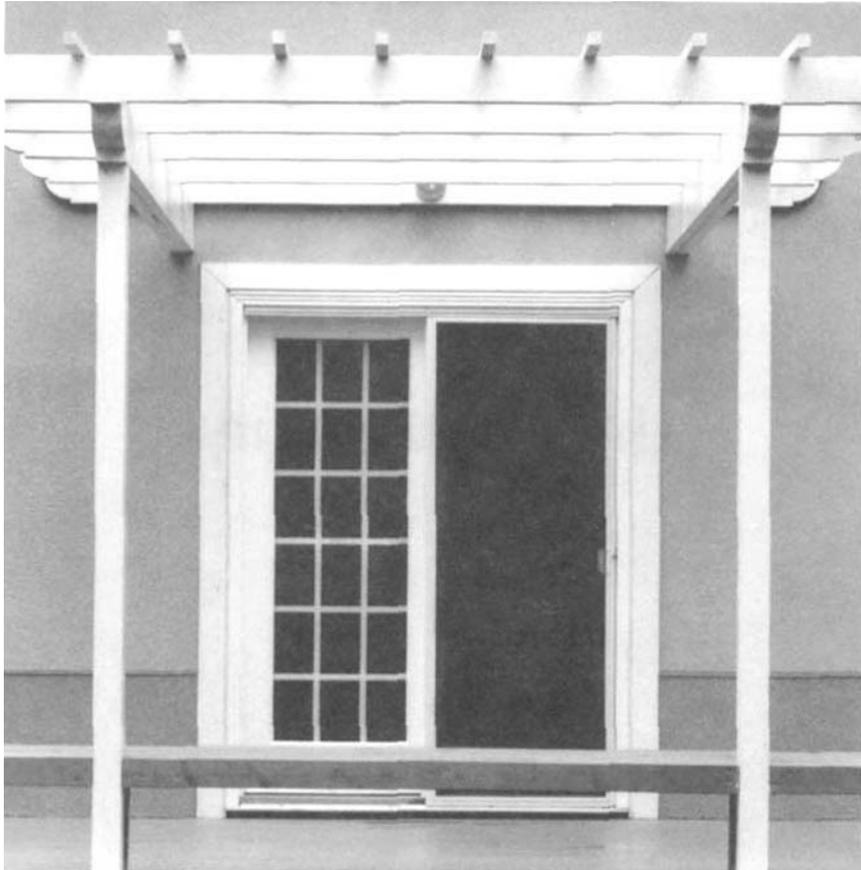


# the grow home



**Avi Friedman**

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## P R E F A C E

In June 1990 the Grow Home was inaugurated on the campus of McGill University. The narrow-front unit was constructed across from the grey limestone School of Architecture building where it was designed. A year earlier Witold Rybczynski and I had co-founded a new program at the school with a mandate to teach, research, and advocate the idea that design solutions to the affordable housing crisis of the time were genuinely feasible. We hoped that our Grow Home – a single slice of a row of other such homes – would demonstrate that trade-offs made by home buyers, such as purchasing a smaller unit, would get them through the door of their first home. We also hoped that private-sector builders would be interested enough to respond and even profit from this market niche.

The freestanding structure was an outcome of a year-long design process linked to a questionnaire that was prepared at the request of the *Montreal Gazette* and appeared in the newspaper in February 1989. The questionnaire was informal, and the fact that only sixty people bothered to respond made it hardly representative or statistically valid. Even so, it provided insight into the opinions of people who did not own a home but would have liked to.

What sort of home would respond to the stated preferences of these rental tenants? First of all, it would have to be reasonably close to downtown. This would not only reduce the cost of commuting for an individual family but would also slow urban sprawl. In the Montreal tradition, a home close to downtown suggests a rowhouse, a housing form that reduces the cost of land and infrastructure. Next, for a family with a combined annual income of \$50,000 (the category to which the majority of the questionnaire respondents belonged), a home with a price under \$70,000 would be affordable. Such a price was far lower than that of the available single-family homes. Finally, the question that received the largest positive response was, “Are you ready to do some of the finishing work yourself?” This suggested an approach that we designated as a “grow home” – a partially finished house where certain components could be finished by the owners and where some spaces (either on the lower or upper levels) were left unpartitioned for future completion.

Those questionnaire responses helped us to form an image of future occupants

and establish basic design principles. A grant from Dow Canada moved the design from the drawing board to the Modulex factory floor where the unit was constructed in panels, and ultimately to the university's grounds where the home was assembled. On 20 June 1990 the Grow Home was ready for inspection.

