RESIDENTIAL SATISFACTION IN CONDOMÍNIOS EXCLUSIVOS (GATE-GUARDED NEIGHBORHOODS) IN BRAZIL

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ABSTRACT: Many neighborhoods in contemporary Brazilian cities, known as condomínios exclusivos (CE) (exclusive condominiums), are surrounding themselves with walls or fences and using security gates to control access. By reinforcing spatial differentiation, turning inwards, and avoiding the rest of the city, CEs are dramatically affecting urban form. This article describes our study of an important aspect of the Brazilian CE phenomenon: specifically, satisfaction among CE residents. We used a structured questionnaire to study residential satisfaction in one CE. Not surprisingly, residents are highly satisfied with living in a CE. However, the reasons why they moved into the CE do not coincide with why they like living there now. Three main factors that predict residential satisfaction in CEs are their: a) location, b) safety, and c) unique characteristics.

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Large and small neighborhoods in contemporary Brazilian cities are choosing to surround themselves with walls or fences and use security gates to control access. These neighborhoods are known in Brazil as condomínios exclusivos (CEs) (meaning “exclusive condominiums”). Similar neighborhoods are also appearing in the United States, where they are called gate-guarded neighborhoods (GGNs). In fact, the CE phenomenon in Brazil may be compared to the growth of suburbia in the United States, which completely altered the form of the American city and its residents’ lifestyles. CEs are having a dramatic effect on urban form in Brazilian cities by reinforcing spatial differentiation. Less tangible, but equally important, is the CEs’ effect on Brazilian public life, in that private neighborhoods are turning inwards and avoiding the rest of the city and its public life (Caldeira, 1992).

The future of the CE phenomenon depends, among other factors, on residents’ satisfaction with CEs. If residents are very satisfied with CEs, this trend is likely to continue. Given that, and given that CEs are transforming urban form through spatial differentiation, we must begin to understand more about why residents are attracted to CEs in the first place and why they like them after they move in. This article presents research about this aspect of the Brazilian CE phenomenon: the sense of satisfaction among CE residents. The setting for the study is a CE located in São Paulo; the research instrument is a questionnaire; and data analysis includes descriptive, comparative, and multivariate analysis.

BACKGROUND

To our knowledge, only two empirically based studies on Brazilian CEs exist (Caldeira, 1992; O’Neill, 1986); however,
neither addressed residential satisfaction. Caldeira’s anthropologic study investigated the interconnections among violent crime, fear, and social segregation in the city of São Paulo, with the CEs as part of this web. O’Neill’s study focused on the sociogeographical implications of CEs in the city of Rio de Janeiro. According to O’Neill, the CEs can be understood as a way of reproducing segregated residential spaces for people of similar social status.

Blakely and Snyder (1995) presented the initial findings of a comprehensive study of the GGN phenomenon in the United States; until recently, little scholarly work could be found on the subject. They found that GGNs are mostly in the south, southeast, and southwest parts of the United States. Also, they identified three types of GGNs: lifestyle-based, focused on amenities; elitist, marketed for exclusion and prestige; security-based, marked by street closures where crime is endemic. We were unable to locate empirically based research on residential satisfaction for gate-guarded neighborhoods, with the exception of an exploratory study conducted by one of the authors (Carvalho, 1994).

A number of anecdotal pieces can be found describing gate-guarded neighborhoods in the United States (Associated Press, 1993; Bell, 1991; Blakely, 1994; Cauley, 1993; Cheslow, 1996; Clark, 1993; Conwin, 1992; Davis, 1992; Fulton, 1993; “Government by the nice,” 1992; Gray, 1995; Greene, 1995; Guterson, 1993; Mariano, 1994; Pertman, 1994; Soto, 1995; Torrance, 1993; Walker, 1992). Among these anecdotal pieces here is what some authors have to say:

It has been more than three decades since this nation legally outlawed all forms of public discrimination—in housing, education, public transportation, and public accommodations. Yet today, we are seeing a new form of discrimination—the gated, walled, private community. (Blakely, 1994, p. 46)

Faced with dangerous crime and unwanted traffic, American neighborhoods from California to Georgia are hiding behind walls, gates and barbed wire in a last-ditch effort to protect homes and families. (Associated Press, 1993, p. 1A)
Even before the Los Angeles riots last year, developers knew that the easiest way to give the illusion of security to their real estate projects was to put them behind walls, with a gate and a guard to control who’s coming and who’s going. (Fulton, 1993, p. 22)

THE CONDOMÍNIO EXCLUSIVO PHENOMENON

Condomínios exclusivos are groups of single-family detached houses or apartment buildings surrounded by walls, with access controlled by security systems. They also feature facilities such as clubs and commercial centers. Some are built by real estate developers, whereas others are built by a group of individuals, under specifications imposed by the developers (proportion of the construction in the lot, height, set-backs, etc.). Within a CE, houses are not totally walled, which is a common practice in Brazilian cities; however, most of them still have partial front-walls, as well as side- and back-walls that define and separate lots. CEs have their own security systems ranging from a guard who controls a single entrance, armed personnel who circulate in vans 24 hours a day, to sophisticated electronic gates with security video-cameras.¹

Condomínios exclusivos first appeared in the major Brazilian urban centers in the 1970s when middle- and upper-income population began to move away from the center to the outskirts of the city where the lower-income population has been settling since the 1940s.² According to Caldeira (1992), because physical distance no longer separated different social groups, walls started to be built instead. This may explain the rationale for the beginnings of the CE phenomenon in Brazilian cities but not its booming popularity nowadays.

