puzzling. While Campbell et al. found older people better satisfied, they also found them less happy. Could the manner of data collection play a role? The format may point as much at the respondent's vulnerability about his or her own coping ability as at the factual condition of the housing. Carp and Carp (1981) compared the Campbell et al. format with several others, and found that the one which obtained the most reality-oriented responses was: "Now I'd like to ask about the _____ here. Setting aside for the moment how well you manage with it, or how well you are satisfied with it, but in a completely factual way, what best describes the _____ here?" Responses were much less "rosy." Their relationships with scores on a Sense of Personal Compe-

tence measure were not significant, while those with the format used by Campbell et al. were significant. If information about the factual condition of housing is the goal, it seems wise to state items in ways that minimize involvement of the respondent's ability to cope, and focus attention on the environmental attribute being assessed. The format employed in the Victoria Plaza study was satisfactory in this respect.

***RESULTS OF THE
ENVIRONMENTAL
ASSESSMENT***

SPECIAL DESIGN FEATURES

Handrails and levers rather than knobs on doors were appreciated, and increasingly so as the tenant group aged. In apartments, the lower placement of shelves was approved. There were mixed feelings about lowered light fixtures — it was easier to change bulbs, but some men hit their heads. There was unanimous disapproval of the lower clothes rods — dresses and trousers hung onto the floor. Soon carpenters raised the rods to standard height. Higher mounting of refrigerators was not helpful. Most women and some men could not reach the upper shelves. When it was time to empty the drip tray of the non-self defrosting refrigerators, the tenant had to stand on a chair or get the water down her front, or both. Because of the high incidence of falls among the elderly, and the fact that their bones break easily and mend slowly, getting up on chairs is hazardous. Tenants were much annoyed by this feature, which could not be changed. The 14-inch risers are concrete blocks, which cannot be removed from the 184 Plaza kitchens. Refrigerators should not be raised in future constructions.

Most tenants wanted bathtubs. Many purchased containers to put inside the shower space, in which they sat to bathe as well as they could. Consensus among them was that, if showers were required in future projects, shower heads should be installed inside bathtubs or, if that was not possible, separate rooms containing just bathtubs should be conveniently located for the use of all.

The bathroom emergency bell was problematic, and more so as the years passed. Response to the ringing of the bell on the balcony was the responsibility of neighbors. During work hours, they might obtain assistance from staff. Otherwise they were on their own. (This was before “dial 911.”) Someone donated a wheelchair for neighbors to use in extricating the ailing person, who usually was on the floor. However, when the staff went home, the wheelchair was locked up, much to the displeasure of tenants. As the population became more frail, it was increasingly difficult for them to provide adequate help to each other, and the physical and emotional burdens took their toll on caregivers. Most calls for aid came from the same persons. Their neighbors felt they were being unfairly used, that these persons no longer qualified for the “capacity for independent living” criterion for admission to the Plaza, and that they should be moved elsewhere. In future planning, consideration should be given to the response end of any emergency signal. A bell ringing on a balcony is a burden and source of anxiety to tenants within earshot, and does not summon appropriate assistance for the tenant experiencing the emergency.

The “safety” feature of the cookstoves is that controls are at the back of the burners and on the same level with them — so that small children cannot reach the controls. For older people, with losses in visual acuity and often unsteadiness, ordinary kitchen ranges would be safer than these, and “safety stoves” probably should have controls at the front and at eye level. The stoves could not be changed in Victoria Plaza, but the post-occupancy evaluation by residents should alert planners of future facilities to look into manufacturers’ definitions of such considerations as safety.

Bathrooms are “wheelchair accessible” only in that doors are wide enough for a wheelchair to pass through. Once in the bathroom, the wheelchair fills the floorspace except that inside the shower. The occupant cannot transfer from wheelchair to commode. “Wheelchair access” should be defined in terms of ability to use needed facilities, and include more than the width of the door.

OTHER FEATURES

When asked to name the one “best” thing about Victoria Plaza, tenants named its cleanliness; modern conveniences such as stoves, refrigerators, private bathrooms, elevators; low rent (though 50% were paying more than when they were applicants); the comfortable warmth of central heating during the winter and the cooling cross-ventilation in the summer; access to churches, downtown stores and the bus; the “good class” of other tenants, and the ease of getting together with them; and the group activities downstairs.

When asked about the design of the building, the most common answer was approval of its compactness. Compactness made for easier upkeep of apartments, not only because of eight- rather than ten-or twelve-foot ceilings, but also being able to dispose of garbage in the hall of the same floor of the building as one lived, and being able to keep food in the refrigerator in the same room in which one cooked. Compactness was important also because of the easy availability of other people.

The elevator was a great boon, relieving them of unpleasant exertion in the performance of necessary household tasks, and providing effortless access to other people and social activities. However, fears of being stranded between floors (not unjustified by elevator performance) were expressed. Tenants said that future projects should have better quality elevators and/or maintenance. Fans should be installed in elevators, especially if they were likely to stall. Much more important, future buildings should have service elevators in which the dead and dying could be removed. The two side-by-side elevators in Victoria Plaza debouch on the ground floor into the middle of the lobby-Senior Center area, and stretchers are carried in and out through social events, which is very upsetting to the residents. Separate elevators should descend into the service area of the building for medical transport.

Very few disliked the open galleries due to their own fear of height. More often, the concern was for visiting grandchildren. The large window opening onto the gallery presented serious conflicts between need for ventilation and desire to enjoy the view vs. the

need for privacy. For the much-needed cross-ventilation, the heavy shade must be pulled back, but this exposes one's activities to every passerby and closing the shade shuts out daylight and the view.

The unlocked main door was a worry because of the neighborhood outside it. Tenants thought that future facilities should not be built in such parts of town. While access to stores and churches was often mentioned as an advantage, fears of going out of the building to reach such destinations were common. Residents enjoyed their "neighbors" (the tenant group) but much disliked the "neighborhood" outside the Plaza doors.

There was ambivalence about some features. The lobby and Senior Center area was much liked as a place to join social activities or just to sit and watch what went on. It was equally disliked because of the inordinate amount of gossip that went on there, especially among the "lobby sitters." There was constant bickering among television viewers, pool players, and others because one activity interfered with another. Tenants recommended separate areas for these activities. The location of mail boxes in the lobby area was approved for its convenience, but much disliked by those averse to running the gauntlet of "lobby sitters."

Back porches were much appreciated as a place of one's own to sit in the shade (or sun) and watch what went on, but they were much criticized as providing ideal vantage points for gossips to gather ammunition. Back porches were also the only places to

dry and air cleaning equipment, which detracted from the appearance of the Plaza. House-proud tenants wished there was a small airing closet for such purposes.

Laundry rooms became sociability spaces. Women, especially, liked to gather there to do their laundry and to chat. There were frustrations with the equipment. It broke down often, and repair was slow. Residents suggested installation of industrial-type washers and dryers in future buildings in which this equipment would have such heavy use.

There was considerable resentment over use of the clinic in “their” building and its pleasant outdoor waiting area, not for them, but for a well-baby clinic. Soon visiting nurses came there to do routine testing and evaluation of residents, and gradually the clinic was used more for their own needs.

In the final interview, respondents were asked for their views on medical/nursing care. They were nearly a decade older than when first seen, had more health problems and medications, and realized from observation of peers that their condition was likely to deteriorate to some extent. The care in the clinic unit, though expanded through the years, was not sufficient. Most felt there should be a full health-care unit on-site, but could see no way to add one to the Plaza. No one wanted it next door. If putting it on the roof was structurally sound, the problem with the elevators would be exacerbated. There was no appropriate outdoor space.

For future projects, they recommended inclusion of a unit that would provide not only nursing care such as “shots” for diabetes and readings on blood pressure, but also bed-care in one’s apartment or in the special unit during illness or following hospitalization, and permanent care for those no longer capable of independent living in apartments. The health-care unit should be inconspicuously located and not intrude on everyday life and activities, but it should be accessible for visits. The best solution seemed to be a separate structure located unobtrusively and screened from the main building and outdoor areas, but connected to the main building by a covered walkway.

Over time, the desire for food service increased also. In the early days of occupancy, people revelled in their modern kitchens, and the ground-floor kitchen for parties seemed ideal. As time went on and tenants grew older, more and more of them wanted full food service or the opportunity to buy some meals inside the Plaza.

Generally, populations of residences for the elderly grow older over the years, for three reasons. The original tenants age, and their life expectancy seems to be extended by such housing. The oldness of tenants makes a facility less attractive to “younger old” prospective tenants. The nation’s population is aging. A recent conference of experts focused on design of residential environments for a population that is aging. It recommended that original designs should incorporate provisions for easy modifications

as they are needed later (American Association of Retired Persons, 1993). Needs for food service and expanded health care should be anticipated by planners, and the original design and construction should enable easy adaptations or additions as they are needed.

***COMMENTS ON
THE TECHNICAL
ENVIRONMENTAL
MEASURES***

“Technical” measures of the environment, that is, those using physical instruments, were rudimentary in the extreme and were limited to the study of minor issues. Distance from one’s apartment door to the nearest elevator (taken by ruler from building plans and checked by tape measure in the building) was a statistically significant predictor of frequency and duration of participation in the ground-floor activities, even when scores on extraversion and desire for activities were partialled out. The closer one’s apartment door was to the elevator, the more one took part in activities on the ground floor. Similarly, the shorter the distance between apartment doors, the more frequent was the contact between residents. (Distances were measured in the same way, but for persons on different floors, they included the distance to and from the elevator plus a factor to indicate use of the elevator). Since those early days, technical environmental assessments have become much more sophisticated and seem to hold considerable promise because of their freedom from personal response biases of all sorts and their direct utility for environmental intervention, though data collection is costly (e.g., Carp & Carp, 1982; Carp & Christensen, 1986a, 1986b).

**IS POST-OCCUPANCY
SOON ENOUGH TO
START?**

Observations on a First Tour. Successful applicants were invited in groups of eight to a two-hour tour of Victoria Plaza during which they were shown two apartments, asked about preferences or aversions, and given a date and time for moving in. A research assistant went along, and spoke with people after the tour. There was much delight, and many persons were surprised at finding features that were even better than they had anticipated. There were also regretful comments about design features that might cause problems for them. Some of the special design features came in for more than their share of regretful comment. Post-occupancy evaluation showed these first-impressions to be valid.

