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'Place' Making:
Henry Fliess and the development of humane housing and
urban design in Canada after the Second World War

Nancy Lynn Duff, B.A.

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and Research in partial fulfillment of
the requirements for the degree of
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ABSTRACT

The area of study this thesis is concerned with is Modern architecture and town planning, the latter now more commonly referred to as urban design. The specific subject I am interested in examining is the post-war multiple housing designs of Toronto based architect, Henry Fliess, B.Arch, F.R.A.I.C., (b.1921). Toronto was one of, if not the, fastest growing metropolitan areas in the world in the years following the Second World War. The concomitant suburban sprawl soon became an issue of considerable concern for those involved in the planning and design of our environment. This thesis will examine the particular circumstances that allowed for a flowering of multiple housing developments within these suburbs. It is here argued that their realization was dependent upon the co-operation of three key players, namely, the architect, the developer, and relevant government bodies from municipal to federal. As a practitioner and a strong advocate for developing humane housing and urban design, Fliess' individual practice provides an effective point of entry and counterpoint for this investigation of the complex relationships involved in the creation of our built environment.

In gaining an understanding of the mediating circumstances and generating principles behind the creation of a handful of remarkably successful multiple housing projects, designed for the most part by the same individual, the influence of the architect in their creation will be made clear. In other words, the goal of this study is not only to provide an historical context for the existence of these notable housing projects, but to expose the object lessons these 'places' have to teach us.

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I am also very grateful to Henry Fliess for having taken the time to speak with me about his work and for taking me on a personal tour of some of his housing projects, but most of all for having left such a remarkable legacy to Canadian housing design. I can only hope that I have succeeded in communicating some of the valuable lessons these places have to teach us. A sincere thank you must also go out to those at Fliess Gates McGowan Easton Architects for their willingness to share their firm's archive, for their good cheer, and for significantly enriching my primary research material.

Finally, I am indebted to my family for their unfailing humour, to my friend Katherine for her moral support and editing services, to my sister for her financial support, to John and Mark for their technical support, and to my partner, Richard, whose encouragement and understanding I could not have borne without.

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INTRODUCTION

Fig. 1

Ottawa, Redwood Court, row housing, Peter Dobbing, c.1965

Making the weekly trip to my grandmother's house in Ottawa as a child, I noticed certain housing developments along the way. Some were merely novel in their design, while others seemed to offer a completely different quality of living environment. One development in particular had caught my imagination (fig.1) and when the opportunity arose to live in one of its many lovely rows of housing, I seized upon it. Certain recurring questions began to occupy my mind while living in this exemplary development. First and foremost was the question of why so few comparable housing developments exist? What were the peculiar qualities of this development that differentiated it from its neighbours and from the majority of the built environment to which I had grown accustomed? Was it simply the product of a uniquely talented designer? There was certainly a consistency in the quality of interior and exterior spaces that suggested they were the products of someone who possessed a keen understanding of housing design. And yet it remains an island unto itself. Why, if this type of

development was possible, do we not see its influence all around us? These questions remained long after I had moved on, and when I found myself in Toronto, about to embark on the present study, it was to these questions that I returned.

Broadly speaking, the area of study this thesis is concerned with is Modern architecture and town planning, the latter now more commonly referred to as urban design. The specific subject I am interested in examining is the post-war multiple housing designs of Toronto based architect, Henry Fliess, B.Arch, F.R.A.I.C., (b.1921). Toronto was one of, if not the, fastest growing metropolitan areas in the world in the years following the Second World War. The concomitant suburban sprawl soon became an issue of considerable concern for those involved in the planning and design of our environment. This thesis will examine the particular circumstances that allowed for a flowering of multiple housing developments within these suburbs. It is here argued that their realization was dependent upon the co-operation of three key players, namely, the architect, the developer, and relevant government bodies from municipal to federal.

The following argument came slowly into focus through the analysis of a diverse body of historical material. It will not follow a conventional art historical methodology based on an investigation of stylistic trends, nor will it provide art and architectural history with another biography of 'the star architect.' The material under examination would not best be served by either approach. I am concerned here with gaining an understanding of the mediating circumstances and the generating principles behind some of the most notable multiple housing projects built in Canada in the unprecedented years of expansion following the Second World War. As a practitioner and a strong advocate for developing humane housing and urban design, Fliess' individual practice provides an

effective point of entry and counterpoint for this investigation of the complex relationships involved in the creation of our built environment.

In dealing with this material, I will endeavor to side step the formal analysis of buildings in favour of a more philosophical approach, which accepts the following premise as a starting point: modern architecture was not so much concerned with inventing a new formal vocabulary as it was with finding the means to achieve a new socially determined program, integral to which was the notion of conceiving anew the whole of the built environment. There was of course no unitary vision for the realization of this new and better world. Indeed, the first half of the twentieth century was a period marked by a profusion of design manifestoes and expositional triumphs. It was not until the rebuilding following the Second World War that there appeared a dominant vision of modern architectural practice, which not surprisingly, was well suited to the immediate needs of the period. This is to say, the monumental visions of practitioners and theorists such as Le Corbusier and Sigfried Giedion (two prominent members of C.I.A.M.) were a natural fit for the unprecedented scale of the post-war rebuilding required.¹ The disadvantages of such monumental schemes stems from what Norberg-Schultz described as their “emphasis on abstract space,”² and their lack of appreciation for the complexities of the existential relationships involved in existing urban patterns.

But this is only part of the story, as will be made clear in the development of the first chapter. There was one critical aspect of the modern movement in twentieth-century

¹ In North America, European rebuilding was mirrored in the unprecedented suburban expansion fueled by the baby boom, and in its drive to keep pace with advancing technologies.

² Norberg-Schultz, The Concept of Place, (New York: Electa/Rizzoli, 1985) 7.

architecture that permeated all of its varied factions, and that was its embracing of architecture as a social art. This is to say that the ultimate goal of modern architecture was the reformation of society itself to bring it into accordance with modern democratic ideals - a goal that necessarily gave new status to the problems of housing and urban design.³ The prominence of a certain text by a British stenographer in the story of modern architecture is very telling on this score. Ebenezer Howard's Garden Cities of To-morrow, was not an architectural treatise, but a vision of how society might break away from institutionalised forms of inequality, to set in place a new pattern of wealth generation where all would benefit from our dual natures as private and social beings. Yet, its influence will be seen to permeate the development of urban design throughout the first sixty years of the twentieth century, in both Europe and North America.

As this thesis deals specifically with the work of Henry Fliess, the history of modern architecture will unfold as it relates to his training and the development of his understanding of the problems of housing and urban design, beginning with how he came to practice architecture in the first place, and how he came to gain his training at the University of Toronto's School of Architecture. This early stage in his development is significant to the present argument for several reasons. It was here that he would formulate his early opinions about the "social aspects of town planning,"⁴ and the need to consider housing design within the larger urban context. It was also through his contacts with like-minded individuals at the University, that he became involved in the design of

³ The term urban design has been chosen here over town planning or community planning because it best represents the discipline under examination here as defined by the Getty Art and Architectural Thesaurus: "field of study that falls between and overlaps architecture and planning, and whose concern is the specific design and contextual integration of city buildings and spaces."

⁴ Title of Fliess' 5th year thesis published in the RAIC Journal a year after his graduation.

housing for Canada's first 'New Town', Don Mills, and through which he would become an advocate for multiple housing design. These early years also provided the opportunity for travel, including a definitive trip to Henry Wright and Clarence Stein's famous row housing development, Chatham Village (Pittsburgh, 1930-35), and an extensive trip to Europe and Scandinavia to study housing design and policy (1951). These formative experiences proved to have a lifelong impact on Fliess' search for a humane approach to housing and urban design.

In endeavouring to gain a better understanding of the mediating circumstances and the generating principles behind the creation of the exemplary multiple housing projects that are the focus of this study, it became increasingly clear, that one must first recognize that these projects were the result of a collaborative effort by the architect, the private developer, and various levels of government. It is only after this reality is accepted that the role of the architect in the creation of our built environment may be usefully examined. Although already well covered by previous studies, the initial stages of the development of the 'New Town', Don Mills needs to be retold here for it well illustrates the kind of built environment made possible through a high degree of co-ordination between these disparate groups. It is also only through its re-telling that the significant role played by Don Mills' planners in the successful reintroduction of multiple housing, particularly in the form of row housing, as a desirable alternative to living in a single family house will be revealed. This is a fact that might surprise those who are familiar with Don Mills reputation, and not with the history of the development itself. Within this story, one will also uncover the modern urban design principles behind its initial success, as well as why its success has not been repeated. And finally, by

examining Henry Fliess' early housing designs in terms of how well they met Don Mills' planners requirements, it is possible to see how this early experience was used to best advantage in his designs for multiple housing.

Henry Fliess determined early in his career that the vitality of any community/neighbourhood was dependant upon its ability to accommodate individuals at all stages of life by offering a diversity of housing types and community services, and that this was only practicable through compact development. These concerns would not be satisfied within the current development climate or even with existing forms of housing. It would be necessary to invent new forms of multiple housing. Herein lies the nature of the interdependence between architect, developer, and government in the realization of experimental housing projects. Three related studies in search of a humane approach to housing and urban design will be dealt with in detail in the third chapter in order to provide an understanding of the complexities of this relationship and to underscore the accountability of design professionals for their advocacy (or lack there of) for responsible land development.

Finally, with some understanding of the complexity of the mediating circumstances and generating principles that significantly impact the creation of multiple housing developments, it will be possible to examine how these principles are manifested in the language of architecture. To this end, a phenomenological approach to the analysis of three case studies will be attempted in order to determine what object lessons may be taken away from this study and applied to the improvement and encouragement of future multiple housing design. Once understood, it may be possible to formulate a strategy for bringing about a renaissance of multiple housing development in Canada.

CHAPTER ONE: THE FORMATIVE YEARS

I. The Accidents of Life

The following story of how Henry Fliess came to practice architecture in Canada is, as he himself described it, one largely based on the 'accidents' of life.¹ Henry Fliess was a teenager when he arrived in England, alone, in 1936. He, like so many others, was parted from his family and friends, as Jews and other groups became the targets of systematic discrimination under the Nazi regime in Germany. Henry Fliess had a Great Aunt in England who was willing to finance his schooling and take on the responsibility of planning for his future. Thankfully, Henry's Great Aunt was not single-minded in her plans.

The principal of the high school where Henry Fliess completed his final two years supplied Henry with his first 'home away from home'. The principal became fond of Henry and proved to be a critical figure in his choice of career. Upon his graduation, his Great Aunt believed the wisest course of action for Henry's future lay in learning a trade; for if his future held the prospect of several moves from place to place, or even country to country, a trade would always provide him with a saleable skill. The principal, however, had seen in Henry what he felt was real potential for a career in architecture. He took it upon himself, not only to help convince Henry's Great Aunt of the wisdom of this choice, but also went to the trouble of finding an opening for Henry as an articulated pupil in a small

¹ The circumstances which brought Henry Fliess to Canada and those that led to his choice of career were related to the author in an interview with Henry Fliess on October 28, 1999. The interview was recorded on audiotape.

architectural firm.² It seems likely, then, that had it not been for Henry's Great Aunt's willingness to be persuaded to allow him to pursue a career in architecture and to financially support him while doing so, and the interest shown by his high school principal, Henry would not likely have become an architect. It should, perhaps, be noted here, that at this time in England, it was still more common for an architect to receive his training through a combination of formal education and articling, both of which required the payment of fees – not an insignificant consideration given the economic climate of the late 1930s.

The location of the firm where Henry Fliess articulated would also prove to be an important factor in the unfolding story of how he came to practice architecture in Canada. It was a small firm, located in a town called Deal, on the southeast coast of England, about nine miles from Dover. The office staff totaled four people, including the principal architect and the secretary. Fliess described his position there as “really a sort of handyman,”³ with the majority of his time being divided between colouring drawings and mastering a long since antiquated printing process.⁴ Two evenings a week, he took a train from Deal to the Margate School of Art, where a course in architecture was offered. He remembers this experience fondly, and recalls doing well. In contrast to this, he also took a correspondence course with a lecturer on architecture at the University of London,

² The principal's interest in Henry's career choice may have been a response to his own son's future in architecture, which had been tragically cut short by his death in the early days of WWII. His son's interest and activities does, at least, help to explain his awareness of Henry's potential for this field.

³ Henry Fliess, personal interview, 28 October, 1999.

⁴ The original drawing was draughted on a coated paper which, when finished, was mounted on a frame, then covered with a sheet of tracing paper. The print was made by direct exposure outside in the sun, and required some practice before one was able to determine how long the print needed to stay outside. On a bright day, it would be done in less than three minutes; on an overcast day, it could take fifteen minutes or more.

which he describes as “completely useless.”⁵ His dissatisfaction with the correspondence course indicates an early impatience for those who would disassociate the practical aspects of architecture from the ‘artistic’, as though it were only the latter which merited their consideration. This attitude was shared by many of his contemporaries and is indeed, to a large extent, responsible for the shift in focus in architectural thought at this time – i.e. the ‘functional’ approach to architecture.⁶ The influence of this approach on Fliess will be dealt with in detail later in this chapter.

And so it was in Deal, on the southeast coast of England, that Henry Fliess found himself when the Second World War broke out. In the aftermath of the German invasion of Holland, Fliess’ immigration status was changed from friendly to unfriendly, and he was interned by the British government.⁷ Some time later, Fliess was boarded onto a ship, along with other internees, and sent to Canada in response to that country’s offer to share the burden of responsibility for prisoners of war. It was not until the ship arrived on Canada’s shores that the Canadian government was informed that those on board were not in fact prisoners of war, but internees. It was another one of life’s accidents, then, that brought Henry Fliess to Canada, alone once again, and very far from the world he had known.

⁵Interview with Henry Fliess, October 28, 1999.

⁶The greater emphasis on the functional/programmatic component of architecture had its detractors, of course, and by the mid-1960s, there was a noticeable return to prominence of the more ‘artistic’ concerns of the discipline.

⁷Although he was initially classified as friendly due to his being a Jew who had fled Germany, it had been found in Holland, that people, who had been assumed friendly, were later found guilty of providing information to the Nazis. In addition to this, Henry Fliess’ location on the southeast coast was particularly risky due to its proximity to the continent and the necessity to call on those living on the East Coast to ferry soldiers back from Belgium. He holds no grievance toward the British government for his internment, believing they were justified in their actions, and stating with little hesitation that “they were right. They just couldn’t take any risks.”

Fliess remained interned in a camp in Canada for almost a year. Before anyone could be considered for release, there was a mandatory quarantine period in which everyone in the camp had to be examined, along with the necessary search for sponsors in Canada or the United States. If one was given a clean bill of health and one was able to secure a sponsor(s), they were given a choice between working for the war effort or returning to full time studies. Henry Fliess passed the physical requirements, and having relatives in Canada and the United States, had no problem securing sponsorship. His decision to return to full-time studies seemed an obvious one for him, having already begun his training in architecture in England.⁸

The role of the Canadian Jewish Congress in assisting refugees should be mentioned here, however briefly. They acted as a kind of clearing-house for information concerning study programs, employment opportunities, and temporary lodging facilities. For example, in Henry Fliess' case, they provided the necessary information about the University of Toronto's School of Architecture, including whom he should contact to apply for specific courses of study. They also provided for his interim lodging, and, of course, general moral support.

II. The University of Toronto's School of Architecture

Important insights into the development of Canadian architecture during the war may be gleaned from a quick study of the University of Toronto's School of Architecture course calendars. Through the school's introductory statements, and the changes made to

⁸ In hindsight, Fliess is thankful that he received his education at the University of Toronto.

its curriculum and staff, it is possible to trace the shifting emphasis from a program heavily weighted on the side of fine arts to one which had fully integrated a once optional component of structural engineering (1940-41). There is also the introduction of specialized lectures in town planning (1937-38) with its attendant phasing out of the more traditional 'landscape gardening' lectures (1946-47). Henry Fliess was in attendance when the curriculum had increased the number of lectures in town planning, while slowly phasing out lectures on landscape gardening, and so had the benefit of both.⁹ The 1943-44 curriculum saw the addition of a lecture course dealing exclusively with housing. The following is an excerpt from the description provided in the calendar: "Lectures are illustrated with slides showing housing of all kinds for people in the low income groups. In addition to studying actual houses or blocks of apartments, neighbourhood units and city plans will be examined in detail."¹⁰ The necessity for studying 'low income' housing within the larger context of the neighbourhood and the city is implied at the outset. The concern shown by architects for the design of 'low cost' housing at this time is the clearest manifestation of the moral imperative which may be said to be inextricable from any definition of the Modern movement in architecture. This new social conscience was, of course, not limited to the field of architecture.

With the world-wide collapse of unregulated capitalism at the close of the 1920s, 'laissez-faire' style pseudo-democracies based on the sanctity of individualism were called into question. This economic collapse created a kind of social chaos, resulting in

⁹ The significance of this overlap will become clear in the detailed analysis of his built projects.

¹⁰ University of Toronto Calendar, Faculty of Applied Science and Engineering, School of Architecture, 1943-44, 85.

some of the most oppressive regimes in history. It also brought about a wave of social conscience, the effects of which are still felt today. A new conception of human dignity began to work its way into the political rhetoric of the day, and with it came the introduction of new social policies. This may largely be attributed to a growing technocracy, or 'knowledge-class', who orchestrated an impressive propaganda campaign in the name of the 'less fortunate.'¹¹ Note for instance, the reworking of the curriculum's introduction in 1946-47 to include the following passage: "The scope of an architect's practice in the modern world is wide and varied. He may be called upon to design buildings ranging from houses to hospitals. He may be a town planner, and an expert on dwellings for the lowest income groups."¹² The specific reference to both town planning and housing for "the lowest income groups" is surely an indication of the new status these issues had won within the school's faculty at the time, and it is no mere coincidence that the first social housing project in the country was put to a vote in Toronto's municipal elections in January 1947, and was approved.

The stress on the 'social obligations' of the architect came to a head at the end of the 1940s, as is evidenced in the addition of the following to the introduction to the school's curriculum:

The staff of the School of Architecture feels that at the outset the student should have impressed upon him the duties and responsibilities that go with membership in the profession of Architecture. It is the clear knowledge of the implications of these obligations that, as in other

¹¹ This 'patriarchal' attitude toward an anonymous working class, has itself fallen into disrepute, as has the wisdom of western society's reliance on technocratic solutions, but this debate lies somewhat outside the scope of this study.

¹² University of Toronto Calendar, Faculty of Applied Science and Engineering, School of Architecture, 1946-47, 47.

professions like law or medicine, raises the status of the architect from that of the self-seeking individualist to that of the professional man.

Architecture is an art which brings the architect into touch with civic and other groups of citizens where his advice, often unrewarded financially, is needed. Many architects today are spending much time and energy on the boards of Art Galleries, Colleges of Art, Town Planning Boards, Housing Committees, and on Boards like that of the Canadian National Exhibition.

In most cases the satisfaction of assisting in a project that leads to the betterment or happiness of his fellow Canadians is his only, but very real, reward. The practicing architect likewise gives much of his time to his professional group, realizing that the higher the standard maintained by his profession, the greater will it be respected by the general public.¹³

The above was included in the 1949-50 calendar only, bearing testament to the new importance recently granted to the architectural profession - now having the status of its own school within the university - and to the idealism of its staff. It is also an indication of how this period's 'knowledge-class' viewed their role within society, that is, as benefactors.

When asked what he thought of his training at the University of Toronto, Henry Fliess responded, having given this question some thought over the intervening years, that "at the time [he] went through, the course was excellent as far as design was concerned, and [the] history of architecture, and the general theory of architecture."¹⁴ The one figure whom he credits with being largely responsible for this excellence was Eric Ross Arthur, the school's Professor of Architectural Design. It is not necessary, here, to go into detail about Eric Arthur's teaching or architectural career, except as it pertains to his direct influence on Henry Fliess and his contemporaries.

¹³ University of Toronto, School of Architecture, 1949-50, 17-18.

¹⁴ Interview with Henry Fliess, October 28, 1999.

Eric Arthur's forty year, unquestioned (though not 'official'), leadership of the Architectural Program at the University of Toronto, and almost equally lengthy period serving as the editor of the Journal of the Royal Architectural Institute of Canada, is well known to anyone who is familiar with the history of Canadian architecture.¹⁵ He has been credited with both spearheading the preservationist movement and introducing modern architectural principles into the heavily Beaux-Arts-biased architectural atmosphere of 1930s Canada. It may be said that Eric Arthur's greatest contribution to those studying under his guidance was an almost complete lack of professional jealousy. By this, I mean his unwavering curiosity about the work and ideas of others, and his enthusiasm for sharing this information; it is equally likely that this quality facilitated his widely admired design 'crits' and the longevity of his friendships with many of his most talented students. In addition to his influence in the studio, there were his lectures and reading lists, his initiation of an invaluable program of architectural study trips (1946), an invited guest lecture series, and an admirable acquisitions policy for international architectural periodicals.

Arthur should also be credited with the introduction of more specialized courses in 'town planning' in the 1937-1938 session, which was a remarkable example of far-sightedness on the part of the University of Toronto's School of Architecture. The problems of planning for the expansion of cities, particularly the provision of adequate new housing and communication routes, could hardly be said to have even begun to make

¹⁵ For a more detailed account of Eric R. Arthur's role in the development of Canadian architecture, please see Conservation in Context. Alec Keefer ed. (Toronto: Toronto Region Architectural Conservancy, 2001).

themselves felt at this time in Canada. Solutions to these problems were, however, being implemented in the United States and many European countries, and a wealth of knowledge and experience was to be gained if one were shrewd enough to tackle the subject. Thankfully, Arthur understood the implications of what was being attempted in these other countries and understood that the role of the architect in society was changing rapidly.

Humphrey Carver, another critical figure in Canada's twentieth-century architectural history, was the first to be hired by the School of Architecture (upon Arthur's recommendation) to provide this new series of lectures, and it was Arthur and Carver who would later, after the Second World War, work out the initial proposal to create a separate program in 'town planning' within the U of T's School of Architecture. Arthur related the story of their proposal's original reception by the then president of the University, Sidney Smith, in an interview:

We sent it to Sidney Smith and we finally made an appointment.... and he said he had read [the report] with great care and that he didn't want anything to do with it....He said, "I'm asked for all sorts of things, by people like yourselves. I haven't yet been asked for a course in interior decorating, and after my experience in Winnipeg, I wouldn't agree to it. I have been asked for a course in industrial design, [also by Arthur] and now this town planning thing," he said. "If I would agree to that", he said, "I know all kinds of things that would happen around here. The first person to come to me would be Eric Arthur asking for a course on fly-casting." Well, we went away sick at the stupidity of the man and his ignorance of values that he would put town planning on a plane with industrial design, let alone fly-casting. So, that was a very sad time. Carver went back to Ottawa and I went back to my job.¹⁶

¹⁶ Transcript of an interview of Eric Arthur by Elizabeth Wilson, undertaken as part of the Oral History programme of the University of Toronto, October 2, 1973. University of Toronto Archives, Toronto. B74-0025.

Humphrey Carver was formally trained in Britain as an architect, but decided shortly after his arrival in Canada in 1930 that he was more inclined to pursue a career in landscape architecture: “To design a landscape would be far more exciting than to design a building.”¹⁷ It was in this capacity that he found employment during the terribly lean years of the Great Depression, working on large public works projects that made extensive use of the federal government’s “work-relief” programs. The following passage taken from Carver’s autobiography, Compassionate Landscape, will provide the reader with a glimpse of the frustrations felt by the socially minded intellectual of the period:

I set out the scheme of earth-moving and planting for the work in Hamilton and I went over there on winter days to see men handling their spades like convicts, undernourished and forlorn. Though a more sophisticated age would rightly regard this kind of forced labour as an insult to men who had lost good jobs through no fault of their own, yet the system did have some merits. At least a man could tell his children afterwards; ‘I helped to make that place.’ But, through those sad and desperate years, it seemed incredible that the government of Canada could conceive no better way of sustaining the skills and the health of the victims of the depression; this gave to Canadians a special admiration for Roosevelt and the US Democratic party because the American ‘New Deal’ had a humanity to it that was not revealed by either the Liberal or Conservative leaders of Canada. With sadness in the heart I would come home in the evening to read about the greenbelt towns being started by Roosevelt or I would go to hear J.S. Woodsworth talking of the newly founded CCF (Co-operative Commonwealth Federation).¹⁸

Carver would become increasingly politically active during the 1930s as he took on more responsibilities as an advocate of subsidized housing and urban design. His career spanned from the early thirties through the 1960s, at a time when the population of

¹⁷ Humphrey Carver. Compassionate Landscape, (Toronto: University of Toronto Press, 1975), 28.

¹⁸ Humphrey Carver. Compassionate Landscape, 45.

Canada had doubled. His presence was ubiquitous within the housing debate of the period, having held positions at the University of Toronto's School of Architecture and School of Social Work, and then as head of the research division at CMHC for almost twenty years.

Urban design theories at this time were closely tied to a growing 'socialist' politics in Canada and elsewhere. Consider, for instance, the above mentioned 'radical' socialist policies of the prewar government in the US, with its New Deal and NHA programs, or Britain's London County Council housing projects. In Canada, during the same period, government policy remained staunchly conservative, while a growing technocracy were organizing themselves into various advocacy groups. These groups were beginning to generate the necessary political will for social change when the Second World War broke out. One of the more sophisticated groups formed in the 1920's was the League for Social Reconstruction (LSR), "the intellectual arm"¹⁹ of the Co-operative Commonwealth Federation. The LSR produced a newspaper and a periodical, the Canadian Forum, to disseminate their ideas. The Canadian Forum, published several articles by Carver on architecture and urban design, and he was at one time a member of its editorial committee. In 1935, Carver's first substantial essay, "A Housing Program," was published by the LSR among a series of essays on social policy in a book entitled Social Planning for Canada.²⁰

¹⁹ Humphrey Carver, Compassionate Landscape (Toronto: University of Toronto Press, 1975), 44.

²⁰ See K. Crossman, "Humphrye Carver: Looking Back," Architecture and Ideas, no. 1, Fall/Winter 1996, 30-39.

Carver's 1948 book, Houses for Canadians, though primarily dealing with the housing situation in the Toronto area, was again an attempt to lay the foundation for a housing policy at the national level. The book was the result of research undertaken immediately following the war at the request of the Director of the School of Social Work at U of T. The underlying principle behind this work - one which was only beginning to take hold in the Canadian imagination - was an equating of the ideal of "a decent home for every family"²¹ with that of a progressive democratic society. It was Carver's contention that this principle must lie at "...the very basis of our national life," for without such provision, how was Canada going "to raise the crop of healthy young Canadians on whose mental and physical health the vigor of the nation depends?"²² This was by no means a new idea. Its history goes back at least a century or more, but it had not yet taken root here in Canada.

Both Humphrey Carver and Eric Arthur were heavily involved in the early days of the housing and urban design debate in Canada: Arthur, through direct influence over the School of Architecture's curriculum, through his editorial leadership of the RAIC Journal, his co-authorship of the Bruce Report,²³ and as a member of the Sub-Committee on Housing and Town Planning.²⁴ Carver was more widely influential through his articles in Saturday Night, the Canadian Forum, the RAIC Journal, and as a founding

²¹ The title of Chapter One of Houses for Canadians: A study of Housing Problems in the Toronto Area, (Toronto: The University of Toronto Press, 1948).

²² Carver, Houses, 17.

²⁰ The Bruce Report (1934) documented the dismal state of Toronto's housing stock, and concluded that immediate government intervention was required to rectify the situation.

²⁴ The report of this Sub Committee was part of a larger undertaking by the federally appointed Advisory Committee on Reconstruction formed in 1941.

member of the Housing Centre,²⁵ and as the principle author of Houses for Canadians.

The main thrust of this vigorous advocacy campaign was to convince all those in a position of power or influence of the need for a greater understanding of the complexities of a rapidly expanding urban society. More specifically, in the case of Arthur and Carver, it was a plea for a more humane approach to the administration and design of our cities.

It was this plea which had such a profound influence on Henry Fliess and his contemporaries (e.g. James Murray, Jack Klein and Henry Sears).

Humphrey Carver left his position at the School of Architecture just as Henry Fliess began his studies there in January 1942; and upon Carver's release from war service,²⁶ he accepted the above mentioned position at the School of Social Work. This being said, however, his influence was most assuredly felt through those who had heard his course lectures, and read his numerous articles - most notably through James A. Murray. James A. Murray graduated from the University of Toronto's School of Architecture only a few years ahead of Henry Fliess, and remains a somewhat indeterminate figure in the history of Canadian architecture. His participation in so many activities of significance in the two decades following the Second World War has made his personal contribution difficult to assess; it remains an area worth further study. Given

²⁵ The Housing Centre served as a drop-in-centre for those concerned with housing issues, exhibiting photographs of Toronto's delapidated 'shacks' beside examples of the new European and US social housing, similar to those pictured in Carver's articles at the time. The space was taken over by the RCMP after the war broke out in 1939.

²⁶ Carver was part of a team set up by the armed forces to carry out a systematic psychological assessment of recruits in an attempt to minimize the disastrous carnage of war, by sifting out the 'leaders' from 'the followers.'

its scope, this thesis can only touch on some of his more ambitious projects in as much as they relate to Henry Fliess.

James Murray became a lecturer at the School of Architecture the year following his graduation (as Henry Fliess did later), while Humphrey Carver was still on staff. Carver and Murray shared many concerns about the role that architects and planners could and should play in the building of Canada's future 'communities.' Carver was also among the small group who bought a house in a co-operative housing community designed by Murray in the Leaside area of Toronto.²⁷ This friendship was extended to Fliess as a friend and collaborator of Murray. This group stayed in touch and continued their exchange of ideas after Carver took up his post in Ottawa. The nature and extent of the relationship between Humphrey Carver, James Murray and Henry Fliess is a critical element in the present argument, for it is this relationship, continued over many years, that helped to foster the postwar collaborative spirit between 'architect' and 'government,' which generated the favourable conditions necessary to realize experimental housing projects here in Canada.

The use of the term 'experimental housing' is deliberate. It is of critical importance to view the housing developments under examination here in terms of case studies in a research project aimed at finding the means to create a humane built environment. They can not be usefully analyzed in isolation from each other or from the

²⁷ This house was destroyed by fire days before Carver was scheduled to move in. This incident, along with the recent death of his first wife, prompted the fateful trip to Ottawa where he was offered his position at CMHC.

larger context within which they were created. And it is as case studies, that the lessons to be learned will make themselves clearest.

III. The Housing and Urban Design Debate.

i) Influential Texts

Beyond the first-hand influences from figures like Eric Arthur and Humphrey Carver, there were the critical theoretical texts of the day that helped to shape Henry Fliess' approach to housing and urban design. Of particular interest are the writings of Ebenezer Howard, Lewis Mumford, Catherine Bauer, and Sigfried Giedion. One important qualification should be noted here, and kept in the reader's mind - the arguments presented by the above in their writings had first to convince their contemporaries, who then shared these convictions with their students. The 'evangelical' quality of this process is significant. Like other 'prophets' of the modern movement in the first half of the twentieth century (e.g. Le Corbusier, Walter Gropius, Frank Lloyd Wright), these writers were fighting for a *new vision* of the world, a vision which, in order to be realized, meant the acceptance of a different kind of social order. The common thread in all of their arguments was the vision of a world where beauty and civic freedom was everyone's domain.

More than any other single work, Ebenezer Howard's Garden Cities of To-morrow²⁸ changed the course of twentieth-century urban design. It is a curious fact that this book was misunderstood by many, and never would result in the creation of a true

²⁸ Originally published under the title To-morrow: a Peaceful Path to Real Reform in 1898, a title, which was certainly less catchy, but clearly revealed the goal of its author.

Garden City, but nevertheless inspired a belief in a whole generation of architects and planners that a new paradigm for organizing society was possible.

Howard believed the most practical means of achieving social reform was to literally create a new mechanism for social organization, that is, to create a totally new kind of city. This 'Garden City' would be created on land purchased "*before* a new value is given to it by migration"²⁹ by a small group of upstanding and like-minded individuals to be held in trust in perpetuity for the community as a whole. Community ownership of land was fundamental to Howard's Garden City concept. It was the generating principle behind his proposal, which he believed would inevitably lead to a solution to the capitalist vs. socialist debate, for as Howard argued – land is the only enduring form of wealth.

Howard was also concerned with uniting what he believed were the positive aspects of town and country life, and it is this combination of attributes which guided the proposed physical and social organization of his Garden City prototype (fig. 2). The framework for the concept of Garden City was also not surprisingly a combination of proposals,³⁰ each contributing a fundamental principle: i) an organized migration of population; ii) a communal system of land tenure based on the doctrine that "all men are equally entitled to the use of the earth;"³¹ and iii) a town of limited size surrounded by an agricultural belt.

²⁹ Ebenezer Howard, Garden Cities of To-morrow, (London: Faber and Faber, 1960), 75.

³⁰ Howard, Garden Cities, 119.

³¹ Howard, Garden Cities, 125.

Fig. 2

The great majority of Howard's argument was occupied with proving that his proposal was economically viable, taking great pains to show how the initial purchase of the land would be financed, how the necessary revenues for the ensuing infrastructure would be raised, and equally crucial to his proposal, how those who chose to migrate to Garden City would earn their living. These details in themselves are not directly relevant to the present argument, but many of the generating ideas behind his proposed structure for the *planned* and *controlled* growth of Garden Cities is of great import to the history of twentieth-century housing and urban design. It is therefore advisable to relate a few of the more significant principles put forward by Howard to provide the reader with at least a hint of his wide scope of influence. The first relates to the necessity and complexity of urban design in general:

An element of economy which will be simply incalculable...is to be found in the fact that the town is definitely planned, so that the whole question of

municipal administration may be dealt with by one far-reaching scheme. It is not by any means necessary, and it is not, humanely speaking, possible, that the final scheme should be the work of one mind. It will no doubt be the work of many minds – the minds of engineers, of architects and surveyors, of landscape gardeners and electricians. But it is essential, as we have said, that there should be unity of design and purpose – that the town should be planned as a whole, and not left to grow up in a chaotic manner as has been the case with all English towns, and more or less with the towns of all countries. A town, like a flower, or a tree, or an animal, should, at each stage of its growth, possess unity, symmetry, completeness, and the effect of growth should never be to destroy that unity, but to give it greater purpose.³²

It is this understanding of urban design as a creative and collaborative process, and his premise that urban form should grow organically, that is, in a unified purposeful manner, which so captivated urban reformers, most notably, Lewis Mumford. Another critical planning principle put forward by Howard was his concept of “Social Cities”. Once the initial experimental Garden City had grown to its prescribed capacity, any further growth would occur through the establishment of another city, and so on, until there were created a “cluster of cities” which “would enjoy all the advantages of a great and most beautiful city; and yet all the fresh delights of the country ... would be within a very few minutes’ walk or ride.”³³ Here then, we have the marriage of positive attributes of town and country life (fig. 3). The British ‘New Towns’ of the post-war period³⁴ would never have been imagined without the initial dissemination of Howard’s principles through the

³² Howard, *Garden Cities*, 76.

³³ Howard, *Garden Cities*, 142.

³⁴ A ‘New Town’ is defined as a “new, essentially self-sufficient settlements, built in a previously undeveloped area, which provide residential, commercial, industrial, educational, recreational, and public facilities” by the *Getty Art and Architecture Thesaurus*, New York, 1994.

establishment of the Garden City Association, and its later incarnation, the Town and Country Planning Association.

Fig. 3

Howard also made the following very practical observation. It relates directly to the ability of his proposed city to exercise control over the development of its lands:

Garden City is in a greatly superior position, for, by stepping as a *quasi* public body into the rights of a private landlord, it becomes at once clothed with far larger powers for carrying out the will of the people than are possessed by other local bodies, and thus solves to a large extent the problem of local government.³⁵

Anyone who has been involved in local planning politics, or who has done research on the subject will immediately recognize the utility of the above, for it has become painfully clear that having a master plan for a city or town, and enforcing one, are two very different problems. There is as yet another advantage that would result from a

³⁵ Howard, Garden Cities, 93.

municipality having legal possession of its lands, and that is the significantly lowered cost of municipal improvements and the development of community services, for it would be neither necessary to pay the price charged by a speculative real estate broker for the necessary 'properties', nor would it be necessary to pay compensation and the attendant legal fees to those "disturbed" by these improvements.³⁶

Also worth mentioning here is that underlying Howard's concept of the Garden City was a pragmatic attitude toward the crucial determination of the extent of communal and individual enterprise, as he attributed the failure of previous attempts at social reform to a lack of balance between these two civilizing elements. The extraordinary simplicity of his answer to this question of extent is both baffling and irrefutable: "Its extent will be measured simply by the willingness of the tenants to pay rate-rents, and will grow in proportion as municipal work is done efficiently and honestly, or decline as it is done dishonestly or inefficiently."³⁷ It is this kind of straightforward and 'logical' assessment of urban and rural issues that made Howard's Garden City argument so compelling, inspiring experiments first in Britain, and then spreading to the United States, Germany, Switzerland and Scandinavian countries after the First World War. Each of these experiments, however, were only ever partial, due in part to the differing cultural contexts, and to the difficulty in resolving the legal and financial issues inherent in the creation of a new form of municipal government and land tenure.

³⁶ Howard, Garden Cities, 73.

³⁷ Howard, Garden Cities, 91.

Henry Fliess' attitudes toward urban design were heavily influenced by the principles laid out in Howard's Garden Cities of To-morrow, although indirectly,³⁸ through the more numerous and forceful writings of Lewis Mumford, to whom Fliess credits his appreciation of the importance and complexity of cities. Mumford's writings were widely published in architectural and planning journals from the 1920s through to the 1970s, and performed a vital role during this period of unwieldy urban expansion. He provided one of the only voices against modernism, as it was *practiced* in urban design, and argued for a more critical view of technological 'advances' in terms of how they affected both the physical state of the urban environment and the mental state of those living therein. Mumford's critical eye no doubt helped many architects to look beyond the style debate, and to question many of the assumptions of modern architectural and planning practice. He was not alone in his advocacy for a more humane approach to city building, though he was arguably the most well-known and widely published critic on the subject.

Mumford's most famous work on this subject, The Culture of Cities, and its later expanded version, The City in History, studied the city as an archeological artifact, linking the development of 'civilized' society with that of the city. In so doing, he argued for the *continued* relevance of cities as the natural centre for purposeful social interaction and co-operation. His argument did not, however, again like Howard's, specify any particular *form* which cities should adopt, but suggested instead a new pattern of

³⁸ It is unlikely that Fliess would have read Howard's book until some time after it was reissued in [1949?] by Faber and Faber, London.

development which aimed at maximizing the benefits of both rural and urban environments. He did not, as some have suggested, advocate the blurring of one into the other, but the opposite – a clear demarcation of one from the other in order to safeguard the continued existence of both. He was not concerned with issues of style or “in how a city” ought “to look.”³⁹ What preoccupied Mumford and Howard were issues of a much more philosophical nature – they were concerned with securing a better ‘quality of life.’⁴⁰

To mistake Lewis Mumford’s critique of the state of cities for an argument against their existence would be to miss the point of his work entirely. This misconception, and its unfortunate result, is not unlike the missed opportunity held in Howard’s concept of the ‘Garden City,’ which, due to expedience or ignorance, became synonymous with low-density or ‘garden suburb’ developments. This misunderstanding has limited the debate concerning alternative means of structuring urban centres, and has given false credence to advocates both for and against ‘decentralization.’

Mumford’s arguments largely revolved around issues of access: to light, fresh air, privacy, recreational space, transportation, places of work, and other types of community facilities. Then, as now, access was largely dependent upon affordability, and hence its connection to socialist politics.⁴¹ It also seemed clear to many early ‘town-planning’ theorists that access could be directly correlated with population density. It must be kept

³⁹ Jane Jacobs, *Death and Life of Great American Cities* (London: Jonathan Cape, 1962) 14. Originally published in the United States in 1961.

⁴⁰ Admittedly, such a determination is both relative and subjective, though it seems significant that the United Nations has continually attempted to determine the ‘quality of life’ of different nations as a means of ranking the best places to live.

