

Designing the Next Radburn: A Green-hearted American Neighbourhood for the 21st Century

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Abstract

As an open-space-based residential planning archetype, Clarence Stein/Henry Wright's Radburn in Fair Lawn, New Jersey (1928) is familiar, enduringly successful (as evidenced by measures of resident satisfaction, local home-buyer demand, resident tenure and resale value among comparable local properties), and almost never faithfully replicated within the North American suburban landscape. In the extremely rare instances when it has been copied in North America, these economic and social successes have been repeated – but these innovative neighbourhoods, oddly enough, seem to have scant influence on subsequent suburban developments. In this paper the author will compare and evaluate the design programmes and evolved landscapes of Radburn and two of its post-war progeny: Hubert Bird's Wildwood Park in Winnipeg, Manitoba (1947) and Michael/Judy Corbett's Village Homes in Davis, California (1974), and will distil a hypothetical generalized design programme for a 21st-century Radburn, based on prior case studies and on consideration of contemporary culture.

Keywords: Neighbourhood landscape; Radburn; Village Homes; Wildwood Park

1. Introduction

Radburn is the famously bold departure from traditional street-oriented suburban neighbourhood planning in the United States. Gardenesque, pedestrian-accessible, child-friendly, vehicle-free open space is the heart and the identity of the neighbourhood. Radburn remains noteworthy because it was a 'first' and because detached elements of its radical design programme have been adopted in subsequent planning models – but it is also still notable because it remains virtually unique. Despite its enduring success (as evidenced by measures of resident satisfaction, local home-buyer demand, resident tenure and resale value among comparable local properties), few developers have ventured to adopt the whole of the Radburn concept in North America (Schaffer, 1982; Martin, 2001b).

There are, however, at least two subsequent 'Radburns' extant: Hubert Bird's Wildwood Park in Winnipeg, Manitoba (1947) and Michael/Judy Corbett's Village Homes in Davis, California (1974). Each modified the Radburn programme while remaining faithful to Radburn's radical open space concept. In both cases the essential Radburn storyline played out: visionary designer/developer, finding conventional neighbourhoods deficient in terms of their social and ecological dynamics, musters the energy to accomplish his/her green-hearted project in the face of scepticism from both lenders and regulators; project builds out, and a powerful sense of community emerges among pioneering residents, who treasure, maintain and defend their safely connective commons; property values ascend relative to nearby comparable homes, all of which reside within entirely conventional developments because the forces of marketing and regulatory inertia eventually left the green-hearted experiment an anomalous island within street-oriented suburbia.

If the Radburn model consistently proves its worthiness as environmental design – and if its "green heart" (Francis 2003) is the essential ingredient of its programme – designers and de-

velopers should rightly become advocates for this concept as an alternative planning model in North American suburbia, despite the obstacles imposed by market and regulatory conservatism. To be effective in this advocacy, they will need to understand: What have we learned so far – what are the merits of the built examples? What are their shortcomings, their unrealised ambitions, and their unintended consequences? Based upon on-site research at the three examples, as well as a review of other evaluative studies, the author will propose hypothetical programme considerations for a 21st-century Radburn.

2. The Radburn Paradox

A history of neighbourhood planning and design in North American suburbia is necessarily a history of real estate entrepreneurship within a competitive market economy. This competitive and lucrative business environment might be expected to be a fertile ground for innovation, and a ‘win-win’ proposition for sellers and buyers: successful innovations and improvements should reward the developer even as they advance the state of the art – as occurs routinely in a variety of market-responsive industries. And yet, from a design standpoint, residential real estate development is possibly one of the most conservative and tradition-bound entities within the American economy (Jarvis, 1993).

This North American neighbourhood planning and design history will also inevitably note the significance of Radburn in Fair Lawn, New Jersey, the built portion of which is a fragment of an unrealised, much larger ‘garden city’ scheme of the late 1920s. Radburn, as a radical and innovative open space design concept, is familiar to planning/landscape architect practitioners who were paying attention during history class, and is quite well-known among academics in these fields, but not only is it an unfamiliar place-name within the broader culture, the very concept of Radburn is unfamiliar to that culture, because the vast majority of residential development paid no heed to Radburn’s divergent notions of neighbourhood conformation.

If this North American neighbourhood planning and design history focused on Radburn’s influence as a planning model, we could readily discern how the Radburn idea was adapted (in part) by planners of the American New Towns of the 1960s and 70s (Tennenbaum, 1996). We would perhaps learn how Radburn pioneered the cul-de-sac as a residential street form, which certainly did catch on in post-war suburbia (Southworth and Ben-Joseph, 1997). But if we looked for wholehearted adoption of the Radburn concept – which is at heart a radical concept that elevates communal open space to a primary position within the neighbourhood – we would see that this has almost never happened in the 75 years since Radburn was built.

But it has been attempted at least twice, with undeniable success in terms of both economic viability and establishment of a unique community; Wildwood Park, built 20 years after Radburn during the immediate post-war housing construction boom, and then again at Village Homes, a pioneering ‘eco-burb’ of the 1970s. Both communities, just as with Radburn itself, maintain property values well above those of nearby developments that feature comparable houses but lack the ‘green heart’ communal open space that identifies and distinguishes these neighbourhoods within their broader suburban contexts. Studies of the three neighbourhoods as social environments (particularly Radburn and Village Homes, both more widely known and better documented than their Canadian counterpart) are consistent in their findings that each place has developed an especially strong ‘sense of community’, which no doubt contributes to their enhanced property values and marketability as real estate (Martin 2001a, 2001b; Francis 2003). It is somewhat paradoxical, therefore, that none of the three examples has inspired much in the way of imitation by developers eager to replicate that success.