One immediate recommendation from the investigators was that, before construction begins, prospective residents should evaluate “mock ups” of significant components of the proposed facility. If, at first sight, so many folks noted the difficulties such features as the “safety” stoves, raised refrigerators and clothes rods would present, it seems likely that they would have made the same observations in “mock up” kitchens. Then the tenants of Victoria Plaza would not have had to cope with these and other problems noted on the tour, and money could have been saved by using ordinary stoves, omitting the tons of concrete refrigerator risers, and not hiring carpenters to move clothes rods to normal height. Unfortunately, architects and designers seem slow to try this recommendation. Steinfeld (1987) is one who uses this approach in housing design. His mock-ups are flexible, to allow various arrangements and configurations for try-out by persons of various levels of physical fitness, and to examine a range of

design solutions at various cost levels.

***SUMMARY AND
CONCLUSIONS***

The study of Victoria Plaza documents the adaptive capacity of older persons. Inmovers adjusted easily to the highest building in the city, which housed over 200 age peers and the county's Senior Center, provided only outside balconies for access to their apartments, and which contained equipment more modern than most of them had ever seen. Old age did not mean rigidity. Other studies supported the findings. Now there is a rich, voluminous literature on person-environment interactions in old age.

Tenants' evaluations delineate features that were liked and not liked, though strategies had to be developed to get past their knee-jerk "rosy response bias" by calling upon the motive of helping others in the future, and framing questions to be non-threatening to their sense of personal competence (Carp, 1975b).

Some design features introduced out of consideration for the characteristics of older people worked well, but some were among the most problematic features of the Plaza. Requests for blueprints and plans for Victoria Plaza were received at such a rate that the Housing Authority was forced to charge a fee for them. Other facilities that replicated this design include the features that worked poorly as well as those that worked well, since results of post-occupancy assessment findings, when they became available, were not distributed with building plans. The long lag between assessment results and their application by planners, architects and designers remains a serious problems.

In general, the facility was much liked by its original tenants, and the effects of the living environment were positive through providing resources for performing activities of daily living to prolong independent living, and for meeting psychogenic needs so that the life of residents had good quality. Care is necessary in generalizing from these findings. The first residents were members of a unique population cohort. They were selected by Housing Authority staff for suitability to the congregate lifestyle in a high-rise structure. There was much self-selection, beyond the voluntary application.

After the first brief tour, a third of those first offered apartments decided not to move in. When asked why not, most responded regretfully (sometimes in tears), "This is a perfectly wonderful place — but not for me." Perhaps they were alerted to the incongruence of their personalities and lifestyles with the new environment.

Personality traits were relevant to adjustment in this setting (Carp, 1968, 1974, 1985a, 1985b; Carp & Carp, 1984). For example, scores on an introversion-extroversion test administered to applicants predicted behavior among Plaza tenants. Applicants with high extraversion scores became the most sociable and satisfied; those high in introversion became even more seclusive and unhappy than when they were applicants, and more so than the most seclusive and unhappy members of the control group. The congregate living and pressure for participation in the Senior Center and other activities was an unwelcome pressure on them. Simi-

larly, applicants with many activities and the desire for more activities became active and happy residents, but those who had few activities and not much desire for additional activities when they were applicants became withdrawn and unhappy residents. The fact that residence in Victoria Plaza was enjoyable and beneficial for most of the residents in the study does not mean that a high-rise congregate setting is best for all older persons. No doubt the generally favorable findings stem in part from the staff- and self-selection that maximized the congruence between persons and environment.

The study is totally irrelevant to half the population of the city. Despite Victoria Plaza's location in the preponderantly Latino part of town, there was not one Spanish-surnamed person among the original in-movers. This was not the result of biased Housing Authority selection, but of the lack of applicants from that group, though the Housing Authority had mounted a special effort to recruit them. A separate study was immediately undertaken to find the reasons (Carp, 1969a, 1970). Its findings showed that the Housing Authority had sent its recruitment messages to local Mexican-Americans through channels not used by the intended recipients. More effective channels would have been Spanish-language newspapers (from Mexico), television and radio advertisements in Spanish and timed to programs Latinos listened to and watched, Spanish-language announcements and literature in Roman Catholic churches in the area and, perhaps best of all, word sent home from schools by grandchildren. I was summoned to present the findings at U.S. Senate hearings on appropriation

of funds that included the request for another high-rise public-housing facility for the elderly in San Antonio (Carp, 1969b). The appropriation was made, with the understanding that findings of the study on communicating with the Mexican-American elderly must be implemented in recruitment of its tenants. In addition, Villa Tranchese has special design features that were intended to appeal to Latino tastes — with mixed results. But that is another story.

Return to the Present. Many years have passed since the San Antonio Housing Authority had the wisdom to know that the first public housing for the elderly should be evaluated, and the Hogg Foundation funded an independent evaluation and enlisted social scientists to undertake exploration of the uncharted territory, fashioning tools as they went along. Today's elderly are not like those of 1959. All across the country there is subsidized housing for the elderly, and it includes a wide variety of physical design, staffing, services and amenities, and funding mechanisms. Yet, the need for affordable adequate housing remains a problem for significant numbers of elders, and much remains to be learned about the best way to house various types of persons (Carp, in press). Fortunately, environmental assessment is now a flourishing field that includes many active researchers and practitioners, an impressive array of instruments, and a rich and varied literature. It was fun to be in at the start.

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**Time, Age, Research: Comments on
Frances M. Carp's
"The Victoria Plaza Experience"**



**TIME, AGE, RESEARCH:
COMMENTS ON FRANCES CARP'S
"THE VICTORIA PLAZA EXPERIENCE"**

Min Kantrowitz

Frances Carp's retrospective paper on the post occupancy evaluation of Victoria Plaza housing for the elderly is a delightful illustration of the peculiar relationships between time and built environment research. As the first post occupancy evaluation of the government sponsored housing for the elderly in the United States, the questions it raises are timeless, that is they are still, after 35 years, timely. Ironically, many of the conclusions reached by that research are also timeless, but are still, apparently, outside the consciousness of many housing decision makers.

One important conclusion, which has been replicated on multiple occasions, is that the physical environment makes a systematic and measurable difference in the lives of people. Her mildly stated conclusion, "Characteristics of the living environment do matter to older persons." (Carp, p. 19), is based on the most robust of indicators - being alive. In fact, at the presentations at the Environmental Design Research Association Conference in March 1994, workshop participants were told that some of the original inhabitants who moved into the Victoria Plaza in 1959 are still alive! For some, their residency at Victoria Plaza may be their longest tenancy. Given this impressive longevity, the assumption that housing for elderly people is a sort of temporary shelter is

demonstrably false. There are, of course, design implications to this fact.

Carp's serendipitous finding, that the same people rated their present housing lower after finding out they had been selected to move into Victoria Plaza, is interesting. It is an excellent example of how time and changed status affect how people judge the built environment, and of how the theory of cognitive dissonance (Festinger, 1957) operates to influence perception of the physical environment. Perhaps it should be included in introductory design and behavior textbooks.

This research is still one of the few examples of longitudinal research in the environment-behavior literature. It tells decisionmakers that the implications of certain design decisions maintain their importance for residents over many years. These include some design issues which were initially identified by some people during their pre-move visit. Given this, perhaps a "psychological amortization" of design decisions should be considered, as well as the usual financial one. This might be the vehicle through which to implement the model apartments' pre-evaluation that Carp suggests.

The paper refers to the assumption implicit in the concept of housing for the elderly "— that older people CAN adjust to new and better housing" (Carp, p. 7). This assumption, although it is positive in comparison to the supposition that older people are too rigid to cope with environmental change, ignores the possibility

that the process of adjustment is not just simple adaptation, but opens possibilities for positive growth and change, that “eldering” is process of unfolding, an *active* life stage.

After this period of time, it is useful to reflect on the fact that the focus of public interest, and the funding that often follows that focus, seems to wander over the stages of life. Carp discusses how adolescence was the “hot topic” in the early 50’s. Since then, public attention has turned to the elderly, pre-school children, to “at-risk” teenagers, and back to the elderly. While this seems, from a casual view, to be rather random and arbitrary, in fact, it may be quite intentional, an effective promotion of an issue. Communications research has developed the concept of “agenda setting”, the process by which certain issues are promoted into the public eye, with certain issues gaining perceived importance while others fade. Agenda setting for age related public policy issues related to age and stage of life have been studied for many years (Lockett, 1983; Nelson, 1984). Carp’s paper points out the timelessness of certain issues pertaining to how to provide housing for older adults. Perhaps some explicit “agenda setting” can return these timeless issues into the larger public eye.

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Min Kantrowitz, M. Arch., Min Kantrowitz & Associates, Inc., and School of Architecture and Planning, University of New Mexico, Albuquerque, New Mexico.

Learning from Victoria Plaza



LEARNING FROM VICTORIA PLAZA

Gerald D. Weisman

Frances Carp's history of the earliest days of Victoria Plaza is both remarkable and instructive. The evaluation study conducted by Carp and her colleagues fully 35 years ago can still serve as a model for meaningful environmental design research. Four aspects of the Victoria Plaza project seem particularly worthy of comment: the role of time; prescience with regard to issues and methods; rigor of the study; and inter-disciplinary communication and collaboration.

TIME It has been suggested that time is a dimension of the environment all too often neglected in Environment-Behavior research (c.f., Altman & Rogoff, 1987). Time emerges — in many different ways — as a dominant theme in the evaluation of Victoria Plaza. The project was initiated at a time when environmental design research had yet to coalesce as a field, a full decade prior to the earliest texts and journals. The study is particularly noteworthy for its duration. Even now — at a time when longitudinal studies are more often a goal than the norm — the ability of Carp and her colleagues to gather data not just one but nine years after move-in is a remarkable achievement.

PRESCIENCE Both the San Antonio Housing Authority and the Hogg Foundation which funded the research, were clearly forward-thinking in recognizing the value of evaluation of a then novel form of housing for older persons. The Authority and their architects likewise

anticipated a variety of design features — such as accessible units, and lever action door handles — which we now take for granted. The provision of tours for potential in-movers was particularly innovative, and anticipated current strategies for mitigating the morbidity and mortality sometimes associated with relocation of the elderly (c.f., Hunt & Pastalan, 1987).