⁴¹ Henry Fliess, however, did not wish to get entangled in political debate, choosing instead to concentrate on finding the means to make private and public sectors work more closely together in the interest of better design.

in mind, however, that while Mumford wrote about the virtues of decentralization, of spreading out industry and population, he did not deny the central position of existing urban centres, and he was one of the first to be highly critical of the trend toward suburban sprawl. His argument was with what he called the ‘megapolis’, a state of urban environment, which results whenever “the city continues to grow inorganically, indeed cancerously, by a continuous breaking down of old tissue, and an overgrowth of formless new tissue.”⁴²

Mumford’s use of biological metaphors to describe the form and growth of the city reflects his understanding of the city as a living organism, and informs his choice of the term ‘cellular city.’ The term ‘cellular’ implies many of the characteristics he believed to be integral to his concept of the city: i) having a specific composition or makeup; ii) having a limited cycle of physical growth; iii) having the potential to reproduce itself; and iv) the nature of cells as autonomous building blocks of a larger more sophisticated whole. At the heart of his, and like-minded arguments, was the belief that there was an ideal size of city, large enough on the one hand to support the local economy and a variety of community services, and on the other, small enough to provide *easy* access to ‘natural’ recreation space. When an individual city ‘cell’ grew to be too large, it should reproduce itself, several times if necessary, forming what Howard called “Social Cities,” politically and culturally affiliated, and connected together by modern forms of communication (fig. 4). In this way, by pooling their resources, this “cluster of

⁴² Mumford, The City in History, 543.

cities....could enjoy all the advantages that a single unitary city [of similar population] could make possible.”⁴³

Fig. 4

Whether or not we are better off not having adopted this model for city growth is a moot point. The continued spread of urban areas in the form of suburban sprawl, however, seems to garner unanimous condemnation. The blame for this twentieth-century phenomenon is said to rest almost solely on North America's love affair with the automobile - an invention Henry Fliess decried. The impact of the car on twentieth-century city development was foreseen by Mumford as early as 1925, when he wrote the following in an article entitled "The Fourth Migration:"

Mark the contrasting type of development brought in by the automobile. The motor road does not depend upon concentration of population for its upkeep; indeed, instead of concentrating on main highways or trunk lines, the motor highway system is best kept up, without heavy wear and tear on

⁴³ Mumford, *The City in History*, 520.

the one hand or practical disuse on the other, by spreading the load of traffic and taxes. The tendency of the automobile, in other words, is within limits to disperse population rather than to concentrate it; and any projects which may be put forward for concentrating people in Greater-City areas blindly run against the opportunities the automobile opens up.⁴⁴

At this time, of course, the effectiveness of the automobile in dispersing the population over greater and greater areas was not yet even imagined. Nor was the extent of the sacrifice of other forms of transportation and social amenity in order to satisfy the demands of the automobile commuter (fig. 5). Due to its initial promise of mobility, Mumford had hoped that the automobile would provide the means to rob our larger metropolitan centres of their monopoly on industry and the consequent 'imprisonment' of its working population.

Fig. 5
Boston, construction of expressway

Arguments against the concentration of populations (and power) in urban centres were largely reactionary at this time, with much of the urban fabric dating back to the

⁴⁴ Lewis Mumford, "Preface: The Fourth Migration" *The Urban Prospect*. (New York: Harcourt, Brace & World, Inc., [1968?]), xvii. This article was originally published as the Preface to the Regional Planning number of the *Survey Graphic*, May 1925.

previous century. However, by the middle of the twentieth century, little remained of the previous urban order: the cores of many American cities were already being abandoned for cheaper and greener pastures beyond; whole city blocks were leveled and replaced by monolithic buildings with little or no reference to human scale, and the spread of the population into dormitory suburbs, indistinguishable, one from the other, presented a new kind of environmental blight. A condition which Mumford summed up with his usual acumen: "Instead of buildings set in a park, we now have buildings set in a parking lot."⁴⁵ The issue, again, is one of accessibility:

The suburb needed its very smallness, as it needed its rural background, to achieve its own kind of semi-rural perfection. Once that limit was overpassed, the suburb ceased to be a refuge from the city and became part of the inescapable metropolis, 'la ville tentaculaire,' whose distant outlying open spaces and public parks were themselves further manifestations of the crowded city. This fact will not cease to be true even if jet transportation brings an area twelve hundred miles away as near as one sixty miles distant today. For when one conquers space one also increases the populations to whom that distant space is accessible. The prospective net gain is considerably less than zero.⁴⁶

According to Mumford, our continued fascination with and implementation of new technologies in a seemingly endless quest to speed up mechanical and human processes without reference to human ends has, in the end, resulted in no substantive gain in our 'quality of life.' And until we, as intelligent and sentient beings, begin to consider human purposes and no longer pursue technological 'advances' as ends in themselves, our cities will continue to erode, and with it, civilization itself. Again, I would caution the reader to remind himself/herself of the context in which Mumford was writing. Two world wars

⁴⁵ Mumford, The City in History. Its Origins, Its Transformations, and Its Prospects. (New York: Harcourt, Brace & World, Inc., 1961) 506.

⁴⁶ Mumford, The City in History, 505.

and the employment of atomic weapons against civilian populations had, very understandably, increased the fervor with which he argued for change. Mumford's unabated attack upon those mechanisms of modern planning practice that he believed had lost sight of the 'big picture', that is, the procurement of a more humane built environment, had a significant impact on Fliess' approach to urban design, and may be credited with enlisting in Fliess a greater appreciation for the complexity of factors that govern the 'livability' of our built environment including social, physiological and psychological considerations.

Catherine Bauer, a student of Lewis Mumford, was more specifically interested in the study of multiple housing design, and wrote one of the most comprehensive texts dealing with housing issues before the Second World War. Published in 1934, Modern Housing provided invaluable documentation on numerous housing projects and housing related legislation from several European countries, and, as the title suggests, attempted to define a new paradigm for housing. Her new model was based on the following principles:

This new housing method recognizes that the integral unit for planning, the economical unit for construction and administration, and the social unit for living, is the complete neighbourhood, designed and equipped as such. A modern housing development does not, therefore, constitute a mere mechanical extension of streets and agglomeration of individual, competitive dwellings. It has a beginning and an end, and some sort of visible organic form. One part is related to another part, and each part serves a particular, predestined use. It can never deteriorate into a slum, or a 'blighted area,' or a case for expensive remedial 'city planning.'

Moreover, modern housing provides certain minimum amenities for every dwelling: cross-ventilation, for one thing; sunlight, quiet, and a pleasant outlook from every window; adequate privacy, space, and sanitary

facilities, children's play space adjacent. And finally it will be available at a price which citizens of average income or less can afford.⁴⁷

The above should be thought of as the cumulative product of ideas from several prominent thinkers on the subject of urban design, including Ebenezer Howard, Patrick Geddes, Raymond Unwin, Thomas Adams and Lewis Mumford. It is also the considered response of someone who had spent several years studying numerous European housing projects, whose successful realization of many, if not all, of the above criteria, supplied ample evidence that similarly inspired schemes could and should be achievable elsewhere. But before any such scheme was even conceivable in the United States (or Canada), a fundamental shift in attitude would be necessary – housing had to be reconceived by the public and its representative government as a public utility.⁴⁸

The first part of Bauer's text is devoted to a methodical analysis of the various causes and effects of industrialization and its impact on nineteenth-century urban centres.⁴⁹ This is followed by a brief history of nineteenth-century housing reform legislation and of some of its visionary 'town planners.' Armed with this new understanding, she studied the housing reforms that had taken place in several European

⁴⁷ Catherine Bauer, Modern Housing, (Boston: Houghton Mifflin Company and The Riverside Press, Cambridge, Massachusetts, 1934), xv.

⁴⁸ The success of this reorientation in Canada has been very limited, due, in part, to a lack of understanding of the critical role community ownership of land played in the successful planning of communities, and, in part to the competitive nature of our various levels of government. Culturally, too, any such gestures of paternalism would be considered suspect in the minds of a population who had largely fled from countries which tended toward centralized control of people and resources.

⁴⁹ The force of her views on capitalist dogma should be viewed in the context of one who was writing during the Great Depression.

countries after the First World War. She looked at steps taken by individuals and governments, assessing their relative merits and successes according to the principles of *modern housing*, and to their practicability in the American context.

Fig. 6
New York tenements, late 19th century

One of the chief causes of urban blight, according to Bauer (and many others, notably Thomas Adams and Raymin Unwin) was real estate speculation. This practice was seen as so pervasive in a period of rapid urban expansion that it literally dictated the layout and form of cities and towns (fig. 6).

The only thing for which the mechanical undifferentiated gridiron-layout was ever really good for (with its hills leveled off and its valleys filled in), indeed, the only thing for which it was expressly designed, was facility in the sale and resale of front-foot lots.⁵⁰

The effects of this kind of limited 'planning' went far beyond that of visual monotony. By virtue of its unquestioned acceptance by municipal authorities, land and those living and working upon it, became the subjects of speculation. The result was a predictable

⁵⁰ Bauer, Modern Housing, 24.

cycle of urban blight and renewal; the latter increasing in cost as land became overdeveloped. The problem, again, was seen largely in terms of control over land use, and the most widely accepted solution was community ownership. According to this theory, once communities had proprietary control of their land, it would be possible to regulate the density, siting, and quality of new urban development. It would then be possible to avoid wasteful expansion of services, prevent the speculative rise in the price of land, and prevent isolated pockets of housing with limited access to places of work and recreation.

Fig. 7

Maximum Density in Berlin: 3 Stages.

Proof of the effectiveness of this theory in practice was supplied by Germany: “the fact that both speculative prices and speculation itself have been greatly reduced, in some

cases practically eliminated, in post-war Germany is due almost entirely to the development of municipal land-purchase and housing policies.”⁵¹ (fig. 7) The realization of *modern housing* would likewise only be possible in America if similar steps to limit speculation were taken. The German example also highlighted the possibilities of co-operative ventures in both the finance and the construction of *modern housing*, and after the First World War, other European countries followed suit. Bauer’s examination of various types of co-operative housing projects, and their enabling legislation, essentially provided the North American housing movement with sufficient ammunition with which to launch a serious attack against those who maintained that the provision of housing was not a public concern (see Appendix A). Modern Housing remained *the* authority text on the subject for decades, and, when students like Henry Fliess wished to expand their understanding further with travel, it proved to be an invaluable reference.⁵² The points so far noted concerning the influence of Catherine Bauer’s study of European housing are by no means comprehensive, but they should suffice in arguing for its inclusion as a pivotal text of the period under consideration, and as main source of information on housing which guided Henry Fliess’ education on the subject.

Sigfried Giedion’s famous text, Space, Time and Architecture, also argued for the creation of a new paradigm for the design of urban centres. As the period’s definitive text on modern architecture, it gave to the modern movement the academic legitimacy of a

⁵¹ Bauer, Modern Housing, 25.

⁵² For example, Henry Fliess’ trip to the Neubühl housing development in Switzerland. I have not been able to find any other direct reference to this housing development outside of Bauer’s text, although it could have appeared in one of the Swiss articles on Zurich’s new housing. It does appear frequently, however, in texts dealing with modern architecture published two or more decades later. See bibliography under “Other Countries: Post-war Housing,” in Modern Housing, 323.

new renaissance by tracing its roots back in history, and by defining the “constituent facts”⁵³ that made up the new ‘spirit of the age.’ In the foreword he writes: “Space, Time, and Architecture is meant for those who are alarmed by the present state of our culture and anxious to find a way out of the apparent chaos of its contradictory tendencies.”⁵⁴ That our culture was in need of ‘saving’ does not seem to have been a point of argument, but an assumed condition. The Introduction also confirms the new place given to housing and urban design within modern architectural debate.

My activities have brought me into friendly contact with the architects of our day. We have sat together in small groups about many tables in Europe, from Stockholm to Athens – not to discuss problems in art or matters of specialized detail but to determine as clearly as possible what directions housing, town planning, or regional planning had to take.⁵⁵

It was Giedion’s contention that: “Architects today are perfectly aware that the future of architecture is inseparably bound up with town planning” and that “the interrelations between house, town, and country, or residence, labour, and leisure, can no longer be left to chance.”⁵⁶ Architects, in other words, needed to respond to the rapidly changing built environment as a whole, and this meant taking on new roles and learning new skills.

⁵³ According to Giedion, art history may be seen to be made up of “constituent facts” and “transitory details”. The former provides us with the key elements in the development of a new paradigm, while the latter disappears from our accounts of history as just one of so many fleeting trends. See page 18-19 for a more detailed explanation, in Sigfried Giedion’s Space, Time and Architecture: the growth of a new tradition. Eighth, enlarged printing of original text first published in 1941. (Cambridge, Mass.: The Harvard University Press, 1949).

⁵⁴ Giedion, Space, vi.

⁵⁵ Giedion, Space, 4. He is likely referring here specifically to his involvement with the highly influential architectural association, CIAM, for which he acted as Secretary for many years.

²¹ Giedion, Space, 25.

⁵⁶ Giedion, Space, 25.

The necessity for architects to explore the expressive potential offered by new construction materials and techniques also weighed heavily in Giedion's analysis of the future of modern architecture. A whole new scale of construction became possible with the introduction of reinforced concrete and steel, and a very different conception of space was the result. Add to this, accelerating means of communication and its attendant 'collapsing of space' in time, and it became clear that the Renaissance tools for manipulating and understanding three dimensional space could no longer sufficiently describe modern conditions. In the first instance, structures became too large to be grasped from a single point of view, or in a single moment, and their means of support were no longer physically or immediately apparent (fig. 8).

Fig. 8
Paris, Palais de l'Industrie, 1889

In the second instance, the pedestrian lost validity as a point of reference in determining the scale of buildings, streets, and cities. Giedion contended that architects, if they were

to remain relevant in this new age, needed to take up the course already begun by the structural engineer, the mathematician, the scientist, and the painter – they had to discover a means to express the new ‘spirit of the age’ in the design of our built environment.⁵⁷

Fig. 9
Versailles, site plan, Le Notre and Le Vau, begun 1664

His explanation of the formal evolution of the modern movement inevitably becomes tangled up in a discussion of style, which is not my concern here. Giedion’s exploration of the development of a different kind of relationship between the built and

⁵⁷ It is interesting to note in hindsight that it is the apparent irrelevance of the pedestrian scale in much of the urban development dating to the decades following WWII that is now so vehemently criticized by both laymen and design professionals.

the natural environment, however, is of great interest to the present argument. According to Giedion, this new relationship was first made manifest in the planning of Versailles (fig. 9), where “an immense complex of buildings...has been directly confronted with nature; the grounds are a real part of the structure itself...”⁵⁸ The architect, Louis Le Vau, and the landscape architect, Andre Le Notre had developed through the planning of Versailles,⁵⁹ a new kind of living environment where buildings and their grounds were viewed as having a reciprocal relationship. Giedion convincingly argued a case for the direct lineage of some of the more remarkable twentieth-century housing and urban designs from design developments in the Baroque period. For without Borromini’s introduction of “movement and flexibility”⁶⁰ into the design of buildings (1630s-1660s), and the later extension of the built environment to encompass the outdoors at Versailles (1661-1708); and the fusion of both aspects in the housing designs of Bath (late 1700s), urban designs like those of Le Corbusier for Algiers (1931) could not have been imagined. (figs. 10-13) Such a linear account of artistic development from one period to the next is, perhaps, over-simplistic, and is undeniably based on the western tradition of art historical ‘canons.’ It nevertheless offers some interesting historical precedents for the housing designs developed by post-war Toronto architects like Henry Fliess, for the evolution of housing and urban design, particularly that of Britain, was well covered by

⁵⁸ Giedion, *Space*, 72.

⁵⁹ The Vaux-le-Vicomte, also designed by Louis Le Vau and Andre Le Notre, was the precursor of and the direct inspiration for Versailles.

⁶⁰ Giedion, *Space*, 92.

Fig. 10
Rome, Church of S. Carlo alle Quattro Fontane,
plan of Final Scheme, Borromini, 1665-76

Fig. 11
Versailles, Palace and Gardens, bird's eye view, Le
Vau and Le Notre, c.1700

Fig. 12
Bath, Lansdowne Crescent, bird's eye view, William Thomas, 1830s

Fig. 13
Algiers, Obus Plan: model of Central Administration District, Le Corbusier, c.1932

the architectural history courses at the University of Toronto's school of Architecture, and would have been very familiar to Fliess and his fellow classmates.⁶¹

Urban theorists and architects were preoccupied during the first three decades of the twentieth century with finding a new paradigm for the continued viability of urban centres. The physical state of most cities, large and small, was lamentable, and perhaps more importantly, was thought to be preventable, and even reversible. The problems were generally agreed upon, but the solutions varied widely, and in some cases were contradictory. The planning schemes of Le Corbusier and Frank Lloyd Wright present the most obvious and well-known example of the latter.

One of the main points of contention within this debate – the extent or means of controlling density – was addressed by Giedion in his analysis of nineteenth-century urban design. In the following paragraph, he contrasts the different approaches taken by two of the fastest growing European cities, London (fig. 14) and Paris (fig. 15).

The London quarters condense and continue architectural experience going back to Renaissance times. Nevertheless they were as much the products of speculation as those later Continental residential blocks which brought chaos into the structure of the city. The difference was one of control. The contractors active during the reconstruction of Paris had to build facades according to Haussmann's requirements, but that was all. What lay behind was subject to no real control, and they adopted the quickest means to the largest profits. In their hands buildings became part façade and part light-well. In London a much more careful control was exercised by the great landowners on whose estates the buildings were erected. These owners were accustomed to reckoning in terms of hundreds of years. The land and everything on it usually reverted to them in not more than ninety-nine years. Knowing very well that estates could be destructively exploited, they retained in their leases control over the

⁶¹ It is worth noting that E. Arthur's third year architectural history course covered English architecture from the Renaissance to the modern period. The list of reference books included two texts dedicated to the history of the English house, a more general survey, and, of course, Space, Time and Architecture.

Fig. 14
London, Kensington, aerial view, 1830-40

Fig. 15
Paris, Boulevard Richard-Lenoir, planned by
Haussmann, 1861-63

utilization of the ground, and their trustees had the power to undertake maintenance work in cases of neglect.⁶²

The significance of this idea of control over the utilization of land has been argued successively by individuals concerned with urban design, from Ebenezer Howard, to Thomas Adams, to Humphrey Carver. Howard argued for community ownership of land, for the reasons stated above, and as means of ensuring the long term stability of a community by ridding itself of the social inequities inherent in the tradition of the 'great landowners.' Thomas Adams' argument, though much less revolutionary, strongly advocated some kind of authoritative control over the utilization of land as a means of preventing areas of wasteful expansion on the one hand, and "blighted areas"⁶³ on the other. Humphrey Carver championed aspects of both of his predecessors' arguments, believing that some community ownership, as well as legislating the means for better planning were both necessary to promote healthier communities.

There is one other significant analysis presented in Giedion's coverage of late eighteenth and early nineteenth-century urban design that may have strongly influenced Henry Fliess' understanding of what 'good' urban design entailed. According to Giedion, the success of London's squares should be attributed to three interrelated design considerations: i) the critical position given to the design and proportion of green spaces; ii) the stress on the inconspicuous design of the housing; iii) the wise

⁶² Giedion, *Space*, 521.

⁶³ Thomas Adams, *The Design of Residential Areas. Basic Considerations, Principles, and Methods* Reprint of the ed. published by Harvard University Press, Cambridge, which was issued as v. 6 of Harvard City Planning Studies. (New York: Arno Press, 1974), 30.

“distinction between what must be private and what is best held in common.”⁶⁴ These considerations will be shown to play very heavily in the success of Fliess’ best housing projects.

ii) Henry Fliess Joins the Debate

Henry Fliess’ fifth year thesis, entitled “The Social Aspects of Town Planning,” argued for an immediate shift in how planners viewed their contemporary urban environment, and called for an end to nostalgic arguments aimed at preserving the status quo:

We must recognize the seriousness of this situation, we must realize that in order to rectify it we must do more than the laying out of parks, the cutting through of new highways, and the undermining of the city with subways. Only the most radical changes can transform this agglomeration of buildings into livable social units which we can truly call the city. The changes that must be made will have to be far-reaching; they will of necessity conflict with existing values and institutions, but new values will have to be created. Only those values that promote life and healthy social association concern us; all the old institutions and values that have no basis except for the fact that they exist and have existed for centuries, must be thrown overboard.⁶⁵

What were the radical changes Fliess had in mind? Before answering this question, the criteria used in coming to the above conclusion should be examined. The main subject of study used to determine the deteriorating social conditions within urban centres was the family ‘unit.’ Declining birthrates, and increasing rates of juvenile crime, marriage and mental breakdown, statistically proved that the existing conditions of the urban environment were detrimental to ‘family life’. Fliess contended that a lack of

⁶⁴ Giedion *Space*, “The Dominance of Greenery: The London Squares,” 508-528.

⁶⁵ Fliess, “The Social Aspects of Town Planning,” *RAIC Journal*. 24: 5, (May 1947) 169.

primary relationships was largely to blame, and that the existing urban order, both physical and psychological, was predisposed to the creation of secondary and peripheral relationships. According to Fliess, the very scale of, and imposed mobility within our larger urban centres made the cultivation of primary relationships improbable if not impossible: "Not only are the urban dweller's recreational and political activities pursued through the medium of impersonally organized agencies but even the means of gaining his livelihood are almost entirely on an impersonal basis."⁶⁶ The result, he concluded, was a general lack of connection to both people and place - the very ingredients necessary for the generation of community pride and responsibility. The remedy he proposed was, not surprisingly, thought to be found in the physical and social makeup of the small town or 'community,' where "the relationship between members of the family, between master and servant, between neighbours, shopkeeper, minister, and teacher are of the most intimate and lasting type, and almost all-inclusive;"⁶⁷ and where "social control arises spontaneously and in response to neighbourly scrutiny and pressure."⁶⁸ This description of small town life is admittedly prejudiced, but it serves to highlight a basic premise underlying his and like-minded arguments. This premise may be described as a kind of belief system, which holds that our environment is capable of shaping us, and conversely that we are capable of shaping our environment. From this, is it not reasonable to assume that we may import certain aspects of one type of environment into another in order to affect certain changes in behavior? One may not assume, however, that Fliess was

⁶⁶ Fliess, "Social Aspects," 165.

⁶⁷ Fliess, 165.

⁶⁸ Fliess, 165.

advocating a return to a 'time gone by'. What he was advocating was a conscious manipulation of our environment with very specific social goals in mind.⁶⁹ As has already been noted, the changes which were thought to be necessary were both physical and cultural, and as such were very difficult to procure.

The belief in the need to foster a sense of community, as a means to generate feelings of civic pride and responsibility, and as a 'natural' unit for planning purposes, was very popular at this time, as is evidenced by the title choice of the following planning bodies: the Community Planning Branch of Ontario (est.1944), the division of Housing Research and Community Planning, provided for in Part V of the National Housing Act (est. 1946), and the Community Planning Association of Canada (est.1946). The use of the term community also implies the central position afforded to the social aspects of the planning process, for as Fliess argued: "The town planner is no longer concerned merely with the planning of the physical amenities of the city... his preliminary concern has become the needs of the people."

In the conclusion of his thesis, Fliess presented what was essentially a summary of Howard's vision for the creation of a network or "cluster of cities", and represents a clear statement of allegiance to the group Catherine Bauer would later refer to as the "Decentrists."⁷⁰

⁶⁹ The effectiveness and the inherent danger of this kind of manipulation were well demonstrated by Hitler, though this fact could also be used to make a stronger case for the need to consciously decide what kind of society we wish to engender as a guard against any future infiltration of similarly destructive forces.

⁷⁰ Jacobs, *Death and Life*, 20. It is this very group which Jacobs derides in this now famous text. Her argument was leveled against this 'anti-city' movement which she compared, in her introduction, to "physicians [who] put their faith in bloodletting." 12.

All the disrupting social influences are directly related to the size of the city. We must prevent the growth of cities beyond undesirable limits, and we must decentralize those cities that have outgrown themselves and cannot successfully be transformed by re-planning of their existing structure. This decentralization must, of course, be planned and controlled and should take place in the form of satellite and garden cities, which are separated from the city and each other by agricultural belts, and clearly recognize the demarcation between country and city. From the purely human point of view of living in a healthy environment, the satellite town of 30,000, to 60,000 people is an ideal environment. Such a town has the advantages of city life without the loss of its association with a rural environment, and though it is a self-contained unit with all the facilities for living, working, and play within its limits, yet it is close enough to the large city to take advantage to some extent of its greater commercial and cultural facilities.

It seems clear from Fliess' argument that his chief concern was to provide a more sympathetic environment for family life. For Henry Fliess, this translated into a desire to design *and* build 'modern housing' developments in Canada. In order to realize this desire, conditions at the time would, more likely than not, require the enlisting of private capital to develop privately owned land. This concession did not mark a weakening in his resolve for change. He pursued the creation of better housing within existing social and economic conditions, while continuing his investigations into the possibilities offered by the various kinds of housing developments featured in Bauer's book.

Fliess' continued allegiance to the principles expressed in his thesis is evidenced by his firm's involvement in the planning of Century City, a satellite city for 150, 000 people;⁷¹ his firm's heavy involvement in co-operative housing projects when the Canadian government finally encouraged their use (twenty years after Fliess' thesis

⁷¹ Notice the rise in the number of inhabitants from the proposed ceiling of 60 thousand people in his thesis to 150 thousand. This figure needed to be reconsidered after the significant rise in the population of North America a mere two decades after the end of WWII.

argument was published in the RAIC Journal); and his lifelong commitment to developing new forms of medium density housing (i.e. sustainable development) that could better accommodate a family's needs and desires. He has also voiced his disappointment in the lack of leadership and vision, at all levels of government, for not having taken greater advantage of the possibilities that would have been made practicable through a commitment to communal or municipal 'land-banking.' The greater public amenities made available, particularly open recreation spaces, through such a commitment was well demonstrated in many European cities early in the twentieth century – many of which he would visit on an extended summer study trip.

iii) Learning by Example: Study Trips

After graduating in 1946, Henry Fliess went to work full time with James Murray's architectural firm, Murray, Rounswait and Fairfield, and after the compulsory year of apprenticeship he wrote and passed his licensing exams. He was then, like Murray before him, offered a position as a Lecturer in Architecture at the University of Toronto's School of Architecture. Both Murray and Fliess shared Professor Arthur's passion for housing and, it can be assumed with little fear of contradiction, that they spent a considerable amount of their time discussing issues related to housing design. As has been noted, Professor Arthur introduced the practice of taking a yearly study trip to cities in the United States to give students an opportunity to experience at first hand some of the most important projects of the period. The first trip was taken the year Henry Fliess

graduated,⁷² but he continued to take part in these trips as a member of the faculty until 1953.

His position as a lecturer also afforded him the opportunity to make an extended trip to Europe during the summer break of 1951. This four-month trip provided Fliess with what he referred to as the equivalent to a graduate course on housing and planning. His main focus of study was the co-operative housing projects and policies of Switzerland, Sweden, and Denmark, although the British New Towns and the London County Council Developments were also of interest.⁷³ His preference for studying co-operative housing initiatives was explained this way:

In England, Germany, and Holland, the government itself (generally on the municipal level) enters the housing field and is responsible for low rental housing projects. In Sweden, Denmark and Switzerland, the government has given its support chiefly to co-operatives, or acts through co-operatives, and so indirectly rather than directly enters the housing field. By this approach, the people have been assisted in solving housing problems themselves, and the dangers of government bureaucracy are to some extent avoided.⁷⁴

Fliess' site visits to the housing developments themselves would have a profound effect on his sense of scale, and the importance of siting and meaningful landscaping (see Appendix B). It may also be said that this trip served to bolster his hopes for the future of modern housing and the possibilities afforded through considerate community planning.

⁷² It was on this trip that Fliess and Murray visited Stein and Wright's Chatham Village in Pittsburg, and several projects by recently immigrated members of the Bauhaus, then living and working in the Boston area.

⁷³ Many of the lauded LCC projects were not yet realized at the time of this trip.

⁷⁴ Fliess, "Cooperative Housing in Sweden and Switzerland," The Canadian Architect, February 1957, Vol. 2, No. 2, 33.

As well, it likely sustained him through many of the battles he would fight over the years for the promotion of co-operative residential development.

Three articles based almost exclusively on research from this trip were published in the 1950s, two of which were devoted solely to the subject of co-operative housing. The first was titled “Apartment Co-Operatives Bring New Money into Housing,” and it was published in the trade journal Canadian Builder. Here, he shared his enthusiasm for what he had seen in Europe:

The co-operative projects I have seen left such an impression on me that they caused me to write this article. It is largely due to the efforts of the co-operatives that the people of Switzerland, Sweden and Denmark are so well housed. Most of the housing done by the co-operatives is excellent, well planned and pleasant in design, with lots of garden or park areas around the buildings. Buildings are usually spaced sufficiently far apart that all rooms get lots of light. There are children’s playlots, outdoor sitting areas, and in the larger schemes day nurseries, nursery schools and shopping centres.⁷⁵

Henry Fliess’ enthusiasm for the co-operative movement in Europe may be attributed to his belief that these projects were a real stimulus for creating humane urban environments. In his words:

In all countries where the co-operatives were strong, residential building activity was high and vigorous, and I reached the conclusion that the co-operatives were definitely responsible for the healthy outlook in the building activities of these countries.⁷⁶

This kind of development provided a model for designing and financing a different kind of living environment, which was at once more beautiful and democratic. He held out

⁷⁵ Henry Fliess, “Apartment Co-Operatives Bring New Money into Housing,” Canadian Builder, August 1952, 14.

⁷⁶ Henry Fliess, “Apartment Co-Operatives,” 15.

great hope for their introduction into the Canadian scene, which was unfortunately not borne out:

I think I am not too optimistic if I foresee great strides in this new approach to the housing problem here in Canada. Once the success of the pioneer projects has been established others will quickly follow.⁷⁷

This article also featured a co-operative project then under construction on a site overlooking Lake Ontario, designed by one of his Toronto colleagues and occasional collaborator, Michael Bach (see fig. 16). This small project consisting of two low-rise apartment blocks, well illustrated that even on such a limited scale, a far superior living environment can be achieved (i.e. afforded) through co-operative action. What was needed was the participation of municipal and other levels of government for the provision of favourable financing and suitable sites.

A second article published several years later in The Canadian Architect, dealt with the organization of co-operatives in much greater detail, and was aimed specifically at generating interest among his fellow architects, and argued once again for the need for government involvement. The Swiss and Swedish co-operative systems were compared and contrasted, and he was careful to include both the positive and negative results of the high percentage of co-operative organization, government involvement, and sophisticated planning techniques in both countries. For example in the Swedish context:

Government regulations on minimum room standards, maximum apartment sizes, and construction costs are very strict and together with the exact plan shapes and siting determined by the town planning department leave almost no leeway to the architect. Economy limits deviations from standard window types, and generally prevents interesting variations. As a

⁷⁷ Fliess, "Apartment Co-Operatives," 15.

Fig. 16
Toronto, Cooperative Apartments, perspective
and floorplans, Michael Bach, 1952

result, a standard apartment block has developed. The architect I talked to deplored all the government restrictions and felt that it prevented the development and evolution of new ideas. My personal observation confirmed this impression, but I have as yet visited no country in which several standard solutions for apartments and other building types did not appear in answer to obvious basic conditions. At least the Swedish standard is well designed, human, and sensitively fitted to the site—which is more than can be said for most other countries. I saw as much innovation and departure from standards in Sweden as anywhere.⁷⁸

Fliess attributed the success of co-operatives in Sweden and Switzerland, in making quality housing available to the majority of their citizens, to their forms of financing and not the co-operative organization as such, and concluded that “the elimination of speculative profits account[ed] only for a portion of the reduction in rent.”⁷⁹ He went on to state that: “neither housing co-operatives, nor private enterprise, for that matter, can solve the problem of low rental housing within the present structure of financing in Canada.”⁸⁰ His attribution of the success of these developments to favourable financing and not to the elimination of speculative practices is indicative of Fliess pragmatism and his earnestness in seeking out the most appropriate means for achieving similarly humane multiple housing projects within the Canadian context. For Fliess, the Swiss and Swedish examples highlighted how government involvement in urban design (both had legislated the means for municipal land-banking and had sophisticated and powerful municipal urban design departments) and financing (both offered direct low-interest 2nd mortgages and or subsidies for co-operative development) “solved the problem of providing good housing, with some sense of home-ownership, for that large group of the

⁷⁸ Fliess, “Cooperative Housing,” 35.

⁷⁹ Fliess, “Cooperative Housing,” 36.

⁸⁰ Fliess, “Cooperative Housing,” 36.

population which cannot afford individual ownership.”⁸¹

Henry Fliess’ affiliation for the work he saw in Switzerland and Scandinavia encompassed the generating principles behind their creation, as well as their formal resolution. A brief detour through the ‘style’ debate of the period will help to explain this predilection.

iv) The ‘Style’ Debate

In an article published in the RAIC Journal in 1950, entitled “The Modern House: a brief critical analysis,” Henry Fliess was at pains to try and explain why a rethinking of housing design was necessary.

Canadians have become more and more extroverted.... The open plan is a symbol of this outward-turning life, it is the expression of a freer and less formal existence. How confining is the traditional centre hall plan with rooms on either side of the hall forming more or less self contained spaces, when compared with the spacious modern living area, which more likely than not opens out into the garden, extending the [interior] out to take in the whole visible landscape.

Simply stated: “In housing the emphasis has shifted from the palace and villa to the small house and mass-housing. Completely new building types have emerged from completely new needs.”⁸² His complaint stemmed from the following:

By what process of split personality can we justify one approach to architecture for certain classes of buildings and another completely different approach for certain other types. Surely there can be no justification for anything other than a fundamental unity of approach.⁸³

This attack was leveled at the ‘retrogressive’ design of churches and housing in particular,

⁸¹ Fliess, “Cooperative Housing,” 33.

⁸² Henry Fliess, “The Modern House,” RAIC Journal, December 1950, Vol. , 395.

⁸³ Fliess, “Modern House,” 395-396.

which continued to rehash medieval styling as though this period held the only true expression of spiritual or domestic values. This practice was considered even more spurious when used as a sort of window-dressing on the exterior of a plan whose program was dictated by altogether modern functions and technologies. This did not preclude the use of decoration, or even vernacular forms in 'modern' design, as some of the more superficial stylistic arguments presented by supporters of an 'international style' would argue. It was simply an earnest attempt to search out new and *meaningful* ways of expressing new social habits and values.

The following quote, given the date it was written, is significant. It illustrates an openness to ideas of formal expression and arrangement before Henry Fliess had taken his study trip to Europe, that is, he was already receptive to the so-called New Empiricists' argument for greater emphasis on the functional and psychological aspects of design.

The flat roof, the large glass areas and the interpenetration of space are all elements of the new vocabulary, but in themselves do not produce a good modern house. As a matter of fact those who consider them as the only elements of modern design are themselves guilty of sterility of thought and expression. Good modern design accepts all forms where they are valid, and provides the natural solution of the problem at hand.⁸⁴

There is certainly more than a hint, here, of a pragmatic view towards design, and an obvious impatience toward those who would try to strictly delineate possible solutions to any design problem based on some arbitrary division between styles. Perhaps it would be more useful to characterize Henry Fliess as someone who was not prone to sidetracking into abstract arguments concerning, for example, the relative merits of the classical versus

⁸⁴ Fliess, "Modern House," 396.

the picturesque tradition. What was of concern to him was to arrive at the best possible solution to the design problem at hand. This translated into a disinterest in certain details or material assemblies if they were unable to stand up to regular use or to a particular climate. This attitude is clearly illustrated in his understanding of the International Style's recent loss of favour:

The clean and mechanical lines of the early buildings had lost all their force after the white stucco forms had been subjected to the assaults of the climate and had turned patchy and grey. As the modern idiom developed these short-comings were realized and the old materials, brick and stone, which become more beautiful with age and added warmth to the building were reintroduced; large overhanging eaves began to replace the thin coping to shed the rain and throw deep shadows.⁸⁵

The above also brings to bear the 'psychological' effect of using certain details and materials by choosing to describe the use of brick or stone as a 'warm' material, and through its reference to the 'deep shadow' produced by large overhanging eaves. It is this mixture of sentiment with the practical demands of more strictly 'functional' requirements, which was thought to be exemplified in Scandinavian design at the time. I would like to quote a passage from an article by the Swedish architect, Sven Backstrom, again written just prior to Henry Fliess' European study trip.

Functionalism performed a pioneer task and showed the way to new working methods which, when correctly understood, constitute an excellent basis for all future architectural developments, but we miss certain essential features sometimes found in older architecture. I am thinking mainly of those psychological and irrational factors which help to make life agreeable and in these may be included beauty. Man is a complicated being, and we should do all we can to find out what is essential for him and then construct our houses and towns accordingly.⁸⁶

⁸⁵ Fliess. "Modern House," 396, 416.

⁸⁶ Sven Backstrom "Now – And After" Swedish Housing of the Forties (Stockholm: The National Association of Swedish Architects, 1950) 53-54.

An earlier, now famous article that appeared in the British journal, The Architectural Review, in 1947, argued that this new ‘movement,’ according to its practitioners, may be called The New Empiricism, and aimed at being “more objective than the functionalists, and to bring back another science, that of psychology, into the picture.”⁸⁷ The claim by some that this new attitude should be considered regressive, is a misunderstanding of a fundamental purpose of architecture, that is its ability to engender human emotion. The argument for adherence to one finite set of formal ‘moves’ or details, irrespective of program or geographical and cultural context, displayed the very same tendency as nineteenth-century ‘Academicism,’ the eclecticism of which allowed the initial disjuncture of interior and exterior spaces because they were incapable of separating themselves from the dictates of class and a supposed hierarchy of styles. Both may be said to be guilty of mistaking the formal expression of an idea as the idea itself. Or put another way, an idea expressed in the language of words will become something ‘other’ through its translation into the language of architecture, and one must endeavor not to mistake the one for the other. Frank Lloyd Wright described the problem this way:

Poverty in architecture - architecture the language of the human heart – has grown by unnatural appropriation of artificiality, has grown wretched and miserable by the fetish of the appliance, whether by the appliance as mechanical or sentimental. Prevailing historical sympathy administered as standardized learning has confused art with archaeology. In this academic confusion we have been unable to cultivate the principles that grow architecture as a flower of the mind out of our own nature as flowers grow out of earth.⁸⁸

⁸⁷ “The New Empiricism: Sweden’s latest style,” The Architectural Review, Vol. C1, No. 606, June 1947, 199.

⁸⁸ Frank Lloyd Wright “The Chicago Art Institute Lectures (1931)” The Future of Architecture (New York: Horizon Press, 1953) 232.

This sentiment certainly goes a long way in explaining Frank Lloyd Wright's admiration for the work of Alvar Aalto, believing him to be a kindred spirit. Even a cursory study of their approach to site and materials would bear this out.⁸⁹ The use of vernacular forms and materials for climactic and/or cultural reasons dates back, then, to the beginning of the modern movement, and may be said to have developed alongside the so-called "International Style." The latter was from the beginning an academic oversimplification of the modern movement in Europe, stemming from Hitchcock and Johnson's desire to *formulate* the perimeters of a new movement which they described largely in formal terms or, put another way, almost exclusively in terms of a new *style*. It should not be surprising, then, to find many architects practicing outside the limited region of Germany and France developing their own modern language in their attempts to address their individual regional contexts and concerns. This is not to suggest that the work exhibited in these countries did not have a powerful influencing effect on a whole generation of architects.⁹⁰ It does, however, suggest that this influence was mediated. This may be seen as an indication of dissent at the beginning of the modern movement, whether conscious or unconscious, against the homogenization of culture implied in arguments for the "International Style."

⁸⁹ Wright and Aalto, two unquestioned modern masters, are brought in here to illustrate the complexity of the modern movement in architecture, and as a contrast to the more generic understanding of modern architecture as rigid, monolithic and monotoned buildings made up of concrete, steel, and glass.

⁹⁰ For example, Alvar Aalto, and his Swedish friend and colleague Sven Markelius, were very impressed by their visit to the ground breaking Weissenhof exhibition at Stuttgart, and became members of CIAM in 1929. It is also worth noting that Sven Markelius was the Head Architect of Stockholm's urban design department when Henry Fliess visited Stockholm in 1951. Fliess was particularly impressed by his interviews with Markelius, and the work he had accomplished in and around Stockholm. It is also likely that Fliess was introduced to Markelius' plans for Vällingby, a now famous mixed density suburb of Stockholm.