Santos (1981) argues that the CE, an urban novelty of the 1970s in Brazil, combines two models of cities: “progress-oriented” (rational) and “culture-oriented” (organic).³ He claims that the CE is rational because its conception is authoritarian and it aims at efficiency. The space is conceived for a type of individual and intends to respond to that individual’s basic requirements. The solution is universal and independent of the
local conditions. The CE's residents are homogenized; the specialists project their tastes and plan their activities. A formula of urban life is sold together with the space; everything is rationally programmed. The CE is also "organic" because it proposes a closed environment, with limited size. The population is carefully predicted, the number of dwellings controls its infrastructure, and the wall and security gate resemble enclosed medieval towns.

Santos (1981) argues that in the CE, the city space loses its collective meaning, because through exclusion and separation, places and spaces that are considered public (streets, plazas, parks) become private. According to O'Neill (1986), CEs can be understood as a new way of living, serving to reproduce a segregated residential space for individuals and groups of similar social status, cultural patterns, and habits. In this sense, CEs represent a special form of residential segregation: self-segregation.

**RESIDENTIAL SATISFACTION IN CEs**

The future of the CE phenomenon will be determined by a number of factors: the political and economic situation, urbanization, social and cultural practices, and satisfaction with CEs. If people are very satisfied with CEs, chances are that this phenomenon will grow. One can speculate that CE residents are very satisfied with their environment, as one Brazilian urbanist has written: "For the residents, the condomínios seem perfect" (Santos, 1981, p. 27). Given that residents of CEs seem to be very satisfied with their environment, and given that CEs are transforming urban form through spatial differentiation, we need to understand the reasons why people have chosen to live in a CE and the extent to which they are satisfied with CEs. Therefore, four questions can be asked: Do CE residents differ in terms of residential satisfaction, or are they a homogeneous group? How do the attributes of a CE that influenced residents to move there compare with the attributes CE residents find most satisfying now that they are living there? Are the attributes
the same or do they differ? Is residential satisfaction in CEs “qualitatively” different from those in other housing settings that have been studied previously—i.e., are the predictors different?

Studies about residential satisfaction have been conducted for multifamily housing (Anderson & Weidemann, 1980; Bellalta-Moriarty, 1988; Chin, 1990; Potter & Speicher, 1995; Urbina-Soria, Mejia, & Moreno, 1991; Weidemann, Anderson, Butterfield, & O'Donnell, 1982; Weidemann, Anderson, O'Donnell, & Butterfield, 1981), suburban housing (Cutter, 1982), neighborhoods nationwide (Davis & Davis, 1981; Lee & Guest, 1983), innercity neighborhoods (Bonnes, Bonaluto, & Ercolani, 1991; Lévy-Leboyer & Ratiu, 1993), urban mobile home neighborhoods (Sanford, 1984), neighborhoods statewide (Ha & Weber, 1994), single-parent housing (Anthony, Weidemann, & Chin, 1990), housing for severely disabled adults (Anderson, Anthony, Weidemann, Bain, & Allen, 1988), student housing (Anthony, 1981; Chin, 1987), and master-planned communities (Edwards, 1993). To our knowledge, with the exceptions of the exploratory Baytowne study (Carvalho, 1994), and a preliminary version of the present study (Carvalho, 1995), residential satisfaction in CEs or gate-guarded neighborhoods has not been studied.

For more than two decades, researchers have identified subjective and objective elements that contribute to residential satisfaction (RS). For example, Davis and Davis (1981) discovered that satisfaction with neighborhood is largely explained by satisfaction with neighbors, transportation, feeling of safety, and the condition of properties in the immediate vicinity. Ha and Weber (1994) detected five significant factors related to RS: environmental safety, planning and landscaping, housing policy, sociocultural environment, and physical quality of housing.

Scholars of residential satisfaction have often relied on comprehensive frameworks to help them guide their research, such as those presented by Campbell, Converse, and Rodgers (1976), Francescato, Weidemann, Anderson, & Chenoweth (1979), Marans and Rodgers (1975), Marans and Spreckelmeyer (1981), and Weidemann and Anderson (1985). Francescato et al. (1979) defined residential satisfaction as being a function of three different categories of variables: the objective
characteristics of the residents (e.g., age, sex, previous housing experience), the objective characteristics of housing environments (e.g., dwelling size), and the residents' perceptions or beliefs about three aspects of their housing environment (e.g., the physical environment, the housing management, and the other residents). Marans and Spreckelmeyer (1981) presented a conceptual model that helps to explain relationships between objective environmental attributes, perceptions and assessments of these attributes (subjective experiences), environmental satisfaction, and behavior. The two early models were similar in that they shared basic conceptual relationships (Weidemann & Anderson, 1985). Weidemann and Anderson (1985) suggested a new model of RS that incorporates behavioral intention as a linking component between residents' attitudes and behavior. One important aspect of this model is the inclusion of personal characteristics (e.g., age, income, housing tenure type). Another important aspect concerns the links between the components in the model. This model suggests a noncausal link between components (i.e., lines substituting arrows), where relationships can be multidirectional.

Weidemann and Anderson's (1985) integrated model, as shown in Figure 1, helped shape subsequent research on RS. For instance, the current study addresses the links among perceptions and beliefs about the environmental attributes (cognition), and satisfaction toward the environment (affect). Personal characteristics and intentions to behave were examined, and objective attributes were measured via residents' cognition.

OBJECTIVES OF THE STUDY

Based on our survey of the literature, we assumed that CE residents would be satisfied with their environment and that among the characteristics that contribute to their level of satisfaction, some would be unique to this kind of living environment. The objective of this research, therefore, is to investigate the
role played by CE residents' satisfaction in the Brazilian CE phenomenon. Specific research questions are:

- What characteristics of Brazilian CEs are most important in predicting residents’ satisfaction with their living environment?
- Are these characteristics unique to a CE?