RIGOR The Victoria Plaza evaluation likewise provides a model we would do well to emulate in terms of the rigor with which it was designed and conducted. The longitudinal nature of the study — gathering data prior to move-in and then one and nine years later — has already been noted. Equally impressive is the presence of a matched group of “controls” who chose not to move into Victoria Plaza, and the use of both “soft” and “hard” outcome measures — mortality as well as multiple dimensions of satisfaction.

**INTERDISCIPLINARY
CONTACT**

Finally, it is instructive, though not necessarily encouraging, to note that more than 20 years have elapsed since Frances Carp’s last presentation at an EDRA conference, despite the fact that much of her work in the intervening years — especially that on “technical environmental assessment predictors” (Carp & Christensen, 1986) — has direct relevance for environmental design research. Indeed, in surveying the field of environment-aging studies more generally, one quickly discovers any number of researchers and areas of research which could and should contribute to environmental design research but remain all too unfamiliar. Along with the work of Frances Carp and her colleagues, one might cite Rowles’ (1980) framework for place experience, Rubinstein & Parmalee’s (1992) research on place attachment,

and work by Moos (Moos, Lemke & David, 1987), Sloane (Sloane & Mathew, 1990) and their colleagues on environmental assessment and description (c.f., Weisman, 1992). Like the pioneering evaluation of Victoria Plaza, this larger literature illustrates both the fundamental interdisciplinary commitment of environmental design research and its potential for productivity.

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Moos, R., Lemke, S., & David, T. (1987). Priorities for design and management in residential settings for the elderly. In V. Regnier & J. Pynoos (Eds.), *Housing the aged: Design directives and policy considerations*. New York: Elsevier.

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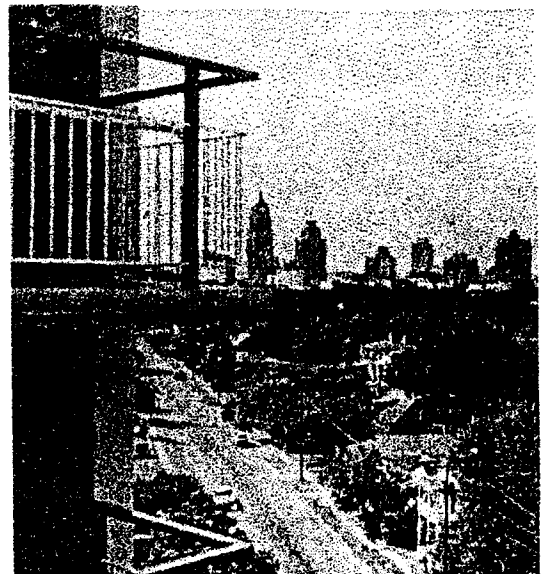
Rubinstein, R. & Parmalee, P. (1992). Attachment to place and the representation of the life course by the elderly. In I. Altman & S. Low (Eds.), *Place attachment*. New York: Plenum.

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Gerald Weisman, Ph.D. Institute on Aging and Environment, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin.

**Victoria Plaza:
Description of the Facility**



VICTORIA PLAZA: DESCRIPTION OF THE FACILITY

Habib Chaudhury

LOCATION Victoria Plaza is located at 411 Barrera Street, San Antonio, Texas on a 2.5 acre property, 0.7 mile from downtown San Antonio, Texas. When the project was built in 1959 and occupied in 1960, the surrounding area consisted of a few slums. Eventually, the adjacent areas were altered by urban renewal projects and a free-way system. Currently the neighborhood area has a grocery store, an elementary school, the Victoria Courts family development and a doctors office with a pharmacy.

THE BUILDING AND THE COMMUNAL AREAS

The structure was the first high-rise apartment building in the city. Nine stories high and shaped in the form of a modified T, the building has an open balcony, and a single loaded corridor oriented toward the prevailing southeast breeze, which provides excellent cross-ventilation. A roque court (hard surface croquet) that was originally provided was eliminated after a time, and an area was set aside for small gardens. A shuffleboard court, located on the side of the building, has also been added. A covered walkway enclosed on both sides leads from the lobby area to this patio, which is surrounded by an 8-foot thick brick wall to offer protection

This description of the facility is based on the following publications:

Carp, F. (1987). The impact of planned housing: A longitudinal study. In V. Regnier & J. Pynoos (Eds.), *Housing the aged: Design directives and policy considerations*. New York: Elsevier.

Victoria Plaza Apartments. San Antonio Housing Authority Publication. 1961.

from the street and the neighborhood. The patio has planted areas, benches, and several pieces of modern sculpture. A medical clinic at one rear corner has a separate entry from the street. The first floor contains offices for Housing Authority and Senior Center staff which is combined with the Board room of the Committee on Management. Adjoining these offices is a hobby room with equipment for various arts and crafts. The hobby room has been remodeled; an acoustical ceiling, adjoining lighting, and metal storage cabinets have been installed. There is a library and an eight-room public health clinic with a nurse's station and examining rooms for use by the Public Health Department. In the west wing there are a post office, counselling offices, restrooms, recreation area, storage space, and a three-bedroom apartment for the custodian.

THE SENIOR CENTER The Senior Center occupies most of the first floor. The senior center is entered through the main entrance and lobby, where the elevators are located. The lobby area has an open plan with comfortable furniture arranged in conversation groups, a billiard table and a television set. A small residential-scale kitchen for parties or meetings is located next to the lobby. Adjacent to the kitchen is a recreation room, which contains card tables, a piano, and a public-address system.

RESIDENTIAL FLOORS Eight identical residential floors provide a total of 184 apartments: 16 two-bedroom, 16 studio, and 152 one-bedroom apartments. There are electric ranges and central heating. Residents may add air conditioners and telephones. An apartment can be turned into

one big room or separated into areas through the use of movable closet units. The kitchens in the one-bedroom units are separated from the living room by a screen covered with light vinyl fabric for easy upkeep. The dining area is near a window that opens onto the gallery. Standard opaque drapes are provided on apartment windows to ensure a consistent external view of the building. There is a laundry room on each floor with coin operated washer and dryer, and tubs and line for hand washing. Galleries, which are also single-loaded corridors, have four-foot high railings to give an additional feeling of safety, and there are porcelain panels in colors of shrimp and beige to serve as windbreaks for the apartment entrances. This gallery provides access to other apartments on the same floor and to the two elevators.

***SPECIAL
DESIGN FEATURES***

The apartments include special design features intended to make them safe and convenient for elderly tenants. Shelves and light fixtures are mounted low. Kitchen stoves have controls at the back of the cooking surface. Refrigerators are set on 14-inch platforms to avoid the need to stoop or squat. Doors have lever handles instead of knobs for easier turning and are wide enough for wheelchairs to pass through. Bathrooms have showers rather than tubs. The showers have wooden seats and tempered doors rather than curtains to provide safety. An emergency button in the bathroom rings a bell mounted in the exterior corridor. Continuous handrails dimensioned for possible use of arthritic hands are provided throughout the building and grounds. There are no raised thresholds, for ease of movement for wheelchairs.

Acknowledgements:

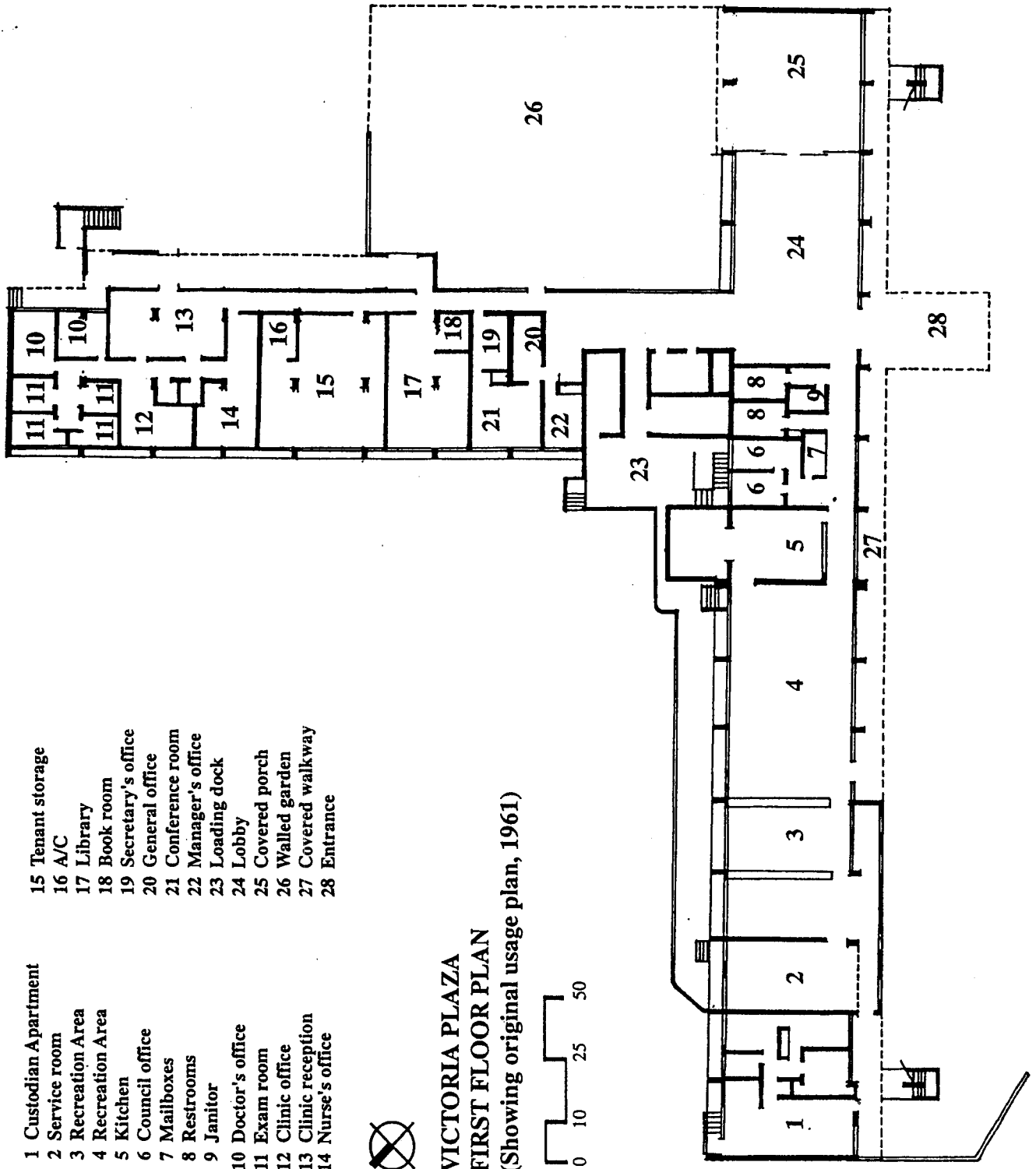
We wish to thank Architect Ramiro Maldonado of the San Antonio Housing Authority for graciously providing the plans of Victoria Plaza and some related publications. Also, we thank Ms. Sylvia Mendez at Victoria Plaza who kindly reviewed the floor plans for any changes from the original intentions of space usage.