It is certainly true that complaints against the International Style stemmed directly from its emphasis on style, believing this trend to have shifted the focus of the Modern movement away from more fundamental programmatic issues that needed to be addressed. These included both physiological and psychological needs. The oversimplification of the International Style, into a static formal vocabulary, did not even truly represent its originator Walter Gropius, who according to Serge Chermayeff, included “psychological and social values”⁹¹ among the rational, when he contended in his essay “The Social Basis for Minimal Dwelling: Flat, Middle, or High?” that “rationality only counts when it is life-enriching.”⁹²

It may also be useful to look at the post-war design debate during Henry Fliess’ formative years, as falling out between the lines of pragmatism and theoretical abstraction, which the term “the New Empiricists” makes clear. According to a recent article in The Architectural Review, the events surrounding the Festival of Britain, in 1951, “can be seen as the first round of a fight between Corbusian Heroism and Swedish Empiricism.”⁹³ Here the author contended that:

Both Richards and Pevsner, had, in the eyes of the younger generation, fallen foul of the English habit of compromise and sentimentality. Seeming to have lost their enthusiasm for the heroic Continental Modernism of Le Corbusier, both had begun to support the revival of the English Picturesque tradition.⁹⁴

⁹¹ Chermayeff, “Let Us Not Make Shapes: Let Us Solve Problems,” Four Modern Makers of Modern Architecture. Vol. 37 of Architecture and Decorative Art. Ed. Adolf K. Placzek. (New York: Da Capo Press, 1970), 260.

⁹² Walter Gropius, as quoted by Serge Chermayeff in his essay, “Let Us Not,” 260.

⁹³ Robert Gregory, “Heroism versus Empiricism,” The Architectural Review, January 2000, Vol. CCVII, No. 1235, 69.

⁹⁴ Robert Gregory “Heroism versus Empiricism” The Architectural Review January 2000, Vol. CCVII, No. 1235, 69.

The debate, which took place in architectural journals after WWII, may be better understood as a carry over of the theoretical dogma of the 1920s and 1930s by those whose education had been interrupted by the war. What needs to be understood in the context of this study is that both Hitchcock and Johnson's famous text, and the work upon which it was based, were themselves a product of history, moments in time, and not static dogma to be followed unquestioned into the foreseeable future. Architecture is perhaps more usefully analyzed if viewed as a continual experiment, with each solution representing the best possible answer to a particular problem at a particular time. In this way, both theory and practice can be seen as necessary elements, and not as contradictory aims. The debate between the exponents of a so-called "sane and rational design method"⁹⁵ and those who argued against this method because it "result[ed] in aesthetical arbitrariness,"⁹⁶ may be seen as having lost its appreciation for this distinction – a misunderstanding of the value of theory, once removed from its original context. One should also not lose sight of the context from which an architectural theory is developed or evolved. For instance, Le Corbusier's early twentieth-century vision of a floating city of skyscrapers and raised motorways, all designed to free up space on the ground and provide everyone with an equal share of sunlight, air and pleasant vistas, may justly be criticized, but not without an understanding of the issues he was attempting to address – the filth and claustrophobia prevalent within the nineteenth-century industrial city (fig. 17).

⁹⁵ Reyner Banham "The Revenge of the Picturesque" *Concerning Architecture* (London: The Penguin Press, 1968) 267.

⁹⁶ "The New Empiricism" *The Architectural Review* June 1947, Vol. C1, No. 606, 200.

Fig. 17
Ville Contemporaine, perspective sketch, Le
Corbusier, 1922

Many early modern housing developments, particularly those of the 1920s and early 1930s were criticized for their lack of consideration for the quality of their exterior spaces. This lack of consideration was thought to be the result of an overly abstracted and diagrammatic theory of urban design. The New Empiricist movement in Sweden and the 'Townscape' movement in Britain aimed at discrediting earlier assumptions and attitudes toward urban design that they believed had lost sight of the experiential nature of urban spaces and places. The opinions of these groups were by no means unanimous within the modern movement, though they may be credited with shaking the certitude of earlier manifestos. Where Henry Fliess' allegiance lay within this debate, however, is clear.

The point that needs to be made here concerns Fliess' early rejection of the so-called 'Heroism' of Le Corbusier's vision of urban design, and his kinship with those who believed there was a need to gain a better understanding of how people actually experienced and reacted to their physical environment. Fliess has been unwavering in his assessment of the work and ideas of Le Corbusier, and any others he felt operated on an overly abstract, or perhaps more aptly described as disassociated level. I would ask the reader to recall the title of Henry Fliess' fifth year thesis "The Sociological Aspects of Town Planning." Indeed, it is the sociological aspects that dictated Henry Fliess' approach to architecture. This 'bias' does not preclude a thorough-going aesthetic sense for the formal relationships in architecture, but it does dictate the kind of relationships which are to be worked out, and possibly allows for a keener sense of what aspects of a program may be sacrificed for greater formal expression and those that should not. In other words, what practical considerations should take precedence over formal expression. This understanding extended to considerations of the relationship of buildings to site, site to larger community, community to city, and city to urban region.

v. Theory in Practice: The work of Henry Wright and Clarence Stein

The importance of the built projects planned by Wright and Stein to the development of twentieth-century housing cannot be overstated. These 'experiments' were the result of a group effort that began in 1923, with the formation of the Regional Planning Association of America, a small but highly motivated group of friends based in New York City. The horrifying events of the First World War were seen by many of this

generation as a manifestation of the loss of value ascribed to human life and the degradation of civilian life in particular, as more and more people found themselves living in the squalor of dilapidated, overcrowded, unsanitary, and transitory urban quarters. Dropping birthrates even led many conscientious people to believe that our very survival as a species was at risk.⁹⁷ Armed with this strength of conviction, groups like the Regional Planning Association of America, set out to make a better world. Among this group of 'idealists' were Lewis Mumford, Alexander M. Bing, Stuart Chase, R. D. Kohn, C. H. Whitaker, Henry Wright, Clarence Stein, Catherine Bauer, Edith Elmer Wood, and Tracy Augur. They met often, sometimes several times a week, and organized weekend retreats with guest speakers. All of their energies were channeled into educating themselves and those around them about the need to create more 'balanced' communities. The diverse disciplines of the individuals in this group were invaluable to the planning and promotion of the experimental housing projects that were to have a profound impact on the course of twentieth-century urban design, particularly as practiced in North America.

Stein and Wright's two earliest and well-known collaborations were closely associated with the monolithic study undertaken by the New York State Housing and Regional Planning Commission (1923-30) under the direction of Thomas Adams. Sunnyside Gardens, Queens, NY, and Radburn, NJ,⁹⁸ were used by this study as the

⁹⁷ Both Lewis Mumford and Henry Fliess were among those who believed current urban conditions were largely responsible for the declining birth rate before the Second World War, whether due ill health, or the so-called social breakdown of the family unit.

⁹⁸ A third earlier development, Forest Hills, N.Y., was also included by the Commission as a worthy model for future developments.

yardstick from which to measure existing living conditions, and as *the* models for new urban development to follow. According to Thomas Adams:

It is by the creation of such object lessons, in which the combined advantages of predetermined planning, of reasonable restrictions of density of population, of provision of adequate recreation spaces, of associated community life and of good architecture are demonstrated, that the proper guidance can be obtained for improving housing conditions in all parts of the Region.⁹⁹

This study was also responsible for funding and later disseminating Clarence Perry's essay on what he called the 'Neighbourhood Unit,' a theory which, in principle, was adapted by Stein and Wright in their Radburn Plan, and later became a widely acknowledged means for guiding the extent of new neighbourhoods, as well as the redevelopment of older ones. To give the reader an idea of how influential Perry's argument was, I'm including an excerpt from a Swedish publication from 1950, which listed in full, Perry's six Neighbourhood Unit Principles:

1. Size. A residential unit development should provide housing for that population for which one elementary school is ordinarily required, its actual area depending upon population density.
2. Boundaries. The unit should be bounded on all sides by arterial streets, sufficiently wide to facilitate its bypassing by all through traffic.
3. Open Spaces. A system of small parks and recreation spaces, planned to meet the needs of the particular neighbourhood, should be provided.
4. Institution Sites. Sites for the school and other institutions having service spheres coinciding with the limits of the unit should be suitably grouped about a central point, or common.
5. Local Shops. One or more shopping districts, adequate for the population to be served, should be laid out in the circumference of the unit, preferably at traffic junctions and adjacent to similar districts of adjoining neighbourhoods.

⁹⁹ Thomas Adams *The Building of the City*, Chapter VIII, "Houses and Housing Neighbourhoods." (New York: Arno Press, 1974), 219.

6. Internal Street System. The unit should be provided with a special street system, each highway being proportioned to its probable traffic load, and the street net as a whole being designed to facilitate circulation within the unit and to discourage its use by through-traffic.¹⁰⁰

These ‘principles’ may very well be difficult to comprehend as “epoch-making,”¹⁰¹ when viewed from the context of the beginning of the 21st century, so thoroughly have they been integrated and therefore taken for granted. Even a cursory look at the plan for Radburn clearly shows the presence of these principles (fig. 18).

Fig. 18
General Plan of Radburn showing intersecting
neighbourhoods, Wright and Stein, 1928

The first project planned by Wright and Stein, Sunnyside Gardens, was built by the City Housing Corporation, and was begun in 1924 in the area of Queens, in New York City (figs. 19-22). Alexander Bing, a member of the Regional Planning Association of America, and a successful developer of apartments and skyscrapers, set up the City

¹⁰⁰ Taken directly from Goran Sidenbladh's essay "Town Planning 1930-1950," in *Swedish Housing of the Forties*. (Stockholm: The National Association of Swedish Architects, 1950), 19.

¹⁰¹ Goran Sidenbladh, "Town Planning," 18.

Fig. 19
New York, Sunnyside Gardens, view from
street, Wright and Stein, 1924-28

Fig. 20
New York, Sunnyside Gardens, view of
pedestrian street, Wright and Stein, 1924-28

Fig. 21
New York, Sunnyside Gardens, view of children's
playground, Wright and Stein, 1924-28

Fig. 22
New York, Sunnyside Gardens, Floorplans of single, two- and
three-family houses, Wright and Stein, 1924-28

Fig. 24
New York, Sunnyside Gardens, view of court opening off
to street, Wright and Stein, 1924-28

Fig. 25
New York, Sunnyside Gardens, site plan of Lincoln
and Washington Courts, Wright and Stein, 1924-28

Housing Corporation with the view to eventually founding a 'Garden City' in America. Sunnyside Gardens was a first step. It was viewed as a testing ground for refining all aspects of residential development from economies of construction to more functional floor plans. The project was under construction continuously for four years, each stage benefiting from previous experience. They introduced a mix of house types and tenures, including an experiment in co-operative ownership, and refined their skills for siting and landscaping within the new superblock model (figs. 23-25).

Their experiment proved extremely successful, and by 1928, the City Housing Corporation had built up enough equity to finance their first 'Garden City' experiment. A site within the New York City Region was decided upon, in the Borough of Fairlawn, New Jersey, and Radburn was the name chosen for the new town (fig. 26). Radburn's development into a Garden City was not realized, however, due to circumstances quite beyond its planners' control – the market crash of 1929, followed by the Great Depression, demoralized the founders of the City Housing Corporation, who were eventually forced into bankruptcy (fig. 27).

Like Howard before them, Wright and Stein's achievement at Radburn was their particular combination of urban design concepts, most significantly those evolved by Ebenezer Howard, Frederick L. Olmstead and Calvert Vaux, Sir Raymond Unwin, and Clarence Perry. Having visited and studied several housing projects in England, including the two 'Garden City' experiments, Letchworth (fig. 28) and Welwyn (fig. 29), they realized that both the scale and the provision for motor vehicles would require some

Fig. 27
Radburn, plan of Northwest and Southwest residential districts,
realized portion of masterplan, Wright and Stein, 1928

Fig. 28
Letchworth, Masterplan

Fig. 29
Welwyn, Masterplan

reworking of these precedents. In the immensely influential text Towards New Towns for America (1950), Stein reflected upon the genesis of the Radburn plan:

In our minds' eye, we still had the theme that Ebenezer Howard had created so vividly in his book 'Garden Cities of Tomorrow.' We believed thoroughly in green belts, and towns of limited size planned for work as well as living. We did not fully recognize that our main interest after our Sunnyside experience had been transferred to a more pressing need, that of a town in which people could live peacefully with the automobile – or rather in spite of it.¹⁰²

Olmstead and Vaux's design for Central Park, with its series of pathways overlapping each other when they intersected through the use of bridges and underpasses, and through its hierarchy of routes, provided the model for Radburn's division of vehicular and pedestrian traffic (figs. 30-33). Sir Raymond Unwin's concept of the 'superblock' provided the model for siting buildings within the hierarchy of communication routes, while Clarence Perry's detailed sociological study of neighbourhoods provided the logistics around which to plan the overall layout. All of these concepts were brought together to serve the ultimate purpose of planning the first American 'Garden City.'

It must be remembered that each of these concepts had a critical role to play. Take for instance the ramifications of using Unwin's superblock theory (fig. 34). The savings in servicing costs between the traditional 'speculative-grid' layout and the superblock allowed for the high percentage of open green space, which in turn, allowed for the hierarchy of communication routes. In Stein's words: "The savings in cost of these [streets] not only paid for the 12 to 14 percent of the total area that went into the

¹⁰² Clarence Stein. Towards New Towns for America. (Cambridge, Massachusetts: MIT Press, 1957), 37.

Fig. 30
New York, Central Park, hierarchy of
communication routes, Olmstead and Vaux,
1857-63

Fig. 31
Examples of separation of vehicular and
pedestrian traffic, Olmstead and Vaux, 1857-63

Fig. 32
Radburn, separation of vehicular and pedestrian
traffic, Wright and Stein

Fig. 33
Radburn, pedestrian underpass, Wright and Stein

Fig. 34
Superblock theory, Raymond Unwin, Nothing
Gained by Overcrowding

Fig. 35
Radburn, row housing, street side.

Fig. 36
Radburn, row housing with highly articulated
communal greenspace

internal parks, but also covered the cost of upgrading and landscaping the play spaces and green links connecting the central block commons.”¹⁰³ (figs. 35-36)

The issue of long term zoning restrictions also must not be overlooked in considering the use of superblocks. For savings to be fully realized, a hierarchy of streets had to be developed and the areas for residential development needed to remain such, so that there would no longer be the need to size and service residential streets for other more expensive uses (fig. 37). Superblock planning also ensured that the cost of undeveloped ‘green’ spaces was kept to the original price of the farmland it was being built upon. Stein explained it this way:

A park or playground in a regular town surrounded directly by improved streets would cost as much as it would with houses as a frontage. But not at Radburn – there land is just land (except for surrounding walks). There are no streets. So before landscaping the land, the cost of the parks was less than a fifth of what it would have been had dangerous highways encircled it.

Their concept of the house with two ‘fronts’ was also very influential, though easily overlooked. It was still customary during this period for buildings to present a ‘false’ front on their public side, leaving the back face unadorned, sacrificing everything, including light and air, for the greater glamour of the front façade. Stein and Wright’s urban designs necessitated that equal consideration be given to both the front and back of a dwelling (see figs. 23,35-36,39-40). The result of this practical shift in emphasis at Radburn was the reversal of the expected domestic interior plan – the living room was located at the back of the house, the ‘garden side,’ and the kitchen was brought to the

¹⁰³ Stein, Toward, 48.

Fig. 37
Radburn, narrow internal street permitted through
long term zoning and hierarchy of circulation routes

Fig. 38
Radburn, floorplans of semi-detached houses

Fig. 39
Radburn, footpath

Fig. 40
Radburn, service Lane

Fig. 41
Radburn, footpath to inner park

Fig. 42
Radburn, private garden

Fig. 43
Radburn, inner park

front, permitting the placement of a carport/garage adjacent to the kitchen. (figs. 38-40).

This new pattern revolutionized the design of twentieth-century housing.

Sunnyside Gardens and Radburn may be considered 'Garden City' experiments, which like Letchworth and Welwyn, were to be the testing grounds for Ebenezer Howard's ideas. As with their British counterparts, however, they were able to realize only a piece in the puzzle, while a full testing of Howard's theory never materialized. This failing was understandable given the circumstances, and in the end, had very little effect on how others viewed their accomplishments. The following excerpt from Humphrey Carver's autobiographical text, Compassionate Landscape, illustrates the esteem in which Stein and his book were held: "I have beside me a copy of his book *Towards New Towns for America* which he sent me with my own name written on the flyleaf; it is rather as if I possessed a copy of St. Mark's gospel with the author's message to me in it."¹⁰⁴

Stein credits Wright with the initial vision for the Radburn plan, and significantly, the story that he chooses to relate is concerned with issues of private and public green spaces, and the relation between interior and exterior living spaces. He refers us to Wright's own words:

In 1902, as an impressionable youth just out of architectural school... at Waterford... Ireland, ... I passed through an archway in a blank house wall on the street to a beautiful villa fronting upon spacious interior gardens. That archway was a passage to new ideas.... I learned then that the comforts and privacy of family life are... to be found... in a house that judiciously relates living space to open space, the open space... being capable of enjoyment by many as well as by few.¹⁰⁵

¹⁰⁴ Humphrey Carver. Compassionate Landscape. (Toronto: University of Toronto Press, 1975)

¹⁰⁵ Henry Wright, as quoted by Stein in Toward New Towns for America, 48.

One cannot help but be struck by the similarity between the above and the qualities described by Giedion in his analysis of the constituent facts of 'modern' planning history. And it is this understanding of architectural relationships that Henry Fliess brings to bear in his housing designs.

Another project planned by Wright and Stein, Chatham Village (fig. 44-45), on the outskirts of Pittsburgh, had an enormous impact on the design of row house developments in particular. As a landscape architect, Henry Wright had a greater appreciation for the relationship between building and site. In introducing Chatham Village in Towards New Towns, Stein credits his colleague for its success:

Chatham Village is one of the outstanding American examples of housing and site planning. I feel free to say this because the site plan was mainly the work of my associate Henry Wright. He had a feeling for the shape of the ground and what could be done to mold it to the practical needs of home and community.¹⁰⁶

A cross-section of two rows on the hilly site of Chatham Village will serve to illustrate the kind of advantages to be gained through thoughtful site planning (fig. 46). Two rows of housing, one the mirror image of the other, are separated by a large internal green space, which is made of up of their respective private garden spaces and a central green with pathways running along each side (fig.47). The distance between the rows assures ample sunlight and visual privacy, while the slope in grade heightens the sense of privacy of individual garden spaces (fig. 50). Moreover, the shifting grade level allowed for 'sunrooms' in the higher units and garages in the lower units. The sloping grade was also followed when it ran parallel with a row of housing, by breaking the roof and wall line of

¹⁰⁶ Stein, Toward, 76.

Fig. 44
Pittsburgh, Chatham Village, aerial view,
Wright and Stein

Fig. 45
Pittsburgh, Chatham Village, Masterplan,
Wright and Stein

Fig. 46
Pittsburgh, Chatham Village, site section

Fig. 47
Pittsburgh, Chatham Village, street side

Fig. 48
Pittsburgh, Chatham Village, sloping grade

Fig. 49
Pittsburgh, Chatham Village, two and
three bedroom unit floorplans

Fig. 50
Pittsburgh, Chatham Village, view of
sloping grade

Fig. 51
Pittsburgh, Chatham Village, landscaped court

Fig. 52
Pittsburgh, Chatham Village, houses following slope in grade

the row as it jogged down along the slope of the hill, shifting its facade forward and back again (figs. 51-2).

These design considerations resulted not only in a more aesthetically pleasing solution, but also served to address practical and psychological needs. For example, the foundations for the rows of housing doubled as retaining walls for the hilly site, while the shifting levels and setbacks of the rows provided greater articulation of the individual units, and allowed for much greater emphasis to be laid upon individual entrances through varying hard and soft landscaping. The value of these object lessons will be attested to again and again in numerous multiple housing developments in the United States and Canada, not least of which those designed by Henry Fliess.

A later development (1941) of the ideas generated at Sunnyside and Radburn also needs mention here (fig. 54), however briefly. Conceived by a group of socially minded architects, with Clarence Stein acting as consultant, Baldwin Hills, LA, represents the “most complete and most characteristic expression”¹⁰⁷ of the Radburn Idea. Due to the early reign of the automobile in Los Angeles, and an early blossoming of an indigenous modern domestic architecture, the design of Baldwin Hills proved to be one of the most influential models for row housing well into the 1970s. The interior layout of the various units are exemplary in their employment of modern planning principles (see figs. 56, 59, 61), and the buildings themselves, with their exaggerated length and flat roofs, are a beautiful study of positive and negative spatial relationships (see figs. 55, 57-8, 60-66).

¹⁰⁷ Stein, Towards, 189.

The solution evolved for storing and parking the 1 ½ or more vehicles per family was equally judicious, and unobtrusive to outdoor living areas (figs. 67-8).

But like its precedents, Baldwin Hills had another important lesson to teach, and it was Catherine Bauer who summed it up best in her 1944 article in Pencil Points: “There is evidence that even ten percent more leeway in the costs and standards of ‘minimum’ modern housing might bring a social return much greater than 10 percent in more space, more amenity, more convenience.”¹⁰⁸ Adequate provision for the storage of cars, tools, toys and household items, combined with an attention to architectural detail (due consideration given to proper detailing and choice of material assemblies) and a high level of articulation in the landscaping, separates the successful multiple housing project from those which quickly deteriorate into slums. As we shall see, Henry Fliess understood these principles very well.

Precedents set by Wright and Stein in the planning of Sunnyside, Radburn, and Chatham Village challenged the status quo of what was considered possible in the development of large scale multiple housing projects. This new understanding combined with the principles evolved over the next two decades in architectural design, would come together in Canada’s pioneering development, Don Mills. Don Mills provided Henry Fliess with the opportunity to test his ideas about open concept living, and the positive role that a more intimate contact with the outdoors could play in a family’s everyday life, in an environment which pushed the limits of what was possible in the production of speculative tract housing.

¹⁰⁸ Catherine Bauer, as quoted by Clarence Stein in Towards, 211.

Fig. 53
Baldwin Hills, aerial view showing superblock
pattern of development

Fig. 54
Baldwin Hills, view of single storey end unit
(Unit A)

Fig. 55
Baldwin Hills, floorplan, Unit A

Fig. 56
Baldwin Hills, entrance to upper storey
apartment, note storage box at door

Fig. 57
Baldwin Hills, later addition of brick wall
provides upper apartment with private garden

Fig. 58
Baldwin Hills, floorplans for one and two
bedroom apartments

Fig. 59
Baldwin Hills, typical row of houses

Fig. 60
Baldwin Hills, floor plans, two and three
bedroom row houses

Fig. 61
Baldwin Hills, approach to a garden court from
Coliseum Street

Fig. 62
Baldwin Hills, looking across West Green

Fig. 63
Baldwin Hills, view toward Baldwin Hills from
garden court with entrance from Coliseum Street

Fig. 64
Baldwin Hills, View of entrance side of row houses

Fig. 65
Baldwin Hills, View of entrance side of row houses

Fig. 66
Baldwin Hills, View of garage court entered from
Coliseum Street

Fig. 67
Baldwin Hills, Site plan detail of a court garage and
two garden courts

CHAPTER TWO: DON MILLS

I. An experiment in 'New Town' planning

Given the "1950's sense of responsibility for housing"¹⁰⁹ already established in the previous chapter, the time was ripe for the realization of an exemplary new kind of community. A significant migration of Canada's rural population to urban centres, as well as an influx of immigrants from other countries had by the middle of the twentieth-century, altered the balance between urban and rural populations. Canada was becoming an urban society, and Toronto, by the close of the Second World War, was bursting at the seams.

E. P. Taylor, one of the country's most foresighted, and, one might add, lucky businessmen of the period, turned what was initially a plan to expand the O'Keefe brewery business into an unprecedented real estate venture. In 1947, as Chairman of the Board of Canadian Breweries, Taylor acquired a large tract of land ($\pm$ 150 acres) about eleven kilometers northeast of Toronto for the construction of a new brewery and some employee housing. Within a year it was decided that this site was unsuitable for the operation of a brewery, and after some discussion between Mr. Taylor and Karl C. Fraser, Taylor's long-time assistant,¹¹⁰ Taylor set in motion the highly ambitious plan for the development of a New Town.¹¹¹ A subsidiary company, Don Mills Development Ltd., was created by Taylor under his newly incorporated Canadian Equity and Developments, and Mr. Fraser became its first president. Karl Fraser was very interested in the planning and architectural debate of the time, and beginning in 1947, visited several New Town

¹⁰⁹ Nathan Keyfits "The Decision Makers in Residential Building" Community Planning Review (Ottawa, Feb. 1951) Vol. 1, No. 1, 26.

¹¹⁰ "Business Builds a City" Architectural Forum, June 1954, 147.

¹¹¹ A 'New Town' is defined by the Getty as: (see footnote in Chapter one).

developments in the United States and Britain in order to apply their lessons to the creation of a successful New Town in Canada. The original concept for Don Mills is credited to him.¹¹² By 1952, Don Mills Development Ltd., with the financial backing of the Canadian Equity and Development Company, had assembled a surprising wealth of resources, in terms of real estate, and professional talent. The successful realization of a development like Don Mills necessarily involved the creative talents of many individuals from various professional backgrounds, and it is for this reason, perhaps more than any other single factor, that Don Mills 'New Town' continues to be the subject of scholarly debate half a century after its development. Few, if any, large scale developments before, or since, have achieved the accolades of planners and business people alike.

The circumstances under which Don Mills was created were unique in Canada. A single private interest exercised total control over the development of a New Town, some 2000+ acres (fig. 68), with a relatively long term interest in the success of the built environment being created. I would like to refer the reader back to a passage cited earlier in this text (p.43), taken from Giedion's Space, Time and Architecture, which highlighted the critical role that long-term interests in the speculative development of land played in the success of early nineteenth-century British urban design. Tighter control over the quality and maintenance of properties may be said to be a direct result of the fact that these lands were leased as opposed to being bought and sold outright. It was quite simply in the owner's best interest to ensure that their property retained its value. A similar case can be made for Don Mills, though unfortunately, twentieth-century capitalism had

¹¹² "Business Builds a City," 147.

Fig. 68
Don Mills, Map and Aerial View of Location

considerably accelerated the pace of re-development, and what was planned as a long-term investment amounted to less than two decades.¹¹³

The success of 'Don Mills New Town' as an innovative new kind of community was attested to by a large volume of critical material written during the initial stages of its construction,¹¹⁴ with later housing and industrial projects continuing to receive the praise of fellow builders, architects and real estate developers through to the final stages of development in 1965. A case has been made for the importance of the vision of developers at this time¹¹⁵ who, after the turmoil of depression and war, believed that it was possible to literally create a 'Brave New World.' It is certainly the case that the kind of optimism displayed in the years following the Second World War, with the climate of the Cold War looming over their fate, was extraordinary. The importance of the historical moment, or the 'spirit of the age', as it is often referred to, must not be overlooked if one is to understand the significance of the individual pieces of what made up Don Mills' success. The unfortunate lack of new communities following its example bears testament to this fact.¹¹⁶

During the Second World War, an Advisory Committee on Reconstruction was sponsored by the Canadian government to undertake a monumental study of the state, its

¹¹³ Canadian Equity & Development Corporation Limited, along with Don Mills Development Limited was sold to Cadillac Development Corporation Limited in 1968. For a more detailed account of the business end of Don Mills Development Limited, and its parent company, see Marilyn McClaskey's 1997 article "Don Mills: From Farm Land to a Community. The Story of the Building of Don Mills by Don Mills Developments Limited." Unpublished article, Don Mills, 1997.

¹¹⁴ Don Mills was marketed almost entirely by 'indirect' means, through critical articles by mostly third party or 'objective' authors, and very rarely through the use of 'advertisements' in the traditional sense.

¹¹⁵ A good history of the growth of large corporate developers in Canada was provided by James Lorimer in his 1978 study, *The Developers*. (Toronto: James Lorimer & Company, 1978).

¹¹⁶ The kind of suburban development, which continues to lay waste to the surrounding countryside of most urban centres in North America, has taken very little from the Don Mills model. The neighbourhood unit generated by the elementary school and the use of a cul de sac street pattern does not, in my view, justify any claims to conceptual lineage to Don Mills; nor does any superficial stylistic similarity of housing design.

people, resources and infrastructure in order that they may be better equipped to legislate the means necessary for rebuilding a stronger, healthier society. The end result was a five-volume report presented to parliament on March 4, 1944. Volume IV was entitled "Housing and Community Planning," and among its contributors was Professor Eric Arthur. (This report is most often cited as "The Curtis Report," named after its Chairman, Dr. C. A. Curtis, then Professor of Economics at Queens University).

This subcommittee on housing and community planning, made up of economists, sociologists, architects, and elected officials, drafted what was essentially a plan for bringing about more 'balanced' communities. As was argued earlier in Chapter One of this study, the issue of housing was seen as inseparable from that of urban design, and this contention is both implied in the chosen title of the report and stated clearly within: "The institution of at least the essentials of town planning is both preliminary and basic to housing developments."¹¹⁷ Another very telling comment, and one which has been largely dismissed or ignored in the recent shifting of responsibilities taking place at both the federal and provincial level in Canada, refers to the need for cooperation: "the assumption of primary financial responsibility and initiative by the Dominion government is quite consistent with active participation by provincial governments without any impairment of their constitutional rights."¹¹⁸ It was also understood by the subcommittee that:

Only a wider appreciation of the nature and techniques of town planning will produce the co-operative action necessary from federal, provincial and municipal governments. Here again we are convinced that action at

¹¹⁷ Advisory Committee on Reconstruction, IV. Housing and Community Planning, Final Report of the Subcommittee. (Ottawa: 1944), 9.

¹¹⁸ Advisory Committee, 10.

one level of government alone, whichever it may be, will not suffice to gain results.¹¹⁹

The efficacy of this subcommittee's report in bringing about the recommended enabling legislation is debatable, as are most reports of this nature, and the National Housing Act passed in that same year had regrettably little in the way of progressive community planning measures. It was nevertheless very effective in spearheading the creation of government departments at all levels with a mandate constituted from the committees' recommendations, including Central Mortgage and Housing Corporation at the federal level, and the creation of the Department of Planning and Development in Ontario.

By the time E. P. Taylor had submitted his first proposal to the North York Planning Board in 1951, Ontario had passed its first Planning Act, a Conservation Authorities Act, a Housing Authorities Act, and the Toronto and York Planning Boards had completed their study of what was to become the region of Metropolitan Toronto. All of this had an impact on the final plans for Don Mills. Two notable features of Don Mills are the result of the thoughtful planning of the region as a whole: the creation of the Don Mills Parkway, and the Don Valley greenbelt. There is no question in my mind that these two features have played a critical role in this community's success. The one allowed for quick and easy access to downtown Toronto, and to the 401 TransCanada Highway (itself the result of recent regional planning). The greenbelt provided abundant natural recreation space, visual relief from the order of the built up areas, and equally important, though certainly less understood, it made manifest the physical extents of the community, allowing for a greater 'sense of place' for its residents. The above brings us back then to some of the very fundamentals of urban design as it was then understood.

¹¹⁹ Advisory Committee, 10.

Frederick Gibberd, an influential British architect and urban designer, argued that an area's natural topography should guide the planning of all of a community's necessary requirements, and that a thorough study of an area's 'places', for lack of a better word, will make for the best utilization of the land.¹²⁰ Don Mills' initial stages of development exemplified this kind of urban design.

Taylor's development team had relative freedom¹²¹ in determining the zoning, siting, and architectural style of the new community, despite "extensive negotiations with the municipality and planning officials and other government agencies on many (if not every!) aspects of the development."¹²² The ability of Don Mills Development Ltd. to finance the necessary infrastructure, including the purchase of municipal bonds to help the local government finance the extension of water and sewer services, as well as guarantee the service debt on these bonds in case taxation revenues from the new development failed to cover it, gave the company the breadth of maneuverability in negotiating with the municipality that allowed for the introduction of experimental urban design principles. Years of planning by Taylor's development team before breaking ground provided the level of confidence necessary for undertaking such an ambitious scheme, and the ability to learn from others' mistakes proved invaluable. The critical importance of proper land use planning as a means to control municipal tax revenue was made abundantly clear in the aftermath of the 1929 market crash, as countless

¹²⁰ Please see "Part One: Design of the Complete Town" in Town Design by Frederick Gibberd for a more detailed explanation of his theory of 'town design'. (London: The Architectural Press, 1959.)

¹²¹ North York was not yet a municipality when Don Mills Developments Ltd. planned this new town, and the federated system of Metropolitan Toronto had not yet been established. The area was not yet covered under a 'master plan,' nor were extensive by-laws in place around which Don Mills Development Ltd. had to conform. As the development grew, however, the community quickly learned how to use the planning process to fight against any changes to zoning or density levels.

¹²² Marilyn McClaskey, "Don Mills: From Farmland to a Community. The Story of the Building of Don Mills by Don Mills Developments Limited." (Don Mills, August 1997). 10.

municipalities in Canada and the United States were bankrupted by the hasty and poorly planned scattered development of the preceding economic boom. A detailed study by the Urban Land Institute recommended a 60:40 assessment ratio of residential to commercial/industrial development, and it is was this understanding of industries' role in the creation of financially viable communities that led the Supervisor of Planning for Don Mills Development Ltd. to comment that industry was "the raison d'être for the town."¹²³ This is a point worth noting here because it was precisely the lack of industrial and commercial development in earlier attempts at creating 'New Towns' or 'Garden Cities,' that allowed opponents of modern urban design principles to smugly refer to these principles as utopian.

The successful marriage of residential and industrial areas, as well as the mixture of housing types so admired by their contemporary urban designers, was largely the work of Mr. Fraser's nephew, Macklin Hancock. Mr. Hancock was hired to be the Supervisor of Planning while still a student at Harvard's Graduate School of Design, at the age of 28. With a degree in Horticulture, specializing in Landscape Design, and two years of post graduate studies working with such prominent planning figures as Hideo Sasaki, and Sir William G. Holford, Macklin Hancock's stress on the importance of siting was a natural one, and the beautiful setting for residential and industrial precincts alike should be credited to his appreciation and understanding of the potential of the Don Mills site. This appreciation, combined with his knowledge of planning precedents set by figures like Henry Wright and Clarence Stein in the United States, and by urban designers in Europe, too numerous too list here, as well as the work of less prestigious figures like Mr. H. J.

¹²³ Macklin L. Hancock and Douglas H. Lee, "Don Mills New Town," RAIC Journal, January 1954, Serial No. 341, Vol. 31, No.1, 6.

Bird, a well known contractor from Western Canada (fig. 69), resulted in an ingenious master plan (fig. 70).

As already noted, certain conditions were established by the Township of North York and by previous planning consultants (notably among these consultants were Holford and Sasaki) commissioned by Canadian Equity and Development Corporation during their on-going process of land acquisition. The ravine system of the Don Valley and the rail lines of CNR and CPR largely determined the general zoning and greenbelt areas (fig. 71). The Development Company and the local government were not in agreement, however, when it came to designing the residential areas in greater detail. There was no provision for multiple housing for example, and very little thought had been given to the need for varied types of accommodation. Hancock's master plan on the other hand, made provision for medium to high-density development, including tower and 'garden apartments' (figs. 72), which were sited "adjacent to ravines, the town centre or with commanding views of the countryside."¹²⁴ In this way, Hancock hoped to avoid the usual ghettoizing of segments of the new town's population. This 'balanced' approach taken by Don Mills Developments Ltd. may be explained, in part, by the following:

The Company, upon the advice of the planners involved in the preliminary studies, considered that a balance of people of varied income levels was desirable for long lasting success of residential, commercial, and industrial development. Housing, therefore, had to be developed for families of not only middle and high-income levels, but also for those primary workers with gainful employment in the industries of the town.¹²⁵

¹²⁴ Hancock and Lee, "Don Mills," 7.

¹²⁵ Hancock and Lee, "Don Mills," 6.

Winnipeg, Wildwood, Aerial View

Fig. 69

Canadian version of Radburn plan, developed by H. J. Bird, known as the "Wildwood" system, named after subdivision in Winnipeg

Fig. 70
Don Mills, Masterplan, Hancock

Fig. 71
Don Mills, Land Use Study

Fig. 72
Don Mills, Detail of Masterplan, Hancock

The decision makers among the executives involved in this development should be given credit for taking heed of the advice of the planning consultants, and not simply shelving their reports as is so often the fate of these kinds of studies. With this goal in mind “the company aimed at providing about 55% rental accommodation (of various types) and 45% home ownership, a ratio that was a new concept in North American land development. The ratio actually achieved was closer to 50:50. This master plan would not seem remarkable had the LCC in Britain or some other municipally funded development agency in Europe commissioned it. As a venture by private enterprise, it was remarkable indeed. The supply of rental accommodation in Don Mills was remarkable for another reason - one which is of particular interest to this study - and that was its unique provision of row housing.

Unfortunately, although the developer was able to attract industry and commerce, the ideal of the employees of these same businesses living within the community was not to be realized. The reason generally given at the time for this was the failure of the development to offer accommodation within the reach of lower middle income families. This is not really an accurate portrayal of the situation. The issues that surround individual choices concerning where to live are varied and are subject to the vagaries of personal choice. In other words, the cost of accommodation is one among many factors that come into play when deciding where to live. It is also not necessarily possible to predetermine the final cost of planned accommodation within a system of speculative real estate development, for as Henry Fliess would later conclude after thirty years of practice:

As new higher-density solutions are evolved which intelligently solve the problems of housing families, then land values and house prices will

always increase to the maximum possible, so that only the population in the upper half of the income scale can afford it – and this half of the population seems to be forever shrinking. That is to say, no ingenuity in the utilization of land on the part of the architect has ever helped to solve the problem of making economic housing available to the majority of the population.¹²⁶

This being said, the ultimate fate of ‘affordable housing’ was not foreseen by the idealistic architectural practices of many of this generation, including those of Henry Fliess, James Murray, Michael Bach, Jack Klein and Henry Sears.

II. Architects Design the Small House

Before any detailed study of the row housing designs this study is most concerned with can proceed, some understanding of the treatment of the more popular, ‘traditional’ suburban house in Don Mills should be undertaken in order to better appreciate the critical role site planning and a modern sensibility toward community living played in their creation.

Once Don Mills had proven to be popular with industry,¹²⁷ the first phase of residential development commenced in the area northwest of the intersection of Don Mills and Lawrence. It was the first ‘Satellite City’¹²⁸ to be developed in North America based on modern urban design principles.¹²⁹ Beyond the parameters set out in Stein and

¹²⁶ Henry Fliess “Affordable Housing” *The Canadian Architect*, August 1977, Vol. 22, No. 8, 23.

¹²⁷ Don Mills’ success in attracting industry is described in an article in the *Financial Post*, dated March 21, 1953. The residential building began in April 1953.

¹²⁸ A Satellite City is defined in the *Art and Architecture Thesaurus* of the Getty Research Institute as: “smaller cities on the outskirts of larger metropolitan areas that are independent of the larger city’s jurisdiction but within its economic and social orbit.” (New York: Oxford University Press, 1994, 2nd Ed.)

¹²⁹ The development of Kitimat, B.C., Canada’s New Town built for the Aluminum Company of Canada (Alcan) and planned by Clarence Stein and Mayer and Whittlesey of New York, had begun earlier in 1952. The differences between a satellite city and an isolated new town developed around a primary industry are significant, however, and the absence of a large variety of accommodation, particularly in terms of rental accommodation provided for in Kitimat makes it much less relevant to the problems of the sprawling metropolis. A comparison between Kitimat, BC, and Eliot Lake, ON, may be of interest to those concerned with the particular problems associated with the creation of a ‘one industry town.’

Wright's Radburn plan, Don Mills Development Ltd. was pioneering in another way, namely its use of 'architect-builder teams.' The fostering of a new understanding and respect for the abilities of all members of the development team would play a significant role in the creation of the experimental row housing projects in Don Mills; the success of which questioned, for the first time, the ubiquitous preference of the Canadian public for the single-family detached house.