Most attributes measured in this study as predictors of RS are not particular to a walled setting; they can be found in any kind of environment, from favelas (meaning slums) to wealthy single-family homes. We expected to find that some issues specific to a CE such as “satisfaction with the security gate” and “satisfaction that outsiders cannot enter without permission” contribute significantly to the model of RS.

METHODS

To explore the research questions, one Brazilian CE was selected to study RS using informal interviews and a structured questionnaire. The setting of the study was Alphaville, perhaps the world’s largest CE, located in the metropolitan region of São Paulo. Interviews were conducted in the State of São Paulo, Brazil, with current and prospective residents of CEs, architects,
planners, and real estate developers. These interviews, as well as a diverse literature, formed the basis for designing the questionnaire. Sources were drawn from literature on gate-guarded neighborhoods in the United States, CEs in Brazil, RS and quality of life in the United States. During the process of gathering information, a pilot study (Carvalho, 1994) was conducted in a gate-guarded neighborhood located in Champaign, Illinois. In this study, a questionnaire was developed and tested based on the literature. It was redesigned for the present study. Residential satisfaction was measured using the index developed by Francescato, et al. (1979), and replicated by others. Analysis of data from the questionnaire consisted of six steps: a descriptive analysis of the sample through frequency distributions, an analysis of residential satisfaction using the computed index, a rank comparison between reasons to choose Alphaville and level of satisfaction, a comparative analysis through t-tests, multivariate analysis through principal component analysis, and multiple regression analysis.

THE SETTING

The setting for this study was Alphaville, located in metropolitan São Paulo (population 16.5 million) (Folha de São Paulo, 1994), 23 kilometers from the city center at Castello Branco Road. It was built on an area of 26 square kilometers, extending through two municipalities: Barueri and Santana do Parnaíba (see Figure 2). Alphaville was planned in the 1970s to include residential areas, office buildings, and commercial centers, all controlled by the builder and real estate developer Construtora Albuquerque & Takaoka. Each of the 12 Residencias (residential areas) is surrounded by 3.5 meter high walls, with the only access controlled by a security gate (see Figure 3, Figure 4, and Figure 5). Those Residencias are referred to by number, with the first one known as Alphaville 1, the second one Alphaville 2, and so on. The only exception to the numerical order was Alphaville 0 (zero), which is the newest Residencial. The whole Alphaville includes an office building complex (Centro Empresarial), two commercial centers (Centro Comercial), and
Figure 2: São Paulo, Brazil—Showing the Location of Alphaville in the Greater Metropolitan Area

Figure 3: Alphaville—A View (photo by Máyra Carvalho)
Figure 4: Alphaville—Boundary Wall (photo by Máyra Carvalho)

Figure 5: Alphaville—Security Gate (photo by Máyra Carvalho)
Figure 6: Alphaville—The Different Phases

a shopping center mall (see Figure 6). Some residential apartment buildings have been built in the commercial area, outside the residential boundaries. Alphaville has a fixed population of around 25,000 inhabitants living in single-family, detached houses. The population in Alphaville increases to about 80,000 people during working hours. These people comprise the work force for the 380 enterprises of the office complex and for the approximately 600 business establishments of the commercial area.4

DESIGNING THE QUESTIONNAIRE

The instrument was a four-page structured questionnaire about residents' perceptions of their living environment. The questionnaire consisted of 67 multiple-choice items measured on a 5-point Likert-type scale; 5 dichotomous items; 4 nominal items; and 11 open-ended questions. Some items were borrowed from prior surveys developed by Edwards (1993), Donahue (1994), and Weidemann, Anderson, O'Donnell, and Butterfield (1981). It included a set of 3 items about residents' previous place of residence, 1 item about the specific Residencia residents were living in, 1 item asking how long they had been living in Alphaville, a set of 23 items about residents' level of satisfac-
tion, a set of 25 items about residents' reasons for moving into Alphaville, a set of 7 items about features or feelings unique to a CE environment, 11 items related to participation in the community life, 5 items about American suburbs or garden cities and their possible influence on CE residents' desire to live in Alphaville, 3 items related to quality of life, 5 items directly related to residential satisfaction, 7 demographic items, and additional information.

Residential satisfaction items measured responses to the following key question: "What is your level of satisfaction with each of the following aspects of Alphaville?" Respondents were asked to rate each of 23 items (e.g., overall appearance, proximity to commerce, quality of housing, etc.) on a 5-point Likert-type scale, with the most negative response (very dissatisfied) being scored 1 and the most positive response (very satisfied) scored 5.

For the set of items about residents' reasons to move into Alphaville, the key question was: "How important were the following reasons for your decision to move here?" Almost all items, except three, were the same used in the level of satisfaction set of questions.

MEASURING THE CONCEPT OF RESIDENTIAL SATISFACTION

The index of RS first developed by Francescato et al. (1979), and replicated by other researchers ever since, was used as the dependent variable for this study. This index is computed as the mean of the response to four highly correlated items from the questionnaire. Each of these four items was measured on a 5-point Likert-type scale.

1. How long do you want to live in Alphaville?
2. If you move again, would you like to live in another condomínio fechado?
3. Would you recommend Alphaville to your friends if they were looking for a place to live?
4. What is your level of satisfaction with living here?

PROCEDURE

The questionnaire was translated into Portuguese and mailed to 350 Alphaville residents. Questionnaires were sent in two phases to households inside the Residenciais. The first package contained one questionnaire; a cover letter explaining the purpose of the study and assuring confidentiality; a second cover letter written by the editor of an Alphaville newspaper (Jornal de Alphaville) acknowledging the research; and a self-addressed stamped envelope, to be returned in Brazil. This first package was sent by the Alphaville newspaper to 200 residences in July 1994. Ten days after the mailing, a follow-up letter was sent to all 200 residences. The second package was necessary due to the low rate of response to the first one. It did not contain the newspaper cover letter and was sent by the researchers to 150 extra residents. A follow-up letter was sent to all 150 residences after two weeks.