Habib Chaudhury, M.S. in Architecture. Doctoral student in Architecture.
Fellow, Institute on Aging and Environment,
University of Wisconsin-Milwaukee, Milwaukee, Wisconsin.

- 1 Custodian Apartment
- 2 Service room
- 3 Recreation Area
- 4 Recreation Area
- 5 Kitchen
- 6 Council office
- 7 Mailboxes
- 8 Restrooms
- 9 Janitor
- 10 Doctor's office
- 11 Exam room
- 12 Clinic office
- 13 Clinic reception
- 14 Nurse's office
- 15 Tenant storage
- 16 A/C
- 17 Library
- 18 Book room
- 19 Secretary's office
- 20 General office
- 21 Conference room
- 22 Manager's office
- 23 Loading dock
- 24 Lobby
- 25 Covered porch
- 26 Walled garden
- 27 Covered walkway
- 28 Entrance



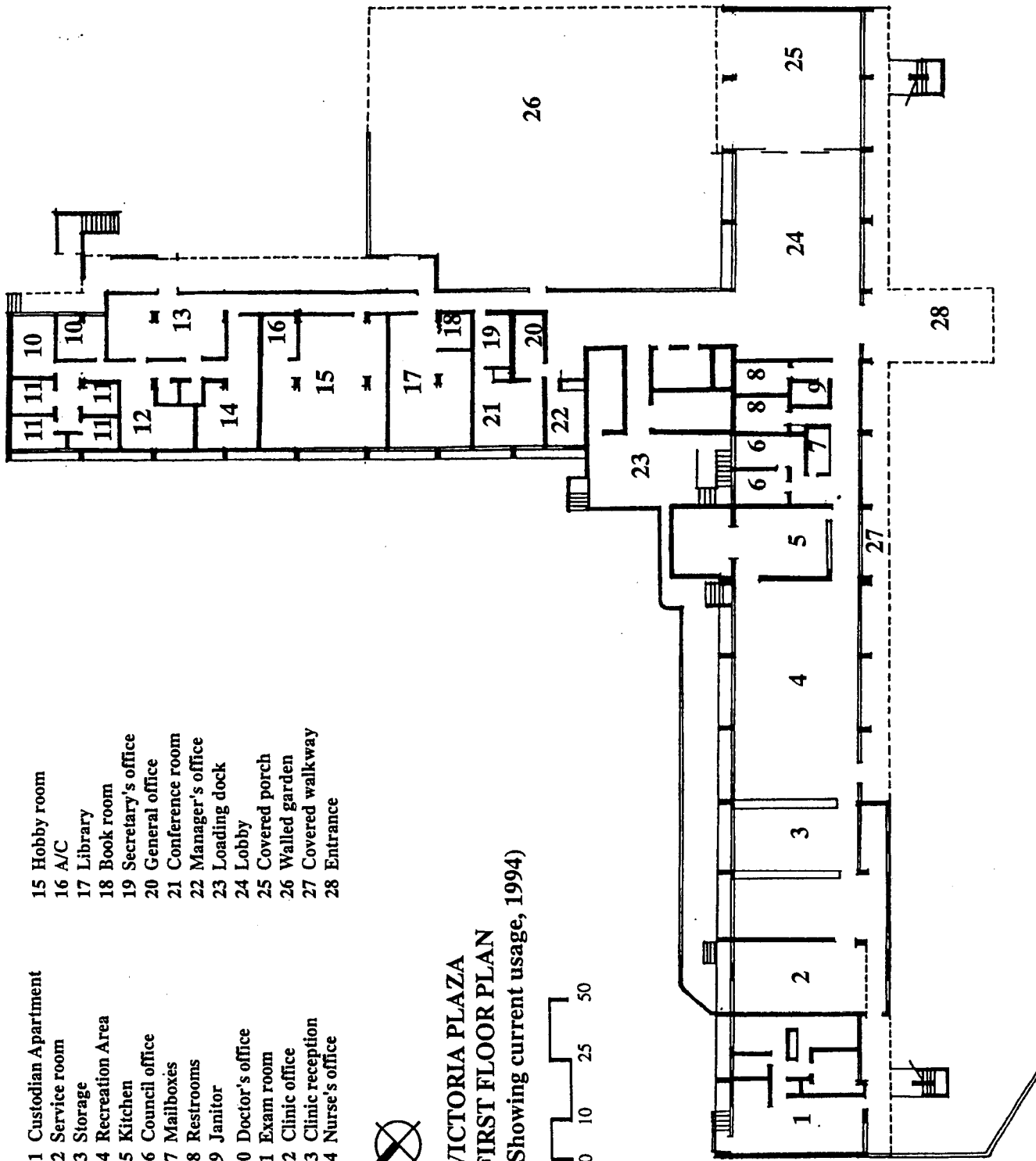
**VICTORIA PLAZA
FIRST FLOOR PLAN**
(Showing original usage plan, 1961)



- 1 Custodian Apartment
- 2 Service room
- 3 Storage
- 4 Recreation Area
- 5 Kitchen
- 6 Council office
- 7 Mailboxes
- 8 Restrooms
- 9 Janitor
- 10 Doctor's office
- 11 Exam room
- 12 Clinic office
- 13 Clinic reception
- 14 Nurse's office
- 15 Hobby room
- 16 A/C
- 17 Library
- 18 Book room
- 19 Secretary's office
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- 21 Conference room
- 22 Manager's office
- 23 Loading dock
- 24 Lobby
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- 28 Entrance



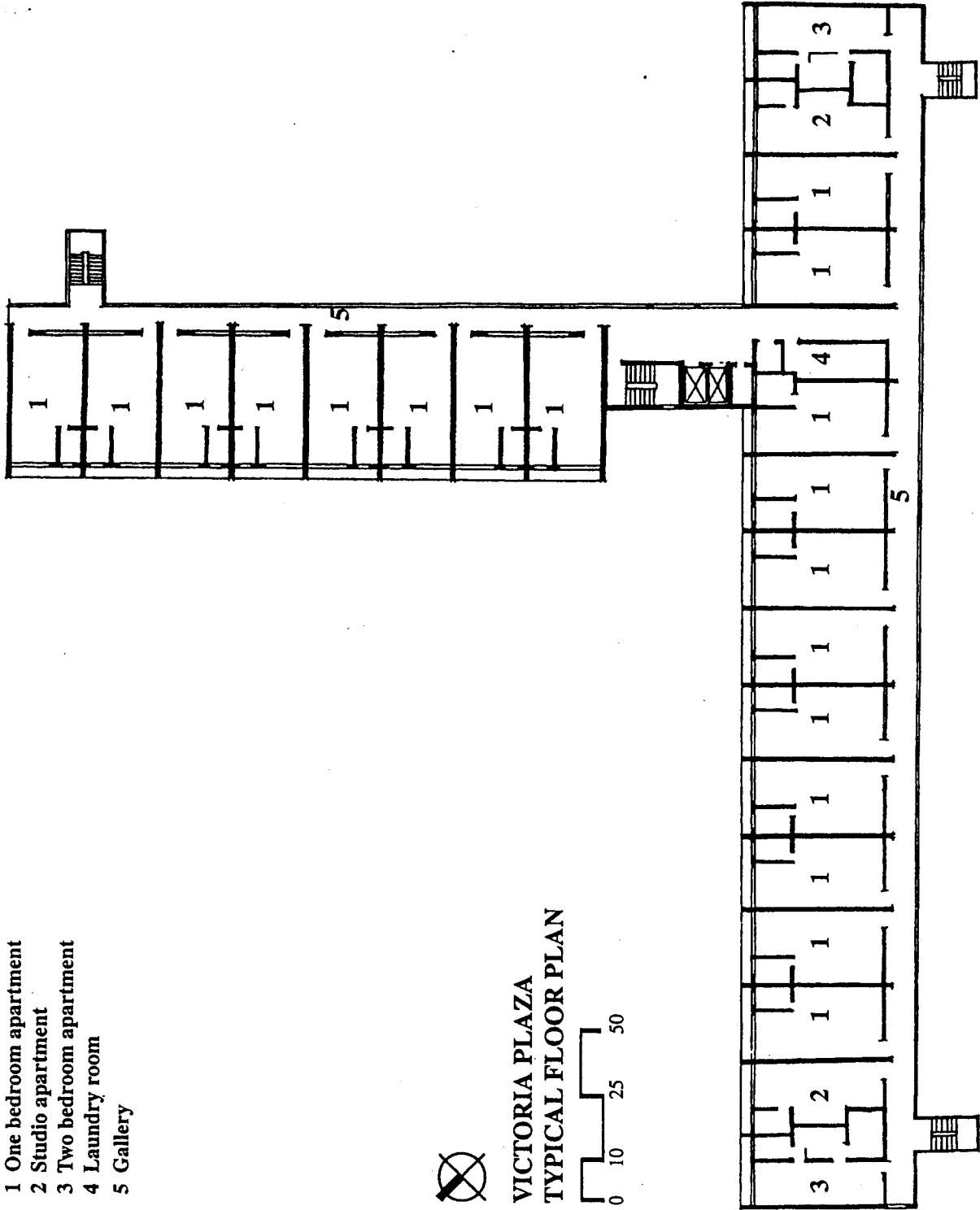
VICTORIA PLAZA
FIRST FLOOR PLAN
 (Showing current usage, 1994)