The insistence on the part of Don Mills Development Ltd. that all houses built in Don Mills be designed by registered architects was not only unusual, it was the antithesis of accepted practice in the development of residential subdivisions in North America. The participation of architects in the design of mass or tract housing, despite the interest shown by figures like Walter Gropius, and Le Corbusier, was still considered by the majority of architects to go against a fundamental precept of their profession - the creation of *unique works of art*. The majority of speculative builders were equally convinced of the inappropriateness of involving architects in the design of tract housing. An article written in 1956, dealing specifically with this aspect of the Don Mills project described the arrangement this way.

To achieve unity over a ten-year development, the company worked closely with the speculative builders and their architects, from the purchase of the land by the builder to the completion and sale of the house. Control, over who built in Don Mills and who designed for the builder was flexible and simple: the company was, of course, free to sell or not to sell land to a builder, and it required the builder to submit designs, for approval, *from registered, qualified architects*.¹³⁰

This remains a significant departure from normal practice in the development of residential neighbourhoods, and even when a building requires the stamp of an architect,

¹³⁰ Sara Bowser, "The Architect and the Merchant Builder," The Canadian Architect, March 1956, Vol. 1, No. 3, 25. [Italic emphasis is mine]

the architect is more likely than not employed in only a fraction of his/her professional capacity. A general lack of appreciation for the benefits of good design by both the developer and the public has resulted in the *designer's* input often being limited to ensuring that the building complies with all relevant codes and standards and follows good material detailing practice – i.e. those items of greatest legal concern in terms of liability.

The desire to bring about a better working relationship between the speculative builder and the architect in Don Mills may be best understood as the natural outcome of its developer's aim, "to create, under the free enterprise system, an integrated new town which will satisfy the requirements of private investment, *and* which will also be in accordance with the best principles of town planning."¹³¹ Retaining a large measure of control over the development of all areas in Don Mills was seen as essential to achieving this aim. In recalling how he came to be involved in Don Mills, Henry Fliess described the steps that led builders to 'their' architects.¹³² The builders' initial designs were often rejected, and in order to save the builder time and aggravation, the architectural committee would suggest an architect(s) whom they knew to be in sympathy with their goals. "It [was] the conviction of the Development Company that the architectural expression of the new town be in keeping with the overall approach to land planning."¹³³ Modern 'land planning' demanded modern architecture. With this in mind, Maklin Hancock made some initial inquiries at the University of Toronto's School of Architecture. George Hassig was the first to sign on, followed by James Murray, who

¹³¹ Hancock and Lee, "Don Mills," 9. [Italic emphasis is mine]

¹³² Interview with Henry Fliess, October 28, 1999.

¹³³ Hancock and Lee, "Don Mills," 8.

recommended Henry Fliess. Michael Bach was also among this first group of architects who took on the challenge of working as a team with speculative builders. As has been noted earlier, the Faculty of Architecture at this time advocated greater involvement by architects in the design of housing and community planning. This group in particular also had a notable allegiance to Swedish Empiricism and other 'anti-heroic' movements. Their willingness to take part in the development company's experiment may, therefore, largely be attributed to their personal sense of obligation to housing. Their teaching positions would also have played a role in their decision by providing the economic security that is so often necessary when one is contemplating taking part in an experimental project.

The consideration given to siting individual houses would also prove significant to the later development of row housing, because the relationship created between row houses and their site, and to each other, largely determines a project's success or failure. Another design principle apparent in Fliess' row housing projects comes to light through the planners' explanation of their strategy: "Rather than achieving variety by the application of applied ornament, interest should be derived by proper treatment of house sitings, setbacks, colouring and landscaping. To help ensure this, numerous siting studies are carried out by the Development Company."¹³⁴ (figs. 73-4) Don Mill's planners' understanding of the potential inherent in the relationship worked out between a building and its site resulted in a unique residential environment (fig. 75-6). Their early involvement in the design stage of the houses allowed for, as far as I can determine at this stage, an unprecedented variety in the exterior expression of the same basic interior plan,

¹³⁴ Hancock and Lee, "Don Mills," 8.

Siting Study for Cassidy Place

Fig. 73
Don Mills, Siting study

Fig. 74
Don Mills, Siting Study

Fig. 75

Don Mills, View of varying relationships of houses to their sites

Fig. 76

Don Mills, View of effect of low siting of houses

Fig. 77

Don Mills, Threatening scale of new 'monster' homes

simply by manipulating the building's relationship to grade and the placement of windows. It was this care for siting that continues to set the Don Mills residences apart from most speculative 'tract' housing, and makes their replacement with 'monster houses' particularly upsetting (fig. 77).

The programmatic requirements for the design of the houses, in the early phases of development at least, included the creation of house plans, which could be easily, and economically 'customized' to suit the different kinds of sites found in Don Mills. The relatively small size of the houses was also a determining factor. CMHC guidelines prescribed the square footage and the final selling price of these houses through their mortgaging policies (fig. 78).

Fig. 78

Hancock and Lee had also taken steps before any detailed design of the houses had begun to ensure that their overall planning concepts for the residential neighbourhoods would prevail. These steps included:

- 1- **Respect for existing topography.** The leveling off of grades and the removal of mature trees was carefully supervised, and often prohibited.
- 2- **The use of relatively square lots.** This allowed for greater freedom in siting the house on the lot, and provided what the planners referred to as “elbow room,” while also insuring greater visual and acoustic privacy.
- 3- **Encouraged the use of ‘open planning’ for interior living spaces.** Modern planning principles dictated a greater use of combined living-dining spaces, more streamlined kitchens, and the penetration of natural light into the house (including basement spaces), and a greater emphasis was placed on visual connections between spaces, both indoors and out.
- 4- **House design and siting were considered together** in order to make greater use of the lot, and to take advantage of any particular site characteristics, and to ensure a sense of physical connection between the house and its individual lot. Specifically this was felt to be made possible through: “(a) lower siting of the houses; (b) using larger windows in the living areas of the house when feasible; and (c) direct access from living areas to outside gardens or terraced areas wherever possible.”¹³⁵

To illustrate how the above affected the design of the houses in the early phases of development, three of Henry Fliess’ designs will be examined. The first design to be considered was a reworking of the traditional ‘Cape Cod Cottage’ for the Goodway Construction Company. The 1 ½-storey house offered the greatest amount of space for the least amount of money, and for this reason, was an almost ubiquitous house type during the 1930s and 1940s. The stress on ‘low-cost’ housing in the early 1950s also made it an appealing choice for inclusion in the early phases of Don Mills. Its notable absence in the articles concerned with praising the contemporary aspects of Don Mills,

¹³⁵ Hancock and Lee, “Don Mills,” 8-9.

including one written by its chief planners, betrayed the growing bias against this type in favour of the more 'contemporary' forms being generated in the designs for split-levels and bungalows. In fact, by the mid to late nineteen-fifties, the 1 ½-storey house had all but disappeared.¹³⁶ The number of 1 ½-storey houses built in the northwest quadrant of Don Mills on the other hand, underscored its continued economic appeal, and Fliess should be commended for his unique take on what had become a somewhat abused form of housing.¹³⁷

Fliess' particular achievement in his re-working of this type (in a three and a four-bedroom version) was in the opening-up of the ground floor, and the skill shown in the variety and simplicity of exterior elevations. In his hands, the typology of the Cape Cod cottage had been thoroughly modernized. The generous provision of glazing and his clever interplay of clearly expressed primary shapes continue to intrigue residents and visitors alike, as many of these houses have been lovingly kept up. Even those residents who have expanded or renovated, have taken care not to obliterate their original proportions. Deep overhanging eaves continue to serve double duty as they provide added shelter and accentuate the comforting relationship created by the scale of the roof relative to the size of the house. The desire of Don Mills' planners to 'customize' the house plans to their individual sites provided the impetus for alternating the main entrance between the front façade and the kitchen side, and the varying grade allowed for even greater variety in their exterior articulation. (figs. 79-82)

¹³⁶ Housing in Canada, a brief from CMHC to the United Nations in 1958 noted the trend away from 1 ½ and two-storey houses, which at this time resulted in "eight out of every 10 new single-family houses" being bungalows.

¹³⁷ Another version of a 1 ½ storey 'Cape Cod' was used to the exclusion of other types in the development of Levittown, N.Y.

Fig. 79
Don Mills, Views of Henry Fliess' Cape Cod variations

Fig. 80
Don Mills, Views of Henry Fliess' Cape Cod variations

Fig. 81
Don Mills, Views of Henry Fliess' Cape Cod Variations

Fig. 82
Don Mills, Views of renovated Henry Fliess Cape Cod design respecting
original scale and character

Both versions of the 1½ storey were alternately featured in editions of House Designs, a mail order catalogue of designs prepared by Canadian architects for, and pre-approved by CMHC, beginning in 1957,¹³⁸ with the four bedroom version appearing in successive additions into the mid-1970s. The obvious similarity of those published in House Designs to those built in Don Mills makes them a useful guide to their interior plans. (figs. 83-84) By extending the footprint of its wartime version along its gabled end by about one quarter, Henry Fliess provided enough extra volume to open up the interior living areas, without destroying the classic proportions of its precedent. The arrangement of all the living areas along one side of the house, allowed for uninterrupted views from the front of the house through to a large floor-to-ceiling window wall with a door to the back garden. This provided an exaggerated sense of the interior's space, magnified by the natural light flowing freely from front to back, and through the side. The elimination of unnecessary walls was also a key to opening up the floor plan. A freestanding cabinet abutting a load-bearing post served to define the extents of all three spaces: dining, living, and passageway. A further visual extension of this area was achieved by simply opening up the stairwell, a device used to great effect in many of his designs.

Fliess' design solutions may be better appreciated through their comparison to a selection of 'Cape Cod' designs that were popular after the Second World War. Three versions featured in Canadian Homes and Gardens in July 1949, were taken from an exhibit of 'approved' house designs organized by CMHC (figs. 85-87). The article refers to these designs as "modernized version[s] of Cape Cod," though there is little evidence to justify this claim in their resolution of the floor plan or in their exterior treatments. All

¹³⁸ First edition of this catalogue was announced in Canadian Builder, October 1957, in an article entitled "Architectural Design: \$10 per house."

Fig. 83

Three bedroom 1-1/2 storey house by Henry Fliess featured in CMHC's catalogue of house designs

Fig. 84

Four bedroom 1-1/2 storey house design by Henry Fliess featured in CMHC catalogue of house designs

three designs employed rather traditional colonial detailing, and only one of the three floor plans has eliminated 'through traffic' (this was done at the expense of access to the dining room from the kitchen). Yet another version of this type, built in the mid-fifties by a merchant builder in the Port Credit subdivision, just west of Toronto, provides a contemporary contrast for those in Don Mills (fig. 88). Comparable in square footage, the openness achieved in Henry Fliess' interior layout may be readily observed. By including the space of the centrally located passage through the house as part of the living area, the house manages to shed its boxy dimensions. Similarly, direct access from the living area to the back garden, and a general increase in the amount of glazing, created a very different relationship between the house and its site. The lack of formal invention on the part of the Port Credit house is evident and needs no further comment.

The second single house design to be looked at here is "House No. 3" for Capital Construction Ltd. This house was particularly versatile in its ability to 'transform' itself according to site. Among Henry Fliess' job records were three variations of this house, differing significantly in the manner that it addressed the street. The freedom of siting house designs with either their broad or narrow side facing the street combined with an unusual concern for views *and* privacy has been credited with providing the "basis for imaginative architecture"¹³⁹ so clearly illustrated in Fliess' design solutions. The starting point would always be in working out a floor plan that would serve equally well should the site require different window placement, different entry points, high or low siting. House No. 3 illustrates this principle very well. The same interior plan is used for each

¹³⁹ Anonymous quote taken from Sara Bowser's article "The Architect and the Merchant Builder," The Canadian Architect, March 1956, Vol. 1, No. 3, 27.

© Here is a familiar small house that you see in many new developments today. It is a modernized version of Cape Cod, compactly planned to include 1,076 sq. ft. This house requires a minimum lot width of 42 ft. with drive, or 50 ft. without. You could improve its general appearance if you built on a generous lot with good foundation planting, and perhaps a garage attached to house with breezeway. The plan is reasonably good, although there is little to recommend the double doorway; some builders will place its cost over the single type, and it fails to afford any extra space. The closets upstairs might be enlarged to take in the whole wall to advantage, and the two shuttered windows in the front living room made into one. Cost: about \$8,700.

10 "Popular" Canadian Houses
How Would you rate Them?

Fig. 85

Fig. 86

Cape Cod designs as featured in Canadian Homes and Gardens, July 1949.

Fig. 87
Third Cape Cod design as featured in Canadian Homes and Gardens, July 1949

Fig. 88
Cape Cod design built in Port Credit, a contemporary subdivision with Don Mills

of the variations shown, with the exception of minor adjustments made in those that have alternated the placement of the fireplace with the living room window. (figs. 89 -90).

The third design, also for Capital Construction Company, offers an example of a different kind . Fliess' 'contemporary' split-level design received a level of attention not afforded to most of the other Don Mills single house designs, as is evidenced in the following two journal articles. The first, a short, one page article on "Contemporary Plans," in the trade journal National Builder featured two of Henry Fliess' single house designs built in Don Mills, the 1 ½ storey described above, and the split-level. However, it is the split-level design which receives top billing by the inclusion of a perspective drawing of its garden elevation, and a photograph to show "the spaciousness achieved inside the house."¹⁴⁰ The 1 ½ storey design, by contrast, receives brief mention in the final paragraph. The privileged position accorded to this split-level design is also evidenced by the following: "Site plan co-ordinator with the Don Mills Development Company made interesting groupings of this house possible and permitted selection of lots which were particularly suitable."¹⁴¹ This was contrary to their normal practice, which was to ensure that the designs would accommodate their site, not the other way around. The second article, a detailed one on Don Mills by its chief planners, devoted a whole page to Fliess' split-level design. But perhaps most remarkable of all was that its designer chose to live in one himself for more than three decades.

As has already been noted, the split-level house design was seen by many architects at this time as offering more freedom in finding formal solutions to the new

¹⁴⁰ National Builder, October 1956, Vol. 5, No. 10, 11.

¹⁴¹ National Builder, October 1956, Vol. 5, No. 10, 11.

Fig. 89
Don Mills, variations of a bungalow design for Capital Construction based
on particular lot types, Fliess, 1953

Fig. 90
Don Mills, variations of a bungalow design for Capital Construction based
on particular lot types, Fliess, 1953

programmatic requirements of contemporary family living, and Fliess' split-level design was only one among many built in Don Mills. The split-level was exciting for architects because of its potential for creating more dramatic interiors, and for greater play between interrelated spaces. At the same time, it allowed for greater functional segregation between domestic spaces, that is, the ability to separate sleeping areas from living areas, and children's play areas or adult workshop/office areas from other living areas, etc. There was also the greater possibility for natural illumination in all of these spaces by minor adjustments in grade or by taking advantage of naturally sloping sites.

Again, Fliess' particular achievement in this design was the exaggerated sense of interior space achieved in what may be considered a small detached house. Looking at the floor plan, with the added information provided by the aforementioned interior photograph, it is possible to gain some understanding of the interior layout and the devices employed in making the greatest use of space and natural light. (figs. 91-92) The plan is essentially square with a centrally located stairwell, and though the layout is very tight, Fliess achieved this economy without incurring any 'through traffic' patterns, a feature which is often overlooked in the planning of modest-sized homes. The living areas are again laid out on one side of the house with direct access to the back garden through double doors located at the side, leading to a sheltered terrace located behind the carport. The kitchen, located at the front of the house is directly accessible from the carport, and also benefits from a large glazed area, rising from counter height to the ceiling, following the rise of the roof. The placement of the bathroom above and adjacent to the entrance vestibule takes advantage of the possible economies of space inherent in both. There was also the possibility of direct access to the garden from the

Fig. 91
Don Mills, split-level design, interior view of
living room, Fliess, 1953

Fig. 92
Don Mills, split-level design, garden elevation
and floorplan, Fliess, 1953

work/office/play room with only a slight slope in grade. The photograph shows how light coming from the living and dining area windows is reflected on the wall and ceiling of the glazed-in stairwell. This was made possible by using post and beam construction in the high ceilinged area to allow for the use of a screen type room divider. Recent exterior views of some of these split-level houses (fig. 93), including Henry Fliess' former home, 55 Jocelyn Crescent (fig. 94), show how well they were sited into the overall street scene, with their undulating roofs leading the eye around the bend in the street.

These three examples of Don Mills' single family houses illustrate how the architect and the planners of Don Mills combined their efforts to create homes where the individual family benefited from thoughtfully planned interiors that took advantage of their individual sites and made the most of their outdoor spaces. Similar expectations were brought to bear on the design of Canada's first 'garden home'¹⁴² development designed by Murray and Fliess (1954), which succeeded in reintroducing this type of housing in Canada as a tenable alternative for both urban and suburban living. In fact, one of Don Mills' greatest contributions to urban design came in the form of pioneering, award-winning row housing projects.

The early stages of development in Don Mills occurred at a time when many forces were coming together to 'educate' the public about the advantages of modern design and community planning. The success of this 'Satellite City', in keeping to the Neighbourhood Unit model, in mixing housing types, in the provision of pedestrian access to community amenities (fig. 95), and the insistence on high quality design by registered architects, was thought to be proof of better things to come. Its developer,

¹⁴² Generally defined as a row housing development which includes the provision of both private and communal recreation/green spaces with restricted vehicular.

Fig. 93
Don Mills, views of spit-level design, Fliess, 1953

Fig. 94
Don Mills, views of 55 Jocelyn Crescent, Henry Fliess' former address

Fig. 95
Don Mills, views of pedestrian pathway linking houses to
community amenities

designers and builders were lauded over and over again in magazine and newspaper articles and academic journals alike. This experience had a lasting effect on many of the individuals involved, including Henry Fliess, and prepared the foundation for a better working relationship between developers and their architects. All of these factors would come together in the creation of some of the most notable twentieth-century row housing projects in North America – projects that built upon the precedents set by Stein and Wright in community design, and those of the most prized multiple housing designs of Scandinavia and Europe. Those who blame the suburban sprawl of the post war years on the example it set have unfairly judged Don Mills' legacy. While it is true that its planners advocated a wider individual lot and a relatively low density for urban living, they had, at the same time, attempted to introduce greater variety in accommodation, including novel forms of multiple family housing. Its developers also achieved an unprecedented 50% ratio between rented and owner occupied units, and there can be no doubt as to the example it set in terms of design. By focusing too narrowly on particular aspects of the development's single-family housing, critics of the example it set have ignored the other half of the story.

III. The Re-emergence of the Row House

The obvious advantages of developing row housing after the Second World War, due to economies of construction and materials, led many groups concerned with housing to begin a public awareness campaign. An article featured in Canadian Homes and Gardens had this to say:

In August, 1946, "Housing Horizons," Manufactures Life's housing research bulletin, gave particulars of the idea [for a row housing development] and sounded out opinions of builders, manufacturers and

investors. Favourably received, doubts still remained as to how tenants or possible owners would regard the re-introduction of such housing even in modern form and in keeping with the best principles of community planning.¹⁴³

Given these circumstances, Manufacturers Life developed a single row house in north Toronto to test its acceptance by the public and to illustrate the potential benefits of row housing design (fig. 96). According to the article, the benefits included more interior living space and, interestingly, greater visual and acoustic privacy than many single house developments (fig. 97), as well as a much greater potential for outdoor green spaces. The acute housing shortage and the stress on accommodating veterans skewed any real testing of the general public's acceptance of this form of family housing, and it remained an island unto itself for some time. The second experiment by John B. Parkin Associates, was "a variation of [the] "Manuhome" row house by Manufacturers Life Insurance Co."¹⁴⁴ This project was much larger in scale, and employed some of the modern principles of row house design, but it was not a garden home project in the strict sense (fig. 98). There was no attempt here to create communal green spaces. The division of property remained quite traditional, except in its adoption of parking 'compounds.' Neither of these early experiments managed to alter, in any significant way, the public perception of this type of housing.

The "Curtis Report," referred to earlier, had laid the ground work for the necessary legislation to aid in the financing of housing of this sort, and its offspring, the CMHC, played a crucial role in disseminating information and ideas about the need for more diverse housing developments. It was not until a decade later, however, that this

¹⁴³ "Terrace Housing," 46.

¹⁴⁴ Newspaper clipping found in a file of loose sketches of row housing ideas. Job Files. Fliess Gates McGowan Easton Architects, Toronto.

Fig. 96
Toronto, Manufacturer's Life Insurance Co., experimental row housing
development: front view and floorplans

Fig. 97
Pros and cons of small singles subdivision versus row housing rental community

Fig. 98
Toronto, Manufacturer's Life Insurance Co.'s second experimental row housing
development designed by J.B. Parkin Associates: site plan and perspective

report had any significant impact. In 1953, CMHC made the momentous decision to “raise the maximum loan for row housing to the same level as that for individual houses.”¹⁴⁵ A year later, Stewart Bates took over as president of the CMHC, and the stress on individual home ownership was finally slackened to allow for the promotion of other types of housing. The collaborative spirit that existed between the RAIC and the CMHC during this period was also very conducive to the creation of experimental housing projects.

Two extensive supplements on housing prepared by CMHC, under the direction of Humphrey Carver, appeared in the RAIC Journal in the early fifties. The first dealt with the three main types of housing: the single family house, row housing and apartments. The second tackled the issue of community design, advocating the “Neighbourhood Unit” planning model, and presented several examples of using a variety of housing forms to produce medium to high density developments, each illustrating some of the fundamental principles of modern planning. Four aspects in particular are of interest to this study: the crucial role of proper siting of the various types of housing in relation to each other and essential community services, such as schools, public transit and shopping centres; the need to set aside a percentage of the budget for extensive landscaping; the potential for creating architecturally pleasing streetscapes through the siting of a variety of housing types, and not through a superficial mixture of exterior treatments; and the influential role played by lending institutions through their mortgage policies. This last point is one that has not been given due consideration in the various reports on housing by either public or private interests.

¹⁴⁵ Henry Fliess, “Row Houses Have A Place In Our Future Housing Plans.” Canadian Builder, March 1953, 31.

Many of the most exemplary experimental multiple housing projects of the modern movement before the Second World War had equally experimental financing arrangements, a point which Catherine Bauer made very clear in her extensive study on the subject. This issue is a critical one. The role played by CMHC in influencing lending institutions, either through direct contributions of mortgage money, guaranteeing mortgage money, or through their information campaigns, was a deciding factor in the realization of the housing projects to be considered here. The limitations of their influence were also made abundantly clear by the simultaneous explosion of suburban sprawl. This point was stated simply enough in the article: "The judgements that are made by representatives of [lending] institutions, with regard to the design of housing, the type and size of accommodation, play an important part in determining the kind of environment in which Canadians live."¹⁴⁶

Also included in this supplement, was a matter-of-fact presentation of housing statistics to support their argument for the need to provide more rental accommodation in general.

The focus of attention upon the production of family housing for owner-occupation has somewhat obscured the requirements of other elements in the population, whose needs have had to be met by adapting the older parts of the housing stock. There is reason to believe that a well-rounded housing programme should contain a proportion of housing suitable for rental purposes, particularly for those households which are not most conveniently and economically housed in single-family houses. Other forms of accommodation such as row housing, apartments and small units for old people would usefully supplement the stock in new residential neighbourhoods.¹⁴⁷

¹⁴⁶ Central Mortgage and Housing Corporation "Housing Design, Parts 5-8" RAIC Journal, May 1953, Serial No. 333, Vol. 30, No. 5, 44. (Note: "Housing Design, Parts 1-4" appeared in the September 1952 issue of the RAIC Journal).

¹⁴⁷ Central Mortgage and Housing Corporation "Housing Design," 43.

Henry Fliess also wrote an article, again largely based on his travels, devoted exclusively to the subject of row housing. It was particularly aimed at convincing developers and small builders of the advantages of row house developments *if* designed according to the best modern planning principles. The article was entitled “Row Houses Have A place in Our Future Housing Plans,” and was published in 1953 in Canadian Builder. It featured projects from the United States, Sweden, and Switzerland. This article presents a couple of the recurring themes that appeared in journals related to housing for a decade or more, culminating in a joint committee of inquiry put together by the RAIC and funded by CMHC in 1959. This inquiry will be dealt with in detail in the following chapter. For now, it will suffice to note a couple of the main complaints as they relate to the development of more row housing. Mr. Fliess writes:

The outskirts of our fast expanding industrial cities give us the clearest picture of what is happening. Here we see rows and rows of almost identical houses spaced as closely together as the by-laws and the regulations of the lending institutions will allow. The house types are few and can usually be found with very little variation in all the newly built-up areas of each city.¹⁴⁸

His argument is clear and to the point: “The individual house just does not provide the answer to the housing problem for over two-thirds of the population who simply cannot afford it.”¹⁴⁹ So instead of trying to reduce the costs of housing through the mass production of thoughtless overcrowded individual buildings monotonously laid out along an unremarkable street grid (figs. 99-100), the builder’s costs could be more effectively reduced, without the negative results, through the considered planning of row housing developments.

¹⁴⁸ Fliess, “Row Houses,” 31.

¹⁴⁹ Fliess, “Row Houses,” 31.

Fig. 99
Illustration of monotonous and banal streetscape produced by
thoughtless single house tract development

Fig. 100
Long Island, contemporary development with Sunnyside Gardens

The reduction of costs through the 'rationalization' of outdated construction techniques became the focus of most private builders at the time. CMHC had also invested a lot of research and development money in their attempt to take advantage of the mechanistic advances gained through the course of the war - mass production techniques could solve the housing crisis, or so they believed. The failure to achieve significant gains in the mass production of housing is a complicated issue, and one which I may not usefully go into here, except as it relates to the lack of cooperation between the building industry and related designers. Frank Lloyd Wright, among others, argued that in the hands of the thoughtful designer, machine processes could be made to serve the cause of beauty and economy while remaining true to the nature of materials and the principles of organic design.¹⁵⁰ Herein lies the rub: 'good' design was of paramount importance due to a different understanding of the possibilities afforded through mass production in the case of the builder and the architect.

The builder had proven himself capable of building a house in a day as early as 1953 using prefab components (fig. 101), but was the product – somebody's future home – something to boast about?¹⁵¹ The use of modern mechanical processes does not, in any way, guarantee a similarly modern product, as William Morris pointed out a century earlier. The goal of the builder/developer was essentially to 'speed up' the assembly process. The designer, on the one hand, will see many areas where cost savings may be possible, if a project is properly considered ahead of time. For example, a well-organized detail library will allow for a certain amount of mass-production by making minor

¹⁵⁰ For an unmitigated version of what FLW meant by organic design, and the possibilities for processing natural materials, see the collection of his lectures under the title The New Architecture.

¹⁵¹ Prefabber Demonstrates One-day Home," Canadian Builder, September 1953, 38-39.

Fig. 101
 Prefab housing project featured in Canadian
 Builder, September 1953

adjustment to a series of previously well designed 'parts.' Or, a designer may see potential in using a cheaper material in a different application than what was considered normal practice. If both sides were brought together, the Bauhaus ideal of promoting good design by embracing industrial processes would be realized. This kind of cooperation has, as yet, never been realized but has instead been limited to the creation of prototypes for expositions, and therefore the projected savings are never achieved. Henry Fliess himself would participate in this kind of experiment for the creation of more 'affordable housing,' in 1967, when he designed a partially prefabricated housing unit (fig. 102), called "The Mod," that could be built individually or in clusters.¹⁵²

Beyond the potential savings in land, servicing, and material costs, there was another, more illusive benefit inherent in a greater use of row housing developments. This was their potential to create more engaging and memorable urban spaces and places.

In the hands of the imaginative designer the row house offers infinite possibilities; and when the form and nature of the land – the trees, the slopes, the rivers, the views – are taken into account, each residential community will take on a special character. By using natural features instead of destroying them we can create many visual delights: we can group a number of houses around an old oak, or we can step a row of houses dramatically down the slope of a hill, or we can open up an interesting view – to give just a few examples.¹⁵³

In describing Henry Wright and Clarence Stein's Chatham Village, another, now familiar point is made, and it is this understanding which would later inform Fliess' own designs for row-housing. "[Chatham Village] depends for its quality not so much on the individual houses, which are simple and unassuming, but rather on the grouping and

¹⁵² "The Mod" was designed in partnership with Stelco Ltd., and Consumer's Gas Company's as the Model Home for the centennial year's National Home Show. Two of the three units were later moved to Hillfield-Strathallen colleges for use as campus housing.

¹⁵³ Henry Fliess, "Row Houses," 32.

Fig. 102
Henry Fliess' Mod house designed for 1967 National Home Shows:
plans perspectives and photograph of model constructed for show

layout.”¹⁵⁴ I would like to refer the reader, again, to a passage by Giedion cited in the first chapter where he enumerates the qualities that have made late eighteenth and early nineteenth-century British urban design especially successful.

IV. Canada's first Garden Home Development

Honoured with a Massey Silver Medal, South Hill Village set the stage, and the benchmark, for a flowering of row housing developments across the country. Designed by Fliess and Murray in 1954, it was the first ‘garden home’ development in Canada. (fig. 103) The ‘open’ planning of interior living spaces, and the introduction of a split-level design, made it the first of its kind in North America. The critical and popular success of this project was responsible for the continued use of row housing in successive stages of development in Don Mills.

Several factors account for the realization of this project at a time when row housing was “usually associated with dreary, solid-packed, narrow streets.”¹⁵⁵ First, there was the idealistic master plan for Don Mills by Macklin Hancock, who at the age of twenty-eight believed his plan was possible to achieve. Secondly, the prestige of the man behind the development projects at Don Mills as a whole, E. P. Taylor, would have held sway in the negotiations with lending institutions. Thirdly, CMHC had recently raised the profile of row housing by increasing the amount of financing available for their construction, and by actively promoting the use of row housing in their ‘balanced’ community information campaign. Also necessary, of course, was the participation of a builder who was interested in exploring new ideas, and who was willing to invest time

¹⁵⁴ Henry Fliess, “Row Houses,” 32.

¹⁵⁵ “Terrace Housing” Canadian Homes and Gardens September 1948, Vol25, No. 9, 24.

Fig. 103
Toronto, South Hill Village, an experimental 'garden home' project
designed by Murray and Fliess

and money in researching row housing developments, like Chatham Village, to determine the best possible course of action for a rental project of this kind. And finally, there were the architects whose interest, experience, and talent in housing design made the reintroduction of row housing palatable to the public.

Among Fliess' project files for South Hill, is a copy of a memorandum from the builder, Roy P. Rogers, concerning the rental agreement for Chatham Village. Chatham Village (Pittsburg, 1930-35), with a similar division of private and semi-private green spaces, and twenty-years of experience dealing with this kind of rental project made it an invaluable case study for South Hill. Besides some of the more obvious physical planning principles – the grouping of row houses in a park-like setting, the use of garage compounds, and the creation of a series of row house groupings around smaller, more intimate courts – perhaps the most influential principle demonstrated at Chatham Village was an economic one. For as Clarence Stein wrote in 1949:

A well-managed rental policy in a large-scale, planned community appears to pay the landlord better than does a sales policy.... The 4.2 per cent average net return on investment, with half that investment paid off out of earnings in 15 years at Chatham Village, seems adequate evidence of the advantage in renting to the proprietor of a well planned and well operated housing community.¹⁵⁶

This is quite a testament for the soundness of investing in a well-planned rental housing community, for in spite of unheard of financial hardship during the years of the Great Depression and the Second World War, Chatham Village was a financial success.

One important victory for the architects of South Hill was the decision to use 'green fencing' to delineate the private garden spaces. The added expense due to the

¹⁵⁶ Clarence Stein, Towards New Towns for America (Cambridge, Massachusetts: MIT Press, Third Edition, 1966) 85.

higher maintenance costs of hedging was surely a point of contention between the designers and Roy P. Rogers Enterprises Ltd., who had been advised upon their visit to Chatham Village to seek out alternatives to using hedges or to make adequate provision (i.e. higher rentals) for professional maintenance. The battle for the unequalled quality of landscape achieved through the use of 'green fencing' would prove to be a recurring one for Fliess throughout his career, and the passage of time has only served to prove, over and over again, the wisdom of choosing some form of hedging rather than wooden plank or metal fencing, particularly in more modest developments.

The superiority of brick as an exterior finish would also prove to be a hard sell in Fliess' later projects, despite its reputation for weathering beautifully and for being relatively maintenance free (when properly detailed). Again, it must be kept in mind, that the reasons for choosing brick as a finishing material, as well as hedges for fencing, are the direct result of the builder's long-term interest in a rental project. When maintenance is a concern, a greater initial cost is thought to be acceptable. Similar decisions are prevalent in the construction of co-operatives and condominiums due to similar maintenance issues. If South Hill was built for quick sale to individual owners, it is very unlikely that similar finishing materials or the extensive landscaping could have been justified. Other practical provisions for service wires, including television cables in the case of South Hill, and for the storage of maintenance equipment and garbage, were also noted at Chatham Village by both the builder and the architects, and were thus easily incorporated into the South Hill plan.

The rental agreement for South Hill also included a clause dealing with hanging laundry. Each tenant was supplied with a collapsible umbrella style clothesline which

was to be stored in the basement when not in use. In hindsight this provision may seem more than a little impractical, or even mean spirited, but it must be remembered that the architects of South Hill were battling considerable prejudice against this form of housing, and the impression of endless rows of hanging laundry was surely one they wished to get away from, regardless of any of the other more practical considerations such as competing uses for these outdoor spaces.

Their particular solution worked out for the storage of the tenants' garbage garnered an unusual amount of attention, including top billing in at least one contemporary article on the project (fig. 104). The solution was simple enough. At the main entrance to every unit, closed storage was provided for garbage, and a few gardening tools. It was the manner in which the storage boxes were detailed that drew so much attention. By using the same finishing brick as the units themselves, and reserving the upper portion for plantings, the architects had turned the storage of garbage and tools into a positive decorative element, which animates the front façade and helps to delineate the main entry to individual units (figs. 105). The provision of exterior storage at the entrance to individual units was an element Fliess would continue to include in most of his row housing designs, and may even be considered a signature detail.

The consideration given to such practical aspects of housing design clearly indicates a genuine concern by the architects to accommodate the functions of everyday life. Murray and Fliess saw making ordinary tasks less ordinary and easier to perform as an integral part of their job as designers. Their role was not simply to make a building look good, but also to make the best of the programmatic requirements – closets large enough to be useful, kitchens which saved the cook steps, adequate privacy from

Piece de Resistance

Flower-Box Garbage Garden Apts. Motif

Construction has started on 120 units of garden housing in the Don Mills development.

The three-bedroom rental houses will be built in units of four and six and will include two-story and split-level designs, Roy P. Rogers, the builder, announces. Some will be ready by late summer, he said.

The terraced housing will be located on an 11-acre site on Barber Greene rd. in the southwest section of the Don Mills community.

COMPARABLE RENTS

Rents will be comparable to those for two-bedroom apartments, Mr. Rogers said.

Angus McClasky, president of Don Mills Developments Ltd., said the houses were designed to meet a rental housing demand not being met elsewhere in Metropolitan Toronto.

The garden housing was designed by Toronto architects Henry Fleiss and James A. Murray. There are four different designs, some with flat and others with peaked roofs.

Maintenance will be shared between tenant and landlord. Each unit will have a 25-foot deep-hedged area at the back. Garbage cans well hidden in special cupboards in flower-

R. C. Kagsdale
ROY P. ROGERS
Builder of new units

topped boxes at the front of the houses. Tenants will be supplied with collapsible umbrella-type clotheslines.

INDIVIDUAL HEATING

Each house will have its own heating unit.

About half the houses will have covered parking facilities and the other half, open parking.

Mr. Rogers said his company had studied the best housing of the type in the United States before starting construction in Don Mills.

Fig. 104

Article about development of South Hill Village, Toronto, 1954

neighbours and unknown callers, etc. Such practical considerations, along with their keen sense of architectural composition, have made for an unusually satisfying living environment. This contention is borne out by the fact that units in South Hill Village, now a condominium project, are often sold before a real estate agent has even put up a for sale sign.¹⁵⁷

Fig. 105
Don Mills, South Hill Village, Murray and Fliess, 1955

The interior arrangement of living and sleeping areas in row housing is a tricky business for several reasons. The extent of shared spaces, both visual, physical and acoustical give rise to special considerations, as well as the need to provide sufficient natural light with only two exposures. Nineteenth century terrace, or row housing tended to be long and narrow in plan, generally leaving their central core in perpetual darkness. When combined with high densities, a lack of sunlight was compounded by a lack of

¹⁵⁷ This story was related to me on a site visit to South Hill Village by the caretaker. This gentleman had been employed at South Hill for almost two decades. He also commented on the quality of the project, and its popularity among retirees.

fresh air (figs. 106-07). By the 1950s modern planners had managed to dispel the illusions of economy said to be gained from such overcrowding, and modern domestic hygiene had developed a series of guidelines and regulations governing new and existing buildings, speaking in such terms as an individual's right to sunlight. Add to this new building technologies and materials, and the stage was set for the creation of a very different quality of interior living space. A comparison between the interior layout of the two and three bedroom row house at Chatham Village (fig. 49) with the two versions of a three-bedroom row house at South Hill illustrates the 'opening-up' of interior living space made possible (fig. 108). The open-planning of the split-level design also indicates wide public acceptance, even a public demand, for a more casual domestic lifestyle through its use in a speculative rental housing project.

As may be expected, earlier versions of interior layout by the architects proposed even greater openness, and included a combination of two and three bedroom plans. One earlier version of the split-level featured a first floor laundry and playroom separate from the living room, but visible from the kitchen through an opening between upper and lower cupboards (fig. 109). This is one of the earliest examples to my knowledge of the combined kitchen/family room, though perhaps more enlightened for its inclusion of laundry facilities within the combination. An open divider was used to shield the living room from the main entrance, while still allowing light to flow freely from one side of the house to the other. The inclusion of a skylight over the windowless bathroom in this, and successive versions, is also a notable feature (fig. 110).

There was also a smaller, basementless two-storey design which appears to have aimed at providing a kind of link between the split-level and the larger two-storey design,

Fig. 106

Fig. 107

Sources of prejudice against row housing

Fig. 108
Don Mills, South Hill Village: built versions of two
storey and split level row houses

Fig. 109
Don Mills, South Hill Village, proposed split level floorplan

Fig. 110
Don Mills, South Hill Village, bird's eye perspective of split level design

as well as to provide greater choice of floor plans to better suit a variety of family sizes and life-styles (fig. 111-12). The layout of the smaller two-storey design was much like a two + 1 bedroom apartment, including the provision of a large storage room, exemplifying the concept of an apartment with direct entry from the outside and space for a garden. The architects also proposed a choice of main floor layouts for the two-storey unit, one with access to the back garden from an open concept kitchen (fig. 113). Again, this earlier proposal envisioned a much more open arrangement, combining kitchen and dining areas with a central 'island.' A second layout provided garden access from the living area with an 'eat in' kitchen at the front of the house (fig. 114). The latter was shelved, perhaps for simplicity's sake, leaving only two types of floor plan - one for the split-level and one for the two-storey unit.

The final two floor plans (fig. 108) were arrived at through considerations of amenity, style, and of course, cost. Interestingly, the split-level was notably more expensive per square foot than the two-storey unit which translated to a slightly higher monthly rent. Why would prospective tenants be willing to pay more for less space? I can only conclude that the different quality of space, not to mention its novelty, especially when combined with the unique development as a whole, made the split-level more attractive to many people at this time. It may also be explained, in part, by the added convenience of an additional washroom noted in the South Hill Village rental information pamphlet (fig. 115), though this addition does not appear on any published plans, even years after their construction.

The superior quality of the overall site plan itself, as necessarily determined through phenomenal experience, is difficult to express in words, though certain concrete

Fig. 111
Don Mills, South Hill Village, proposed basementless plan

Fig. 112
Don Mills, South Hill Village, basementless unit perspective

Fig. 113
Don Mills, South Hill Village, floorplan of two storey unit

Fig. 114
Don Mills, South Hill Village, proposed two storey plan with kitchenette front

ROY P. ROGERS ENTERPRISES LIMITED

GARDEN HOMES

We are pleased to advise that construction has started on our garden homes project in Don Mills, the first of its type in Canada. You will be interested to learn that six months has been spent studying this type of construction in the U.S. before it was decided to build in Don Mills and that the nearest thing to our new project is the garden housing in Chatham Village near Pittsburgh. Our houses however will be better than anything now being operated in the U.S. This project will give the impression of a group of houses set in a park. There is private garden space for each unit plus an interior system of parks for the quiet enjoyment of a number of families.