For the first phase, the sampling was made by the newspaper’s editor; it included all 12 Residenciais. For the second phase, the sampling was made by the researchers. Because the newspaper’s mailing list was not available to the researchers, the sampling included only Alphavilles 1, 2, and 9. The sampling for the second phase was made by using a plot map and selecting one house out of every four in the most dwellings.

RATE OF RETURN

The total effective return rate was 26% (83 questionnaires out of 350). The rate of return for the first phase was 19% (38
out of 200); the rate of return for the second phase was 30% (45 out of 150). It may be that the increasing rate of return in the second phase was due to the explicit character of research once the letter from the Jornal de Alphaville, representing the developer, was omitted.

DATA ANALYSIS

Analysis of the data from the questionnaire consisted of six steps. First, a descriptive analysis through frequency distributions was used to identify demographic characteristics of the respondents, their perceptions, and their behaviors in their residential environments. Second, an overall analysis of RS using the computed index provided an overview of respondents' reported feelings toward their residential environments. Third, a rank comparison analysis was used to compare the reasons to move into and level of satisfaction with Alphaville. Fourth, a comparative analysis through t-tests was used to identify differences between subgroups of respondents. Fifth, multivariate analysis through principal component analysis was used to group highly correlated questionnaire variables into a smaller number of sets called factors. Sixth, multivariate analysis, specifically multiple regression, was used to determine the relative importance of each factor in contributing to residents' satisfaction.

MULTIVARIATE ANALYSIS

The major purpose of this part of the analysis was to identify which factors were more important in predicting residents' satisfaction. To determine those factors, a two-step multivariate analysis was used: principal component factor analysis and multiple regression. Factor analysis produced a manageable small set of four factors from 18 questionnaire variables. Factors were obtained by Varimax rotation. Items with factor loading less than .40 were deleted from the set. The index of RS was not included in the factor analysis; it was used as the dependent variable for the multiple regression analysis.
The multiple regression model for this study was devised by considering “main effects” (three factors obtained by factor analysis) as well as “interaction effects” between the main effects and two dichotomous variables in the questionnaire. The intention of adding interaction effects is to improve the model of RS by hypothesizing that some variables that would not appear in the model (i.e., not being significant explanations of variation) would reveal significance when interacting with others. However, caution should be taken in interpreting this model, since all contributions must be viewed as interacting with each other. In other words, one specific variable will predict RS only when all other variables of the model are present. An individual variable of the model may or may not be significant when others are removed.

RESULTS

DESCRIPTIVE CHARACTERISTICS OF THE SAMPLE

Table 1 summarizes the demographic characteristics of the sample. The mean age was 44. More males than females responded. Most respondents were married, and just a few were divorced or single. Most respondents owned their houses. Their average monthly income was approximately US $7,182. The average monthly income per capita in Brazil is US $283; therefore, it seems that Alphaville’s residents are part of the upper-middle and high-income part of the Brazilian population.

THE INDEX OF RESIDENTIAL SATISFACTION

This study confirmed previous research by finding high correlation (alpha = .78) among the four items used by Francescato et al. (1979) in computing the index of RS. Figure 7 shows that most respondents reported positive feelings in the four items of the index of residential satisfaction.
## Table 1
Sample Demographics (N = 82).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>60s</td>
<td>10%</td>
</tr>
<tr>
<td>50s</td>
<td>13%</td>
</tr>
<tr>
<td>40s</td>
<td>48%</td>
</tr>
<tr>
<td>30s</td>
<td>26%</td>
</tr>
<tr>
<td>Younger than 30</td>
<td>3%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>40%</td>
</tr>
<tr>
<td>Male</td>
<td>60%</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>4%</td>
</tr>
<tr>
<td>Married</td>
<td>87%</td>
</tr>
<tr>
<td>Divorced</td>
<td>8%</td>
</tr>
<tr>
<td>Widowed</td>
<td>1%</td>
</tr>
<tr>
<td>Housing ownership</td>
<td></td>
</tr>
<tr>
<td>Own</td>
<td>94%</td>
</tr>
<tr>
<td>Rent</td>
<td>6%</td>
</tr>
</tbody>
</table>

Monthly income in US $^b$
Mean = US $7,182$
Median = US $6,500$
Standard deviation = US $3,864$

a. Mean = 44, Mode = 41.
b. Monthly salaries in Brazil are paid 13 times per year.

Figure 7 shows that residents are very satisfied with their residential environments. This is not surprising, though, because many authors have found that socioeconomic status (income, education) and home ownership relate to residential satisfaction (Campbell et al., 1976; Lansing, Marans, & Zehner, 1970; Marans & Rodgers, 1975; O'Brien & Ayidiya, 1991), and Alphaville residents are relatively well off financially and own their own houses. Some authors have found that residents tend to prefer specific residential environments such as single-family homes (Marans & Rodgers, 1975; Michelson, 1977), as is the case of Alphaville.
Figure 7: Residential Satisfaction of Alphaville Residents

NOTE: Items Used to Compute the Index of Residential Satisfaction: "How long do you want to live in Alphaville?" "If you move again, would you like to live in another condomínio fechado?" "Would you recommend Alphaville to your friends if they were looking for a place to live?" "What is your level of satisfaction with living here?"
Reasons to Move Into Alphaville and Level of Satisfaction—A Rank Comparison

The reasons why people wanted to move to Alphaville in the first place do not coincide with why they like living there today. Table 2 ranks items of the questionnaire regarding “level of satisfaction” and “reasons to move into Alphaville.” This rank was derived by using the means for 22 items common to two key questions: What is your level of satisfaction with each of the following aspects of Alphaville? and How important were the following reasons for your decision to move here? Items were ranked in decreasing order, with the highest positive response first. Results show that four of the five top reasons to move into Alphaville concern safety and security, whereas four of the five top items related to residential satisfaction in Alphaville address appearance, quality of housing and maintenance. Items related to location, proximity, community life and neighbors’ interaction ranked relatively poorly in both sections. Items related to appearance, quality of housing and maintenance were not rated as important reasons to move into Alphaville.