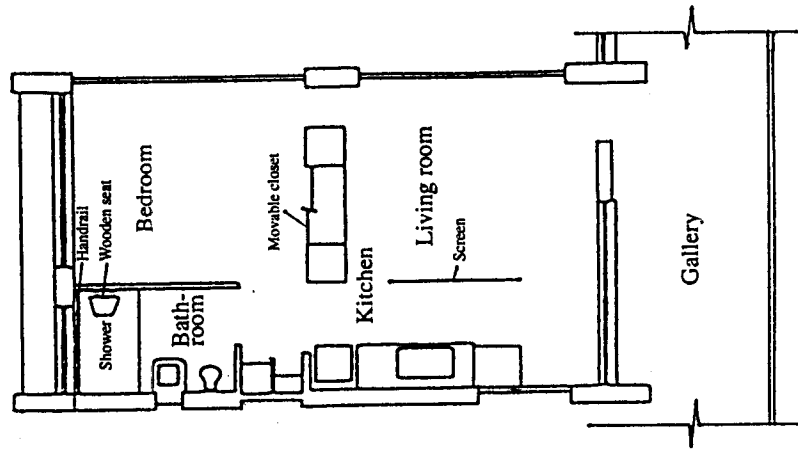
- 1 One bedroom apartment
- 2 Studio apartment
- 3 Two bedroom apartment
- 4 Laundry room
- 5 Gallery