In response to the large number of inquiries we have received, the following summary of general information has been prepared for your convenience.

Many people are interested to know how garden homes differ from row housing. May we explain that row houses are normally rows of attached houses that line a street with little attempt made to establish any individualism whereas garden houses are set into a large park area and in addition each house is provided with a completely private garden area.

Types:

There are four distinctly different types of exterior designs with two types of interior layouts - one being a two storey house with three bedrooms and bathroom, the other a split level design with three bedrooms, bathroom and extra washroom.

Tentative Rentals:

Two Storey Type

\$ 110.00 to \$ 115.00

Split Level Type

\$ 115.00 to \$ 120.00

Carport

\$ 6.00 optional

Outside Parking

\$ 3.00 optional

Occupancy Dates:

Houses are now renting from plans and models, and the first units are scheduled for occupancy September 1, 1955.

Room Sizes:

Two Storey

Living room

15' 1" x 12' 7"

Dining room

10' 1" x 8' 6"

Kitchen

11' 10" x 11' 1"

Bedroom #1

13' 1" x 9' 5"

Bedroom #2

11' 4" x 9' 7"

Bedroom #3

11' 10" x 8' 2"

Bathroom

7' 11" x 5' 1"

Basement

21' 4" x 23' 3"

Split Level

Living Room

11' 7" x 14' 3"

Dining Room

8' 6" x 10' 0"

Kitchen

7' 9" x 10' 0"

Bedroom #1

11' 4" x 11' 4"

Bedroom #2

9' 7" x 12' 8"

Bedroom #3

9' 8" x 11' 2"

Washroom

3' 6" x 4' 2"

Bathroom

7' 0" x 5' 1"

Basement

9' 4" x 23' 4"

Heating:

Each house will be equipped with an oil operated forced hot air heating system and our engineers estimate that it will cost an average of \$10.00 per month for fuel oil. Hot water will be provided from a tank located in the basement which will be equipped with an immersion heater. It is estimated that cost of hot water will range from \$2.75 to \$4.00 month depending on size of family.

Decorating & Equipment:

Houses will be decorated and tenants will be given a choice of colours. Electric fixtures will be supplied but tenants will provide their own stove and refrigerator. A double set of laundry tubs will be located in the basement and a collapsible removable type clothesline will be provided for the back lawn.

Television:

The latest type of television equipment will be installed and each house will be equipped with a television outlet. This service is included in the rent.

Caretaking Service:

All lawn areas will be maintained by the management with the exception of a hedged twenty-five foot deep area at the back of each house which will be cared for by the tenant. The removal of snow from the carport and parking areas will be looked after by the management - the tenant will take care of the walk from the front of the house to the street.

Transportation:

There is regular TTC Bus Service serving the area.

Schools:

Temporary public school accommodation has been provided at Lawrence and Don Mills. The contract for the construction of a public school serving this area has been let, and will be opened January 1, 1956. High school facilities will be available for the fall term of 1956.

Fig. 115
Excerpt from South Hill Village rental pamphlet

design decisions can be noted as contributing to its success (figs. 103, 116). There was a very generous provision of open green space, determined largely by Don Mills' Planners, but this in itself does not explain its livability, as later more densely planned projects clearly demonstrate. The maximum number of units per row was also predetermined by outside restrictions – i.e. anything over six attached units had to comply with apartment building codes. These elements merely become part of 'the givens' of any design problem, and do not reflect the design process itself, whereas the choice to alternate between rows of four and six units, and the pattern thus created, is directly attributable to the creative talent of the architects in addressing the problems of this particular site. Lessons learned on site at Chatham Village and Baldwin Hills were employed to great effect at South Hill, though neither site was similar in character. Particularly significant was the breaking up of the number of units into smaller more intimate groups arranged around a communal green space. In the case of the South Hill site, this solution served to not only create more visual interest through the placement of rows, but also allowed for a more intimate human scale to be developed between the buildings and their site. It also allowed for greater differentiation between the house groupings, allowing residents to distinguish between their row and the others - a problem which has returned with a vengeance in recent suburban development, where the similarity in houses and their grouping within the larger street pattern makes it very difficult to distinguish between one group of houses and another, tending to obliterate any sense of place or even spatial orientation, not unlike the feeling of being in a maze.

The treatment of the parking compounds also needs some comment, as the care shown for masking the presence of the automobile clearly distinguishes Henry Fliess'

later row housing designs. (figs. 121 -124) At South Hill this was accomplished in various ways. Each compound was sited differently depending on the conditions produced by the row house groupings. The detailing of the screen walls is particularly successful. By choosing to continue the brick out from the end of a row of housing, the architects have not only shielded the garage compound, but have succeeded in directing the eye toward the neighbouring row, right past the opening left into the compound, and thereby obscuring its presence entirely. The height of the privacy hedges carries the line of the carport walls, serving to further blur the existence of the compounds. The gap left between the top of the brick wall and the roof of the carport effectively lightens-up what might have otherwise been oppressively large structures.

The different heights of the two-storey and split-level rows were used to guard against the creation of “dreary, solid-packed, narrow streets,” and to animate the street scene. Slight variations in grade were also used to great advantage, and changes in level were accentuated by the differing rooflines, and through their angled placement relative to each other. The retention of mature trees, and the accentuation of the individualized row house groupings through landscaping, should also be noted as significantly contributing to the livability of this experimental multiple housing project.

The design excellence Fliess achieved in his small house plans would carry over to his work in multiple housing design. The same concern for bright and airy interiors with ample storage and convenient circulation, and for establishing an intimate relationship between indoor and outdoor spaces is evident in the row house designs for South Hill Village. The skills Fliess acquired in the development of the site plan and landscape design for South Hill would serve him equally well throughout his career, with

each successive project serving to further his understanding of the potential in developing highly-articulated landscapes as a means of individualizing multiple-housing units.

The story of the early development of Canada's first satellite town, Don Mills, illustrates the interdependence of all those involved in the creation of our built environment, from the real estate developer and their planners, to the architects hired by individual builders, to local government regulations operating under the guidance and control of upper levels of government, and finally to the financial interests controlling mortgage money. Without the cooperation of all of these related parties, the revolutionary multiple housing projects developed in Don Mills, beginning with Murray and Fliess' South Hill Village, would never have materialized. It is equally true that the development of Don Mills was an anomaly in the history of urban design, and that the example it set would be very difficult to follow, again largely due to the extent of cooperation involved. Before any further gains in the creation of more sympathetic urban or suburban environments could be achieved, the war against public apathy and ignorance of the benefits procured through the thoughtful employment of modern urban design principles would still have to be won. The following chapter will deal with two significant battles that were waged at the close of the 1950s, which succeeded in tilting the scales on the side of more thoughtful urban design and community planning, even if only temporarily.

Fig. 116
Don Mills, South Hill Village, site plan, Murray and Fliess

Fig. 117
View of western edge of development from Barber Greene Rd.

Fig. 118
View of Balaby Cr. toward centre island

Fig. 119
View across island toward rows of housing

Fig. 120
View of entrance to parking off Balaby Cr.

Fig. 121
View of carport, western edge of development

Fig. 122
View of parking compound, western edge of Balaby Cr.

Fig. 123
View of parking compound connecting Balaby Cr. and
Braodpath Rd.

Fig. 124
View of natural screening of same parking compound
development

Fig. 125
View from edge of parking looking back toward Barber
Greene Rd.

Fig. 126
View toward same parking compound from Broadpath Rd.

Fig. 127
View back toward Barber Greene Rd. from Broadpath Rd.

Fig. 128
View from Barber Greene Rd. at eastern edge of
Broadpath Rd.

Fig. 129
Detail of housing on Balaby Cr.

Fig. 130
View of housing on Balaby Cr.

Fig. 131
View of housing along eastern edge of Southhill Dr.

Fig. 132
View of housing along eastern edge of Southhill Dr.

Fig. 133
View of housing along southern edge of Broadpath Rd.

Fig. 134
View of housing along western edge of Southhill Dr.

CHAPTER THREE: NEW FORMS OF FAMILY HOUSING

I. The Maisonette

The experience gained at Don Mills, particularly the overwhelmingly positive reception of the row housing project, South Hill Village, bolstered Fliess' confidence in pursuing modern design and experimental forms of housing. As early as 1955, Fliess was working on a groundbreaking concept for multiple family housing that he called a 'maisonette apartment'. His idea was simple enough: to eliminate the incidental, or underused, open recreation space from row house design by incorporating elements of an apartment block. The goal of this new form of multiple housing was to provide urban families with the positive environmental advantages of modern row housing, while at the same time, achieving the greater public amenity made possible with higher density apartment blocks. The densities achievable with this new form cannot, of course, be directly compared with that of apartment blocks, but, if used in conjunction with other forms of multiple housing, including apartments, it could do a great deal to improve overall land use. Fliess also hoped this new form of multiple housing would aid in stemming the tide of low-density development (single and/or semi-detached housing) that had begun to lay waste to an exponential amount of land at the periphery of urban centres.

The developer responsible for building Fliess' first maisonette project was Cadillac Contracting & Developments Ltd. Cadillac was founded in 1953 by three engineers, E. Diamond, Joseph Berman and Jack Kamin who were looking to experiment with new ways of developing multiple housing. They were particularly interested in

innovative rental housing schemes that could attract prospective buyers away from home ownership, as well as those whose transitory employment made purchasing a home impractical. They were also keen to fill the gap in the rental market for the growing number of families with children “over the age of two.”¹⁵⁸ The success of Cadillac’s early post-war rental housing developments should in part be attributed to their understanding of the importance of location. Quick and easy access to shops, services and rapid transit (major highways and subway stations) were as critical to Cadillac’s claim of offering “a good compromise between apartment living in the city and a single family house in the suburbs,”¹⁵⁹ as the newer, cleaner buildings and spacious grounds.

Fortunately, it is possible to refer to original records for an outline of Cadillac’s basic objectives in developing this new form of multiple family housing, and for a first hand account of what led Fliess to this solution. His commentary on where he felt earlier modern planning principles, such as those demonstrated in pioneering row house developments in the United States, could be modified for better overall land use within the Canadian context is particularly instructive. The following are the introductory paragraphs of Fliess’ “Report on Garden Court Development for Cadillac Contracting and Developments Limited:”

This project was evolved with the idea of providing family type rental accommodation in good locations where land values are relatively high. This would apply to almost any location in Metropolitan Toronto which is located on main transportation routes and near shopping centres and schools. There are only two kinds of residential land available in Toronto, property for single family development or apartment land. There is no land available (economically) for family type rental accommodation

¹⁵⁸ Cadillac Contracting and Developments Ltd., “Proposal for Garden Court Apartments,” 5. Job File, Fliess Gates McGowan Easton Architects, Toronto.

¹⁵⁹ Cadillac, “Proposal,” 3.

except in a few special cases, such as the Don Mills Development, Regents Park, or Lawrence Heights, where the Developer or Housing Agency has an understanding of housing problems and a willingness to solve them.

The need for rental accommodation for families with children nevertheless exists, and the demand for this type of accommodation in the Toronto area has as yet not been met.

The idea behind the Garden Court Development is to provide family housing directly accessible to garden space and which makes economical use of expensive land.

The idea developed from the plan used in some of America's model towns and communities such as Radburn, Park Forest, Baldwin Hills Village, and the Greenbelt Towns, where modern planning principles have been used to best advantage. The idea of the residential pattern in these communities is generally the same – to arrange the housing with the fronts facing park-like garden areas, and to have dead-end service roads to the rear. This rear area is used for delivery, laundry hanging, and garbage storage.... The service road, laundry area etc. is of little use for recreational purposes.

The concept of the Garden Court Development is to eliminate the useless service area of the project. The road becomes an internal covered access way, the laundry is replaced by a dryer in the basement, garbage cans are replaced by an incinerator, thus permitting higher densities and more economical land use without loss of "useful" garden space.¹⁶⁰

Fliess' willingness to eliminate so-called useless service area, and to challenge 'preconceived' or 'conventionalized' programmatic requirements, is indicative of his pragmatic approach to design problems. It also clearly makes the point that the Modern movement in twentieth-century architecture was as much concerned with programmatic innovation as it was with formal invention.

The first maisonette development was ready for occupancy in the spring of 1956, and was located on the east side of Victoria Park Avenue along Greylawn Crescent, in

¹⁶⁰ Henry Fliess, "Report on Garden Court Development for Cadillac Contracting and Developments Limited," 1. [1955] Job File, Fliess Gates McGowan Easton Architects, Toronto.

Fig. 135
Scarborough, Victoria Park Maisonettes, general view taken shortly after completion, Fliess, 1955-56

MAISONETTE APARTMENT HOMES

are situated in the centre of a modern, prosperous community of private homes

MAISONETTE APARTMENT HOMES

are conveniently located:

- 2 MINUTES BY CAR FROM NO. 401 HIGHWAY
- 45 MINUTES BY TTC FROM DOWNTOWN TORONTO
- 30 MINUTES BY CAR FROM DOWNTOWN TORONTO
- DAWES ROAD BUS STOPS OUTSIDE THE "MAISONNETTES"

Garden Court Development is:
NATURAL GAS EQUIPPED...
cleaner, faster, more economical

Fig. 136
Scarborough, Victoria Park Maisonettes, map from promotional pamphlet, Fliess, 1955-56

Scarborough. (fig. 136) In recalling how this experimental form of family housing was initially marketed to the public, Henry Fliess noted the general prejudice against row housing at that time. Surprisingly, it was easier to sell ‘the maisonette’ idea as an apartment with a back garden, than as a row house with a shared entrance corridor. It is difficult, perhaps, to grasp how one would prefer to view Fliess’ maisonette concept in this way, nevertheless if Henry Fliess’ contribution to housing and community design is to be properly assessed, his contemporaries’ attitudes need to be addressed.

In February 1957, an issue of The Canadian Architect was devoted to the subject of row housing, including an article on its place in the history of city building. The conclusion of this article will serve to remind the reader of the dominant attitudes at this time, and to reiterate the major influences on North American modern row house design:

Perhaps we remember too well the overcrowded ‘back-to-backs’ of the 19th century and the miserable drabness of industrial towns when somebody mentions row housing. Few of us conjure up the picture of the fine building that characterized the 18th and early 19th centuries in London, Bath and other towns, or the remarkable and often delightful row houses of Scandinavia.¹⁶¹

The challenge for Cadillac’s marketing team was, therefore, to convey the novelty of this new form of housing, while avoiding any direct association with row housing. Potential renters were to view their ‘homes’ as though they were part of a new kind of resort hotel, where the chores of home ownership were eliminated to allow for the carefree enjoyment of private and semi-private recreation grounds. The pamphlet (fig. 137) for this “Garden Court Development” described this new type of unit as a *maisonette apartment home*, in which “the privacy and outdoor living space of a

¹⁶¹ Peter Stokes, “Row Housing in Retrospect,” The Canadian Architect. February 1957, Vol. 2, No. 2, 30.

Fig. 137
Cover of maisonette pamphlet

completely self-contained house,”¹⁶² is combined “with the added conveniences and facilities of a luxury apartment.”¹⁶³ Hand drawn images depicted the “gracious and relaxed” lifestyle afforded the “progressive, successful people”¹⁶⁴ who would rent these new homes “with a perennial “holiday”-air.”¹⁶⁵ (fig. 139) This promotional rhetoric is not in itself significant, but the conceptual marriage it implies between two antithetical housing forms (single house and apartment building) in order to procure the advantages of both should be noted. Fliess’ maisonette concept, not unlike Howard’s “Garden City” proposal, created potential where none had previously existed by focusing on changing the patterns in which we live, and by believing such change was not only possible but imminently practicable.

This difference in focus also helps to explain the modest formal resolution of Fliess’ first maisonette project, which according to Fliess, was “purposely rather conservative with a slightly pitched roof to come as close as possible to the public expectation of family housing units.”¹⁶⁶ (fig. 135) This concession to public prejudice about the formal vocabulary believed to signify “house and home” beautifully illustrates Fliess’ approach to housing design referred to earlier in Chapter One. It exemplifies his appreciation of what practical considerations should take precedence over formal expression. Like his Scandinavian colleagues, however, Fliess was adept at transforming housing’s conservative vocabulary through the introduction of large expanses of glazing, direct access from living areas to garden spaces, and unadorned facades, except for the

¹⁶² Cadillac Contracting & Developments Ltd. Rental pamphlet for Maisonette Apartment Homes. [1956] Job Files, Fliess Gates McGowan Easton Architect, Toronto.

¹⁶³ Cadillac, Rental pamphlet.

¹⁶⁴ Cadillac, Rental pamphlet.

¹⁶⁵ Cadillac, Rental pamphlet.

¹⁶⁶ Henry Fliess, “Maisonette Project,” RAIC Journal, October 1961, Serial No. 434, vol. 38, No. 10, 46.

Fig. 139
Illustrations from rental pamphlet for Victoria Park maisonettes

rhythm created by the alternating colours of brick and spandrels (not at all unlike the solution worked out for South Hill Village). (figs. 143, 147)

This modern sensibility is also clearly evident in the interior layout of the individual units (fig. 141). The main floor was kept as open as practicable to allow natural light to pass through from the living/dining areas into the entrance vestibule and stairwell, thus avoiding the dark, dreary interiors that would have resulted from the middle units' single exposure. This kind of open planning is particularly significant in any form of multifamily housing that employs an enclosed entry corridor, because the psychological impact of this design consideration is considerable. To achieve this open plan, Fliess used similar construction techniques as those employed in his various house designs built in Don Mills, for example, the substitution of walls with semi-transparent screens. (fig. 140)

Fig. 140
Scarborough, Victoria Park Maisonettes, entrance
screen detail, Fliess, 1955-56

Another related design consideration was the use of the space above the central corridor for storage and bathroom areas, as these functions do not require a window. It is also

Fig. 141
Scarborough, Victoria Park maisonettes, two and three bedroom
floorplans, Fliess, 1955-56

important to note that economies of space were fully exploited in this solution without resulting in the repetition of characterless cells through slight variations in the second-storey floor plans. The corner three bedroom units were further differentiated according to where they were situated in the block. The smallest bedroom located directly above the 'front' entrance, and sited either to face south or west, was furnished with a 'wall of glass'. (figs. 141, 145-46)

Special consideration for landscaping was also made in the Victoria Park maisonette project due to the proximity of garden spaces to each other and to the street. As in the South Hill development, outdoor drying apparatus were prohibited, for as Fliess noted in his introductory statement to his maisonette design, beyond the visual clutter created by outdoor clothes-lines, valuable recreation space was often lost through their use in even the best row housing developments. These early measures, particularly the relatively open site plan, would prove to be inadequate, however, in providing a desirable level of privacy and in adequately serving children's activities.

It must be remembered that this maisonette development represents a first attempt in the use of an experimental form of housing, and as such, provided a necessary testing ground for how this form of family housing would perform. The lessons learned from this initial experiment were invaluable to Fliess' later designs, beginning with his second maisonette project (also for Cadillac), located on a site directly across the street from his first,¹⁶⁷ at the corner of Clintwood Gate and Victoria Park Ave. Some of the initial shortfalls, and an attempt at their resolution, were outlined in his article dealing with

¹⁶⁷ This fact makes this portion of Victoria Park Avenue a particularly intriguing study for those concerned with housing design and housing policy, as they display significant differences in general maintenance and care.

Fig. 142
Scarborough, Victoria Park Maisonettes, site plan, Fliess, 1955-56

Fig. 143
Scarborough, Victoria Park Maisonettes, general view, Fliess, 1955-56

Fig. 144
Scarborough, Victoria Park Maisonettes, view of an entrance off Victoria
Park, Fliess, 1955-56

Fig. 145
Scarborough, Victoria Park Maisonettes, view of an end units,
Fliess, 1955-56

Fig. 147
Scarborough, Victoria Park Maisonettes, site plan, Fliess, 1955-56

Fig. 148
Scarborough, Victoria Park Maisonettes, view of an entrance of
Greylawn Cr. (service side), Fliess, 1955-56

these two maisonette projects published in a 1961 issue of the RAIC Journal devoted to housing:

Children tended to use the parking lot, (the only hard surface area) for tricycling, and the sodded open spaces were quickly worn down. On this basis the central portion of the green spaces in the Clintwood [second] project were paved with asphalt and curved in interesting shapes. The asphalt areas were relieved with plant beds and sand boxes. The latter being placed one to each garden space so that mothers may supervise from kitchen windows. This has been omitted in the buildings reserved for older people The central asphalted areas have been separated from the individual patios by heavy shrub planting to create a sense of privacy greater than was apparent in the first project. Private garden spaces are approximately 20' x 20' and are divided from each other by wood frames. The frames are latticed with plastic cords allowing vines to provide a natural screen. This was thought to be a faster and more satisfactory method than the hedges used in the first project.¹⁶⁸

It is not possible to conclude with certainty that these site-planning changes are responsible for the considerable difference in the current state of these two projects. The difference in tenancy may also be a significant factor - the Clintwood project is now a co-operative - but this difference alone is not a sufficient explanation. Differences in municipal regulations governing the quantity and maintenance of rental housing could also be a significant factor, and may not simply be attributed to the projects' original design. There were, arguably, some marked improvements in the design of the maisonette buildings themselves in the second project, some of which were a direct result of refining the site plan. (fig. 149)

The Clintwood maisonette buildings were staggered at their centre, and contained sixteen units instead of twelve. This increase in density was achieved, while at the same time, creating a more intimate scale and sense of privacy by breaking the line of the

¹⁶⁸ Fliess, "Maisonette," 46.

façade every four units. This site layout also resulted in more dynamic spaces between neighbouring blocks, and offered a greater sense of enclosure, similar to that of a courtyard. The party walls were also extended approximately three feet beyond the façade to further differentiate the individual units, and to provide greater privacy within (figs. 150-156).

Only slightly larger in footprint, the Clintwood units benefited from some simplifications of their floor plans (fig. 157). For example, a straight-run stair was used in the two bedroom design instead of the u-shaped (or switchback) stair to make room for a more functional kitchen layout, and for more equitable sized bedrooms above. The use of a custom designed 'free-standing' wall cabinet (fig.158) to separate the kitchen and dining areas is typical of Fliess' strategy for small house design, and clearly demonstrates his understanding of Modern design precedents. (Earlier examples of designing custom furniture to serve as room dividers include Le Corbusier's and Mies van der Rohe's interior designs for the Weissenhof development in Stuttgart, 1927) The advantages of using a built-in 'free-standing' buffet/hutch in place of a wall in small house design were fourfold: it provided much needed storage/display space; it allowed for more light to pass through from one space to another; it created an exaggerated sense of space by extending views from one room to another, and in some cases, through to views outside; and it lessened the need for traditional dining room furniture, freeing-up floor space for circulation. Fliess' interest in developing this space-saving technique is evident from the very beginning of his career. In a 1947 RAIC Canadian Small House Competition, his prize-winning design featured a double-sided built-in hutch with a pass-through (fig. 159), and at least two of his designs for Don Mills employed a similar spatial element.

Fig. 149

North York, Clintwood Gate Maisonettes, site plan, Henry Fliess, 1957-59

Fig. 150

North York, Clintwood Gate Maisonettes, general view, Henry Fliess, 1957-59

Fig. 151
North York, Clintwood Gate Maisonettes, general view,
Henry Fliess, 1957-59

Fig. 152
North York, Clintwood Gate Maisonettes, view of 'court'
from Victoria Park, Henry Fliess, 1957-59

Fig. 153
North York, Clintwood Gate Maisonettes, view of 'court'
and staggered facades, Henry Fliess, 1957-59

Fig. 154
North York, Clintwood Gate Maisonettes, view of midpoint
entrance, Henry Fliess, 1957-59

Fig. 155
North York, Clintwood Gate Maisonettes, general view from
Clintwood Gate, Henry Fliess, 1957-59

Fig. 156
North York, Clintwood Gate Maisonettes, view of parking
compound from Clintwood Gate, Henry Fliess, 1957-59

Fig. 157

North York, Clintwood maisonette, two and three bedroom floorplans

Fig. 158
North York, Clintwood Maisonettes, kitchen details, Fliess, 1957-59

Fig. 159
Small house design by Henry Fliess, third prize, Ontario
region, RAIC competition, 1947

Two other significant design elements should be noted here. The units on either side of the stagger in the block interlock with each other on the second storey. (fig. 160) This arrangement maximizes living space above, because very little space is lost to circulation. The space below was used as a midpoint entry, cutting an otherwise lengthy corridor in half. (fig. 154) Fliess also made use, somewhat tentatively, of a balcony at one end of each block. These balconies, shared by the two end units, were not provided with a privacy screen, and do not appear to be well used. (fig. 161, 151) Their inclusion at Clintwood Gate may have been more of an aesthetic consideration at this stage, than a functional addition to the maisonette's exterior living space. A maisonette design Fliess developed immediately after the Clintwood project would make fuller use of a balcony's potential as an additional exterior living space that offered greater privacy than the ground floor patio.

The maisonette concept was popular from its introduction to the rental market in 1956. Several developers adopted some form of maisonette unit into their rental housing schemes, peaking in the 1960s. Two prominent builders in the Ottawa region, for example, Compeau and Minto,¹⁶⁹ built hundreds of maisonette units based on Fliess' original concept. (figs. 162-63) Given its popularity, copyright became an issue of some concern, though any hope of enforcing one was abandoned by 1959. In a letter to his solicitor, Fliess concluded: "I have the feeling that to enforce a copyright on the

¹⁶⁹ Fliess was later approached by Minto to develop a housing scheme in the Ottawa area, but he chose to decline the offer, fearing a significant expansion of his modest practice and the likelihood of extended periods of time spent away from his growing family.

Fig. 160
North York, Clintwood Maisonettes, partial second floorplan, Fliess, 1957-59

Fig. 161
North York, Clintwood Maisonettes, partial second floorplan, Fliess, 1957-59.

Fig. 162
Ottawa, Redwood Court, view of Compeau's maisonette units

Fig. 163
Ottawa, Parwood Hills, view of Minto's maisonette units

maisonette would involve considerable time, trouble and hard feeling and I am not sure whether it would be worthwhile.”¹⁷⁰

The experimental nature of this new form of housing was also a point of some concern for Fliess, and for building officials, for it necessarily required amendments to existing by-laws, which are largely governed by local municipal or township authorities. The Clintwood project, for example, located on the west side of Victoria Park Avenue, was part of North York and was therefore subject to different municipal regulations than the first project located in Scarborough. Despite the highly praised results of the latter project,¹⁷¹ it took Henry Fliess and Cadillac over two years to secure approval for Clintwood. This lengthy process proved to be beneficial, however, as it provided Fliess with the opportunity to voice his own concerns about ensuring the quality of this new form of family housing. In a letter dated August 13, 1958, addressed to the Chairman of the Works Committee for North York, Mr. Fliess wrote:

As you probably know, I was the architect for the first maisonette buildings erected in Toronto, and the basic idea was evolved by me. I am most interested that the quality of these units is maintained in any future projects, and that any new bye-laws give adequate safeguard of quality, while not limiting the scope of future architectural development.¹⁷²

The above reveals Fliess’ early awareness of the unfortunate limitations imposed on developments by prescriptive by-laws. His awareness of this gap is explicit in the

¹⁷⁰ Henry Fliess. Letter to McCarthy & McCarthy, dated January 27, 1959. Job File, Fliess Gates McGowan Easton Architects, Toronto. (Copyright on architectural design remains an ambiguous area of proprietary rights).

¹⁷¹ A letter forwarded to Mr. Fliess from Cadillac Contracting and Developments Ltd., dated July 3, 1957, from the Scarborough Planning Board, commended both architect and developer, for providing the Board with “a standard to go by, and encouragement in providing for a much-needed wider range of housing types.”

¹⁷² Henry Fliess. Letter to Mr. R. Rohmer. Chairman, Works Committee, Township of North York, Ontario. August 13, 1958. Job Files. Fliess Gates McGowan Easton Architects, Toronto.

letter's mention of a specific fire safety by-law ruling, in which Fliess points out the shortcomings of the ruling and suggests an alternative solution.

In order to insure ensure public safety and yet allow creative flexibility, those responsible for creating by-laws should develop a clear understanding of both the intent of each by-law, and the variety of means by which that intention may be satisfied. This implies the professionalization of municipal planning departments, for such concerns about the effects of by-laws naturally extend beyond the building's envelope, to encompass landscaping and larger site planning and zoning issues – the very issues that will be tackled in this chapter's coverage of Murray and Fliess' housing study and the Report of the Committee of Inquiry into the Design of the Residential Environment.

The maisonette form served Fliess very well in several housing projects developed in the 1960s in the Metro Toronto area, whether used by itself in small infill projects, or in conjunction with others forms of multiple housing in the development of new subdivisions. As an experimental form of higher density, horizontal, multiple housing, it would inspire some of this era's most talented Canadian architects, including Irving Grossman and John Parkin. The maisonette has also proven itself as a desirable and economic alternative to apartment living. It is unfortunate that this new form fell so quickly out of favour after a very promising beginning.¹⁷³

¹⁷³ The most likely reason for its loss of favour was its high ratio of school-aged children relative to the amount of property tax generated by this form of housing.

II. New Forms of Family Housing: a study of horizontal multiple housing techniques

The pace of development in Metropolitan Toronto in the years following the Second World War outpaced all other urban areas in North America and, according to a 1956 article in MacLean's Magazine, it was very likely the fastest growing city in the world. The three townships to the north, east and west of Toronto, took the brunt of this chaotic growth, engulfing the older city. The rate of this expansion was quite beyond the region's capacity to control, even with the establishment of a quasi-regional government in 1954. Residential developments were strewn out all over the outskirts of existing development before zoning studies were made, and without first ensuring the availability of municipal services. (fig. 164) The cost of this kind of development in the long term has already been discussed at some length in the first chapter, and does not need to be restated here.

Fig. 164

Fig. 165

Henry Fliess and James A. Murray were particularly concerned with trying to change the predominant pattern of development at this time, which consisted almost entirely of Levittown-style developments located further and further away from the city's core, or of leveling older neighbourhoods within the city limits and replacing them with high rises.

Neither option, according to Murray and Fliess, was tenable for the majority of families. Their study entitled New Forms of Family Housing was concerned, therefore, with developing alternatives to these two extremes. (fig. 165) They believed the answer lay in developing new “horizontal multiple housing techniques,”¹⁷⁴ as a means to restore “active family life”¹⁷⁵ to urban centres. To do this, it would be necessary to develop multiple family housing that provided “contact for each family with its own private grounds, and a human scale of environment.”¹⁷⁶ Fliess’ maisonette projects were a first step in this direction, but, as the long battle for municipal approval for the Clintwood project clearly indicated, more would have to be done to procure any significant shift in current municipal planning practice.

According to Fliess, the impetus for seeking publication of such a study was the second phase (1957) of the public housing development in Regent Park, Toronto.¹⁷⁷ Murray and Fliess were convinced that a similar density development could have been achieved without resorting to housing families, especially those with young children, in high-rise apartment buildings (fig. 166). They were particularly alarmed by this development because as a government sponsored and professionally designed project, it was in a position to set an example.¹⁷⁸ Mention should be made here of CMHC’s integral

¹⁷⁴ James A. Murray and Henry Fliess, “New Forms of Family Housing,” The Canadian Architect, Vol. V, No. 9, (Sept. 1960), 54.

¹⁷⁵ Murray and Fliess, “New Forms,” 54.

¹⁷⁶ Murray and Fliess, “New Forms,” 54.

¹⁷⁷ Interview of Henry Fliess by the author, October 1999.

¹⁷⁸ Murray and Fliess were later given an opportunity to design a public housing development using horizontal forms of multiple housing in the early 1960s on a suburban lot in northern Etobicoke, called Thistle town. It too, however, suffered from this era’s tendency toward ‘bigness.’ The project’s size and isolation, worked against it from the start, begging the question of scale of a different kind – inevitably leading to the same kind of homogenization of population so decried in the speculative Levittown-style developments scattered on the periphery of urban centres. The reason for the monolithic proportions of

involvement in both the design and development of Regent Park South, and their support of a study critical of this development. It is indicative of a genuine desire on the part of those then in charge of funding at CMHC to seek out the best solutions for housing Canadians. This desire fostered *and* financially supported open and critical debate of their policies and programs, and those responsible, including Stewart Bates and Humphrey Carver, should be given due credit for their altruism in public service.

Fig. 166
Toronto, Regent Park South, general view, c.1960

In 1958, Murray and Fliess received a research grant from CMHC to study *horizontal multiple housing techniques*.¹⁷⁹ Their thesis, simply stated, was that “it may be necessary to accept departure from orthodoxy of site planning and building forms in order to recapture some of the orthodoxy of the home idea.”¹⁸⁰ Implementation of the “Garden City” model as a regional planning tool was abandoned in the face of unrelenting sprawl. Given this admission of defeat, what could be done, realistically, to

most this era’s public housing projects was inevitably a financial one, and should not be attributed to a conscious choice by their designers.

¹⁷⁹ Canada Mortgage and Housing Corporation, Miscellaneous Records, 1945-68. National Archives of Canada, Ottawa. RG 56, Boxes 1-4.

¹⁸⁰ James A. Murray & Henry Fliess, Associate Architects. New Forms of Family Housing: a study of horizontal multiple housing techniques. (Ottawa: CHDC, 1960), Titlepage.

promote healthier, more sustainable communities which would benefit both urban and suburban environments? Their answer, not surprisingly, was to develop new forms of multiple housing that could satisfy the criteria they believed were necessary for any family dwelling to be classified as 'livable.' These criteria were as follows:

1. – expression of the identity of each family unit.
2. – retention of human scale in the environment of large scale housing.
3. – provision of some private outdoor space for each family.¹⁸¹

They did not suppose to eliminate either the single family house, or the high rise apartment, but sought to explore forms of dense housing which would lessen their impact on *communal living*. The atmosphere they were hoping to recreate was that of the most prized old town centres in Europe.

It is time once more to build our cities and towns with compact positive form and to do so with the vitality, variety and beauty which has evoked the love and respect men feel for the urbanity of the streets of Florence, the crescents and circles of Bath, the terraces of London.¹⁸²

It was not simply a matter of aesthetic bankruptcy, prevalent in both high-rise and single-family housing developments, but their lack of identity or focus, their lack of any *sense of place*, which alarmed them. "There is no there, there."¹⁸³

They were ultimately concerned then, with shifting the emphasis of housing production from one of quantity to one of quality. In attempting to communicate differences in the quality of architectural experience, it will be helpful to introduce Heidegger's concept of "dwelling." One of the most lucid explorations of this concept

¹⁸¹ Murray and Fliess. New Forms. n.p.

¹⁸² Murray and Fliess. New Forms. n.p.

¹⁸³ Gertrude Stein's famous quote from The autobiography of Alice B. Toklas. (New York : Literary Guild, c1933).

as it specifically relates to architecture and the creation of urban *places* can be found in

Norberg-Schulz's text, Genius Loci: Towards a Phenomenology of Architecture:

Man dwells when he can orientate himself within and identify himself with an environment, or, in short, when he experiences the environment as meaningful. Dwelling therefore implies something more than "shelter." It implies that the spaces where life occurs are *places*, in the true sense of the word.¹⁸⁴

What is the true sense of the word place? For my purposes here, the following definition will suffice: "place is the concrete manifestation of man's dwelling, and his identity depends on his belonging to places."¹⁸⁵ Thus the importance of creating *places* is clear, and the crisis of postwar urban renewal and suburban sprawl should be understood in terms of their failure to create *meaningful places*. Norberg-Schulz described the problem in this way:

In general, the symptoms indicate a loss of place. Lost is the settlement as a place in nature, lost are the urban foci as places for common living, lost is the building as a meaningful sub-place where man may simultaneously experience individuality and belonging. Lost is also the relationship to earth and sky. Most modern buildings exist in a "nowhere"; they are not related to a landscape and not to a coherent, urban whole...¹⁸⁶

There are compelling reasons for looking to a phenomenological argument for a better understanding of why so many found the majority of postwar development unsatisfying. Norberg-Schulz's *theory of place*, for example, allows one to view modern architecture and planning in a different light, divorced from definitions of style, and rooted instead in existential similarities. This difference in focus is apparent in the following:

Spatially the new settlements do not anymore possess enclosure and density. They usually consist of buildings "freely" placed within a park-

¹⁸⁴ Christian Norberg-Schulz. Genius Loci: Towards a Phenomenology of Architecture. (New York: Rizzoli International Publications Inc., 1984) 5.

¹⁸⁵ Norberg-Schulz. Genius Loci. 6.

¹⁸⁶ Norberg-Schulz. Genius Loci. 190.

like space. Streets and squares in the traditional sense are no longer found, and the general result is a scattered assembly of units. This implies that a distinct figure-ground relationship no more exists; the continuity of the landscape is interrupted and the buildings do not form clusters or groups.¹⁸⁷

These *spatial* observations echo those made by the New Empiricists referred to in Chapter One as early as the 1940s, and both may be understood as a call for greater existential emphasis in modern architecture and urban design. Murray and Fliess' charge, that "it is time once more to build our cities and towns with compact positive form," should be viewed as stemming from similar concerns. To illustrate how this emphasis helps in understanding Fliess' approach to housing design, consider the changes made in siting the Clintwood project versus that of Victoria Park. Note the greater emphasis on distinguishing the individual units by extending the party walls, the staggering of rows at their centre, the elaboration of unique, semi-enclosed courtyards, and the more pronounced feeling of enclosure and release. These changes should be viewed as resulting from Fliess' desire to define the relationships between the 'unit' and its surroundings, that is, his desire to create a *sense of place* for the individual within a finite group, and to articulate these relationship as existing in the "between" of earth and sky. In this way, the individual's *place* is made manifest through its articulation and differentiation within the project as a whole as a particular and identifiable inhabited space. These considerations would become even more salient in Fliess' later housing designs, as the analysis of three case studies in Chapter four will make clear.

Also at issue, was the inflexibility of the existing development patterns, which were completely incapable of accommodating individuals at various stages in life, or at

¹⁸⁷ Norberg-Schulz. *Genius Loci*. 189.

various levels of income, resulting in a noticeable homogenization of the population, particularly in the new suburban areas. In their words, “for a healthy community, there must be a complete range of dwelling types to meet the changing needs of the family.”¹⁸⁸ By not providing this range, “the social and economic atrophy of the community organism is as built-in as its amortization period.”¹⁸⁹

In order that their proposals not seem too extraordinary, they provided some historic examples of the architectural concepts they wished to capture in contemporary form. The Roman villa, with its central atrium, was introduced as an example of creating a private outdoor space closely related to the interior spaces in a dense urban setting. (fig.) This example also presented the authors with an opportunity to emphasize the evolutionary relationship between an architectural concept and its architectural expression: “The *idea* – an outdoor room, may well intrigue the twentieth century designer, or builder, - the actual form of Roman architecture is only of archeological significance.”¹⁹⁰ They also cited medieval and baroque districts of European cities, and some of the older neighbourhoods in Canadian cities, such as Westmount in Montreal, as having important lessons to teach us in making dense urban areas livable. They classified the latter kind of development, *backyard architecture*, *backyard planning*, where “humble little spaces turn out to be extra-ordinarily and surprisingly adequate for a great variety of domestic uses”¹⁹¹ - a contention, which may come as a surprise, given their recent participation in the development of Don Mills, and Henry Fliess’ stated allegiance to so-called ‘decentrists’.

¹⁸⁸ Murray and Fliess. New Forms. n.p.

¹⁸⁹ Murray and Fliess. New Forms. n.p.

¹⁹⁰ Murray and Fliess. New Forms. n.p.

¹⁹¹ Murray and Fliess. New Forms. n.p.

This seeming contradiction prompted much of the previous chapters' discussion of urban design theory. Henry Fliess' advocacy of compact, medium density development was perfectly consistent with his championing of Ebenezer Howard's Garden City model, for as Lewis Mumford pointed out:

One would think, from a great many foolish allusions that one finds currently in both English and American discussions of town planning, that the sole characteristic of the Garden City was Howard's alleged plan for lowering the density of the population to twelve houses to the acre. Nothing could be more fantastic than this error: you will look in vain through the pages of *Garden Cities of To-morrow* for even the hint of such a proposal.¹⁹²

And Don Mills, though legitimately deemed the progenitor of the 60' single lot, was also one of the first large-scale planned communities to include an equal ratio of rental accommodations and home ownership. The following statement should also be kept in mind in any serious debate concerning the preeminence of the single-family house in North America: "arguments quite valid for one dwelling unit, become impossibly difficult as the solution for 10,000 more, partly because of the very "boundlessness" of the sprawl which results."¹⁹³ It was perhaps their intimate knowledge of the potential benefits and shortcomings of "the unfenced lawns of suburbia,"¹⁹⁴ which made them acutely aware of the need to develop some compromise between the "keep-off-the-grass philosophy of site planning"¹⁹⁵ and "the cluttered casual environment"¹⁹⁶ of *backyard architecture*. It is not necessary to play the role of apologist, however, to make the case for the important contributions Henry Fliess made to twentieth-century housing design.