Figure 8 compares ranks for each of the 22 items regarding “level of satisfaction” and “reasons to move into Alphaville.” This graph clearly shows that, ironically, residents were very concerned with safety and security when they moved to Alphaville, but their satisfaction levels with the safety/security items after moving in are not high. Despite walls and gates, residents’ level of satisfaction with safety from urban violence and the security system is definitely below their expectations.

COMPARATIVE ANALYSIS

Residents of Alphaville differ, and they are not a homogeneous group. Two distinct groups emerged from the comparative analysis. In the first group were respondents from Alphas 1 & 2: “the pioneers” who moved to Alphaville in the middle 1970s. They are the most satisfied with Alphaville attributes and do not believe that information about “different ways of life” had any influence in the design of Alphaville. By comparison, the second
### Table 2
A Rank Comparison Between Specific Aspects of Residential Satisfaction and Reasons to Move Into Alphaville

<table>
<thead>
<tr>
<th>Levels of Satisfaction</th>
<th>Reasons to Move Into Alphaville</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Variables</td>
</tr>
<tr>
<td>Appearance</td>
<td>Safety, urban violence</td>
</tr>
<tr>
<td>Quality of the house</td>
<td>My quality of life</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>Security system</td>
</tr>
<tr>
<td>Privacy</td>
<td>Outsiders cannot enter</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Safety for children</td>
</tr>
<tr>
<td>Outsiders cannot enter</td>
<td>Quality of the house</td>
</tr>
<tr>
<td>My quality of life</td>
<td>Cleanliness</td>
</tr>
<tr>
<td>Safety, urban violence</td>
<td>Maintenance</td>
</tr>
<tr>
<td>Prestige</td>
<td>Level of pollution</td>
</tr>
<tr>
<td>Safety for children</td>
<td>Privacy</td>
</tr>
<tr>
<td>Security system</td>
<td>Property values</td>
</tr>
<tr>
<td>Property values</td>
<td>Traffic safety</td>
</tr>
<tr>
<td>Level of pollution</td>
<td>Appearance</td>
</tr>
<tr>
<td>Proximity to commerce/retail</td>
<td>Prestige</td>
</tr>
<tr>
<td>Shared facilities</td>
<td>Location in the large São Paulo</td>
</tr>
<tr>
<td>Location in the large São Paulo</td>
<td>Proximity to commerce/retail</td>
</tr>
<tr>
<td>Traffic safety</td>
<td>Proximity from home to work</td>
</tr>
<tr>
<td>Social contact, neighbors</td>
<td>Shared facilities</td>
</tr>
<tr>
<td>Community life</td>
<td>Social contact, neighbors</td>
</tr>
<tr>
<td>Property taxes</td>
<td>Community life</td>
</tr>
<tr>
<td>Proximity from home to work</td>
<td>Property taxes</td>
</tr>
<tr>
<td>Transportation</td>
<td>Transportation</td>
</tr>
</tbody>
</table>

NOTE: Satisfaction and reasons to move into Alphaville. Ranked order from 1 = greatest to 22 = least. This rank was derived by using the means for 22 items common to two key questions: “What is your level of satisfaction with each of the following aspects of Alphaville?” and “How important were the following reasons for your decision to move here?”

The group included respondents from the other Alphavilles: the “newcomers”, who moved to Alphaville in the 1980s and 1990s, are the most confident about their reasons to move into Alphaville, and the “the information-aware residents,” who believe “that information about different ways of life had influenced the design of Alphaville.” Figure 9 shows how the pioneers (from Alphas 1 & 2) and the newcomers (from other Residencias) differ in their reasons to move into Alphaville. For the pioneers (from Alphas 1 & 2), maintenance was a strong reason to move into Alphaville, whereas for the newcomers (from other...
Figure 8: A Rank Comparison Between Specific Aspects of Residential Satisfaction and Reasons to Move Into Alphaville

NOTE: Ranked order from 1 = greatest to 22 = least.
Figure 9: A Comparison of Pioneers (from Alphas 1 and 2, n = 34); and Newcomers (Alphas 3 to 12, n = 49) About Reasons for Moving Into Alphaville

NOTE: Results from t-test. An asterisk indicates items where significant differences (p < .05) were found between groups.
Residenciais), the reasons were more related to community life: social contact with neighbors, community life, shared facilities, and proximity to commerce and services.

PREDICTORS OF RESIDENTIAL SATISFACTION

Location in São Paulo and Proximity to Work (Factor 3); Safety, Security, Appearance and Quality of the Housing (Factor 1); and Unique Characteristics of a CE (Factor 2) are the predictors of residential satisfaction. Factor 3 predicts residential satisfaction of everyone in the sample. Factor 1 predicts with greater strength RS of newcomers, and with less intensity predicts RS of pioneers. Factor 2 predicts satisfaction of information-aware residents, but it does not interfere with RS of respondents who did not express this feeling. Community Life and Neighbors’ Interaction (Factor 4) are not predictors of RS.