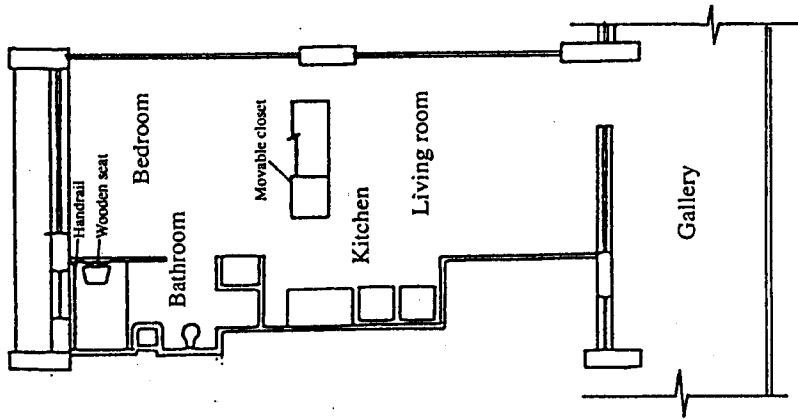
**VICTORIA PLAZA
TYPICAL FLOOR PLAN**



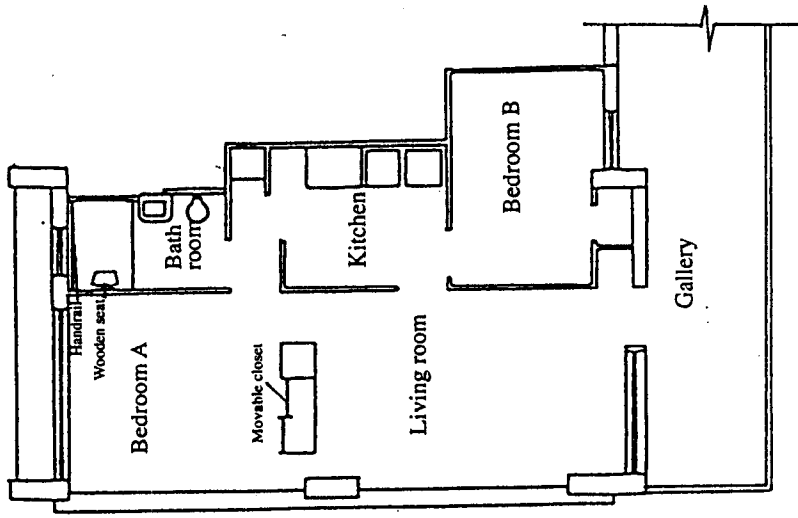
UNIT PLANS



ONE-BEDROOM APARTMENT



STUDIO APARTMENT



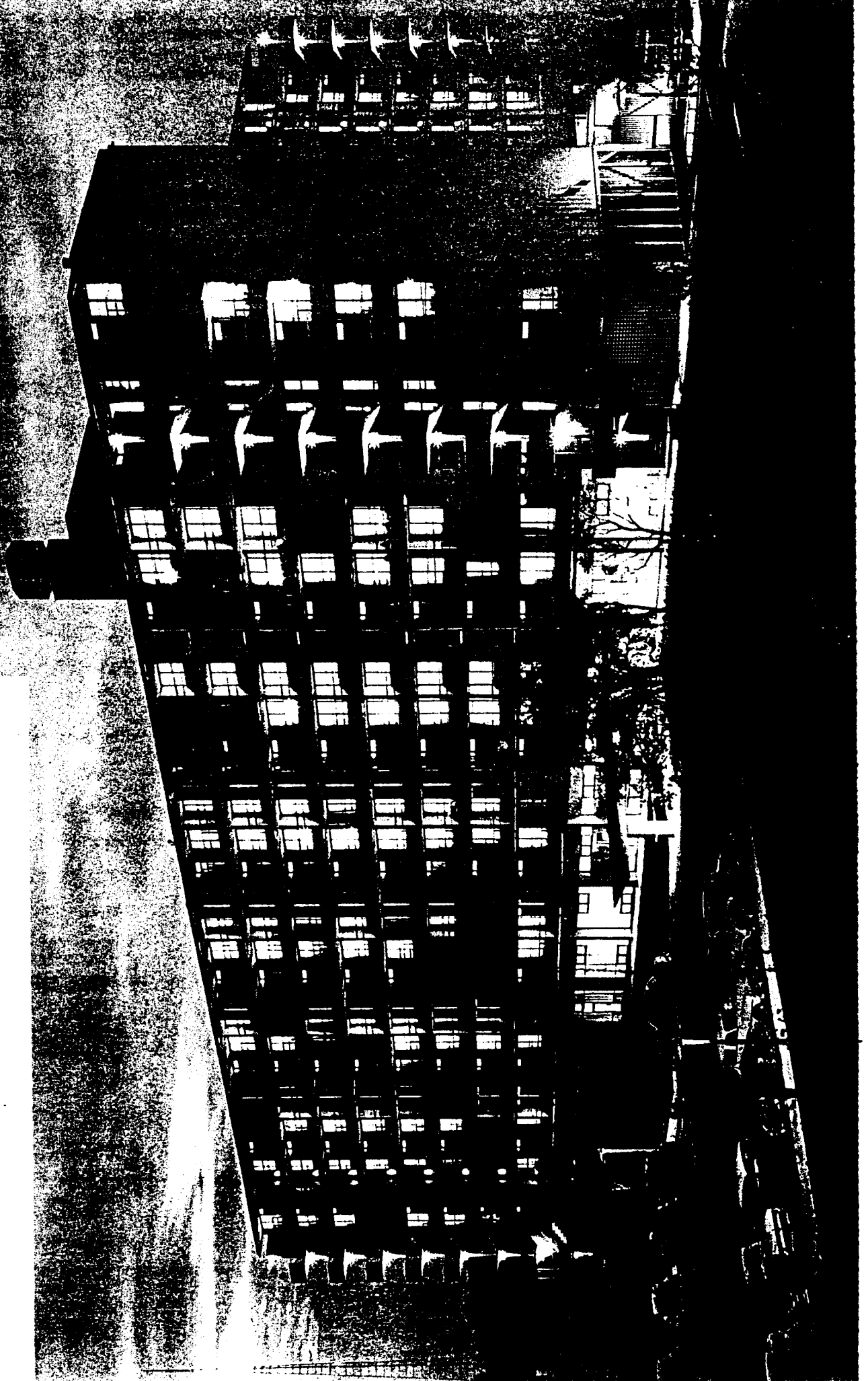
TWO-BEDROOM APARTMENT

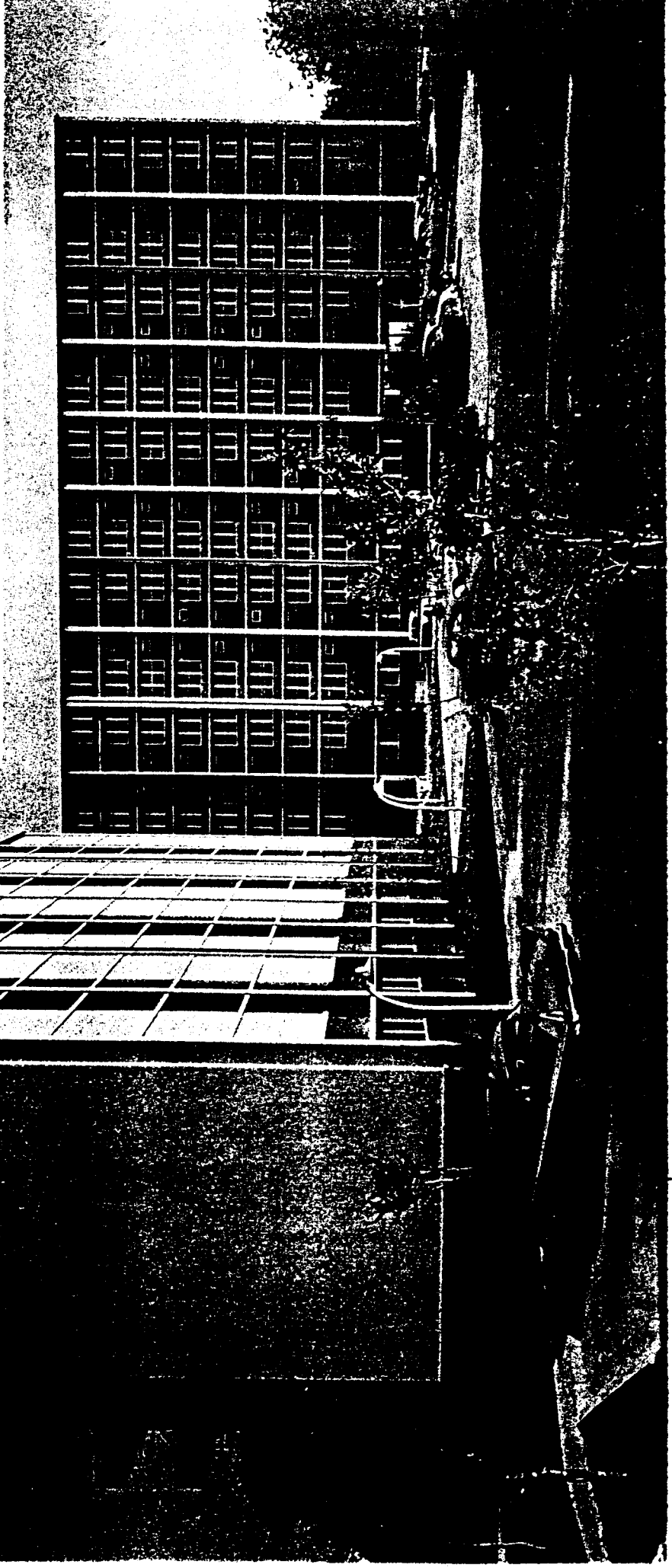
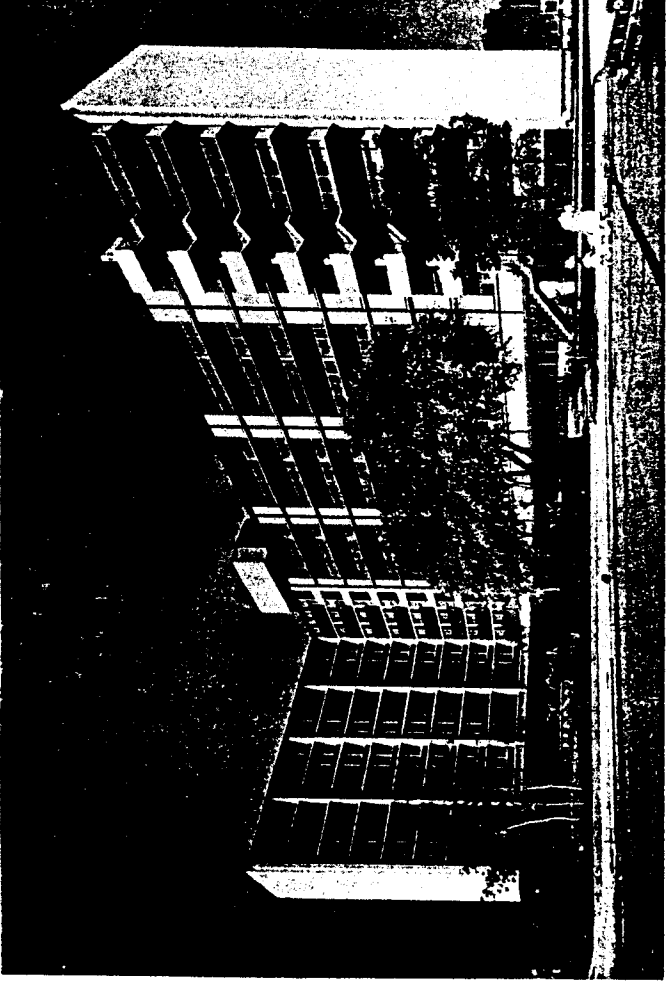
APPENDIX

**Victoria Plaza Apartments
Brochure of the San Antonio Housing Authority, 1961.**

VICTORIA PLAZA APARTMENTS

411 Barrera Street





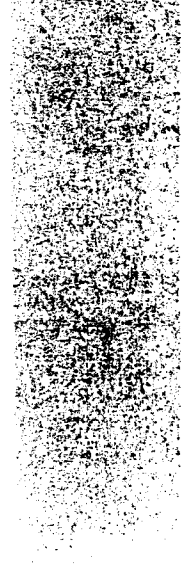
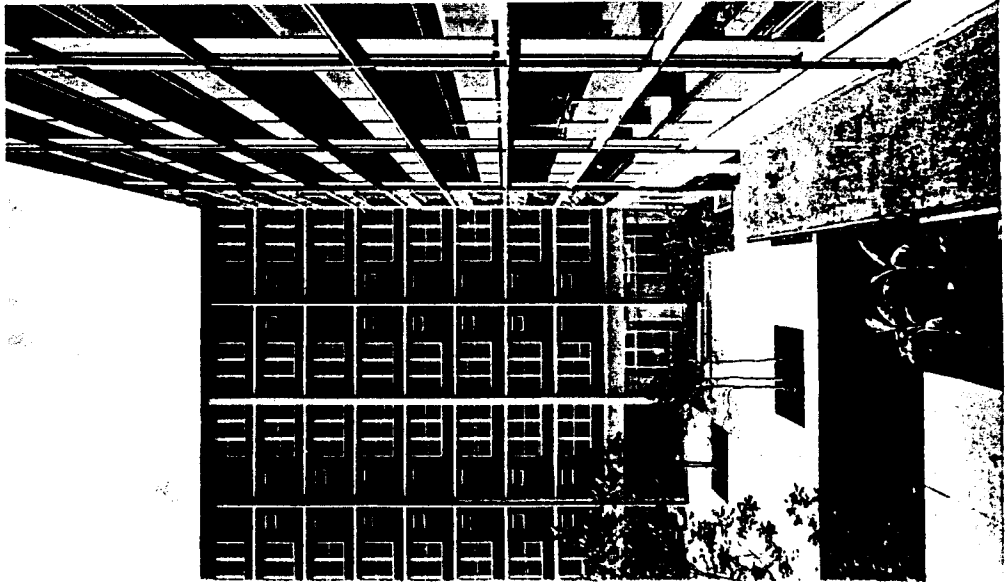
THIS IS THE STORY OF A BUILDING

... of a building that grew from a recognition that with the present day increased life expectancy there would be increased needs for adequate housing for senior citizens - housing that would make longer life rewarding and fruitful. It is a story which proves how diverse groups and individuals - public and private agencies, civic organizations, artists, interested citizens - joined together in molding for the elderly a fulfilling environment with opportunities for the continuing contributions which enrich our society.

In 1956, the San Antonio Housing Authority began the planning for two new housing developments for low income elderly persons: one a motel - type arrangement of 36 apartments and a community center at the East Terrace Homes; the second, a nine-story building of 185 apartments and a 5600 square foot community center. It is of this building that this story is told, a story culminating on July 2, 1960, when the doors were opened for the first resident.

THE ROLE OF THE HOUSING AUTHORITY

From the beginning of the public housing program in 1937, local housing authorities have provided older people on limited incomes with standard housing within their ability to pay. In San Antonio, in the small units intended for normal family occupancy, there live some 600 low income elderly persons. However, when planning for new construction in 1956, the Authority began its research to determine what characteristics of the aging process required special consideration in design. The results of this research are embodied in the present developments.







Let us go now on a tour of the living area of the Victoria Plaza Apartments, noticing first that the building is shaped in the form of a modified T, oriented to the prevailing southeast breeze, on its two and one-half acre site just seven-tenths of a mile from the center of the City. It is a thin building, each apartment having cross ventilation from front to back. The first floor Community Center is air conditioned.

Enter the self-service elevators (there are two with special safety features) and stop on any floor.

Galleries, which are also the corridors, have 4-foot high railings to give an additional feeling of safety, and there are porcelain panels in colors of shrimp and beige to serve as windbreaks for the apartment entrances.

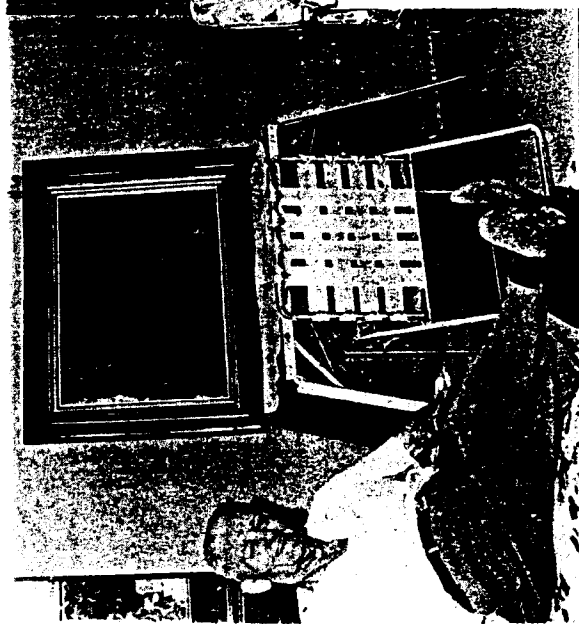
Continuous hand rails throughout the building (and the adjoining grounds) make movement easy and safe.

The apartments themselves, 16 with 2 bedrooms, 16 efficiencies, 1 3 bedroom custodian apartment and the remaining with one bedroom, are designed for safe and comfortable living. Shelves and light fixtures are low. Refrigerators are set on a 14-inch high platform. Doors have levers instead of knobs and are wide enough for wheelchairs. There are no raised thresholds. Showers have Alaskan cedar seats and tempered glass doors rather than dangerous curtains. An emergency bell rings on the gallery when help is needed. There is an electric stove and also central heating. Dining space is by a window. The building residents provide their own furniture.