¹⁹² Lewis Mumford, "The Garden City Idea and Modern Planning," Introductory Essay, *Garden Cities of To-morrow*. (London: Faber and Faber Ltd., 1965), 30.

¹⁹³ Murray and Fliess. *New Forms*. n.p.

¹⁹⁴ Murray and Fliess. *New Forms*. n.p.

¹⁹⁵ Murray and Fliess. *New Forms*. n.p.

¹⁹⁶ Murray and Fliess. *New Forms*. n.p.

According to Murray and Fliess, there are five major factors that play a role in the livability (a term considered here as synonymous with successful) of a housing project. They were listed in order of influence: the occupant, the management, the site planning, the landscaping, and the buildings. This breakdown merits some comment. The final position of influence was given to the building itself; a relative importance that is certainly surprising given their chosen profession. This acknowledgement is quite consistent, however, with the pragmatic attitude shared by Fliess and Murray toward housing design, and their built projects authoritatively demonstrate the soundness of their judgment. They were both very talented site planners who devoted a considerable amount of their time to studying housing schemes in the United States and Europe, and it was through travel and detailed analysis of existing housing projects that they were able to determine the relative importance of the various design elements. The greater weight assigned to site layout and to the quality of landscaping, was therefore, a matter of fact, attested to by the most admired multiple housing developments in architectural history.

Some statistical analysis was also provided, along with a summary of the various needs of people at different stages in life. Foremost in their mind, was the simple statistical fact that over fifty percent of the population in redevelopment areas in Canada had two or more children, and that the needs of these families were not adequately served in high-rise accommodations. A large percentage of the population, however, twenty-five percent or more, "is equally well provided for by high-rise apartments."¹⁹⁷ Through the mixing of new forms of horizontal multiple housing and the more typical vertical

¹⁹⁷ Murray and Fliess. New Forms. n.p.

type, sustainable densities of about 100 to 120 persons an acre could be achieved, and “at the same time, provide ample open space for play facilities and open green spaces.”¹⁹⁸

They were also careful to qualify that open spaces are not necessarily an asset. They need to “serve some particular use,”¹⁹⁹ and private and semi-private spaces must be clearly defined. In general, they contended: “the factors that are more important than sheer size are site planning, landscaping, [and] architectural development.”²⁰⁰ Thoughtful planning would also ensure auxiliary services, such as parking and garbage disposal, do not unduly mar a housing project.

Murray and Fliess were clear about the provisions they believed, when taken together, would achieve the vital, mixed and sustainable “residential precinct”²⁰¹ they envisioned. They were as follows: “areas of private garden space; areas of mutual garden space; exclusion of vehicles from pedestrian areas of the site; and a lively mixture of housing types involving walk-up multiple units used in conjunction with tall apartment buildings.”²⁰² Henry Fliess would eventually achieve this ideal, almost twenty years later, when his firm designed a residential community called Rossland Park, in Ajax, a satellite city approximately 50 km east of Toronto. (see Appendix C)

Beyond the advantage of providing the majority of units with directly accessible garden spaces, significant psychological needs can be met by taking special care to ensure that medium density housing schemes are engaging both visually and physically - the fundamental purpose being the creation of ‘places,’ in the phenomenological sense.

¹⁹⁸ Murray and Fliess, New Forms, n.p.

¹⁹⁹ Murray and Fliess, New Forms, n.p.

²⁰⁰ Murray and Fliess, New Forms, n.p.

²⁰¹ Murray and Fliess, New Forms, n.p.

²⁰² Murray and Fliess, New Forms, n.p.

Boundaries between 'inside' and 'outside' need to be physically discernible – that is public, semi-private, and private exterior spaces need to be clearly defined. This can be achieved by developing a pattern of spaces through the creation of varied relationships between building(s) and site that are reinforced through daily use. The desired intimacy of scale will result from the individual's ability to identify him or herself with a particular space within the larger complex as a whole. An individual, in other words, will be able to develop a clear mental map of his or her "place" within the community because it has been made physically manifest. On the larger scale, the goal was the creation of neighbourhoods that can be readily 'understood' and identified by its inhabitants.

Murray and Fliess also understood the psychological significance of one's ability to personalize one's living environment, and that this ability is significantly reduced in any multiple housing scheme. This loss must be compensated for in other ways. The articulation of subtle and varied relationships between building and site is one very effective way of creating more individualized "places". Another important factor resulting from the clear definition of different kinds of exterior spaces is the individual's understanding of his/her realm of responsibility. The term no-man's land was an apt reference for the ambiguous, often large open areas surrounding many modern redevelopment projects, because it identified these areas as indeterminate and barren territory. Planning for "maximum areas of tenant responsibility, minimum areas of

project responsibility,²⁰³ would guard against unclaimed and difficult to defend open areas where one may feel vulnerable, and which tended to deteriorate quickly.

Four forms of horizontal multiple housing were explored in their study: (1) The Narrow Row House; (2) The Stacked Row House; (3) The Back to Back Row House; (4) The Garden Court House. The example units were designed to illustrate the kind of relationships they were advocating, both within the units themselves, and between interior and exterior spaces. Example site plans were particularly concerned with exploring the possibilities of creating varying sectional relationships as a means to satisfy many of the criteria laid out in their argument for developing new forms of horizontal multiple housing.

Fig. 167

A few of the possibilities for Narrow Row House site layout,
New Forms of Family Housing, Murray and Fliess, 1960

The Narrow Row House

The Narrow Row House, though not a new form of multiple housing, was included in this study because of its fall from grace during the previous century. Its use in overcrowded, unsanitary, and bleak schemes, in countless industrial cities, obscured its

²⁰³ This provision was given top billing under “Advantages” in three of the four forms of housing explored in their study - the issue was not relevant to their proposal for Garden Court Housing. Murray and Fliess, *New Forms*, n.p.

potential for creating beautiful and urbane places, such as those found in Bath and London. The latter schemes demonstrated how the narrow row house could be used to advantage in playing up topographical features, or in creating intimately scaled public squares within a larger urban pattern. According to Murray and Fliess, the main advantage of employing the narrow row house over the standard row house, beyond the increase in density, was its “unlimited opportunity for site grouping.”²⁰⁴ Using long rows, they “can be arranged around various forms of urban enclosures and [they] can be staggered, curved, and varied in height to create interesting skylines.”²⁰⁵ Pioneering modern architects, such as J. J. P. Oud, demonstrated how this form, used in conjunction with new building technologies, could produce light-filled, but compact, rows of housing within older urban areas as early as 1925. (fig. 168)

Fig. 169

Narrow Row House sectional possibilities based on site conditions,
New Forms of Family Housing, Murray and Fliess, 1960

The Narrow Row House worked out in detail for this study was a three-bedroom unit with basement, alternately a four bedroom unit with the addition of a third storey. They also demonstrated how an extra bedroom could be added depending upon a site's slope in grade. The floor plans were not particularly remarkable, except for the proposed

²⁰⁴ Murray and Fliess, *New Forms*, n.p.

²⁰⁵ Murray and Fliess, *New Forms*, n.p.

Fig. 168
Rotterdam, The Kiefhoek district, J.J.P. Oud, 1925

kitchen layout. Unlike those of their previous projects, the kitchen in this instance had four walls and only one point of entry – from the dining area. A clerestory window was added, however, to allow light to pass through. (fig. 170) The exterior dimensions were set at 16' x 32', though they conceded that it was possible to go as narrow as 15' for a two bedroom house, but no smaller. It is worth noting that this minimum for an individual row house was set relative to the “desirable minimum width of the outdoor space.”²⁰⁶ Basing interior dimensions on the amenability of its concomitant exterior space was a direct result of their analysis of the relative importance of the five major factors that determine the success of medium density multiple housing.

Fig. 170
Interior perspective, Narrow Row House scheme, *New Forms of Family Housing*, Murray and Fliess, 1960

In all cases, the ‘livability’ of the entire “residential precinct” was foremost in the architects’ minds. For example, they stressed the importance, “in such intensively developed schemes [of] locating the car parking bays out of view of the windows of the units, but still not too far from each dwelling.”²⁰⁷ Their solution worked out for South Hill Village had already demonstrated the value of such a provision. (figs. 120-124)

²⁰⁶ Murray and Fliess, *New Forms*, n.p.

²⁰⁷ Murray and Fliess, *New Forms*, n.p.

Other solutions for parking and service access were proposed, and would achieve equal success in their hands in successive multiple housing schemes built in the following decades.

The perspective drawing of their proposed Narrow Row House grouping explored the possibility of providing individual units with a carport. (fig. 171) This image is strikingly similar to Henry Fliess' 1967 MOD house proposal. (fig. 102) A recent innovative housing scheme developed in Germany was also called to mind, and provides an interesting evolution of both the initial design sketch and the later proposal for economy through partial prefabrication. (fig. 172)

The Stacked Row House

The second form explored in their study was the Stacked Row House. Simply in terms of density, the advantages of the stacked row how are obvious, but these gains have usually come at great cost. The traditional two-family duplex may be significantly improved upon by taking steps to limit acoustic problems, and through careful re-grading of the site. (fig. 173)

Fig. 173

Sectional possibilities of Stacked Row House based on site conditions, *New Forms of Family Housing*, Murray and Fliess, 1960

Fig. 171
 Perspective sketch of Stacked Row House scheme, New Forms of Family Housing, Murray and Fliess, 1960

Fig. 172
 Konstanz, Germany, Row housing, view from street and floorplans, Schaudt Architekten, c.1997

In advocating the use of Stacked Row Houses, they strongly advised that even if a significant slope in grade was not an existing condition, that a four foot slope from front to back, or vice versa, should be *created* to provide upper and lower units with their own private outdoor garden space. The Stacked Row House was also the perfect candidate for introducing a mix of one, two, and three bedroom units, which again unlike the traditional walk-up or tall apartment building, could reasonably provide ready access to private garden space. To provide direct access, however, the traditional or standard interior layout was subordinated - levels for living and sleeping became interchangeable. Although this freedom allowed for a more amenable arrangement of overlapping spaces, living areas above one another for example, it also required an open minded public who would be willing to adjust themselves to this unconventional layout.

Fig. 174
Corridor circulation of Stacked Row House, New Forms of Family
Housing, Murray and Fliess, 1960

The main difficulty with this form of multiple housing stemmed from circulation, both pedestrian and vehicular. The solution they favoured for pedestrian circulation was to use a corridor. Their reasons for this preference are listed here:

Corridor access makes possible incineration as the means of garbage disposal, avoiding the problem that would be created by garbage cans in a high density development; further it avoids entrance across private garden areas and gives complete privacy to the outdoor spaces. The sectional development allows for bringing daylight into the corridor and avoiding the institutional corridor of the typical apartment.²⁰⁸

The provision of adequate parking was difficult because the number of parking spaces required for the same land coverage when using standard row housing was at least double. They addressed this problem in their example scheme through the “sectional relationships”²⁰⁹ it created, allowing for the possibility of providing tenant parking under a raised central green space, with the corridor extending to the parking level, leaving only visitor parking to be distributed along service lanes. (fig. 175)

Fig. 175
Site section of Stacked Row House scheme, *New Forms of Family Housing*, Murray and Fliess, 1960

They were understandably hopeful about the architectural possibilities this form offered through the play of sectional relationships, that is to say, the varying of building heights and the manipulation of grade levels and landscape features. The two perspective drawings of possible site groupings are remarkable. The first, a view of two parallel rows with a tall apartment block in the background, successfully captured the architects’

²⁰⁸ Murray and Fliess, *New Forms*, n.p.

²⁰⁹ Murray and Fliess, *New Forms*, n.p.

Fig. 176
 Perspective sketch gardens, Stacked Row House scheme, New Forms of
 Family Housing, Murray and Fliess, 1960

Fig. 177
 Bird's eye perspective sketch of Stacked Row House scheme, New
 Forms of Family Housing, Murray and Fliess, 1960

concept of *backyard architecture*. (fig. 176) The second presented a view of a central court grouping to illustrate the siting potential of this form, as well as to give some indication of its architectural possibilities. (fig. 177) The alternating cantilevered upper-storey, with pavilion style roofs and expansive balconies creates an intriguing prospect for compact living. This solution, though likely adding significantly to construction costs, effectively demonstrated the viability of this form of housing for those who would otherwise purchase a single family home by illustrating the scope of its urban design potential.

In the 1970s, Henry Fliess' firm re-worked this form of horizontal multiple housing in a couple of projects, one of which was built in Mississauga. This later solution was denser in form, and a little overly ambitious for its contemporary building technologies, that is to say, deficiencies in the concrete parking structure's capacity to withstand the load and moisture level of landscaped terraces. (fig. 178) Recent advances in structural concrete and weather barriers would suggest that this solution may be worth revisiting.

Fig. 178

Mississauga, The Villages of San Tropez, Fliess, c.1970

The Back to Back Row House

The Back-to Back Row House was introduced with a warning: “Unless handled with great skill, this solution can produce substandard conditions.” Fliess had already begun to experiment with this new form of multiple housing a few years earlier, but his built projects had as yet only explored one among several possible variations of this form. The main advantage of the Back-to-Back Row House over the standard row house, again beyond the obvious increase in density, was the elimination of underused peripheral open spaces, particularly the significant amount of land eaten up by service roads, as Fliess correctly pointed out in his earlier proposal for Cadillac Contracting. (fig. 179) Different arrangements were suggested in their study to provide better air circulation, though the single exposure provided in the first instance was no different from that of most apartment units.

Fig. 179

Economies of land use possible with Back to Back Row House, *New Forms of Family Housing*, Murray and Fliess, 1960

The solution they chose to develop in detail was a three-storey row made up of two two-storey units, topped by a split-level unit. (fig. 180) This design provided an example of how to mix two types of accommodation within the one form and how to play

up the possibilities of varying sectional relationships to take advantage of hilly sites, or to *create* an interesting 'architectural topography' out of an unremarkable site.

Fig. 180

Section of Back to Back Row House scheme illustrating possibilities for accommodating various lifestyles in one form of housing, *New Forms of Family Housing*, Murray and Fliess, 1960

The Garden Court House

The Garden Court House was perhaps the most unorthodox proposal in Murray and Fliess' study, and the least exploited form of multiple housing to date. The main stumbling-block to gaining public acceptance was the replacement of the backyard with a courtyard, although in higher density developments, the differences are largely illusory. Their argument for the adoption of this form of housing was based largely on historical precedent as a particularly suitable form for dense urban dwellings. To achieve the level of density they advocated within the North American context required the use of the Garden Court House in combination with the Back-to-Back Row House. (fig. 181) One variation of this form was effectively exploited by Fliess in a condominium scheme developed by Alliance Building Corporation Ltd. in 1970. (See Appendix C)

The proposal worked out in detail was again concerned with accommodating people at different stages in life by incorporated a single-storey one family house with an

Fig. 181

Possible site layouts, Garden Court House, New Forms of Family Housing, Murray and Fliess, 1960

Fig. 182

Perspective sketch of Narrow Row House scheme, New Forms of Family Housing, Murray and Fliess, 1960

Fig. 183

Perspective sketch of Narrow Row House scheme, New Forms of Family Housing, Murray and Fliess, 1960

apartment above. (fig. 183) The perspective drawing of an example scheme described the kind of overlapping interior and exterior spaces they had in mind. (fig. 182) The courtyard was made up of four square garden spaces bordered on two sides by screened upper patios. The lower single family units were open on three sides, while the upper apartments were oriented almost entirely toward the internal court. Both units were provided with basement space for storage and laundry, and at over 1000 sqft each, they would provide reasonably comfortable urban living quarters.

There were a number of qualifications made, however, for this form of multiple housing to be successful. They noted that: "such units probably require a more 'urban' type of family than the other types studied because the mutual responsibility is more intensive." Special consideration would also have to be given to acoustic problems, for example, living areas above sleeping quarters, or the possible overwhelming echo produced in the enclosed exterior courts. Given these limitations, this form may not be the most suitable for families with young children. Screening would also have to be carefully considered, in order to provide enough privacy, and at the same time, taking care not to block out too much sunlight or stifle air circulation. These concerns may explain why this particular solution was not overly popular, despite the obvious architectural interest this form offered.

An Example Neighbourhood

Their study concluded with a "An Example Neighbourhood" made up almost entirely of various combinations of the four horizontal forms they explored. The housing was loosely grouped around a central green space, not much larger than that required for

the elementary school, located just right of centre (fig. 184). They also included two tall apartment buildings, and a similarly scaled shopping centre, sited at right angles to each other to create a public plaza. Large parking compounds were located on opposite sides. Together with the school, these buildings formed a mini civic centre for the neighbourhood. Pedestrian paths connected each building with their neighbours, the 'community centre, and to the outside perimeter. The proposed size of their Example Neighbourhood was largely based on contemporary statistics governing the number of families with elementary school aged children, and should not be seen as a definitive model.

Fig. 184
Example Neighbourhood, New Forms of Family Housing,
Murray and Fliess, 1960

The overall scale was easily broken down to the individual level, by creating several smaller, more intimate central courts through the different groupings of like housing forms. No two configurations are the same. Again, this consideration goes

beyond guarding against visual monotony. It is fundamentally concerned with creating varied and memorable relationships between the buildings and their site. In this way, the individual will be able to recognize, become familiar with, and grow attached to, his/her “place”. The purpose of this ‘neighbourhood’ plan was also to illustrate desired relationships: ratio of horizontal multiple housing to vertical; built up and open areas; repetition and relief, etc.

Murray and Fliess’ study New Forms of Family Housing focused attention on the need to develop new forms of multiple family housing. Implied in their argument was the corollary need to plan neighbourhoods in a new way, in other words, before any of these new forms could be adopted, in isolation or as part of a new neighbourhood, a fundamental shift at the municipal level of planning needed to take place. The publication and popular response to this study represented a significant step toward this shift.

Contemporaneous with this study was the extensive planning and approval process for a large-scale rental subdivision located near the corner of Don Mills Rd. and Eglinton Ave. East, called Flemingdon Park. (figs. 185-86) This project has already been well documented by others, and concerns the present argument only in so far as it relates directly to the aforementioned study. The detailed plan worked out for the North Neighbourhood embodied many of the same principles advocated by Murray and Fliess in their Example Neighbourhood (fig. 187). Note the internal pedestrian circulation paths and the location of the elementary school and shopping centre. But beyond the general site plan, it was the planner’s goal “to produce a completely mixed form of development with town and row houses, terrace and maisonette units, high rise slab and tower

Fig. 185
Toronto, Flemingdon Park, elevated entrance court, I.
Grossman, 1959

Fig. 186
Toronto, Flemingdon Park, landscaped court, I. Grossman,
1959

Fig. 187
Toronto, Flemingdon Park, detail of master plan, Project Planning Assoc. Ltd., c.1958

apartments and point blocks,”²¹⁰ that is of particular interest for its likeness to what was being advocated by Murray and Fliess. Unfortunately, any true testing of the viability of such a rental community within the Canadian context was undermined by the large scale purchase of units at Flemingdon Park by the Ontario Government for use as subsidized housing - the result of which was the very same homogenization of population decried in the single-family housing developments on the periphery of urban centres. It should also be noted that as an exclusively rental community, and built to a relatively higher density than that advocated by Murray and Fliess’ study, Flemingdon Park should not be mistaken as a testing ground for their thesis.²¹¹

It does provide, however, another example of the difficulties, both social and economic, encountered by developers and their architect(s) when proposing unorthodox development schemes: The Chief Planner for Don Mills, Macklin Hancock, headed up Flemingdon Park’s development team for Toronto Leaseholds Ltd., and was responsible for the initial site studies, and for championing the development of a high density rental community. Convincing local politicians of the feasibility of their plans proved to be very difficult, largely due to the lack of any precedent for this kind of development in North America.²¹² According to Hancock, final approval came only after members of the local council visited some of the exemplary post-war residential developments in Europe, and interviewed some of the individuals responsible for their design. Public funds were granted by North York’s City Council for this six-day study trip, which was followed by

²¹⁰ Hancock, “Flemingdon,” 219.

²¹¹ A neighbourhood precinct planned by Fliess a few years later, called Parkway Forest, would come closer to achieving their suggested ideal ratio of horizontal multiple housing, and mixture of tenancies.

²¹² Macklin Hancock, “Flemingdon Park, Anew Urban Community,” Planning the Canadian Environment. L. O. Gertler, Ed. (Montreal: Harvest House, 1968) 210.

weeks of “considerable debate.”²¹³ The developers plans were eventually accepted by most of the councilors as “necessarily related to the development of the modern city,”²¹⁴ and received approval in July 1959.

III. Commission of Inquiry into the Design of the Residential Environment

Concern among community-oriented architects and urban designers about the quality of most post-war suburban developments prompted the establishment of a joint RAIC and CMHC committee to study the problem. They took their cue from an address by Stewart Bates, President of CMHC to the members of the RAIC at their 1957 annual convention, Bates made the following suggestions:

He invited the institute to make a comprehensive study of the whole fabric of suburban growth in order to find a basis for a fuller and more effective participation of architects in the building of residential areas, and that the institute should set up a special Commission to examine the whole subject of design in the building of the residential environment. It was further suggested that financial assistance for such a study might be available from the Federal Government.²¹⁵

The Committee's first task was to set up a Commission of Inquiry. James A Murray, the Chairman of the new committee, and his fellow representatives from the RAIC, John Bland and James Strutt,²¹⁶ presented a detailed proposal for the establishment of a Commission of Inquiry the following year. Their proposal outlined the scope of the Inquiry, the makeup of the Commission and how it should proceed. The following

²¹³ Hancock, “Flemingdon,” 211.

²¹⁴ Hancock, “Flemingdon,” 211.

²¹⁵ Joint Committee on Housing of the RAIC and CMHC. “A Proposal to the Executive Committee of the Council of the Royal Architectural Institute of Canada.” Also referred to as the “Murray Committee Report.” (1959) 1. RG 19-59, VK 51. File: RAIC, 1950-1971. Archives of Ontario, Toronto.

²¹⁶ Humphrey Carver and Ian MacIennan were the Committee members from CMHC.

passage taken from the “Murray Committee Report” is of particular interest to the present study:

The growth of our country has now reached a stage at which the architectural profession must firmly embrace its full national responsibility for that branch of architecture which most closely touches the lives of our fellow citizens. With the expanding strength of the profession it will no longer be possible to deny this social and professional obligation.²¹⁷

This sense of obligation was a significant motivating factor behind the innovations in housing in the postwar period, and underscores the point that housing design cannot usefully be studied in isolation. The report’s delineation of the term “design” as it pertained to the proposed Inquiry illustrates this understanding of the interdependence of things.

In the context of the study the word “design” should be taken to mean the form and function of the buildings themselves – the whole range of housing form, together with dwellings, schools, shopping centres, public buildings, etc. – and also the street pattern, the landscaping, and all other elements which are part of the suburban scene, and the relationship of all of these to one another in forming the total physical environment of the suburbs.²¹⁸

It is this understanding of housing as an organic unit within a larger physical and social organism that lies behind Fliess’ approach to multiple housing design. It is only through such a view that one may begin to understand how the design of the buildings themselves was subordinated to, or followed from, concerns for site layout, landscaping, and overall community planning considerations.

An agreement was signed on November 3rd 1959 between CMHC and the RAIC, outlining their respective responsibilities in carrying out the Inquiry. The former agreed

²¹⁷ Joint Committee on Housing of the RAIC and CMHC. “A Proposal.” 2.

²¹⁸ Joint Committee on Housing of the RAIC and CMHC. “A Proposal.” 4.

to provide up to \$30,000 in support of the latter's "inquiry into the design of residential areas for the purposes of determining ways in which the architectural profession can perform a larger and more effective role in improving housing in Canada."²¹⁹ Three prominent RAIC members were chosen to head up the Committee of Inquiry into the Residential Environment. They were Peter Dobush, of Dobush and Stewart, Montreal, (Chairman); John C. Parkin of John B. Parkin Associates, Toronto; and C. E. Pratt, of Thompson, Berwick and Pratt, Vancouver. The Inquiry took the form of a cross-country tour, visiting 13 major Canadian cities. The Committee "heard over 250 witnesses and received over 450 briefs from organizations and individuals concerned with the future of our suburban environment."²²⁰ Local newspapers also played a role in the Inquiry, and helped to stir up public debate by publishing some of the more inflammatory comments made by both witnesses and Committee members.

Henry Fliess may well have made the most disparaging statements of all, and was subsequently quoted at length in a Globe and Mail article, captioned "Timidity, Ignorance Blamed at Inquiry Into Urban Planning." Their inclusion here serves two purposes: one, they are an indication of the magnitude of the gulf that existed between architects and those they were dependent upon to realize their designs; two, they are an indication of Fliess' vision and dedication to the housing and urban design field, for in spite of his obvious frustration, he was successful in realizing several innovative housing projects over the course of his career.

²¹⁹ CMHC and RAIC Contract, November 3rd, 1959. National Archives of Canada, Ottawa. RG 28, Vol. 6, File 6-12.

²²⁰ RAIC Pamphlet for the 53rd Annual Assembly 1960. National Archives of Canada, Ottawa. RG 28, Vol. 3, File 10.

Fliess' annoyance with current building practice, from the lack of any guidelines for those entering into the construction industry, to a lack of judgement on the part of municipal officials, is all too evident.

Toronto architect Henry Fliess said that under Ontario regulations a planner or architect often found his plan so altered as to be unrecognizable after running the obstacle course of boards and government departments.

Municipal planning departments were almost universally incapable in Ontario, he added. In at least two Metro municipalities, senior officials were graduates of no planning or architectural school and plans by competent architects were passed or flunked by "high school boys."

Mr. Fliess urged the committee investigate qualifications of developers and builders since many were former taxi drivers, clothiers or clerks who had only entered building for the money.

"Some of the biggest building people, investing millions of dollars, are almost illiterate," said Mr. Fliess. "These are the people who are responsible for the creation of our environment."²²¹

Regardless of whether or not these statements were justified, they need to be put into context. At the time of the Inquiry, Fliess was still "bruised" from his battle with North York building officials over the merits of his Clintwood project. He was also in the final stages of preparing his joint study New Forms of Family Housing for CMHC. He was, in other words, painfully aware of the difficulties one would likely encounter in proposing a housing development that raised eyebrows among municipal officials, builders, and/or mortgage companies, and anything other than the status quo would be enough to raise most eyebrows.

In contrast, it is satisfying to note Fliess' later 'diplomatic' accomplishments, as described in a speech delivered by John Wimbs, at the ceremonial presentation of the 1994 OAA *Order of da Vinci* awarded to Fliess:

²²¹ "Timidity, Ignorance Blamed at Inquiry Into Urban Planning," The Globe and Mail, Thursday, November 5, 1959, 8.

I was to come across [Henry Fliess] much later in my career when I sat on a municipal planning board and saw him charm the spots off the members who approved all his applications without exception. Let's face it, when you are out to please local politicians, it is not enough to be a brilliant designer you must also have the gift of winning them over. Not all of us can do that.²²²

In retrospect, the Inquiry into the Design of the Residential Environment served two main purposes. First, it provided a venue for those involved to vent their frustrations and to share their successes in the housing and planning fields – serving to re-ignite interest and bolster the efforts of those who were trying to bring about significant change. Second, by carrying out a cross-country tour, and involving the media, they were able to raise public awareness about the urgent need for better community planning. The latter was to become self-evident through the various testimonies presented to the Committee, and through the majority of the Committee's recommendations in their final report. It should be noted that the issues raised, and many of the recommendations, were not new to those involved in planning. What was new was the momentum created by this Inquiry to move beyond making recommendations and into the muddy territory of bringing these recommendations to fruition in new urban design guidelines, and as a first step in the creation of new partnerships among concerned professionals, including the formation of the Canadian Council on Urban and Regional Research (CCUR). The Inquiry also served to strip away any remaining illusions about the efficacy of promoting good residential design through better designed individual houses.

The Committee of Inquiry's Final Report, with less than a third of its recommendations pertaining to the architectural profession, was not an abdication of

²²² John Wimbs, Citation for the 1994 Order of da Vinci, presented to Henry Fliess at the 1995 OAA Convention. Henry Fliess' CV File, Fliess Gates McGowan Easton Architects, Toronto. 2.

responsibility, but an admission of their scope of influence, and a sincere attempt at bringing about more effective means of communication between those involved in creating urban and suburban environments. It became abundantly clear through the inquiry process and subsequent discussions of its findings among RAIC members, how little influence the architectural profession had in determining the overall suburban pattern - so dependent were they on the will of municipal officials, merchant builders and their mortgage companies.

Among the recurring themes of the Report, the need for greater diversity in housing type, and the need to reform municipal zoning by-laws are of the greatest significance to the present argument. The majority of the first half of the Report dealt directly with the overproduction of single detached housing relative to other forms of accommodation since 1946, in relation to 'real' costs, financing, design, and municipal planning and regulations. Before they could offer any recommendations for changing this stated condition, they had to first convince others that change was necessary.

The bungalow, it is seen, does not suit every household at every stage in its increase and maturity. If we are to depart from the concentration on bungalows that marked the homebuilding of the 1950s, the case must first be made for other forms of dwelling. Then there needs to be some understanding of the main factors that have favoured one type of dwelling over all others.²²³

The common complaint cited in the Report, was that of monotony, a term chosen by the committee to describe like complaints about the new suburban environment. The definition "wearisome through sameness" made it an apt choice, calling attention to both the lack of variety and its psychological consequence. This monotony, I believe,

²²³ Report of the Committee of Inquiry, paragraph 22.

stemmed as much from these new developments' failure to create any "sense of place", as from any lack of diversity in housing type. In other words, it was not simply a matter of one house looking very much like every other house, but that each one of these houses was arbitrarily and unremarkably sited within the development as a whole. One would likely be quite incapable of distinguishing one street of houses from any other in the neighbourhood, or from similar developments in the same city, or even from one province to the next.

If this complaint was not enough to compel a shift in focus, there was the attendant social monotony produced by this kind of development, which gathered together a group of people who were all likely at the same stage in life, with similar economic means, isolated on the periphery of urban centres, with few community amenities. The Committee conceded that many Canadian were living in better quality housing than had been possible before, but they believed that this new standard came at a much higher cost than most were willing to admit. They reasoned that these developments were unable to accommodate a family's changing needs, nor was it possible to accommodate older or younger individuals who depend on various external facilities to fulfill their needs. This inability was believed to be detrimental because its attendant increase in mobility, and isolation, fought against the perceived goal of fostering a sense of community and mutual responsibility.

Other 'real' costs of this kind of "repetitive pattern of housing" included the loss of uniquely suitable agricultural land, natural wildlife habitat, and countless numbers of trees. These costs are not in themselves remarkable. The point of contention was the extent of these losses. For example, the practice of clearing hectares of land for sale by

speculators was unanimously condemned, as was the heady development upon the Niagara Peninsula, without regard to its potential for growing precious crops. The stress on initial capital outlay, without regard to future sustainability, or even rudimentary maintenance, was also roundly criticized, particularly in relation to low cost housing developments.

Fig. 188

Several factors were listed as contributing to this trend toward the exclusive production of bungalows. NHA financing was a major contributing factor, even though CMHC had itself called for more diverse, medium density residential development as early as 1953, in an extensive report published in the RAIC Journal. Their administration of loans under the terms of the NHA were, nevertheless, found to favour applications for three bedroom bungalows, almost to the exclusion of all other forms of accommodation. (see fig. 188) This unhappy fact prompted the Committee to state that “the repetitive

appearance and social homogeneity of the typical post war suburb stem directly from the terms of the National Housing Act.²²⁴ The pivotal position held by mortgaging institutions in determining the quality and character of our built environment must not be overlooked – a position Fliess well understood.²²⁵

Shifting responsibility for municipal services onto the developer was another significant determinant. According to the Report: “Under this [new] system of payment for services the developer can minimize his carrying costs and accelerate his return of capital, by devoting his whole disposable tract to single houses, with none of it for apartments or shops or churches.”²²⁶ These financing conditions were aggravated by “a host of local regulatory practices,”²²⁷ which when taken together, “de-sensitize the Canadian market by virtually prohibiting some species of housing and guaranteeing profit to the producers of others.”²²⁸

The impact of “local regulatory practices” cannot be stressed too heavily here, because they determine to a large degree the general character of our built environment. The power of these local bodies to make decisions that not only affect their contemporaries, but impact environmental conditions for generations to come, demands careful consideration to ensure that these regulations are based on sound, community planning principles. The Report called attention to the failure of most municipalities to

²²⁴ Report of the Committee of Inquiry into the Design of the Residential Environment. (Ottawa: Royal Architectural Institute of Canada, 1960), paragraph 76.

²²⁵ The Globe and Mail article cited earlier also referred to Fliess’ “claim [that] the mortgage companies were in the most favourable position to control housing quality because they were the greatest investors in housing. They could refuse to lend money for shabby developments.”

²²⁶ Report of the Committee of Inquiry into the Design of the Residential Environment. (Ottawa: Royal Architectural Institute of Canada, 1960), paragraph 64.

²²⁷ Report, paragraph 40.

²²⁸ Report, paragraph 40.

commission and adopt a city plan, and to the existence of “many codes [that] seem made by men who had in mind only one kind of house.”²²⁹ It also found that a “sensible linkage”²³⁰ between “codes governing physical development”²³¹ and long-term planning was “hard to discover.”²³² The example provided in the Report illustrated the cumulative impact of such ill-conceived codes, and is particularly significant to the present study because it perfectly demonstrates the wasteful pattern of the majority of suburban development that Fliess was determined to ameliorate.

It is commonly laid down that an access road allowance must be 66 feet wide, with all buildings set back another 25 to 30 feet from that road line. These provisions sterilize 1000 square feet of land that some family should be allowed to enjoy. They also separate opposite house fronts by something like ten times their height, thus making illegal the grouping of houses for best effect at lowest cost.²³³

After the formal release of this Report to the Federal government and to the members of the RIAC, the RAIC-CMHC Joint Committee on Housing was charged with “the further implementation of the Report with specific concentration on those aspects of the inquiry recommendations which [were] of a predominantly architectural nature.”²³⁴ In 1962, Henry Fliess and another Toronto architect, Harry B. Kohl, “were invited by the Institute to sit with Mr. Michael J. Bacon, a town planning consultant, and Mr. George Nordmann, of the staff of CHMC, as a committee under the chairmanship of Professor J.

²²⁹ Report, paragraph 59.

²³⁰ Report, paragraph 61.

²³¹ Report, paragraph 61.

²³² Report, paragraph 61.

²³³ Report, paragraph 61.

²³⁴ James Murray, “Report of the Chairman, RAIC-CMHC Joint Committee on Housing,” RAIC Journal, October 1961, 76.

B. Milner of the Faculty of Law at the University of Toronto,²³⁵ to study zoning. Two years later, with the help of another grant from CMHC, the Zoning Study Committee of the RAIC published its report entitled Reflections on Zoning. The “Summary” of this report echoed earlier comments made by the Committee of Inquiry.

Not only have the terms of zoning by-laws applicable to areas as yet undeveloped or about to be developed been unduly restrictive, they have been too often arbitrary. While many terms have been standardized and widely copied so that they appear to represent common experience and understanding, on closer analysis they are difficult to justify. In particular, yard requirements and height limitations often appear to have little rational basis.²³⁶

Attention had to be drawn to the lack of rationale behind these types of by-laws if there was any hope of having them revised, or revoked entirely, in favour of what the Zoning Committee called “development control guidelines.” The critical difference between the two: the former relied on very specific by-laws governing very general circumstances; the latter aims at making decisions in relation to specific individual building permit applications. Other similar points made in this report that underscored the earlier one were: (a) the need for professional expertise at the municipal level if proper development control is to be exercised; (b) this kind of measure is necessary if greater diversity in housing type is to be realized; and (c) the fundamental role of an adopted city plan in guiding development.

Part V of the report was devoted to “By-Law Standards of Bulk Regulation.”

Under this heading fell lot boundaries, front yards, side yards, rear yards, and high buildings and open space. Each of the above were examined in terms of their

²³⁵ Zoning Study Committee of the RAIC. Reflections on Zoning. The Report of the Zoning Study Committee of the Royal Architectural Institute of Canada. (Ottawa: RAIC, 1964), 5.

²³⁶ James Murray, Foreword to Reflections on Zoning, 1.

“usefulness” in relation to allotted size prescribed in by-laws. The Committee stressed its general viewpoint before going into any detail: “We think it necessary at the expense of much repetition to say that the zoners ought to permit, as the planners ought to provide, space for housing of all kinds and descriptions, rich and poor, reasonably close together.”²³⁷ With this as their governing principle, any minimum distance prescribed that could not be justified through a reasonable breakdown of purposes, was found wanting. Significantly, considering the predominant pattern of suburban development, the front yard was determined to be a product of “habit and fashion” that had “no need whatever for the usual fifteen – or twenty-five-foot set-back.” Their objection to these setbacks, particularly when combined with unnecessarily wide street allowances, besides their promotion of suburban sprawl, is best illustrated by their choice of contrasting images. (fig. 189) It is important to qualify here that their concern lay with enforcing these dimensions as *minimum* standards, and that they did not presume to claim that all such generous siting was necessarily antithetic to good residential design. The standards suggested in the zoning report were deliberately aimed at opening up local by-laws to allow for more dense and varied housing – the very forms advocated by Murray and Fliess in their earlier housing study, and those envisioned by the RAIC Committee of Inquiry.

Developing density guidelines is a particularly contentious undertaking, due to the interdependent nature of municipal services, community facilities and residential accommodation. Even after many years of intimate study and experience dealing with density issues, Henry Fliess contended that “there is no best density, only a best solution

²³⁷ Zoning Study Committee, Reflections, 17.

Fig. 189
Contrasting streetscapes, RAIC Zoning Study Committee, Reflections on
Zoning, 1964

for a particular situation.”²³⁸ The zoning study, therefore, tended to focus on the lack of clarity within the debate, stressing the shortcomings of prescriptive planning measures and the need for greater consistency in the use of terms to prescribe density. For instance, one suggestion in the study was to base density calculations on a formula based on “persons per net acre” rather than on units per acre, as the former is likely to give community planners a more accurate picture of an area’s use or need of municipal services. Moreover, it stressed the futility of controlling the density of development, if these controls were not based on an adopted city plan. “In short, the question is not so much how high is the density, but whether that part of the municipality is planned and built to handle the planned density.”²³⁹ The underlying purpose of the zoning study, I would argue, was to once again call attention to the need for greater variety and higher density development than that currently being provided in the majority of new residential areas.

Finally, the Zoning study’s strong support for “a return to mixed uses under more controlled conditions,” should be noted here, as it predates Murray and Fliess’ design for The Towne, a mixed use building developed by Cadillac, located on a site just steps away from Yonge Street on St. Clair Ave. As a case study in design, it provides a beautiful illustration of how one may address two very different existing conditions, or contexts, through its combination of a low-rise form of apartments with a high-rise, using the space in between for a highly articulated outdoor terrace (see Appendix C) Equally important, however, as another first in Canadian architecture, The Towne was credited with

²³⁸ Henry Fliess, “Housing Mix and Density,” Housing and the Community. (Ottawa: Canadian Housing Design Council, Central Mortgage and Housing Corporation, 1978), 34.

²³⁹ Zoning Study Committee of the RAIC, Reflections, 11.

successfully mixing retail, office and residential uses, which very likely owes its realization to such promotional and educational campaigns as that provided through the promotion and wide distribution of the Zoning study.