We were naturally anxious as we awaited visitors' impressions of the design. They walked through the 1,000-square-foot, two-storey unit, tastefully yet frugally furnished, and observed the dining area at the front of the lower level which shared space with simple, Shaker-style, maple kitchen cabinets. They carried on down the hallway fitted with white, twelve-inch-deep cupboards and a shelving system, paused at the simple bathroom tiled with black-and-white checkered linoleum, and came to the living room at the rear with its double French doors through which they could see a wooden deck and pergola. Climbing the stairs to the upper level, at one end they saw a baby's room with a crib, large nursing chair, and toys scattered on the floor, and at the other end an unpartitioned space with a double bed, desk, and large pine clothes cupboard on greyish-blue carpet extending all the way to double doors that opened onto a balcony at the front of the house. They used a set of stairs built along the side wall to leave the Grow Home, wondering as they looked around once more whether this slim grey house was the solution to the affordable housing crisis about which they had heard so much. We waited nervously, not knowing the effect of our design.

The front page of the *New York Times* Homes section ("Can Small Be Cheap and Also Beautiful?") and ABC News's satellite dish broadcasting live from the McGill campus on *Good Morning America* alerted us that we were on to something big. Perhaps we had even underestimated the extent of the housing crisis and how urgently solutions were needed, not to mention the eagerness of the media to write about it all. The month-long demonstration of the Grow Home brought an avalanche of interest: articles, interviews, and telephone inquiries from near and far. It also generated opinions and views about the merits of a narrow-front, Grow Home strategy – a debate which we had hoped the demo unit would create.

The uneventful six months that followed the dismantling of the unit were a letdown after the euphoric days of June. Our best efforts to find a real developer with a real site were unsuccessful. Until, that is, Leo Marcotte walked into the school. An owner of a small building firm in east-end Montreal, Marcotte came to participate in a design studio project. He had never heard of the Grow Home, and when we told him about it, he was sceptical of our claims that the unit could be constructed for \$40,000 or for

approximately \$75,000 including land. But he was willing to re-examine our estimates. The fact was he did not have much else to do. Montreal was in the grip of a deep recession, and housing starts had plummeted. When he called later to tell us that he found our numbers to be accurate and that he had decided to take the plunge and place an advertisement in the weekend edition of a local paper, we were mightily heartened. None of us had any idea what the outcome would be.

Marcotte took a risk and won. Twenty-four units were sold in a weekend. The entire development of eighty-seven homes to be built at Pointe-aux Trembles was sold in two weeks. The buyers – most of them renters – could not pass up the opportunity to buy a two-storey unit with a basement for a monthly mortgage payment that would be lower than what they had been paying in rent. They purchased their first homes without even seeing a model unit, completely unheard-of in the Montreal housing market.

In the depressed market of the time, the news of Marcotte's success travelled fast. Other builders came to the site to observe, learn, and copy. Developments started to spring up in and around Montreal. By the end of the first year, about one thousand units were built. The concept has not lost its appeal since; to date over ten thousand units have been built in Canada. The Grow Home has inspired developments and projects across North America and earned numerous accolades and awards. It was more than a mere academic experiment and a local success in affordable housing. The Grow Home demonstrated that efficiently designed, well-built homes can be affordable and also appeal to buyers' aspirations and, as such, should be considered as a valuable option among other major solutions. I had also recognized by then that a large laboratory had been constructed: communities, homes, and people worth studying. What followed was a decade of evaluations, research, and design that led to more ideas, developments, and articles upon which this book is based.

The book begins with a sketch of a society at the twilight of the twentieth century and the dawn of the twenty-first. I have attempted to explain new demographic compositions, economic realities, lifestyles, and the effect that they all have on home life and the search for a new housing paradigm. An outline of our design principles then ties the Grow Home ideas to earlier architectural examples and demonstrates how those ideas have been modified to fit our own times. In the campus prototype, a variation of these concepts illustrated in the following chapter, the reader will discover which factors influenced the design of spaces, rooms, and details. Response to the demo unit is presented as the results of a questionnaire that visitors were asked to fill

out at the end of their house tour in June 1990. The transformation of the prototype into a widely built unit is described next, giving the builders' side of the story, based on extensive interviews with seven of them and on the data they provided. This chapter provides a close-up of the *modus operandi* of a small homebuilding firm and its quest for a bestselling model. Then, 196 Grow Home occupants provide insight into the minds of first-time home purchasers: their aspirations, the appeal of specific features for them, and the reasons behind their decisions to buy. The following chapter describes their dwelling experience; visits to 140 Grow Homes furnished the opportunity to document and ask about work owners did in spaces that were originally left unfinished – what they chose to build and how they did it.

The next chapters mark a slight shift of approach. From a chronological description of events, I move on to focus on issues unique to the Grow Home that further explain the magnitude and potential of the design. The many built units inspired a factory-built home: we attempted to design a prefabricated version of the Grow Home in which numerous interior variations could be produced using a limited number of interior and exterior panels. The concept of the Grow Home was extended to the developing world in *La Casa a la Carta*, which I designed in 1997 with Mexico (where it was built) in mind. In countries other than our own, a small structure is often merely the foundation upon which additions are built according to available means and needs.

During the design phase of the Grow Home we realized that building small not only reduced construction cost but also conferred an environmental advantage. Resource conservation and significant energy savings were obtained through modular design, floor stacking and the joining of units. These strategies demonstrate the green aspect of the Grow Home and they are outlined in this chapter.