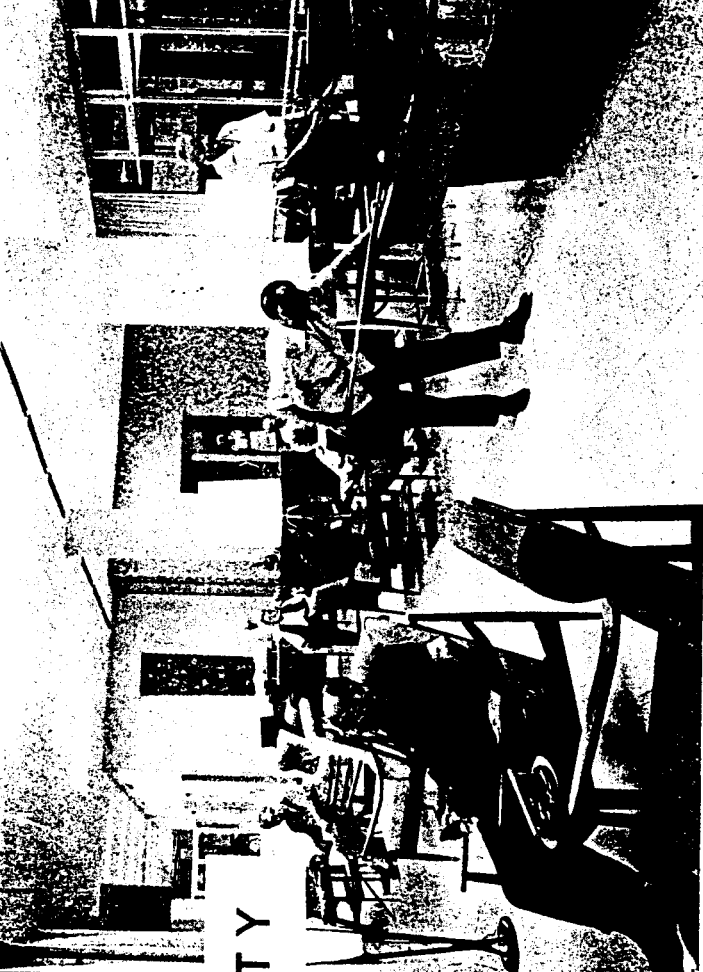
Of particular interest is the space flexibility. The apartments can be turned into one big room or separated through use of three movable closet units. The kitchen area is separated from the living room by a screen covered with bright vinyl fabric for easy cleaning.

There is a laundry room on each floor, large enough for comfortable visiting, with coin operated washer and dryer, and tubs and line for hand washing.

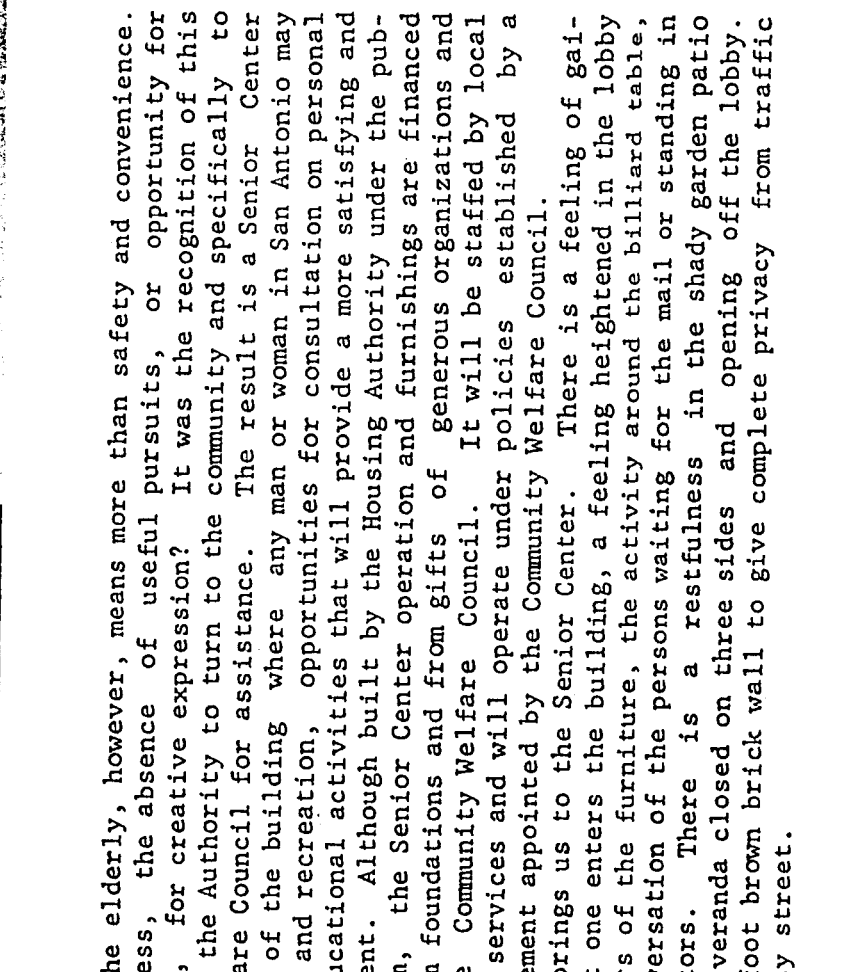
These are but a few of the special provisions which have been included to prolong independent living.



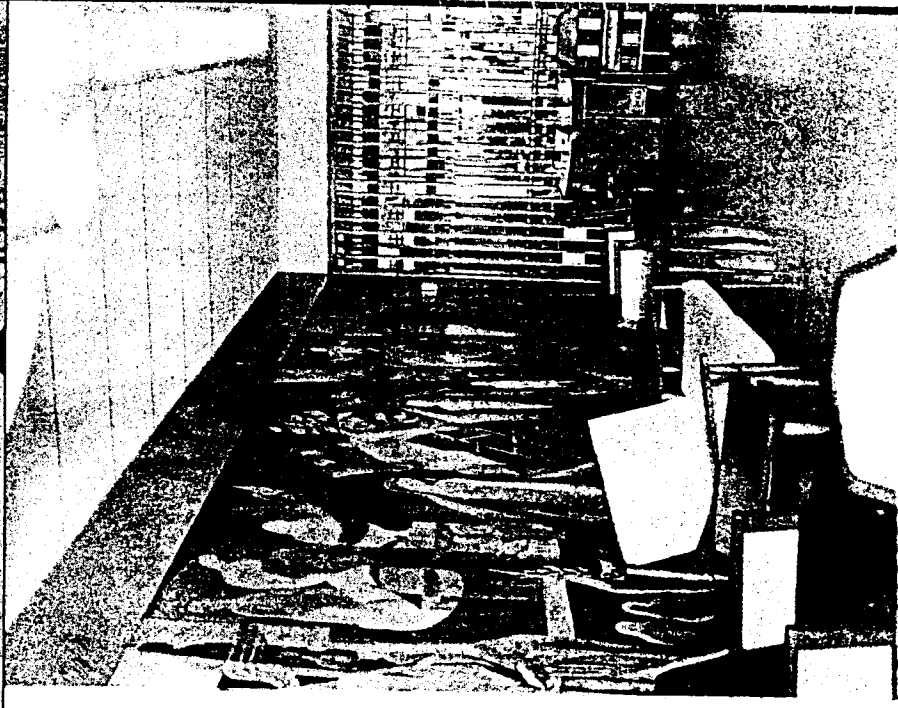
THE ROLE OF THE COMMUNITY



Housing for the elderly, however, means more than safety and convenience. What about loneliness, the absence of useful pursuits, or opportunity for learning, playing, for creative expression? It was the recognition of this fact that prompted the Authority to turn to the community and specifically to the Community Welfare Council for assistance. The result is a Senior Center on the first floor of the building where any man or woman in San Antonio may find companionship and recreation, opportunities for consultation on personal problems, and educational activities that will provide a more satisfying and productive retirement. Although built by the Housing Authority under the public housing program, the Senior Center operation and furnishings are financed through grants from foundations and from gifts of generous organizations and individuals to the Community Welfare Council. It will be staffed by local agencies providing services and will operate under policies established by a Committee on Management appointed by the Community Welfare Council.



Our tour now brings us to the Senior Center. There is a feeling of gaiety from the moment one enters the building, a feeling heightened in the lobby by the bright colors of the furniture, the activity around the billiard table, the music, the conversation of the persons waiting for the mail or standing in front of the elevators. There is a restfulness in the shady garden patio reached by a large veranda closed on three sides and opening off the lobby. There is an eight-foot brown brick wall to give complete privacy from traffic on the adjacent busy street.



Along the north wing of the building there are the management offices of the Housing Authority and the Center Director's office which is combined with the Board room of the Committee on Management. Adjoining the offices is the library and at the extreme end of the wing, the 8-room public health clinic with a nurses' station and examining rooms for use by the Public Health Department. Just outside is a public patio with benches and a play area for neighborhood children waiting to use the clinic.

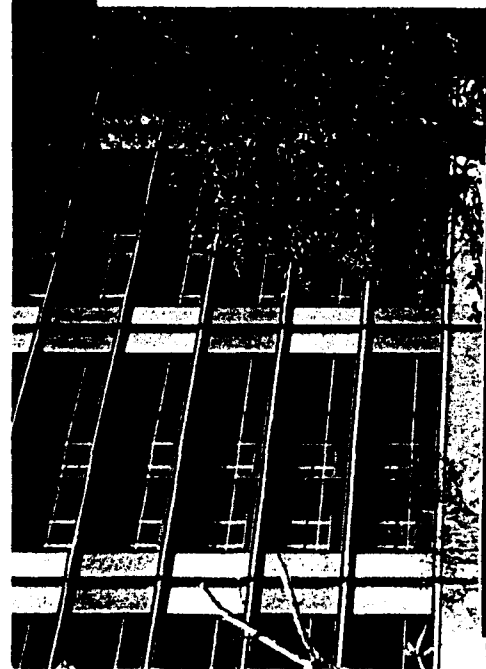
In the west wing there are first the miniature postoffice and the two counselling offices to be staffed by representatives of local agencies. Next is the community kitchen intended for the preparation of food or refreshments for parties, luncheons or banquets in the adjoining recreation room. Here there are card tables, a television, and a piano, available at all times to both persons living in the building and visitors from the surrounding neighborhood. For special events, such as plays or more formal entertainment, there is a movable stage and stage curtain.

Beyond the recreation room is a large area which will be used, as interest is shown, for crafts such as woodworking, ceramics, water coloring. In one corner of this large room is already installed a miniature self-service beauty shop, the contribution of a generous San Antonian.

The Senior Center again demonstrates what can be accomplished by pooling the efforts of public officials and private citizens in a sound community organization plan.



THE ROLE OF THE ARTIST



It is safe to say that no public building is ever undertaken where controversy does not arise between the idea that a bare-bones structure is sufficient and the architect's desire to achieve some beauty of design within reasonable economy. When the San Antonio Housing Authority and its architects began their planning, they determined that the first high-rise apartment building in the low rent program of San Antonio should make a contribution to the city's beauty as well as achieve the necessary functionalism and economy. Fine art was not an inherent part of the building plans; however, the design attracted the artists of the city who were eager to participate in helping adequately to provide for all the needs of the elderly. From them have come generous and creative gifts to enhance the activity areas and add to the joy and spirit of the surroundings.