Henry Fliess remained committed to developing siting guidelines that would promote humane design strategies for urban and suburban areas, and by the mid-1970s, he would realize a small but authoritative experimental housing development called Etobicoke North, which employed several of the zoning study's recommendations, most notably those concerned with minimum road allowances and front and side yard setbacks.²⁴⁰ The goal of Fliess' design was the integration of families of different income levels in a new development pattern that had the potential for significant economies in municipal services and overall land use. Again, the main innovation here was the boldness with which Fliess combined traditional forms of housing - singles, semi-detached and row houses, and what he described as a "house behind a house" - to create something new. Sadly, the "house behind a house" (fig. 190) was dropped from the realized scheme because the developer felt that "the public want[ed] greater presence on the street."²⁴¹ Nevertheless, the contrast between Fliess' Etobicoke North and its uninspired neighbouring suburban developments, clearly demonstrates the lost potential of this as yet largely unexplored pattern for more compact suburban living (see Appendix C).

²⁴⁰ A more ambitious scheme had been designed for a site in Oshawa, called Sun Valley, but was never realized. The developer abandoned Fliess' design after gaining development approval, likely due to the protracted negotiations with financing institutions, which in the end meant relenting to misgivings about consumer acceptance of its experimental nature.

²⁴¹ Henry Fliess, "Affordable Housing," *Canadian Architect*, vol. 22, no.8, August 1977, 20. A variation of this form has since been adopted in urban in-fill projects, mostly made up of row housing, with great success.

Fig. 190

"House behind a House"

One of a number of strategies developed by Fliess
to ameliorate suburban land development patterns

This chapter has served to flush out many of this era's most pressing urban design problems, while offering several innovative, and more importantly, aesthetically satisfying and livable means of addressing them. It has also served to make the case for the interdependent relationship between the advocacy and educational campaigns launched by design professionals concerned with ameliorating current land development practices and the realization of experimental design projects. In so doing, the role of the architect in the development process can be better understood through one's greater appreciation of how the designer negotiates the terms of development through design

innovation and intervention. Once the domain of artistic license has been determined, the task of analyzing the design of particular housing projects remains. Clearly, a phenomenological approach to the analysis of housing and urban design can yield significant insights, as in those brought out in this chapter's description of the general malaise of post-war development patterns, and its treatment of the evolution of Fliess' maisonette designs. The following chapter will definitively demonstrate how a phenomenological approach to the analysis of multiple housing design allows one to move beyond questions of style to determine the object lessons of Canada's most successful multiple housing projects built after the Second World War.

CHAPTER FOUR: CASE STUDIES

The importance of considering housing design within the larger context of urban design cannot be overstated. The complexities of this relationship have been dealt with in some detail in the previous three chapters, stressing the need for a co-ordinated effort in the planning and development of new communities, or in the redevelopment of older ones, to guard against undue isolation, wasteful extension of municipal services, or the overproduction of one form of housing to the exclusion of others. It is only with this understanding that the architect's role in the development of multiple housing can be usefully analysed. Likewise, any analysis of housing and urban design must address the critical issue of *place making*, that is, the enabling of meaningful relationships – sociological, psychological, physiological and otherwise - between ourselves and our built environment. In other words, beyond the determination of general historical circumstances, how may we learn from the architecture of the past? What are the object lessons of Fliess' multiple housing designs that may be used as a guide to achieving similar success in the development of contemporary multiple housing projects? In answer to these questions, three case studies have been chosen to illustrate how the above themes are reflected in Fliess' multiple housing designs and what role these considerations play in their continuing success.

It is worth noting that each case study was commissioned by a different client, and involved a different degree of association with James Murray's firm.²⁴³ As noted earlier,

²⁴³ The commission for the first case study was awarded to and carried out by Fliess in association with Murray; the commission for the second case study was awarded to Murray and Fliess, with Fliess taking on full responsibility for the project's design; while the third case study was developed solely by Henry Fliess.

the working relationship between Fliess and Murray continued over many years. In some cases both were involved as designers, while in others, one or the other firm was brought on board to help in the production of working drawings and other contract documents. The regularity of this association is evidenced by the job numbering system adopted by Fliess Gates McGowan Easton Architects, with job numbers preceded by an F representing Fliess' work, while those with an FM denoting collaborations between Fliess and Murray. This being said, it is not my purpose here to definitively establish authorship. It is instead, to demonstrate how the goals and principles laid out in their housing study, New Forms of Family Housing, affected the development of some of Canada's most exemplary speculative multiple housing projects built after the Second World War. As argued here, its fundamental maxim was the design of interrelated groups of multiple housing that can be readily understood and identified by those who inhabit its spaces as *places* in the phenomenological sense. They believed such *places* could be created if the following programmatic requirements were satisfied:

- i. Clear demarcation of boundaries between inside and outside – public, semi-public, and private spaces are physically discernible.
- ii. An intimate scale through the ability to differentiate the individual unit within the project as a whole.
- iii. Provision of the majority of units with directly accessible garden spaces, or at the minimum, private outdoor spaces large enough to serve as an outdoor dining area.
- iv. Planning for a maximum area of tenant responsibility, clearly defined, to guard against alienating 'unclaimed' spaces.
- v. Provision of adequate areas for the storage of garbage and maintenance equipment, and the unobtrusive siting of parking compounds.

The above is by no means an exhaustive listing of the complex interrelated design considerations involved in the resolution of the following case studies, but simply a

reiteration of the critical precepts that helped shape these exemplary multiple housing projects.

Each case study will demonstrate how the above was used to guide their resolution of the complex psychological, physiological, and sociological relationships inherent in multiple housing design, while providing a better understanding of the various possibilities for siting, landscaping and unit design using a limited number of standardized, repeatable parts. What each may also be said to share in common recalls Sigfried Giedion's summation of the success of late Baroque London squares. The salient features being: the critical position given to the design and proportion of green spaces; the wise "distinction between what must be private and what is best held in common"; and the inconspicuous design of the housing.

Several factors played a role in determining the three case studies chosen. One important consideration was the limitations of the historical material I could usefully address in the preceding argument, necessitating that I limit myself to multiple housing projects that were commissioned and developed before 1970. Within this window, the period between 1961-1966 proved to be the logical choice, as it predates significant changes made to government regulations dealing with the development of housing in Canada, namely the passing of condominium ownership legislation and the opening up of the mortgage market to chartered banks in 1967, which when taken together, effectively altered the context in which housing was produced up to that time. Equally important for my purposes here, this period also follows the publication of the two main studies dealt with in the previous chapter (New Forms of Family Housing and the Report of the Committee of Inquiry into the Design of the Residential Environment), and corresponds

with the significant rise in the use of experimental forms of horizontal multiple housing in Canada. Finally, the established timeline falls before the expansion of Henry Fliess' architectural practice to include partners. It is hoped that through the detailed analysis of the following three case studies, the lessons to be learned from the preceding argument will be brought to life.

Case Study I

Statistics

Project:	Cloisters of the Don		
Date:	1961-196[4]		
Architect(s):	James A. Murray, Henry Fliess, Associate Architects		
Developer:	Donwood Terrace Developments (Joe Godfrey & Mark Tanz)		
Density:	17.1 units/ acre for multiple family housing; 39.83 units/ acre for apartments Combined density for development is 25.7 units/ acre		
No. of units:	154 maisonette and terrace houses 218 apartments		
Types of units:	Terrace housing blocks G,H,K	type A,B,C	3 bedroom
	Maisonettes blocks A,B,C, L & M	type 1,2	2 bedroom
		type 3,4,5	3 bedroom
		type 6	3 bedroom + study
	Maisonettes blocks D,E,F	type S-1,2,3,4,7	3 bedroom
		type S-5,6	2 bedroom
	Apartments blocks east & west	type A,B,C,D,G	2 bedroom
		type E,F	3 bedroom
		type H,I	1 bedroom

The first case study is a rental housing community located on a site just east of the Don Valley Parkway, north of Lawrence Ave. East. Its proximity to the new highway, Lawrence Ave., and Don Mill's community centre, made it an attractive location for medium density development despite its irregular terrain. Given the architects' interest in

exploring the potential of varying sectional relationships in the design of horizontal multiple housing, this site proved to be an ideal testing ground .

The development's name, Cloisters of the Don, is significant in this instance, as it provides a history for the new community by referring to the site's former use as a Christian Brothers' farm. This history may also be said to have provided the architects' with the 'parti' for their design of the first phase of the development (horizontal multiple housing), which loosely refers to the nature of a medieval cloister through its series of highly articulated garden courts, variously bordered by the rows of housing. (fig. 191) This allusion was made more literal by the inclusion of an arcade that acted as a symbolic entrance toward the centre of the site.²⁴⁴ (fig. 207)

In a less abstract way, the architect's admiration for the multiple housing developments in Bath and Kensington (London), already noted more than once, is clearly evident here in the layout of the horizontal multiple housing. (figs. 12 & 14) Particularly striking is the manner in which the narrow row house blocks (Q, H & K) snake their way in and around the centre of the development animating the inner street scene as they constrict and expand views through the site. Also note how the three maisonette blocks (D, E & F) located to the west, follow the slope in grade by shifting levels along their length. Their cascading rooflines and protruding balconies exaggerate the hilly character of the site, highlighting its natural features. (figs. 202-03 & 211-13) The remaining maisonette blocks (A, B, C, L & M) incorporate more subtle shifts in grade to provide for greater articulation of the landscaped courts and to privilege each of the rows with a discernibly different position within the overall scheme. (fig. 208-10, 214)

²⁴⁴ The arcade has since been dismantled, likely when wooden members needed replacement.

There is one other siting consideration that should be noted as significantly contributing to the character and success of the Cloisters horizontal multiple housing. A conscious choice was made between large back to back private yards, and the more loosely defined smaller garden areas with shared recreation space woven in between. By choosing the latter, the negative impact of the maisonette blocks' interior corridors has been greatly reduced, particularly important in the longer rows that do not benefit from shifts in level, while at the same time increasing the sense of open space in between blocks. The resultant landscaped courts, with their varied topography and textures, take on the personality of the older narrow streetscapes referred to in the RAIC's zoning study.²⁴⁵ This kind of site planning is, of course, only possible in a rental or condominium form of land development where land may be held in common.

All of the above siting and landscaping considerations aimed at engendering a *sense of place* through differentiation and by making the relationships between the buildings and their site discernible – visible. The internal courts and children's play areas, for example, provide social focal points for neighbouring units, while their unique design distinguishes these spaces as particular *places* within the project as a whole. The architects' also exploited the different qualities inherent in the great variety of plants, shrubs, trees, raised beds, and other hard landscaping as a means to express the hierarchy of these exterior spaces – differentiating between public, semi-private and private. (figs. 208-10) The larger communal playground located in the valley between the horizontal units and the towers, again beautifully demonstrates how existing site conditions can be

²⁴⁵ The Cloisters project is likewise used in the zoning study report to illustrate how new development should incorporate the kind of mixed uses allowed for in our older smaller neighbourhoods.

highlighted and used to advantage – note how the different play areas are connected through a series of meandering paths, and how the hillside is used to nestle the younger children's play spaces. (fig. 216)

The design of the maisonette units themselves had improved considerably from Fliess' initial experiments, particularly in terms of making greater use of the individual units' outdoor spaces, though admittedly the Cloisters designs would have been more costly to build. (figs. 217-20) All of the units in the larger maisonette blocks (A, B, C, L & M) enjoy a balcony off one of the bedrooms, ranging in size from 4' x 8'6" to 4' x 22', and are sheltered by overhanging eaves and by stepping in the façade. A greater sense of enclosure is similarly achieved for the patio spaces by alternately receding and extending the exterior envelope, with the balconies overhead providing a generous canopy. (fig. 193 & 199) The tiered design (D, E, F), though relatively flat in its façade, had the advantage of four changes in level, providing more definitive boundaries for the majority of their adjoining outdoor spaces (figs. 201-203). Note also in the three units that share the same grade level, the middle unit is unique, standing proud of the façade with no balcony, but with the addition of a divider screen along the patio's edge. The balconies of the outer two units are thus separated by a greater distance and by the protruding middle unit (fig. 213). Likewise, the apartments' balconies were well considered for privacy and comfort. Particularly noteworthy is their greater width for ease of outdoor dining. (figs. 200, 229-231) Considered together, the Cloisters' tenant enjoys far greater freedom in the use of their outdoor spaces than those residing at either of the two earlier maisonette designs dealt with in chapter three.

The architects' debt to modern Scandinavian multiple housing design is clearly visible in the rhythm created by generously recessed balconies and undulating façades. It is also reflected in the modest choice of materials and detailing. (see Appendix B) The exterior finishes of concrete (horizontal housing) and clay brick (apartments) in muted earthy tones, accented with darkly stained wooden balusters and white trim, continue to work well with the matured landscaping. The horizontal housing in particular, seem to almost entirely recede into the background, recalling once again Giedion's summation of the legacy of British Baroque urban design.

The attention and weight given to siting and landscaping as a means to create *place* has been a focus for much of this argument. It is more difficult perhaps to articulate similar points in connection with the design of the units themselves. The following quote, taken from James Murray's 1962 inaugural CHDC public lecture, The Architecture of Housing, summed up in a few lines, their aim in the design of multiple housing and the main stumbling block in the way of achieving it:

Can something of the values of Home and House animate the philosophy and design of multiple housing, -- something of life's fascinating complexity within the standards imposed by the unit plans, the unit structure, the unit materials, the unit by-laws, the unit financing patterns? How about some mortgageable fun on the roof and some mortgageable fun in the landscape; some conception of urban living more sociably viable than the impersonality of the corridor and the seclusion of the suite; something less orthodox, less stereotyped and more a thing unexpected and eloquent.²⁴⁶

One way of addressing the tendency toward oversimplification and banality in multiple housing design was to create a greater variety of housing forms. In turn this variety

²⁴⁶ James A. Murray. The Architecture of Housing. (Ottawa: CHDC, 1962) The first in a series of public lectures sponsored by CHDC, and given in Ottawa at the National Gallery of Canada. 10.

allows for greater flexibility in type and arrangement of units. As noted in the project's statistics (p.251), the Cloisters of the Don offered three distinct forms of multiple housing, with a high degree of choice in unit type. This differentiation was not 'window dressing'. In developing a series of unit plans, linked together like a puzzle, it became possible to achieve economies of construction, and at the same time, create a group of interdependent but individually distinguishable *homes*.

How may the various floor plans be said to convey their amenability to "life's fascinating complexity?" For one, the choice of unit types offered in each of the three forms of housing lends itself to wider appeal among possible tenants, and may be seen as an attempt to reflect the variety of family size and lifestyle. (figs. 221-27 & 229-231) It also provides the flexibility within the development (i.e. rental community), for movement within given changing circumstances. The idea that individuals or families may choose to move from an apartment to a maisonette or row house, or vice versa, was given credence by one tenant's story related to the author on a site visit. According to this new mom, it was common for people to move from one of the apartment buildings to one of the two-storey units, as she had done, given similar circumstances, or due to a rise in household income. The livability of the individual units was attested to by another resident who spoke highly of her and her husband's almost thirty year tenancy in the same two bedroom maisonette unit, having chosen to stay long after their children had moved on (the latter's garden is featured in fig. 199). But beyond this capacity to accommodate changing lifestyle needs, the variety of floor plans, in conjunction with siting and landscaping, help to define the individual unit from the group, and greatly soften the standardized elements necessary in multiple housing design by eliminating the

psychologically oppressive feelings generated by duplicating the same unit regardless of particular circumstances.

The floor plans of the various maisonette, terrace and apartment units also display great care and concern for the quality of the everyday experiences they were created to accommodate. Important considerations included the provision of basements in the horizontal housing, and the limiting of corridor lengths in both the apartment and maisonette designs. Generous window dimensions and direct access to adjoining outdoor spaces should also be noted as contributing to the overall livability of the individual units. Penetration of natural daylight through open planning continued to be a guiding principle, and the provision of a buffer zone between the semi-private (entry) and private living spaces was consistent throughout the project, though dealt with in different ways. Special consideration was also given to storage and closet space, and direct access from the main entry to the kitchen without having to intrude on the living room. This last consideration was believed to be fundamental to good interior planning practice by both architects.

This case study also provides a clear example of why zoning by-laws should remain reasonably flexible. The development's apartment towers were planned in conjunction with the horizontal multiple housing with the aim of creating an example of the kind of neighbourhood (at least in part) advocated by the architects in their study. This proved to be difficult, as it required the rezoning of the apartments' proposed site, which encountered considerable opposition. Fliess, on behalf of the developer, argued that:

Due to the characteristics of the existing valley and the physical limits of the plateau, the most appropriate use of the site was to construct two “tower” buildings. These are designed for the plateau and spaced in such a way so as to leave the treed slopes of the valley adjacent to the single family residential development to the north relatively untouched and thus retaining them only for recreational uses.

The present zoning of the land permits almost the same number of apartment units but would involve making use of the slopes and thus necessitate the removal of many existing trees. The lower height of the buildings would require a very high land coverage.²⁴⁷

The proposed development would not, therefore, distort the area’s official plan in any significant way, and given the particular site conditions, may be seen as a more appropriate means of achieving the higher density planned for under the existing zoning. The initial application was submitted in early January, 1962,²⁴⁸ and was immediately deferred by council to the planning board. The first hearing was held early in February, 1962, but continued into the spring of 1963. The rezoning application was likely finally approved on the basis of the popularity of the first phase of the development (horizontal multiple housing). The continued success of this project is clearly evident in the photographic documentation.

The Cloisters of the Don exemplifies the kind of *place making* made possible through the articulation of individualized green spaces and by exploiting a site’s potential for creating varying sectional relationships, and by privileging each housing block with a unique position and vantage point within the overall scheme. It has also served to illustrate the kind of variety possible in the design of a speculative multiple housing

²⁴⁷ Henry Fliess, “Argument for requiring proposed amendment,” Job Files, Fliess Gates McGowan Easton Architects, Toronto.

²⁴⁸ At the same time, he was also requesting the rezoning of land across the road for the erection of two 10-storey apartment towers, though these were not part of the Cloisters development, and in the end were not designed by Fliess or Murray. (North York Planning Board, Notice of amendment applications, January 25th, 1962. Job Files, Fliess Gates McGowan Easton Architects, Toronto.)

development, highlighting the desirability of providing a choice in housing forms that can offer a number of different floor plans as a means to accommodate and adapt to different lifestyle needs. It has also touched on the difficulties that arise from overly prescriptive municipal planning practice. This aspect will be seen to have played a heavier role in the development of the next case study.

Fig. 191
Don Mills, Cloisters of the Don, site plan of horizontal housing, Murray and Fliess, 1961

Fig. 192
Don Mills, Cloisters of the Don, site plan of apartment buildings, Murray and Fliess, 1961

Fig. 193

Don Mills, Cloisters of the Don, view from corner of Roanoke Rd. and Underhill Dr., Murray and Fliess, 1961

Fig. 194

Don Mills, Cloisters of the Don, view looking west down north side of Roanoke Rd. toward apartments, Murray and

Fig. 195

Don Mills, Cloisters of the Don, view of entrance to Block A off Roanoke Rd., Murray and Fliess, 1961

Fig. 196

Don Mills, Cloisters of the Don, view courtyard between
Block A and B, Murray and Fliess, 1961

Fig. 197

Don Mills, Cloisters of the Don, view of midpoint entry,
Block A, Murray and Fliess, 1961

Fig. 198
Don Mills, Cloisters of the Don, view of entry fronts of row housing, Murray and Fliess, 1961

Fig. 199
Don Mills, Cloisters of the Don, detail of maisonette unit and garden, Murray and Fliess, 1961

Fig. 200
Don Mills, Cloisters of the Don, detail of eastern apartment block, first and second floor balconies, Murray and Fliess, 1961

Fig. 201
Don Mills, Cloisters of the Don, views of court between Blocks D
and E, Murray and Fliess, 1961

Fig. 202

Don Mills, Cloisters of the Don, view of court between Blocks E and F from internal street, Murray and Fliess, 1961

Fig. 203

Don Mills, Cloisters of the Don, view of Block F from northwest parking compound Murray and Fliess, 1961

Fig. 204

Don Mills, Cloisters of the Don, view toward Blocks D, E and F from below near the park and pool, Murray and Fliess, 1961

Fig. 205
Don Mills, Cloisters of the Don, view of eastern apartment block
from community park, Murray and Fliess, 1961

Fig. 206
Don Mills, Cloisters of the Don, view of western apartment block
and court from across Roanoke Rd., Murray and Fliess, 1961

Fig. 207

Don Mills, Cloisters of the Don, view of Cloister once marking a formal entry into the project, Murray and Fliess, 1961

Fig. 208

Don Mills, Cloisters of the Don, plan of court between Blocks K and L, Murray and Fliess, 1961

Fig. 209
Don Mills, Cloisters of the Don, plans for courts between Blocks
A, B and C, Murray and Fliess, 1961

Fig. 210
Don Mills, Cloisters of the Don, plan of court between Blocks D,
E and F, Murray and Fliess, 1961

Fig. 211
Don Mills, Cloisters of the Don, view of
dramatic roofline, Murray and Fliess, 1961

Fig. 212
Don Mills, Cloisters of the Don, view of court as
originally planned, Murray and Fliess, 1961

Fig. 213
Don Mills, Cloisters of the Don, elevation and section, Blocks D,
E and F, Murray and Fliess, 1961

Fig. 214
Don Mills, Cloisters of the Don, sections through
Block A, Murray and Fliess, 1961

Fig. 215
Don Mills, Cloisters of the Don, front and rear elevations, Blocks
D, E and F, Murray and Fliess, 1961

Don Mills, Cloisters of the Don, plan of community park,
Murray and Fliess, 1961

Fig. 217
 Don Mills, Cloisters of the Don, groundfloor plan of Blocks A, B,
 and C, Murray and Fliess, 1961

Fig. 218
 Don Mills, Cloisters of the Don, second floorplan of Blocks A, B,
 and C, Murray and Fliess, 1961

Fig. 219
Don Mills, Cloisters of the Don, ground floorplan of Blocks D, E
and F, Murray and Fliess, 1961

Fig. 220
Don Mills, Cloisters of the Don, second floorplan of Blocks D, E
and F, Murray and Fliess, 1961

Fig. 221
Don Mills, Cloisters of the Don, floorplans of Blocks D,E and F,
type S1 and S3, Murray and Fliess, 1961

Fig. 222
Don Mills, Cloisters of the Don, floorplans of Blocks D, E and F,
type S5 and S6, Murray and Fliess, 1961

Fig. 223
Don Mills, Cloisters of the Don, floor plans of row house, type A,
Murray and Fliess, 1961

Fig. 224
Don Mills, Cloisters of the Don, floor plans of row house, type B,
Murray and Fliess, 1961

Fig. 225
Don Mills, Cloisters of the Don, floor plans of row house, type C,
Murray and Fliess, 1961

Fig. 226
Don Mills, Cloisters of the Don, floor plans of blocks A, B, C, L and M,
Murray and Fliess, 1961

Fig. 227
Don Mills, Cloisters of the Don, floor plans of blocks A, B, C, L and M, types 5 and 6
Murray and Fliess, 1961

Fig. 228

Don Mills, Cloisters of the Don, typical floor plan of apartment buildings, Murray and Fliess, 1961

Fig. 229

Don Mills, Cloisters of the Don, floorplan of apartment type A, Murray and Fliess, 1961

Fig. 230

Don Mills, Cloisters of the Don, floorplan of apartment type B, Murray and Fliess, 1961

Fig. 231
Don Mills, Cloisters of the Don, floorplans for apartment types C,
D, E, F, H, and I, Murray and Fliess, 1961

Case Study II

Statistics

Project:	Bridlewood		
Date:	1962-1966		
Architect:	Henry Fliess		
Developer:	Robert McClintock Ltd.		
Density:	13.9 units/ acre for townhouses 80.06 units/ acre for apartments Combined density for development is 23.57 units/ acre		
Total No. of units	81 townhouses 81 apartments		
Types of units:	Townhouses	type A,B,C,D,E type A-L,B-L,C-L, D-L,E-L	3 bedroom 4 bedroom
	Apartments	type A,B,G,H type C,D,E,F	2 bedroom 1 bedroom

Rodert McClintock Ltd. first approached Murray and Fliess about developing a proposal for a site they had acquired on the corner of Pharmacy and Sheppard Ave., Scarborough in December of 1962. Almost a year later, in November 1963, Fliess made the first application for amendment to Restrictive Area By-laws. Official notice of an open meeting of the Scarborough Planning Board to hear the same was dated June 2, 1964. The final version of the site plan dates even later, to February 16, 1965. The protracted development of this multiple housing project is indicative of the difficulties

inherent in proposing unconventional housing forms, and underscores the importance of co-operation between various levels of government. It is also indicative of the level of tenacity and patience required from both the developer and their architect(s).

The first stumbling block for this project was the initial proposal's inclusion, like Cloisters of the Don, of maisonettes, townhouses and apartments. Diversity in housing type, as advocated in all of the studies covered in the chapter three, was considered fundamental to the long-term vitality of any community. Maisonette units, however, "provide the lowest assessment and the largest number of school children compared to apartments,"²⁴⁹ and upon presenting their proposal, Fliess and the developer were advised by the Scarborough planning board that "a number of maisonettes proposals [had] been rejected on that account."²⁵⁰ Given this prejudice against the maisonette form, Fliess, as the principal now in charge of its design, was asked to develop a different scheme incorporating only row housing and an apartment tower.

The difficulty then lay in achieving the density desired by the developer, in a proposal that the local planning board would accept, and CMHC would agree to finance. The presence of a copy of CMHC's "Interim Site Planning Standards for New Forms of Family Housing," (stemming directly from Murray and Fliess' housing study) among the project files for this development, is significant, as these federal guidelines would have played an important role in the final approval of the plan for Bridlewood Manor by the local municipal level planning body.

²⁴⁹ Meeting Notes, April 29, 1963, Project File FM6302, Flies Gates McGowan Easton Architects, Toronto.

²⁵⁰ Meeting Notes, April 29, 1963.

A few of the recommendations in particular are worth noting here. The first is found within the introductory paragraphs, and concerns the use of underground parking: "It should be noted that any appreciable increase in density is only possible by placing the car parking underground. This offers considerable amenities to the project as well as convenience to the tenant or owner."²⁵¹ CMHC is clearly advocating the use of underground parking as a way of increasing housing density. The other critical recommendations relate to minimum distances between window openings from different kinds of functional spaces. For example: "A distance of not less than 70 feet shall be maintained between buildings where either or both facing walls contain required living room windows."²⁵² This distance is considerably smaller than the previous standard of 90 feet.

They also included suggested means of providing greater flexibility in the layout of new forms of housing, as in the following: "In situations where this minimum requirement of 35 feet applies, but some units are actually 40 feet apart or more, a corresponding number of units, not exceeding 20% of those sited in relation to each other, may face each other at a distance less than 35 feet but in no case less than 30 feet."²⁵³ The unusual layout of many of the most notable horizontal multiple housing projects of this period would not have been approved without this kind of backing from CMHC. The importance of Murray and Fliess' role in the spread of new forms of multiple family housing in Canada, as in their direct influence on the above mentioned government

²⁵¹ Central Mortgage and Housing, Head Office. Interim Site Planning Standards for New Forms of Family Housing. (Ottawa: CMHC, July 25, 1961), 1.

²⁵² Central Mortgage and Housing, Head Office. Interim Site Planning Standards, 2.

²⁵³ Central Mortgage and Housing, Head Office. Interim Site Planning Standards, 3.

recommendations, and through the critical and popular success of their built projects, cannot be overstated. The role of CMHC in encouraging developers to create unconventional housing by providing the necessary mortgaging must also not be forgotten.

The Bridlewood project provided Henry Fliess with the opportunity to explore the design possibilities inherent in narrow row house design for resolving a common set of competing concerns involved in the development of an urban corner lot. The lot, rectangular in shape, has its southern narrow end facing onto Shepard Ave., a main east-west traffic artery just north of the 401 TransCanada Highway. Its western end faces onto Pharmacy Ave, a four lane collector, and its remaining two sides border single family housing. In working out his solution, Fliess would have to consider the site's prominence within the streetscape and its relationship to its remaining corners, and the need to address air and noise pollution. The surrounding relatively large private lots (c.50'x110') to the north and east of the site also required special consideration if the project hoped to gain local approval.

These existing conditions resulted in the unusual and striking serpentine layout of the rows of housing. (fig. 233) The southern grouping brings to mind the action of clasping hands, while the second has an outline similar to a sock; both groupings, however, are unambiguous in their internalizing function, shielding the individual living spaces from outside views and noise. Further, the 'open model' strategy chosen for organizing the resultant courtyard spaces is a key factor in the success of the site layout. The internalizing, compressive effect of the arrangement of the row housing is offset by the long vistas provided through the open green spaces, which is further mediated by the

functional requirement of providing breaks in the rows for pedestrian access to/from the parking compounds and to the street beyond (thus avoiding the nuisance of traveling around the long rows. (figs. 240 & 246) The internal pedestrian street, (fig. 241) which flows through the centre of the site, acts as a foil for the relatively open, unarticulated green spaces separating the two pairs of rows, and establishes a traditional relationship between entry front to street, and backyard to backyard. The centrally located underground parking (fig. 256) also works well by providing the units furthest away from the lots (located unobtrusively toward the outside edges of the site) with reasonable proximity to their vehicles. The resultant higher-grade level also provides the centrally located units with greater visibility outward combating their enclosed position within the site.

The siting of the row house units, which alternately stagger and curve as they restrict or expand views through the site, shifting levels as they stretch out along its length, exemplifies the kind of *place making* that is fundamental to the liveability of horizontal multiple housing. Through minimal shifts in grade level, orientation, alignment, and subtle differences in exterior detail, Fliess has demonstrated the potential for making meaningful distinctions between standardized units. The landscaping serves to enhance the individualizing elements of the site plan as a whole, while making clear distinctions between private, semi-private and public spaces.

Schematic elevations of the entry facades illustrate the satisfying rhythm developed along the rows using a very limited number of window and doorway details based on unit type (though these details were altered in their built form, their generating ideas remain intact). (fig. 232) The generous setback of the main entries, accommodates

Fig. 232
Scarborough, Bridlewood, preliminary sketches, Fliess, 1962-66

Fliess' signature exterior closed storage for garbage and miscellaneous tools, provides welcoming shelter from inclement weather, conceals the utility meter, and supplies the perfect opportunity for individual expression through their decoration. (figs. 244, 250 & 251) The precedent set by the crescents of Bath is here more fully exploited, as seen in some of the preliminary sketches that display a keen sense of the basic visual pleasure created by the pattern of solid and void and by the creation of movement within the length of the facades. These preliminary sketches also reveal a somewhat more elaborate scheme for the development that incorporated balconies, or bay windows (as in the Horizon Village project), along the entry fronts. This would have lent a more Scandinavian flavour to the project, which as finally executed, owes more to British precedents. (see Appendix B)

Many factors have come together in the Bridlewood project to create a harmonious balance within the development as a whole. Some of the more readily apparent factors include limiting the height of the apartment tower to ten storeys, breaking up its mass, and employing the same exterior finishes throughout. The choice of a warm, earthy range of brick colour also helps to blend the buildings into their extensively landscaped site. A much less obvious psychological factor was addressed by not protruding the balconies beyond the apartment's exterior walls, had they done so, their position of surveillance over the row housing would have been markedly more pronounced.

The critical role of site planning in the development of multiple housing schemes is again attested to in the treatment of the grade around the base of the apartment building, and in the careful positioning of its balconies relative to the row housing. Note

how the terracing of the apartment's grounds to the south and east serves to conceal the access to the apartment's underground parking, while politely acknowledging the scale of the bordering row houses. (fig. 248) These terraces, made up of a series of steps, walkways, and relatively large areas of sodded lawn, shrubs and flowers (fig. 257), also serve to further dilute the mass of the apartment building where it meets the ground when its relation to the human scale is most apparent. Their strong horizontal lines and broad bands of light coloured concrete echo those of the apartment balconies and liaise with similar details in the row housing. (fig. 234 & 247) The partially sunken balconies on the ground floor distance themselves from the public walkways, and buffer views into the apartments. The resultant increased proximity of the second storey apartments to the landscaped terraces should also be noted, particularly for their relation to the second floor of the row houses. (fig. 249) Mature trees have further enhanced these relationships as they dwarf the rows and rise up to engage all but the top four floors of the apartment building.

Once again, the consideration given to the site and landscaping plan is indicative of Fliess' understanding of the hierarchy of factors that determine the liveability of multiple family housing projects. As an architect, Fliess also has an appreciation of the interdependent relationship between interior and exterior spaces and how their liveability is determined by how well they accommodate both functional and psychological requirements. For example, note how the open model used for the organization of outdoor recreation spaces is addressed in the design of the units themselves by extending the roofline and side walls of the garden facades to provide greater privacy for both the patio spaces and for the interior living spaces within. (figs. 238-39, 252) The units that

make up the outside rows are further enhanced through the introduction of a built-in outdoor barbecue on the dining side of the patio, created as an extension of the neighbouring unit's fireplace.

As in the Cloisters project, the narrow row housing is made up of a combination of rectilinear and wedge plans. (figs. 252-54) Although the layout of interior fixtures and furnishings is more difficult in a wedge plan, its attendant advantages for site layout, that is, its potential for accommodating curves along the length of rows to introduce movement through constricting and expanding views, more than compensates for these difficulties. The wedge plan developed by Fliess for the Bridlewood scheme is straight along its front and back, with its side walls slanting inward toward the back, except in one unique plan that combines the attributes of both rectilinear and wedge plans. The outside dimensions of the wedge are: 28' along its front, 30' deep, and 16'4' at its garden edge. The rectilinear plan is 21' wide and 34'11" deep on the living room side, and 28' deep on the dining room side. These dimensions were guided by Murray and Fliess' analysis of horizontal forms of multiple housing and are firmly grounded in their understanding of the interrelated functional requirements of family living: both the kitchen and living room are directly accessible from the front entrance hall and the dining area; direct access to the garden is provided through a patio door on the dining side of the unit directly across from the kitchen; large windows provide ample natural light; the kitchen sink is located beneath the kitchen window; living areas are well buffered from the front entrance; basements are sensibly organized into work and recreation areas with all of the utilities located in the work space; and bedrooms are large enough to accommodate

alternate furnishing arrangements, that is to say, beds can be located in more than one position within the room.

The inclusion of a fireplace within these tightly laid out row house units is remarkable, particularly as an indication of the higher standard of living sought by the speculative developer of a row housing project less than a decade after the development of South Hill Village – public opinion had shifted significantly from the earlier noted distrust of, even disdain for row housing. The addition of a main floor washroom should also be viewed as an indication of the kind of features now expected in row housing. The subtle differences achieved in interior layout are also worth noting. Compare Unit Type A and B. (figs. 252-53) Notice the recessed windows of the front façade of Type B, and the different arrangement of the kitchen and second floor. Note the change in upper cabinets, the extra closet in the front room, and the closed upper stair well vs. the open version in Type A, with a wooden handrail.

The use of 'bedroom links' in narrow row house design to provide an additional bedroom merits some comment (fig. 240, 246 & 255). The popularity of this device during the 1960s may be explained by an appreciation for its functional and aesthetic value without an equal understanding of the implications of its use in the Canadian climate, though the difficulty in regulating the temperature of these spaces was likely only partially responsible for their disuse. Their inclusion in many social housing projects undoubtedly engendered prejudice against their use in multiple housing schemes, leading to their eventual disappearance. Their attraction for architects was likely due to their dual capacity to bridge groups of housing rows together and to act as a kind of threshold, marking points of entry into the various landscaped courts which are fundamental to the

success of the multiple housing developments covered in this study. (Baldwin Hills to Bridlewood, Horizon Village and Parkway Forest).

A few additional points concerning the floor plans of the apartment units will serve to illustrate the integrity of their designer's approach. (fig. 258) The general massing of the apartment building was predicated on siting considerations, but these considerations do not in themselves explain the variety of one and two bedroom floor plans (seven different plans on a typical floor made up of a total of eight units, with only one plan being directly mirrored). I would argue that this variety is primarily the result of the priority given to the desire for short corridors and partially enclosed, large balconies, whose generous proportions and relatively sheltered conditions provide the individual tenant with considerable privacy and enough room for outdoor dining and lounging. [note on plan: generous proportions of the balconies (5'4"x14'10" or 5'8"x18'4") sheltered from above, are completely enclosed on at least one side,. and have solid guards] Open planning is again accompanied here by generous window dimensions and storage space, while the separation of living from sleeping areas is consistent throughout. Also note the provision of screens to buffer living areas from the entrance. All of these considerations may be explained by the architect's desire to ameliorate multiple housing' mass-produced component parts and to adequately provide for the apartment dweller's everyday needs.

The Bridlewood case study serves to underscore the role of the federal government in the development of this era's innovative multiple housing schemes. First, through their support of housing and urban design research, and second by virtue of making their mortgage financing contingent upon compliance with guidelines based on

said research. It has also provided an example of how these guidelines were disseminated to municipal planning authorities who were ultimately responsible for approving local developments. Equally important, Bridlewood has proven over the decades since its development that a unique, aesthetically satisfying, and liveable environment can be created within the limits imposed “by unit plans, the unit structure, the unit materials, the unit by-laws, the unit financing patterns.” Moreover, Fliess has demonstrated how an unremarkable site, with competing interests (having both ‘urban’ and ‘suburban’ neighbours), can be *recreated* into a memorable *place* through an understanding of the hierarchy of elements that determine the liveability of multiple housing projects and through an integrity of approach to housing design. What is meant by integrity of approach will become clearer in the analysis of the third and final case study.

Fig. 233
Scarborough, Bridlewood, site plan, Fliess, 1962-66

Fig. 234
Scarborough, Bridlewood, site plan, Fliess, 1962-66

Fig. 235
Scarborough, Bridlewood, view looking toward Sheppard Ave.
along Pharmacy Ave. Fliess, 1962-66

Fig. 236
Scarborough, Bridlewood, view looking toward northwest parking
compound from Pharmacy Ave., Fliess, 1962-66

Fig. 237
Scarborough, Bridlewood, Views along path adjacent to Northwest
parking compound, Fliess, 1962-66

Fig. 238
Scarborough, Bridlewood, view into northwest court gardens,
Fliess, 1962-66

Fig. 239
Scarborough, Bridlewood, view of northwest court gardens looking
back toward the northwest, Fliess, 1962-66

Fig. 240
Scarborough, Bridlewood, view looking through to
internal pedestrian street, Fliess, 1962-66

Fig. 241
Scarborough, Bridlewood, view of internal pedestrian
street looking north, Fliess, 1962-66

Fig. 242
Scarborough, Bridlewood, view looking out toward eastern parking
compound, Fliess, 1962-66

Fig. 243
Scarborough, Bridlewood, view looking south along
eastern edge of project, Fliess, 1962-66

Fig. 244
Scarborough, Bridlewood, detail of row house on eastern
edge, Fliess, 1962-66

Fig. 245
Scarborough, Bridlewood, view from southeast corner
looking toward Sheppard Ave., Fliess, 1962-66

Fig. 246
Scarborough, Bridlewood, from Sheppard Ave. looking toward
entrance into southeastern court, Fliess, 1962-66

Fig. 247
Scarborough, Bridlewood, view looking west
toward Pharmacy Ave., Fliess, 1962-66

Fig. 248
Scarborough, Bridlewood, views of apartment terracing to meet
scale of row houses, Fliess, 1962-66

Fig. 249
Scarborough, Bridlewood, view looking toward apartment entrance,
with sunken ground floor balcony to the right, Fliess, 1962-66

Fig. 250
Scarborough, Bridlewood, detail, front entrance
of a row house, Fliess, 1962-66

Fig. 251
Scarborough, Bridlewood, details, front entrances of row houses,
Fliess, 1962-66

Fig. 252
Scarborough, Bridlewood, plans of unit type A and type AA,
Fliess, 1962-66

Fig. 253
Scarborough, Bridlewood, plans for unit type B, Fliess, 1962-66

Fig. 254
Scarborough, Bridlewood, plans for unit type C, Fliess, 1962-66

Fig. 256
Scarborough, Bridlewood, section through underground parking
garage, Fliess, 1962-66

Fig. 257
Scarborough, Bridlewood, site plan of apartment building, Fliess,
1962-66

Fig. 258
Scarborough, Bridlewood, typical floor plan, apartment building,
Fliess, 1962-66

Case Study III

Statistics

Project:	Horizon Village	
Date:	1963-1965	
Architect:	Henry Fliess	
Developer:	Parkway South Realty Ltd. (Cadillac Construction Associates)	
Density:	17.66 units/ acre	
No. of units:	160 townhouses	
Types of units:	type A	2 bedroom
	type B,C,C1,C1-L, CS-L,D,E,	3 bedroom
	type F,G,H,C-L, D-L	4 bedroom

The final case study, Horizon Village, represents a kind of plateau in the development of relatively dense horizontal multiple housing in Canada, and continues to be testament to the high living standard possible in a carefully considered urban row housing project. Located just north of the Cloisters of the Don, on the west side of Cassandra Blvd., on a ravine lot overlooking the Don Valley Parkway, Horizon Village is arguably one of the best horizontal multiple housing projects of the post war period in Canada, and warrants close study by any student of housing. Among its accolades, its developer and designer were honoured with First Prize in the Urban Development Institute's 1965 awards of merit contest (UDI / Ontario Division). In approving a minor variance required for acceptance of the Horizon Village proposal, the Committee of

Adjustment for the Township of North York had this to say: “the siting of these buildings would appear to be an outstanding example of this kind of development.”²⁵⁴ As in the previous two case studies, the developer, in this case, Cadillac Construction Ltd., should also be acknowledged for its foresight in investing in experimental forms of housing development, and for accepting the advantages of greater initial capital outlay for masonry exterior cladding, and extensive landscaping. In the final analysis, however, it was Henry Fliess’ keen understanding of multiple housing design and of the site’s challenges that resulted in a remarkably dense multiple housing project that belies its meandering, park-like atmosphere.