The Grow Home was designed to be part of a row and to be constructed in a community of rowhouses. In the years following the construction of the campus model, I had the opportunity to design several such communities. This posed a particular challenge, one directly related to higher density. I found that attention must be paid to (among other topics) roads and parking, open spaces, and the avoidance of facade repetitiveness. The chapter titled “Neighbourhoods with a Sense of Scale” illustrates some of these design patterns. The book's wrap-up chapter reflects on the entire experience and – more significantly – looks forward to the future of the Grow Home concept and its ability to continue as a viable housing solution by describing a subsequent design – the Next Home.

In 1999 I received on behalf of my colleagues the United Nations World Habitat Award for the achievement of the Grow Home. The jury cited the potential of the idea for replicability elsewhere as the main reason for the award. I believe that the Grow Home design has only just begun its life and that many more chapters remain to be added in the future.

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## ACKNOWLEDGMENTS

This book is based on design and research spanning approximately ten years. The conception and design of the Grow Home were a collaborative effort with Witold Rybczynski. The development of the demonstration unit also involved the architect Susan Ross. In the following years, I worked closely with Vince Cammalleri with whom I co-authored several papers on which some of the chapters in this book are based. There were other participants in the research and in the organizations which funded it. I would like to acknowledge and thank them here:

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## 1 DIFFERENT TIMES, DIFFERENT HOMES

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When the Grow Home was introduced in June 1990, it stood in marked contrast to the homes typically built by Montreal developers. “Why is it small?” people asked. “Why is it narrow? What does the “Grow” mean?” Still other visitors wondered whether the Grow Home was meant to be a trend-setter in architecture.

The design was an architectural response to many changes that had influenced society in the preceding decades, changes that had a profound effect on home life. One indication of the scope of these changes is reflected in the public perception of the traditional family in the years immediately following the Second World War in comparison with the current conception of the family. The postwar image of the breadwinner father, homemaker mother, and a minimum of three dependent children living together in a detached house was so pervasive that homebuilders could easily – and successfully – view the bulk of their potential clientele as a homogenous market. In the eyes of builders as well as for many North American citizens, single people and single parents rarely bought houses. The majority of people got married in their early twenties and immediately began their search for a house. General expectations of hearth and home were universally shared. Simple housing formulas worked, which subsequently justified maintaining the traditional manner of designing homes for a dominant majority with common residential habits.

The telecommunications revolution has brought the furthest corners of the world right into our homes, to television watchers and computer users alike. The widespread practice of reliable birth control has enabled people to regulate and limit the size of their families more than ever before. Economic recessions and restructuring have taught both earners and the unemployed the lessons of prudence and financial impermanence. The upheaval in social

values ushered in during the 1960s has led to a new era of relaxed morality and lifestyle accompanied by corresponding reactions of outrage and conservatism. The result has been radical shifts in the way people live and form households, work and enjoy their leisure, grow old and die. The homes themselves were frequently central in these changes, which affected most aspects of domestic life: interactions between family members, consumption patterns, the type of room arrangements people chose, and the actual use of these rooms. All homes cannot be examined as though they are the same – there are city homes, suburban homes, rural homes. Wealthy people live in some, middle-income and low earners in others. Yet the postwar changes that so affected home life influenced the vast majority of people in most homes.

The Grow Home was in part an architectural interpretation and a possible response to these recent changes. The quest for a new architectural paradigm was not uppermost in our minds. It was rather a process of reflection on current phenomena, an examination of coming trends, an assessment of case histories, and a composition of construction strategies: strategies that would make homes affordable to those people who were unable to purchase them as a result of those same societal changes we had been noticing. Cost, however, was not the only consideration. We focused on the design of a home that would fit the everyday needs of its occupants when they moved in and that would let them modify the home as their needs and means evolved.

So what were these changes and how did they influence our design? Let us begin with society itself.

The decline of the traditional nuclear family and the emergence of other household formations are at the heart of the social shift. For some, obtaining higher education became an entry passport to the job market, and this delayed the age of marriage and the start of new families. Newlyweds began their search for a new home later. When they finally did enter the market, they soon discovered that the cost of a monthly mortgage payment – combined with the repayment of their student loans – required a change of plans, primarily for women: work as late as the biological clock allows, have fewer kids, and return to work as quickly as possible after the birth of a child. Between 1975 and 1999 the birth rate per 1,000 people dropped from 15.5 to 11.2 (Statistics Canada 2000a). These same first-time home buyers also had to settle for a less expensive home. This meant a smaller unit, fewer amenities, a partially finished space, or a move further from the city centre to buy a home on inexpensive land. The small space was a compromise for new householders since they knew that there would be fewer people in the family, and besides, there would always be a second and third home down the road. As they stood in a developer's model home, making up their minds about whether or not to buy, whispering to one another, they knew that they would have to tone down their expectations and dreams. They would have to change a few habits and alter their lifestyles.

One of the significant causes of change in the lifestyle of North Americans is the continuing increase in the proportion of women in the labour force. The ramifications of greater numbers of working women are numerous: women in the labour force must sched-