Our art tour begins with Cecil Casebier's mosaic abstraction, 45 feet by 6 feet, flanking the entrance of the building, seen across an expanse of lawn and trees. The bold theme executed in yellow, gold, gray, black and white enriches and gives a glow to the entire building. On the entry wall of the lobby, a Martha Mood tapestry and the panels of fused glass executed by Dorothy Steinbomer add charm and beauty. Entering the patio we see on the east wall Amy Freeman Lee's "Enchanted Voyages." The two panels 6 feet by 40 inches each translate Mrs. Lee's paintings into ceramics. The day voyage and its imagery is developed in brilliant sunlight colors while the night voyage is bathed in shimmering moonlight. On the south wall can be seen June Kroll's sand sculpture. Using Genesis as her theme, this sculpture of depth, set into the wall, demonstrates her personal style and use of unusual media.



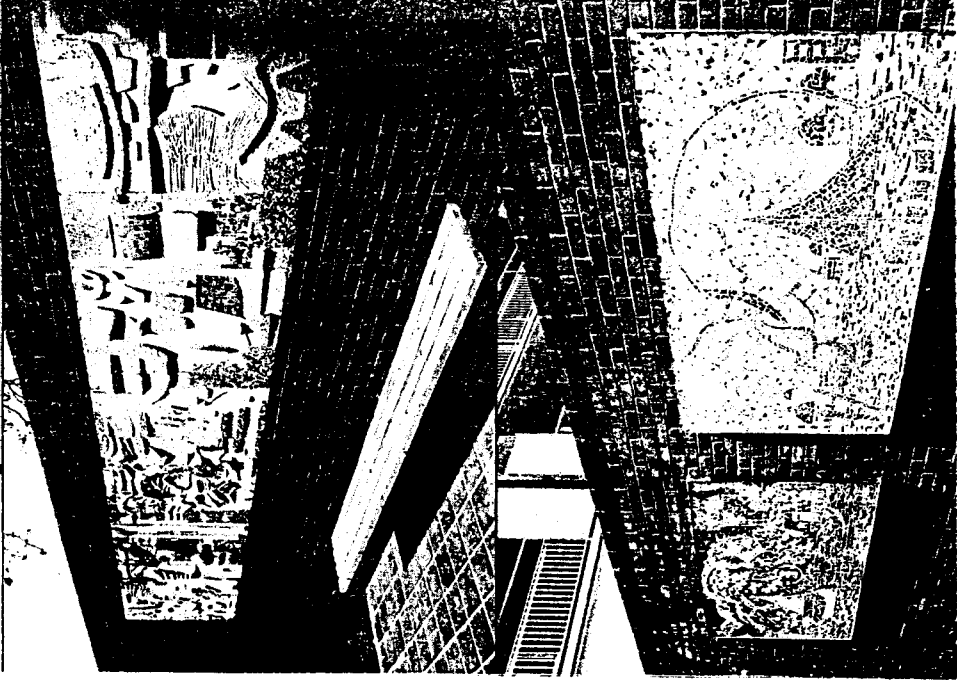
In the corner rectangular pool, there is a whimsical fishing scene, the work of seven San Antonio ceramists. A young boy four feet in height executed by Mary Vance Green, holds his catch of a large enamel fish of golds and greens, the work of Nessye Sharlack. Surrounding the lad are several large ceramic birds, a frog, and plants in brown stoneware placed at different levels to catch the fountain water. Martha Mood, Bess Semmes, Margaret Wray, Mildred Cocke and Lola Smith contributed these pieces. The Victoria Garden Club provided the special water plants for the pool.

Outside the patio through attractive iron gates is a 7-foot sculpture in Austin limestone, surrounded by trees and set off by the brown wall background. It is the work of Robert Lancaster of Georgetown, Texas, and depicts three youths clinging to a huge symbolic figure that could be parent, grandparent, being or power. Entitled "Come Unto Me, Children," the work evokes multiple interpretations.

The library is enhanced by a mural in quiet shades of blue on one entire wall. Choosing themes from the Old and New Testaments depicting the seven gifts of the spirit, this large mural by Ruth Dunn is an intrinsic and natural part of the library decor.

The gay atmosphere of the recreation room is enlivened by a games mural in bright orange, yellow, turquoise and white, the work of Margaret Pace.

A host of others have helped to make this wealth of art work possible, in particular, Harold Rams of Orco, who gave space and labor for the execution of the three largest pieces.



THE QUESTIONS . . .

WHO IS ELIGIBLE?

The requirements for eligibility are these: income of less than \$225 per month for one person, and \$242 per month for two persons; six months' residency in San Antonio immediately prior to application; minimum age of 62 for head of family.

HOW MUCH IS THE RENT?

The minimum monthly rent is \$24 and increases by one additional dollar for each \$60 of additional annual income. This is the usual public housing formula of approximately 20% of income for rent.

HOW WAS THE BUILDING FINANCED?

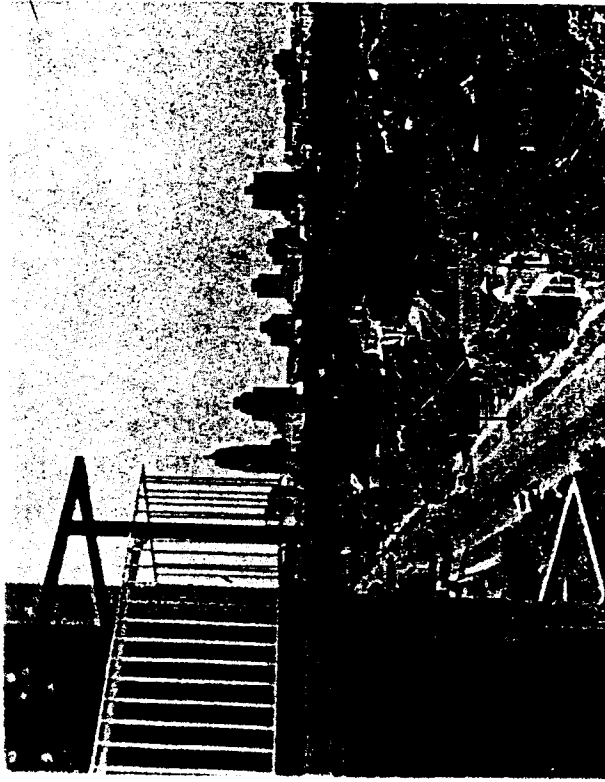
Planning and construction funds were borrowed from the Federal Government through the Public Housing Administration. All operating cost must be paid from rent income. Subsidy is available to the Authority, if needed, for the total debt service.

HOW MUCH DID THE BUILDING COST?

The total contract cost was \$1,927,000, with a room cost of \$2,659, which is well below the Congressional limitation of \$3,250.

MAY OTHER CITIES OBTAIN SIMILAR HOUSING?

For communities throughout the country faced with a housing need for their low income elderly, the public housing program offers one method of meeting the problem. This can be accomplished either through the expansion of existing public housing programs or through the creation of new Authorities. For both, financing is available through the Public Housing Administration. Other types of financing for housing for higher income groups is also available through the Federal Housing Administration. The San Antonio Authority believes that a variety of approaches is essential in the field of housing design for retirement, that solutions in this field are as varied as people themselves and the perfect answer will come for the individual when there is opportunity of choice.



Under the terms of office of these Commissioners, 1956-1960, this building was conceived and executed

H. P. Drought

W. C. White
 Andres Rivera, Jr.
 David Jacobson
 Fred A. Slimp
 E. R. Crumrine

Darrel D. Gray
 John Gatti
 Fernando Guerra
 W. W. Sawtelle, M. D.
 A. C. Anderson

Marie C. McGuire, Executive Director

John A. Daniels
 General Counsel

Maverick & Brite
 Development Attorneys

Noonan & Thompson & Krockner
 Marmon & Mok
 Associated Architects & Engineers

George Rhine & Co.
 Mechanical Engineers

Stewart E. King
 Landscape Architect

THE PARTICIPANTS . . .

Beretta, Greenslade & Associates
 Civil Engineers

Farnsworth & Chambers, Inc.
 General Contractor

Bruce Savage
 Marshall W. Amis
 Public Housing Administration

Commissioner
 Regional Director

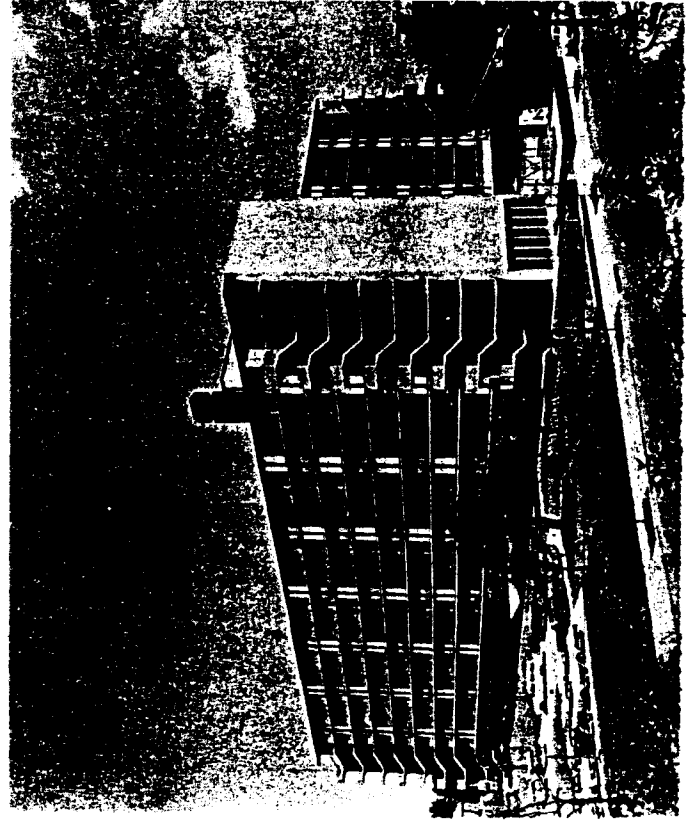
Olin W. LeBaron
 Community Welfare Council

Executive Director

City of San Antonio

J. Edwin Kuykendall
 Mike Passur

Mayor
 Mayor Pro Tem



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ENTRANCE TO PATIO