The site and landscaping plans (figs. 259-60) illustrate several clever ways of providing individual units with a sense of privacy and place (individual identity) within the project as a whole, and well illustrates the advantages of choosing a narrow row housing scheme. Important programmatic and site considerations included the provision of a buffer zone between the housing and the Don Valley Parkway, running directly below the site to the west, and the need to fit in harmoniously with the single family housing surrounding the site on the remaining three sides. Both challenges were met admirably by creating a largely inward looking series of rows. The communal green space beyond the back patios of the rows lining Cassandra Blvd. carry the eye undisturbed from the surrounding front lawns of the single-family residences (fig. 261-62, 281& 283). A single parking lot was located on the opposite side, shielding it entirely from the street, while at the same time providing the necessary buffer between the row

²⁵⁴ Committee of Adjustment, Decision of the Committee (File No: CA-64-84 Sub. No: 3810), Township of North York, March 11, 1964. Job Files, Fliess Gates McGowan Easton Architects, Toronto.

housing and the highway below. The access road to the parking lot remains mostly hidden from view from the Blvd. by raising the grade level and by virtue of its placement slightly off centre on a curving street, marking the tangent of the curve at the southern end of the site. (fig. 266) Once in direct view, the shallow brick retaining walls act as a formal entry to the project, while the addition of three median islands, and the planting of trees at regular intervals on both sides, transform the access road into an attractive avenue, lined with the entry facades of three rows of housing (figs. 267 & 268). Again, the resulting streetscape is reminiscent of those in many older, urban neighbourhoods.

The parking compound was regretfully not carried out entirely according to Fliess' plan. Instead of planting a high hedge along the edge of the ravine, interplanted with trees (fig. 260), the developer chose to erect a concrete block wall (presently painted white!). It is difficult to describe in words the devastating effect this decision had, and continues to have on the western edge of the project. Thankfully, the two rows of housing oriented toward the parking compound are shielded by hard and/or soft landscaping, or by the carports that were built along the eastern edge of the compound. (fig. 273-76) Whether the masonry wall is more effective at drowning out the noise of the highway than the green fencing would have been is debatable. The advantages of using hedging and trees instead of erecting a concrete block wall, however, are not. The airy feeling of the rest of the development is arrested by this wall, which looms over the parking lot and traps all views beyond it. It is all the more unfortunate that this barrier was not at least softened by some form of plantings.

Already noted in one example above, a key element to the success of this development is the extensive use of artificially raised berms. They can be used to great

effect, as this development and that of Parkway Forest (a sister project located to the north of the 401, see Appendix C) clearly demonstrate, for increasing visual privacy, and for heightening the individualized siting of units within a row and within the layout as a whole. (figs. 265 & 277) This sense of specificity of *place* is further enhanced by the choice of hard and soft landscaping materials, which, as in the case of the Cloisters of the Don, are combined to create a series of distinctive courts and children's' play areas.

Fliess was concerned with clearly defining outdoor spaces, taking care to avoid ambiguous areas and to develop a discernible pattern between public, semi-private, and private spaces. He was also at pains to provide the necessary amenities for keeping the open areas clear of obstructions, whether through the provision of automatic dryers or recessed storage cupboards for gardening tools and a garbage can at the entry of each unit (fig. 279). The absence of utility poles and cables should also be noted as an important factor in the tidy appearance of this project - a recent technological advance in residential development that should not be taken for granted. The choice of brick for the exterior cladding and a traditional pitched roofline also lent a reassuring feeling of permanence to the project - both of which have proven themselves to be very good choices for weathering the Canadian climate. This marriage of psychological and practical considerations is fundamental to the success of Fliess' housing design. It is interesting to note that the 'traditional flavour' of this project, and others (the Victoria Park Maisonette project, for example), is attributed by Fliess to the wishes of the developer. It is unlikely, however, that he was not sympathetic to this 'public' taste given his pragmatic view of housing design. The advantages of shifting grade levels along the length of a row, and in between rows (sectional variations) are again beautifully demonstrated in this case study.

By accentuating the relationships between building and site (figs. 284-85) and, by taking advantage of existing conditions, Fliess has proven once again that it is possible to manipulate a limited number of standardized unit types to create a varied and aesthetically satisfying living environment.

As a development made up exclusively of row housing, the kind of variety in floor plan achieved in the previous two case studies needed to be achieved here using only one form of housing. A handful of unit types were therefore developed (figs. 286-91) to offer significant differences in layout and square footage (economies stemming from their repetition within this project and their re-use in others, including that of Parkway Forest). The variation in style and layout of these general types took their cue, as did the overall site plan, from the “peculiar shape of the land.”²⁵⁵ For example, the units lining the southeastern edge, Type F & G (fig. 289, 291), were given a third storey with a large covered balcony to maximize views of an adjacent wooded area. This row then breaks to the west, with units opening out at basement level with a balcony off the living room, Type C & C1 (fig. 287), to take advantage of the sloping topography. Unit Type C & C1 are also employed at the northern edge of the site to take advantage of the ravine, providing relatively secluded outdoor patios. Looking at the plan and section of these units, their multi-level design becomes apparent, with both the living and recreation rooms occupying their own level, a few steps below adjoining spaces. Again, these designs exemplify the kind of sectional variation possible with minimal slopes in grade that Murray and Fliess advocated in their housing study. The interlocking plans of Type C & C1 also beautifully illustrate Fliess’ commitment to developing architectural interest

²⁵⁵ Description of Horizon Village. Job Files, Fliess Gates McGowan Easton Architects, Toronto.

with limited means. The 'bedroom link' is also fully exploited in this case study for its potential to clearly mark the threshold between public and semi-private spaces and to provide a greater sense of enclosure for the highly articulated internal courts. (figs. 269-70, 287 - note doubled up width of links, & 293)

The variations in exterior detail add immeasurably to the longevity and beauty of this multiple housing project. It is important to note, however, that this variation corresponds to a difference in interior layout. For example, the bay window introduced in Type B (fig. 286) provides a welcome extra few feet of space for a sitting or work area in the front bedroom. Care has also been taken to ensure consistency in the amenities provided in the mirroring of unit types and in their manipulation to better fit existing or particular siting conditions within the development as a whole. Fliess' skill for designing house plans that could easily adapt to particular site conditions was well illustrated in his designs for Don Mills. This early experience should also be credited with developing Fliess' understanding of the relative importance of these 'small adjustments' to the quality of both the interior spaces of an individual house, and the experience of the neighbourhood as a whole, by making their individuality physically manifest and readily comprehensible. The small adjustments made to Type C (fig. 287) when sited at the end of a row will help to illustrate this point. As an end unit, the window in the kitchen and that of the bedroom above were easily relocated to the side with minimal changes to the layout; and by relocating the kitchen sink to correspond with the different window placement, Fliess ensures that the quality of the kitchen's work spaces have not been sacrificed.

Horizon Village exemplifies Fliess' approach to multiple housing design, and is a testament to the high standard of architecture possible in the development of speculative multiple housing, recalling the best qualities of earlier, particularly British town house vernacular. He has also here definitively demonstrated the *place making* possibilities of varying sectional relationships (to privilege units within rows, and rows themselves with a discernibly different position within the whole), of imposing a highly articulated landscape (to further define types of outdoor spaces and to highlight differing relationships between building and site), and of employing interlocking and wedge-shaped floor plans (in order to introduce significant differences in floor plan).

At this point I would like the reader to recall the quote taken from James Murray's 1962 CHDC lecture reintroduced, in part, here:

Can something of the values of Home and House animate the philosophy and design of multiple housing, -- something of life's fascinating complexity within the standards imposed by the unit plans, the unit structure, the unit materials, the unit by-laws, the unit financing patterns?²⁵⁶

The answer to this question is without a doubt, YES. All of the small adjustments and variations included in the siting and exterior and interior details of all three case studies, are most usefully viewed as a conscious effort on the part of the architect(s) to meet the functional and psychological requirements of the individual and the family - the ultimate goal being the creation of the conditions for *dwelling* in this world.

²⁵⁶ Murray, Architecture of Housing. (Ottawa: CHDC, 1962) 10.

Fig. 259
Don Mills, Horizon Village, site plan, Fliess, 1963-65

Fig. 260
Don Mills, Horizon Village, landscape plan, Fliess, 1963-65

Fig. 261
Don Mills, Horizon Village, view of approach from south end of
Cassandra Blvd., Fliess, 1963-65

Fig. 262
Don Mills, Horizon Village, view along west side of
Cassandra Blvd. looking north, Fliess, 1963-65

Fig. 263

Don Mills, Horizon Village, view of southern end from the north,
Fliess, 1963-65

Fig. 264

Don Mills, Horizon Village, view of gardens from Cassandra Blvd.,
southern portion, Fliess, 1963-65

Fig. 265

Don Mills, Horizon Village, view of raised grade with low masonry
retaining wall off Cassandra Blvd., Fliess, 1963-65

Fig. 266
Don Mills, Horizon Village, view on either side of access road off
Cassandra Blvd., Fliess, 1963-65

Fig. 267
Don Mills, Horizon Village, view of access lane looking north west
from Cassandra Blvd., Fliess, 1963-65

Fig. 268
Don Mills, Horizon Village, view of access lane looking east
Fliess, 1963-65

Fig. 269

Don Mills, Horizon Village, view trough to the south from
path off of access lane, Fliess, 1963-65

Fig. 270

Don Mills, Horizon Village, views of internal
entrance court, Fliess, 1963-65

Fig. 271
Don Mills, Horizon Village, view of internal courts,
Fliess, 1963-65

Fig. 272
Don Mills, Horizon Village, garden wall, Fliess, 1963-65

Fig. 273
Don Mills, Horizon Village, view of western edge looking
south, Fliess, 1963-65

Fig. 274
Don Mills, Horizon Village, carport, Fliess, 1962-66

Fig. 275
Don Mills, Horizon Village, carport detail, Fliess, 1963-65

Fig. 276
Don Mills, Horizon Village, view of garden wall from parking
looking east toward playlot, Fliess, 1963-65

Fig. 277
Don Mills, Horizon Village, views of communal green spaces,
Fliess, 1963-65

Fig. 278
Don Mills, Horizon Village, view of an
individual garden, Fliess, 1963-65

Fig. 279
Don Mills, Horizon Village, detail, exterior
cunhoards at front entrance. Fliess. 1963-65

Fig. 280
Don Mills, Horizon Village, views across Cassandra Blvd.
from northern edge of housing, Fliess, 1963-65

Fig. 281
Don Mills, Horizon Village, view looking south along
communal green space, Fliess, 1963-65

Fig. 282
Don Mills, Horizon Village, views toward an entrance court
off Cassandra Blvd, Fliess, 1963-65

Fig. 283
Don Mills, Horizon Village, views from northern edge looking
south along western edge of Cassandra Blvd., Fliess, 1963-65

Fig. 284
Don Mills, Horizon Village, site sections, Fliess, 1963-65

Fig. 285
Don Mills, Horizon Village, east elevations, Fliess, 1963-65

Fig. 286
Don Mills, Horizon Village, Unit plans, type A and B, Fliess, 1963-65

Fig. 287
Don Mills, Horizon Village, unit plans, type C, C1 C1 and C1L, Fliess, 1963-65

Fig. 289
Don Mills, Horizon Village, unit plans, type F, Fliess, 1963-65

Fig. 290

Don Mills, Horizon Village, floorplans unit type E, Fliess, 1963-65

Fig. 291

Don Mills, Horizon Village, floorplans, unit type G, Fliess, 1963-65

Fig. 293

Don Mills, Horizon Village, second floor link plans, Fliess, 1963-65

CONCLUSION

In mass housing, there must be continued cooperation between those who design and those who build. Each has much to learn from the other. Design for vast numbers is difficult; there is an inevitable gap between designer and designee; building for sale to a customer's choice is a risky business, but the continuing effect of a partnership of good architects and good builders depends upon a simple truth – the basic intelligence and judgment of people for whom the houses and apartments are designed. This involves a creative respect for people and a lively curiosity about their living habits. Working for the anonymous client offers to builder and architect its own dimensions of imagination, challenge and delight.²⁵⁷

The preceding argument has taken care to expose the interdependence of those responsible for the production of our built environment. It is only with this understanding that the role of the architect in this production may be understood. It has become clear that it is possible to create innovative multiple housing projects that satisfy the individual's physiological and psychological needs, within a system of private, speculative land development, and at the same time encourage a sense of community and belonging. It has also been argued that the existence of sympathetic government regulations were critical to the realization of the multiple housing projects covered in this study, and that the advocacy of design professionals played no small part in bringing this about.

The qualitative excellence of the housing itself may not, however, be attributed to any specific set of government regulations, or group dynamic alone. Its remarkable character is much more difficult to explain. Some insight into the principles that guided their design is possible though through a careful reading of some of the twentieth-century's seminal theoretical texts dealing with housing and urban design and through an

²⁵⁷ Murray. The Architecture of Housing. (Ottawa: CHDC, 1962) 13.

understanding of the biases of the period's influential teachers and practitioners. There can be no question that the stress on the social obligations of the architect during Henry Fliess formative years had a profound effect on his outlook on and approach to housing and urban design and have thus left their mark in the Canadian architectural/intellectual landscape. It should also be clear that the revolutionary aspects of both the theoretical texts and the lauded built projects of this period had a significant impact on Henry Fliess' generation of architects, believing that it was not only desirable but possible to reinvent the patterns in which we live. In other words, it was a time of optimism.

But beyond the social imperatives outlined by this period's greatest designers and thinkers, what remained to be uncovered was how these goals were realized through the language of architecture. In my attempt to side step conventional formal analysis, it became clear that a phenomenological approach to the analysis of housing design allowed for the desired shift in focus away from self-referential formal questions to ones concerned with how the language of architecture can resonate with meaning. It allowed for an analysis of how architecture, through its organization and formal articulation of existential space, can enable or inhibit certain relationships inherent between ourselves and our environment, and how it may provide comfort and security by making its spatial order visible, recognizable, or in the words of Norberg-Schultz "imageable."

By focusing the preceding argument on gaining some understanding of the mediating circumstances and generating principles behind the creation of a handful of remarkably successful multiple housing projects, designed for the most part by the same individual, it was hoped that the influence of the architect in their creation would be made clear. In other words, the goal of this study is not only to provide an historical context for

the existence of these notable housing projects, but to expose the object lessons these 'places' have to teach us.

Finally, there has also been an attempt here, in the choice of methodology, to undermine, if only slightly, the prominence of treating our architectural heritage as a series of evolving styles, the goal of which often appears to be one of classification rather than that of understanding our material culture. By questioning the existence of a totalizing vision of modern architecture, it becomes possible to see the richness of our architectural past, and allows for a greater appreciation of the real complexities of a discipline concerned with enabling the varied relationships between ourselves and our environment that are necessary for 'dwelling' in this world. It allows for a deeper probing of the meanings embodied within architectural language by making deliberate choices more evident against the vastness of alternative possibilities.

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APPENDIX A

EXCERPT OF PLATES FROM MODERN HOUSING

BY CATHERINE BAUER, 1934

Excerpt of plates from Bauer's Modern Housing, 1934

APPENDIX B**EXAMPLES OF MULTIPLE HOUSING FROM:**

**BRITAIN
DENMARK
SWEDEN
SWITZERLAND**

BRITAIN

a

b

c

d

e

f

g

a,b,c,d,e,f,g. Hackney, the Summerford Estate. First section completed in 1949. First example of planned development built in Britain. F. Gibberd in association with G.L. Downing.

DENMARK

a

b

a, b. Copenhagen, Bellavista housing estate, A.Jacobsen, 1934

c. Copenhagen, flats, Hoje Soborg, Hoff and Windinge, 1949-51

d. Copenhagen, Gentofte, A. Jacobsen

e, f. Soholm, (chain) houses, A. Jacobsen, 1950

g

h

g, h. Soholm, terrace-houses, A. Jacobsen, 1950-5. Photograph showing houses of 1950

SWEDEN

a

b

a, b. Guldheden, The Square, Gunnar Wejke and Kjell Odeen, 1945-46

c

d

c, d. Lidingsö, Torsvikshojden, block of flats, Stig Ancker, Benjt Gate and Steen Lindegren, 1944-47

e

f

e, f. Grondal, "Star houses," Sven Backstrom and Leif Reinius, 1946

g

h

g, h. Orebro, Rosta, "Star houses," Sven Backstrom and Leif Reinius, 1949

i

j

i, j. Korsnas, row houses for employees and workers

k

l

k, l. Lidings, terrace houses, Erik and Tore Ahlsen, 1946

m

n

m, n. Varmland, row housing for employees at Nykroppa, Joram Curman, 1947-48

o

p

q

o, p, q. Malmö, Friluftsstaden (open air city), Eric Sigfrid Persson, 1944

s

t

s, t. Varmland, row housing for employees at Bofors, Sven Backström and Leif Reinius, 1947

SWITZERLAND

a

c

b

a, b, c. Zurich, Neubühl district, P. Artaria, M.E. Haefeli, C. Hubacher, W.S. Moser, E. Roth, H. Schmidt, R. Steiger, 1930-32

d

e

d, e. Zurich, Neubühl district, P. Artaria, M.E. Haefeli, C. Hubacher,
W.S. Moser, E. Roth, H. Schmidt, R. Steiger, 1930-32

f. Zurich, Doldertal, flats, M. Breuer, A. and E. Roth, 1935-36

g

h

g, h. Zurich, Bellaria Park, O. Becherer and W. Frey

i. Reckingen, row houses,
Cimer, Jaray and Paillard

j. Zurich, flats, Kellermuller and Hofmann

k. Zurich, row houses, Hans and Gret
Reinhard

l. Zurich, Wardburg, flats

II

n

o

m, n, o. Zurich, Katzenbach Estate, Sautr and Dirler, 1945-46

APPENDIX C**RELATED PROJECTS:**

**PARKWAY FOREST
THE TOWNE
HIGH POINT VILLAS
ROSSLAND PARK
ETOBICOKE NORTH**

North York, Parkway Forest, sister project of Horizon Village, Fliess, 1964.
Fliess designed this housing project along with the entire community

Toronto, St. Clair and Yonge Sts., The Towne, pioneering mixed use building, Murray and Fliess, 1963-65

Scarborough, Villas of High Point, Fliess, 1970

Ajax, Rossland Park, Fliess, 1971-73
(housing on the north side of Terrace Drive)

Etobicoke North, detail of site plan, Fliess, 1972-76

Etobicoke North, views of streetscape, internal park and details of house types,
Fliess, 1972-79

Neighbouring unremarkable development of single family houses

APPENDIX D

A Chronology of Events

- 1921 Henry Fliess is born in Leipzig, Germany.
- 1923 The Regional Planning Association of America is formed. Among its founding members are: Henry Wright, Clarence Stein, Lewis Mumford, A. M. Bing & Stuart Chase. Although this group's active years spanned only a decade, their ideas were to have a profound impact on the urban planning debate, though, unfortunately, no fully realized example of their ideas exists for a proper evaluation of their argument.
- 1924 Alexander Bing forms the limited dividend company, the City Housing Corporation, and the construction of Stein and Wright's famous Sunnyside Gardens begins.
- 1926 The New York State Housing and Regional Planning Commission submits its final report. This group is not to be confused with that noted above.
- 1928 Henry Wright and Clarence Stein design North America's first 'Garden City' experiment, Radburn, NJ, for the City Housing Corporation.
- 1930 Humphrey Carver arrives in Toronto, and finds employment in the office of Wilson, Bunnell and Borgstrom, Town Planners and Landscape Architects.
- The results of the New York Housing and Regional Planning Commission are published as a series of volumes by the New York Regional Plan Association, under the direction of Thomas Adams. (This report was responsible for the popularization of Clarence Perry's Neighborhood Unit model as a means of generating a renewed sense of community in urban centres.
- 1933 The Bauhaus in Dessau is closed by the Nazis.
- 1934 Catherine Bauer's landmark study Modern Housing is published by the Riverside Press, Cambridge, Massachusetts.
- Thomas Adams's book The Design of Residential Areas, (Vol. 6, Harvard City Planning Studies) is published by the Harvard University Press, Cambridge, Massachusetts.
- The Dominion Housing Act is passed. This legislation's primary objective was to facilitate private ownership and 'encourage' growth in the building industry.
- The Bruce Report documents the deteriorating housing conditions in Toronto's urban core and calls for immediate public action. The principal authors were Professor Eric R. Arthur and Dr. Harry Cassidy.
- The Canadian Society of Landscape Architects is founded. Founding members included: H. B. and Lorrie Alfreda Dunnington-Grubb, Humphrey Carver, Carl Borgstrom, and Gordon Culham.
- 1935 The League for Social Reconstruction publishes Social Planning for Canada, in which Humphrey Carver contributed a chapter entitled "A Housing Program."
- 1936 Henry Fliess arrives in England after fleeing from anti-Semitic Nazi regime in Germany.

- 1938 New National Housing Act is passed without addressing the need for the provision of subsidized housing.
- Henry Fliess graduates from high school and becomes an articled pupil with a small architectural firm on the southeast coast of England.
- 1939 The first national housing conference is held in Toronto. Critical figures in attendance include George Mooney and Humphrey Carver.
- Outbreak of the Second World War.
- Henry Fliess is interned by the British government
- 1940 Henry Fliess, along with many other internees, are sent to Canada instead of the prisoners of war that Canada had offered to take off the hands of the British government.
- 1941 Sigfried Giedion's famous text Space, Time and Architecture is published by the Harvard University Press, Cambridge, Massachusetts.
- 1942 Henry Fliess begins his studies halfway through first year at the University of Toronto's School of Architecture.
- 1944 The Citizen's Housing and Planning Association is formed with Harold Clark as its leader.
- The "Curtis Report" on Housing and Community Planning, Part IV of the federal government's Final Report of the Advisory Committee on Reconstruction is published in March. Notable contributors include: E.R. Arthur, J.S. Galbraith and G.S. Mooney.
- A new Housing Act is introduced at the federal level.
- Ontario creates the Town and Community Planning Branch and the Conservation Branch under the Department of Planning and Development.
- Toronto's new City Planning Board issues its first master plan.
- 1945 The Second World War is finally at an end.
- 1946 Henry Fliess graduates from the University of Toronto's School of Architecture
- Henry Fliess' 5th year co-operative housing project is published in RAIC Journal in a feature on student projects.
- Central Mortgage and Housing Corporation (CMHC) comes into existence.
- "Housing Research and Community Planning" is created under Part V of the National Housing Act, and the Community Planning Association of Canada is formed.
- The first Ontario Planning Act, and a Conservation Authorities Act are passed by the Ontario Legislature.
- 1947 Henry Fliess is accepted as a member of the Ontario Association of Architects.

Henry Fliess' article "Social Aspects of Town Planning," is published in RAIC Journal under Eric Arthur's editorial leadership. ~ article based on Henry Fliess' fifth year thesis (School of Architecture, University of Toronto).

Henry Fliess is awarded Third Prize for the Ontario Region, in the Canadian Small House Competition, sponsored by CMHC. The results are published in the RAIC Journal. Notable general comment of the Jurors: "...it is apparent that we are moving away from what is generally considered to be a house of orthodox appearance."

The City of Toronto creates the Toronto Housing Authority.

The public housing proposal for Regent's Park is put to a vote in Toronto's municipal election on January 1, 1947 at the prompting of the Citizen's Housing and Planning Association. The proposal wins majority approval.

MOMA curates an exhibit on the work of Mies van der Rohe

- 1948 University of Toronto's School of Architecture becomes a separate division within the university.

Humphrey Carver publishes the results of his housing studies of the Toronto area under the title Houses for Canadians.

Prime Minister St. Laurent visits the Regent Park housing project recently underway. The following year, the National Housing Act is amended to provide a system of subsidies for low-rental housing.

- 1949 Section 35 is added to the National Housing Act, declaring that the federal government, in partnership with any one of the provincial governments, might buy or build or sell or rent housing or could assemble land, sharing the cost on a 75:25 percentage basis, and stated that the federal government was also prepared to share any deficits in the same proportion.

Summer Cottage for Professor J. D. Ketchum, Point au Baril, Ontario, designed by Henry Fliess is published in the RAIC Journal.

The Town Planning Review publishes articles by Stein on new communities, edited by Gordon Stephenson, Department of Civic Design, University of Liverpool Press.

Toronto passes its first official plan.

The elevated expressway along Toronto's waterfront is proposed. (now known as the Gardiner Expressway).

The Toronto and York Planning Board releases its first report on planning programs and recommends an amalgamation of the City of Toronto with the suburbs for an orderly growth of the region.

First families move into Regent Park. (The first completed urban renewal housing scheme in the country).

The national government establishes the Massey-Levesque Royal Commission to study Canada's arts and sciences.

- 1950 Henry Fliess' article "The Modern House: a brief critical analysis," is published in the RAIC Journal.
- Toward New Towns for America by Clarence Stein is published by the University of Liverpool Press as a direct result of the series of articles published in the previous year.
- Plan for the National Capitol of Canada by Jacques Greber is unveiled.
- Don Valley Conservation Report is published by the Conservation Branch of the Ontario government.
- 1951 Henry Fliess takes a trip to Europe and Scandinavia to study housing design and policy.
- The Massey-Levesque Report on national development in the Arts, Letters and Sciences is presented to the House of Commons.
- The Festival of Britain is celebrated in London.
- 1952 Henry Fliess' article "Apartment Co-operatives bring new money into housing" is published in the Canadian Builder.
- The *Trend House* program is initiated.
- The Ontario Municipal Board hears the case for amalgamation of Toronto and area municipalities.
- Don Mills Development Corporation begins developing the land E.P. Taylor has assembled (31 parcels of land totalling 2063 acres).
- The Unite d'Habitation (Le Corbusier) in Marseilles is completed.
- The Massey Architecture Awards programme is launched.
- Vincent Massey is appointed the first Canadian Governor General.
- In September the first CBC television broadcasts are transmitted from Montreal and Toronto.
- 1953 Henry Fliess' article "Row Houses have a place in our future housing plans" is published in the Canadian Builder.
- Henry Fliess' competition entry for Ottawa's City Hall wins an Honourable Mention.
- Metropolitan Toronto is created with the announcement by the Ontario Municipal Board of a federated system of government for the Toronto Region.
- The National Library of Canada is established.
- The National Gallery of Canada opens The Design Centre devoted to Canadian products designed for everyday use.
- 1954 Henry Fliess and James Murray design Canada's first 'Garden Home' development, South Hill Village, for Roy P. Rogers to be built in Don Mills.

Henry Fliess designs single-family houses for Goodway, Parkfield and Capital Construction companies to be built in Don Mills.

An extensive article on "Don Mills New Town" is published in the RAIC Journal, written by Macklin L. Hancock and Douglas H. Lee. Article features single and multiple family housing designed by Henry Fliess and James Murray, as single authors, in collaboration with each other, and in collaboration with other designers.

Stewart Bates is appointed president of CMHC in December, after David Mansur's resignation.

Jacqueline Tyrwhitt is the first to give a graduate course in town planning at the University of Toronto.

Plan for Don Valley conservation trail is published by the Don Valley Conservation Authority.

Proposal for a Humber Valley and Don Valley greenbelt is submitted to the Humber and Don Valley Conservation Authorities and the Toronto and York Planning Boards.

The Toronto subway is opened from Union Station to Yonge Street.

- 1955 Henry Fliess designs his first 'maisonette' project for Cadillac Contracting and Developments Ltd., located on the east side of Victoria Park Ave., in Scarborough

First issue of The Canadian Architect is published in Nov/Dec., under the editorial leadership of James A. Murray.

CMHC is divided into two distinct divisions. The one division would concern itself with the mortgage-lending and loan insurance component of the crown corporation, while a new Development Division would concern itself with research and educational programs, with a new emphasis on construction techniques and materials and larger issues of social planning.

The first joint conference of the two national organizations APSO (American Society of Planning Officials) and CPAC (Community Planning Association of Canada) is staged in Montreal - the largest gathering of people concerned with urban planning issues to date.

Construction begins on the Queensway and Lakeshore Expressway (renamed the Gardiner in 1957).

Peak year for single family house construction starts in Metro Toronto.

- 1956 "Million Mark Reached." The CMHC celebrates the one million mark for houses built since VE-Day, May 8, 1945. News item published in the Canadian Builder.

Andrew Hazeland (CMHC advisor on housing design) establishes the Canadian Housing Design Council (CHDC), under the auspices of CMHC. Council is charged with annual awards, exhibitions, and publications.

A study headed by Matt Lawson, entitled "Urban Renewal, an interim plan for the city of Toronto," advocates higher densities in the Eglinton/Yonge area, in the Annex and in the area south of Bloor and east of Yonge Streets. This CMHC sponsored study became the prototype for 'urban renewal' studies that were subsequently undertaken in cities across Canada

First proposal (urban renewal scheme) for St. James Town by the Parliament syndicate is read and rejected by Toronto's City Council..

- 1957 Henry Fliess is awarded First Prize in the Alcan District Sales Office Competition, winning entries are published in the RAIC Journal and the Canadian Builder.

Henry Fliess' review of CMHC booklet publications, "Choosing a House Design" and "Principles of Small House Grouping. ~ Work of Henry Wright and Clarence Stein (like Chatham Village) is used as yardstick.

Henry Fliess' article "Co-operative Housing in Sweden and Switzerland" is published in a special issue of The Canadian Architect devoted to Row Housing.

James Murray and Henry Fliess' South Hill Village, Don Mills, is featured in same issue as that noted above in an article written by Sara Bowser.

James Murray and Henry Fliess design an apartment complex for Roy P. Rogers to be built on the N.W. corner of Don Mills and Lawrence Ave.

Henry Fliess designs second 'maisonette' project for Cadillac Construction and Developments Ltd, Clintwood Gate.

Mayor Nathan Phillips announces an international design competition for Toronto's new City Hall. Eric R. Arthur is named professional advisor for the competition.

The federal government establishes the Canada Council for the Arts, Humanities and Social Sciences.

- 1958 James Murray and Henry Fliess are awarded a Massey Silver Medal for Architecture for their South Hill Village project.

James Murray and Henry Fliess are awarded a grant from CMHC to study horizontal multiple housing techniques. Study published two years later as New Forms of Family Housing.

Two level house designs by Fliess are featured in an article titled "Two level units may be answer to more sales," published in the Canadian Builder to publicize CMHC *approved* designs. Article includes mailing address for ordering sets of working drawings.

Yorkdale Shopping Centre plan is announced.

Pruitt-Igoe Housing (Minoru Yamasaki Architects), St. Louis. Missouri, is completed. (Demolished in 1972)

Alison and Peter Smithson present the Berlin Project, a plan for the city of Berlin.

Brussels hosts World Fair.

- 1959 North York Central Library, designed by James A. Murray and Henry Fliess Associate Architects, is published twice in the RAIC Journal. Plans featured in April, and completed project in December. ~ it has since been demolished.

RAIC Committee of Inquiry into the Design of the Residential Environment (Peter Dobush, John C. Parkin and C. E. Pratt) holds hearings across the country.

Toronto Planning Board issues a report, *The Changing City*, forecasting city planning issues to 1980.

Trans-Canada Pipelines, 150 Eglinton Ave. East (Peter Dickinson Associates) is the first office building by a developer for an institutional client.

Moshe Safdie is selected to go on the first in a series of student tours sponsored by CMHC. Each year, one student of special talents was selected from each school of architecture in Canada, to make a five-week tour of North American cities. (It was hoped that the new generation of architects would discover for themselves that the architecture of housing is the pinnacle of their art).

Harvard and MIT set up a joint centre for urban studies, and Berkeley soon follows suit, with the support of the Ford Foundation.

- 1960 New Forms of Family Housing, co-authored by Henry Fliess and James A. Murray is published by Central Mortgage and Housing Corporation.

James Murray and Henry Fliess' Elliott Lake Multiple Housing and Henry Fliess' Wallingford Road Maisonette project, Don Mills, are featured in an article in the Canadian Builder on the Canadian Housing Design Council (CHDC) 1960 House Grouping Awards.

Henry Fliess' Victoria Park Ave. Maisonnette Project is published in the RAIC Journal. James Murray and Henry Fliess are commissioned by CMHC to design a public housing project called Thistletown to be developed in Etobicoke North. Final scheme is built between 1964-65.

Report of the RAIC Committee of Inquiry into the Design of the Residential Environment is made public.

A proposal for St. James Town is approved.

Theory and Design in the First Machine Age, by Reyner Banham is published in London.

- 1961 James Murray and Henry Fliess design Cloisters of the Don for Joe Godfrey and Mark Tanz (Donwood Terrace Developments), a rental housing development made up of maisonettes, row houses and two apartment towers, located on the western edge of the Don Valley, off Lawrence Ave. in Don Mills.

Special issue of the RAIC Journal is devoted to Housing. Henry Fliess writes the Introduction. Projects featured: Victoria Park Avenue and Clintwood Maisonnette Projects (Fliess), and Flemington Park (Irving Grossman). Also noteworthy is the inclusion of an interim report on progress made since the Report of the RAIC Committee of Inquiry into the Design of the Residential Environment.

An urban renewal scheme for St. James Towne is approved by Toronto's City Council.

- 1962 James Murray and Henry Fliess' Canadiana Motor Hotel, Kennedy Rd. and Hwy 401, is published in the Canadian Builder.

James Murray and Henry Fliess' Cloisters of the Don, first phase, is published in Canadian Builder.

James Murray and Henry Fliess are commissioned to design a rental development for Robert McClintock Ltd. for a lot located at the corner of Pharmacy and Sheppard Aves., called Bridlewood. After some protracted negotiations, Fliess' design is finally approved by Scarborough's Planning Board and the project would go ahead in 1965.

Henry Fliess writes an article entitled "Housing/A Search for Expression," for a special issue of The Canadian Architect devoted to Housing. Also included are an introduction by James Murray and "Housing/A Search for Focus," by Humphrey Carver.

The Canadian Council on Urban and Regional Research is established. Founding members included: Humphrey Carver and Peter Dobush, with Alan Armstrong appointed as the first Director of Staff.

- 1963 Henry Fliess' Clintwood Court (Victoria Park Ave, West side) wins CHDC Multiple Housing Award, and is published in Canadian Builder and The Canadian Architect, though the latter citation is less than enthusiastic.

Henry Fliess is commissioned by Cadillac Construction Associates to design a row housing development, latter named Horizon Village, on Cassandra Blvd., Don Mills.

- 1964 Cloisters of the Don is featured as an exemplary design in 'new' amenity driven rental market, in Canadian Builder.

James Murray and Henry Fliess propose a mixed use building for a lot located just east of Yonge St. on St. Clair Ave. East, called the Towne, to be developed by Cadillac Construction Associates. Project becomes another first for post-war urban redevelopment by mixing retail, office and residential uses in one complex.

The Ontario Housing Corporation is formed.

Eric R. Arthur's No Mean City is published by the University of Toronto Press.

- 1965 Horizon Village, designed by Henry Fliess, is awarded First Prize in the Urban Development Institute's (Ontario Division) Awards of Merit contest for outstanding developments, and is published in Canadian Builder.

H. Carl Goldenberg reports on a restructuring of Metro Toronto that results in the creation of the City of Toronto and five boroughs.

Place Ville Marie, designed by I.M. Pei and Partners in Association with Affleck Desbarats Dimakopoulos Lebensold Sise, is built by the developers Webb and Knapp in Montreal.

Le Corbusier dies.

- 1967 Winnipeg Art Gallery Competition, Henry Fliess is awarded an Honourable Mention. The results are published in The Canadian Architect.

MOD House, a partially prefabricated housing unit designed by Henry Fliess, is published in Canadian Builder and receives a brief mention in The Canadian Architect.

Henry Fliess' Horizon Village and Bridlewood housing projects win Centennial Awards for

Residential Design from the Canadian Housing Design Council (CHDC). Winners are published in several successive issues of Canadian Builder.

The first top-level Canadian conference on housing and urban affairs is held on the 11th and 12th of December in Ottawa.

World Exposition is hosted by Montreal.

- 1968 Canadian Welfare Council assumes responsibility for convening a national housing conference. CMHC provides grants to support the preparatory phases. The proceedings are published the following year under the title The Right to Housing (Harvest House, 1969).

- 1969 The Towne, designed by James Murray and Henry Fliess, wins a CHDC National Design Award, and a Toronto Chapter, Ontario Association of Architects Design Award.

Havenbrook Garden Homes designed by Henry Fliess (and Partners), North York, wins CHDC Honourable Mention Award, and is published in Canadian Building the following year.

- 1970 The Towne's Toronto Chapter, OAA Design Award citation is published in Architecture Today.

The Towne's CHDC National Design Award citation is published in Canadian Building.

Henry Fliess and Partners design Villas of High Point, an experimental condominium development built by Alliance Corp. located at the Corner of Leslie St. and Sheppard Ave., North York.

- 1971 New Forms of Family Housing: A Study of Horizontal Multiple Housing Techniques. Earlier study is reissued by CMHC under slightly different title. [Ottawa], Canadian Housing Design Council.

Henry Fliess and Partners design first phase of Rossland Park, Oshawa to be developed by Kassinger.

CMHC invites Henry Fliess and Partners, among a handful of other firms, to submit a proposal for Central Park, an experimental housing development in Bramalea.

The Sherway Shopping Mall, designed by James A. Murray and Henry Fliess Associate Architects, is published in The Canadian Architect and Architecture Today.

- 1972 Henry Fliess is awarded a Scarborough Planning Board Design Award for Bridlewood Townhouses and Apartments.

New amendments to the National Housing Act are introduced, providing for financing of a New Communities program and for the acquisition of transportation corridors and for a new version of urban renewal in the name of Neighbourhood Improvement. (The general outline for these amendments was first proposed by the CMHC Advisory Group in 1965).

Henry Fliess' Sun Valley Project, Oshawa, is featured in an article discussing the frustrations of its developer, Herman Kassinger, published in Canadian Building.

- 1973 Henry Fliess and Partners design the first stacked townhouse courtyard homes project, called San Tropes Villa Homes, for Victoria Woods Ltd. Project located in southern Mississauga.

- 1974 Sun Valley Project wins Canadian Architect Yearbook Award of Excellence, and is published in The Canadian Architect.
- 1976 Central Park, Bramalea and Etobicoke North housing projects designed by Henry Fliess and Partners win CHDC Awards for Residential Design.
- 1977 "Affordable Housing," a report written by Henry Fliess is published in a special issue of The Canadian Architect, and features the Etobicoke North Project (Henry Fliess and Partners).
- 1978 Brandywine Project designed by Henry Fliess (and Partners), Scarborough is discussed in an article mostly concerned with its unique twist on MURB financing of new housing developments. Published in Canadian Building.
- 1979 Henry Fliess and Partners are commissioned by the Ontario Government to develop medium density housing guidelines. Report published the following year.

Subdivisions and Sun: 3 Design Studies, is published by the Ontario Ministry of Energy. Studies included one by Henry Fliess and Partners.

Manors of Brandywine, designed by Henry Fliess and Partners, wins Scarborough Design Award, and is published in The Canadian Architect.