Table 3 summarizes the four factors, candidates to predictors of RS for the residents of Alphaville when interacted with dichotomous variables. Factor 1 comprises survey items regarding residents’ satisfaction with safety, security, overall appearance, and quality of housing. Factor 2 consists of items relating to reasons to choose Alphaville to move into; these reasons are specific of a CE (outsiders cannot enter without permission; the fact that Alphaville is a CE; the level of pollution, which is a characteristic of a differentiated environment, in the case of São Paulo) and also lack of safety in residents’ prior residence. Factors 3 and 4 comprise items related to satisfaction with Alphaville and also reasons to move into Alphaville. Factor 3 relates to location in São Paulo and proximity to work. Factor 4 relates to community life and neighbors’ interaction.

Table 4 presents the preferred or fitted multiple regression model. This model shows that of the four factors listed in Table 3, the first three are predictors of residential satisfaction. It also shows the interaction effects of those factors with dichotomous variables: ALPHA 1 being a predictor means that Factor 1 (Safety & Security) affects more newcomers than pioneers, and INFO 2 being a predictor means that Factor 2 (Specific Char-
TABLE 3
Possible Predictors of Residential Satisfaction in Alphaville.

<table>
<thead>
<tr>
<th>Variable Number</th>
<th>Variable Name</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Safety &amp; Security, Appearance, Quality of Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V28</td>
<td>Satisfaction outsiders cannot enter</td>
<td>0.762</td>
</tr>
<tr>
<td>V17</td>
<td>Satisfaction security system</td>
<td>0.745</td>
</tr>
<tr>
<td>V9</td>
<td>Satisfaction quality housing</td>
<td>0.741</td>
</tr>
<tr>
<td>V25</td>
<td>Satisfaction safety for children</td>
<td>0.72</td>
</tr>
<tr>
<td>V7</td>
<td>Satisfaction overall appearance</td>
<td>0.693</td>
</tr>
<tr>
<td>V15</td>
<td>Satisfaction safety from urban violence</td>
<td>0.645</td>
</tr>
<tr>
<td>Factor 2: Reasons to Choose Alphaville: Specific Characteristics of a Condominho Exclusivo, and Lack of Safety in the Prior Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V60</td>
<td>Reason to choose Alpha—outsiders cannot enter</td>
<td>0.863</td>
</tr>
<tr>
<td>V58</td>
<td>Reason to choose Alpha—it is a condominho fechado</td>
<td>0.84</td>
</tr>
<tr>
<td>V53</td>
<td>Reason to choose Alpha—level pollution</td>
<td>0.686</td>
</tr>
<tr>
<td>V59</td>
<td>Reason to choose Alpha—lack of safety in my prior residence</td>
<td>0.597</td>
</tr>
<tr>
<td>Factor 3: Satisfaction and Reasons to Choose Alpha: Location and Proximity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V48</td>
<td>Reason to choose Alpha—location in São Paulo</td>
<td>0.803</td>
</tr>
<tr>
<td>V54</td>
<td>Reason to choose Alpha—proximity to work</td>
<td>0.802</td>
</tr>
<tr>
<td>V24</td>
<td>Satisfaction proximity to work</td>
<td>0.791</td>
</tr>
<tr>
<td>V18</td>
<td>Satisfaction location in São Paulo</td>
<td>0.645</td>
</tr>
<tr>
<td>Factor 4: Community life and neighbors’ interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V41</td>
<td>Reason to choose Alpha—sense of community</td>
<td>0.885</td>
</tr>
<tr>
<td>V40</td>
<td>Reason to choose Alpha—social contact with neighbors</td>
<td>0.855</td>
</tr>
<tr>
<td>V11</td>
<td>Satisfaction community life</td>
<td>0.605</td>
</tr>
<tr>
<td>V50</td>
<td>Reason to choose Alpha—shared facilities</td>
<td>0.504</td>
</tr>
</tbody>
</table>

NOTE: Results from factor analysis.

acteristics of a CE) affects only the information-aware residents. Factor 3 (Location & Proximity) is not affected by dichotomous variables; thus, it equally predicts residential satisfaction among all residents of Alphaville.

SUMMARY OF RESULTS

This research confirmed that residents were very satisfied with living in Alphaville. However, the reasons why residents wanted to move to Alphaville do not correspond to why they like living there today. Three predictors of residential satisfaction were: Location in São Paulo and Proximity to Work (Factor 3);
TABLE 4
Predictors of Residential Satisfaction

<table>
<thead>
<tr>
<th>Predictors</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Safety &amp; Security, Appearance, Quality of Housing</td>
<td>0.455</td>
</tr>
<tr>
<td>Factor 2: Unique Characteristics of a Condominio Exclusivo</td>
<td>-0.015</td>
</tr>
<tr>
<td>Factor 3: Location &amp; Proximity</td>
<td>0.297</td>
</tr>
<tr>
<td>Alpha: Which Alphaville do you live?</td>
<td>0.158</td>
</tr>
<tr>
<td>Alpha = Alpha * Factor 1</td>
<td>-0.33</td>
</tr>
<tr>
<td>Info: Do you think that information about “different ways of life”</td>
<td>0.015</td>
</tr>
<tr>
<td>influenced the design of Alphaville?</td>
<td>0.279</td>
</tr>
<tr>
<td>INFO2 = info × Factor 2</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Multiple R = .745  \[ R^2 = 56\% \]  N = 82

NOTE: Results from multiple regression model.

Safety, Security, Appearance and Quality of the Housing (Factor 1); and Unique Characteristics of a CE (Factor 2). Residents were not a homogeneous group, and the uniqueness of Alphaville as a living environment was a predictor of residential satisfaction for only some of the respondents: the information-aware residents. Safety and security also differed by groups, when predicting respondents' residential satisfaction, by affecting newcomers more greatly than pioneers.

DISCUSSION AND CONCLUSION

REASONS TO MOVE INTO ALPHAVILLE AND LEVEL OF SATISFACTION—A RANK COMPARISON

The reasons why people wanted to move to Alphaville in the first place do not coincide with why they like living there today. The most important reasons to move into Alphaville relate to safety and security; however, residents' level of satisfaction with safety from urban violence and the security system is below their expectations. A possible explanation is that residents would like to feel safer than they do, or that the specific ways in which security is implemented (e.g., the security gate, the
inconvenience to visitors) is not contributing to their satisfaction, or both. Highest aspects of residential satisfaction in Alphaville relate to appearance, quality of housing and maintenance, which were not rated as important reasons to move into Alphaville. This may be because these items were taken for granted by the residents when they were deciding whether to move into Alphaville.

PREDICTORS OF RESIDENTIAL SATISFACTION

In past research, predictors of residential satisfaction have been related to a variety of components: satisfaction with neighbors, transportation, feeling of safety, and the condition of property in the immediate vicinity (Davis & Davis, 1981); environmental safety, planning/landscaping, housing policy, sociocultural environment, and physical quality of housing (Ha & Weber, 1994); physical, social, and managerial aspects, and sense of safety and security (Weidemann, Anderson, Butterfield, & O'Donnell, 1982). The researchers in this study expected to find predictors that would be unique to a condomínio exclusivo, and they did so. This unique predictor consists of items related to reasons to move into Alphaville, the characteristics that make that place special: It is a condomínio exclusivo, outsiders cannot enter without permission, and the level of pollution is low. However, we found significant differences among residents. Thus, it is not surprising that the uniqueness of Alphaville as a living environment and safety/security were strong predictors of residential satisfaction for only part of the respondents: the information-aware residents, or the newcomer residents.

DIFFERENCES AMONG PIONEERS AND NEWCOMERS

A major difference between pioneers and newcomers is that the latter’s residential satisfaction is strongly predicted by both the uniqueness of Alphaville as a living environment and safety and security, whereas the former’s was weakly affected by
safety and security, and not affected by the uniqueness of Alphaville as a living environment.

Most pioneers moved to Alphaville in the 1970s, when the concept of condomínio exclusivo was not widespread; even at that time, though, the themes of exclusivity and status were touted as part of the advertisement strategy:

'Alphaville Residencial' starts and ends in 'Alphaville Residencial'. For that, there is a 3.5-meter high wall and a security gate. A wall that will let what is inconvenient outside . . . (Albuquerque Takaoka, n.d.).

What exactly is the inconvenience to be left outside? In fact, urban violence in the 1970s in São Paulo was not an issue, as it has become today. One possible answer is interaction with undesirable people, another is the uncertainty and unpredictability of public spaces that are accessible to everyone.

After all, why do pioneers differ from newcomers? Apparently, that has something to do with the advertising strategy. Pioneers were carefully selected by the developer, who did not use conventional means of advertising such as newspapers. Potential buyers from upper income sections of society received promotional packages emphasizing the privileges of being invited to a new way of living. This new lifestyle included the possibility of living in seclusion among people of your own choosing. According to the developer's marketing director, that was Alphaville's formula of success (personal communication, July 1994).

In the middle 1980s the connotations of living in Alphaville, notably exclusivity and status, were already established. The developer no longer had to attract new residents because the image had already been established. One significant change evolved in the idea of status, though: Alphaville was now in vogue, and what used to be seclusion turned out to be ostentation. This can be seen especially through common facilities, as noted in the following advertisement:

Well reduced population density. Sociability without inconvenience: complete and attractive common room. It's worth getting to know it: four

According to Caldeira (1992), the actual use of common facilities in CEs is very low. She interprets their presence as "a means of displaying status and of constructing a clearly different type of environment" (Caldeira, 1992, p. 310).

Another change in the idea of status was identified in the late 1980s and 1990s, when the developer started to sell whatever one wanted to buy. The developer was no longer advertising seclusion or the showy common facilities, but simply Alphaville:

Each one of the 6,200 families that live in Alphaville (April/89) . . . has a good reason to live in the neighborhood. Bring your reason, because the Construtora Albuquerque Takaoka is launching a new 'residential': Residential Alphaville 11. (Albuquerque Takaoka, 1989)

This study found that residential satisfaction in CEs has a unique quality (the uniqueness of that environment as a place to live) when compared to studies of RS in other urban situations. This study also found that this unique quality predicts RS of only part of the sample: the information-aware residents, or the newcomers residents. Thereafter, we speculated that the differences among pioneers and newcomers can partly be attributed to their differing images of Alphaville. This image is constructed not only by residents' values and beliefs, but also by the developer's marketing intentions. This variance in the image raises a new question: Given the fact that safety from urban violence and the security system were below residents' expectations, is it possible that a new image of living, without a wall and a security system, may replace Alphaville?

REFINING THE MODEL OF RESIDENTIAL SATISFACTION

This study confirms Weidemann and Anderson's (1985) integrated model of residential satisfaction by finding links among perceptions and beliefs about the environmental attributes
(cognition), and satisfaction with the environment (affect). Likewise, personal characteristics, intentions to behave, and objective attributes, measured via residents' cognition, all play their roles in the present model.

The integrated model was, however, extended and refined in some significant ways. Primarily, we included in the multivariate analysis the interaction effects between the main effects and dichotomous variables. When taken individually, some of these variables would appear to have no effect, but when combined they became predictors of residential satisfaction. Also, the interaction effects allowed for differences among residents, who were affected by the predictors in different ways.

LIMITATIONS OF THE RESEARCH

This study has limitations due to the relatively low rate of return (26%) and somewhat small sample size (N = 83). The low rate of return and the small sample size could limit the conclusions we inferred from the data. The sample may not be representative of the population of Alphaville. However, a demographic analysis of the sample shows that income and other characteristics are similar to the population of Alphaville. Therefore, we believe that differences from the population at large in Alphaville need not be a major concern here. Conclusions from this study also must not be generalized to all CEs or gated-guarded neighborhoods. This study focused on a relatively prosperous neighborhood in a particular city in Brazil.

IMPLIED FOR FUTURE RESEARCH

This research adds to the literature on housing by introducing data on residential satisfaction in a new housing environment. CEs and gate-guarded neighborhoods are an increasingly common phenomenon, and it appears they are here to stay; thus, future research should consider their effects on urban life.

Condomínios exclusivos are occupying more and more of the Brazilian urban fabric and are contributing to an increasingly fragmented urban form. For this reason, future research should
look at the far-reaching effects of CEs and gate-guarded neighborhoods on urban form and public life. Are CEs and gate-guarded neighborhoods contributing to an antagonistic social environment? Are they considered part of the city or disassociated from it? Do city dwellers fear urban public spaces and is that why the privacy of CEs is so appealing?

Gate-guarded neighborhoods are becoming more popular in the United States. They have traditionally been associated with upper-income communities, but that connection is no longer the case. Today, they also can be seen in many low-income communities. In 1992, Mar Vista Gardens, Los Angeles (Corwin, 1992), was the first public housing project to become a gated community. During that same year, Five Oaks, a neighborhood in Dayton, Ohio, also was fenced in, but gates were left unguarded and unlocked. This project displayed a more extreme application of Oscar Newman’s (1972, 1992) concept of defensible space than generally has been seen. Henry Cisneros, former U.S. Secretary of Department of Housing and Urban Development (HUD), said that Five Oaks has a conception different from a gate-guarded neighborhood: “Neither the plan nor the reality of Five Oaks’ defensible space excluded anyone but criminals, and the community is not closed off” (Cisneros, 1995, p. 21). HUD is currently investigating this application of defensible space as a potential solution for urban neighborhoods and public housing. This experience raises two new questions: Does the fact that the community is not closed off change its effects on urban form? In terms of public life, how does Five Oaks differ from other gate-guarded neighborhoods?

Altman & Chemers (1990) argue that “the environment may be an important contributor to cultural practices, its influence is not simple, and it does not generally operate in a strict, one way, wholly causal fashion” (p. 8). More than a different lifestyle, are new cultural practices emerging in a CE environment? Are gate-guarded neighborhoods changing as a result of traditional cultural practices? Potential changes may not be identified at the moment because they may not be firmly established. This exploratory study can serve as the basis for future studies on
the CE and gate-guarded neighborhood phenomena from a culture-environment perspective.

Based on Jung's concepts of the collective unconscious, the archetype and the symbol, Cooper (1976, 1995) proposed the notion of house as symbol of the self. Cooper argues that because self is a universal, timeless archetype, people often resist changes in the image of the house, the self's symbolic form. This explains strong preferences for the traditional single-family detached house throughout Western society. The CE extends this notion of symbolism from the house to the neighborhood by adding yet another layer of meaning: the boundary walls, gates, security systems, etc. With this in mind, what do these features of a CE and other gate-guarded neighborhoods symbolize—the community as symbol of collective selves? What messages does this community send—and to whom?

As an expression of democratic ideals, until recently, modern cities were characterized by the collective use of space. This trend appears to be reversing itself. A battle has started between public and private use of urban spaces, with the latter often prevailing over the former. This article ends with the expectation that researchers will begin to consider the complex issues raised by this study of CE and gate-guarded neighborhoods in investigating the conflicts between the public and the private.

NOTES

1. Fear of crime, manifested through residents' concern with security, is justified. Rates of violent crime and murder are increasing in the world's major cities. In 1989, the rate of murder per 100,000 population in the city of São Paulo was 35.6. This figure places São Paulo's rate of murder between that of Oakland, California (39.2), and New York City (30.6). Veja, 28 Nov. 1990, p.66; Los Angeles Times, 25 March 1992, p. A-14. In Caldeira (1992).

2. In 1938 the mayor of São Paulo, Prestes Maia, implemented his Plano de Avenidas (Plan of Avenues), an urban reform that made the expansion of the city towards the periphery viable. In 1940, the Federal Government of President Getúlio Vargas promulgated the Lei do Inquilino (Renter's Law) that froze all rents. The consequence in São Paulo was the reduction of the housing stock for rent, and thus, the expulsion of the working class to the periphery. For a comprehensive analysis of the urban evolution in São Paulo, see Bonduki (1983).
3. See Choay (1979) for an analysis of city developments, where she classifies cities into two basic types and coins the terms: "progress-oriented" (rational) and "culture-oriented" (organic) models.

4. Data was collected in a interview with the developer's (Construtora Albuquerque Takaoka) marketing director in July 1994.

5. An alternative way of computing the index was tested by grouping the four items into one single factor through factor analysis. This alternative weighted index was also tested as the dependent variable for the regression model, but no significantly different results were found.

6. In the questionnaire, condomínio fechado (closed condominium) was used rather than condomínio exclusivo (exclusive condominium), due to the negative connotation of the latter term in Portuguese.

7. For a broad discussion on main effects and interaction effects, see Jaccard, Turisi, and Wan (1990).


9. The 11 variables that entered the regression model were the "main effects": Factor 1, Factor 2, and Factor 3; plus the dichotomous variables: Info (Do you think that information about "different ways of life" influenced the design of Alphaville?), where the answer no was coded 0, and yes was coded 1; and Alpha (In which Alphaville do you live?), where residents of Alpha 1 and 2 (the pioneers) were coded 1, and the others (the newcomers) were coded 0; plus 6 new variables resulting from the interactions of each dichotomous variable with the three factors. Those interactions were found by multiplying the dichotomous variable by the factor; for example: INFO2 = info \times Factor 2.

The next step would be to refine the model, by dropping the variables that did not show significance. The criteria used was that neither factors nor underlying variables would be dropped if their interactions were significant.

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