3. The Essence of the Radburn Idea

As neighbourhoods, Radburn, Wildwood Park and Village Homes are individually quite distinct in their design particulars. They are products of different eras, each having prioritised particular elements of the neighbourhood landscape as they were conceived and as they later evolved as living landscapes. Radburn, for example, maintains a genteel architectural continuity and a fastidiously ‘managed’ landscape; the more libertarian Wildwood Park has avoided that sort of stylistic coherence while affording a greater range of individual adaptability in both its architecture and its home landscapes; Village Homes, designed along ‘sustainability’ principles, reveals quite promiscuously the emphasis on ecological flows and productive landscapes within the realm of homes and yards. The three neighbourhoods have little in common from an aesthetic perspective. What they share is the ‘green heart’ as an organizing principle, with minimalist streets (or ‘lanes’, at Radburn and Wildwood Park) relegated to a back-side service role.

In each case, the green heart is not an alternative open space system to the streetscape, as is the case within many ‘planned unit developments’ (PUDs) that afford open space connections behind and sometimes between dwelling units (Jarvis, 1993). The green heart open space is the basis of the plan rather than being a by-product of it; insofar as the planning process is concerned, the green heart was established first, with lots and streets organized to support and frame the open space. In each of the three neighbourhoods, the homes actually ‘front’ on this internal open space, and back up to the streets. The idea is that the internal open space is truly the neighbourhood social commons, constituting a connective landscape that is free from vehicular flows and more socially exclusive than any public street could ever be; these two aspects combine to provide a safe haven for the social and recreational benefit of all residents of all ages and degrees of mobility.

4. The Radburn Idea as Suburban Contrast

The Radburn concept subverts conventional suburban relationships among homes, between homes and streets, and between the neighbourhood and the world beyond its confines. Standard North American suburban patterns define the legally public street and associated streetscape (which includes front yards) as the neighbourhood commons (Girling and Helphand, 1994), and prioritise the autonomy and privacy of the individual back yards, which are typically accessible only from the house. A designer of such neighbourhoods begins by laying out streets that conform geometrically with local subdivision design regulations while maintaining maximum efficiency in the ratio of street footage to the number of individual lots. What suburban neighbours share is an efficiently laid-out street system, organized for the sake of construction economy and vehicular accessibility. Given these priorities, it is little wonder that the streetscapes often prove to be problematic as neighbourhood social commons for pedestrians. Contemporary ‘new urbanists’, for their part, recognize these limitations of the over-programmed suburban streetscape; since new urbanists prize streets as the primary social realm within neighbourhoods, they seek to free the streetscape of many of its service responsibilities by resurrecting the use of archaic back-alleys behind homes in their developments (Duany et al, 2000).

5. A 21st-Century Radburn: A Re-commitment to Neighbourhood Open Space

What neither standard suburbia nor new urbanism provides is that secure, accessible-to-all connective landscape that has proved instrumental to the cultural identity and social dynamics of the three North American Radburnian neighbourhoods. Based on the happy outcomes (resale value, resident satisfaction, resident tenure etc) observable at the three built examples (Nelson and Crockett, 1984; Martin, 2001b; Francis, 2003), it seems reasonable to suggest

that a 21st-century Radburn is a feasible proposal. If a developer were to attempt to create a modern-day version, he or she might begin by reviewing design aspects of the three well-established examples. What are their individual design strengths and shortcomings? How might 21st-century social, economic, ecological or cultural factors affect design?

First, it should be noted that Wildwood Park and Village Homes were each consciously adapted directly from Radburn – in effect, updated versions of the original idea (Nelson and Crockett, 1984; Francis, 2003). There is no evidence that the Village Homes designers were aware in 1974 of the 1947 Wildwood Park, however; thus the three places do not represent a continuous or linear design progression. But each does reflect the sensibilities of its time, and their diverse characters suggest that the Radburn concept is an adaptable development model.

5.1 Integrity/comprehensiveness of the open space system

The comprehensiveness of Radburn's commons is underscored by grade-separated pedestrian/vehicular paths. For those on foot or bike, the two 'halves' of Radburn connect via an articulated underpass, which is itself a prominent neighbourhood landmark. This articulation seems significant as a design gesture that clearly expresses the primacy of pedestrian safety and landscape continuity. All the dwellings within Radburn are thus connected to each other without necessitating a pedestrian crossing of any sort of vehicular path. Furthermore, the non-intrusive pattern of Radburn's lanes clarifies their subservient role within the neighbourhood. From a pattern standpoint, therefore, Radburn remains the superior model. Neither of the later developments maintains this degree of comprehensiveness – Wildwood Park, because it utilizes loops instead of cul-de-sacs, does not afford complete separation of transportation modes; the complete separation does technically exist at Village Homes, but as a practical matter, pedestrians often cross the intruding 'finger' streets that interweave its landscape.

5.2 Open space features and facilities

Radburn's commons, conceived as part of a larger community-wide open space system that was never realized, contains an elementary school and extensive recreational features such as swimming pools. The incorporation of such 'active-use' features obviously enhances the intensity of resident engagement with the commons, while signifying the neighbourhood's ongoing investment and commitment to the commons as something beyond passive-use open space. Neither of the newer developments incorporate a school, but it is also true that neither was conceived on a scale comparable to the initial Radburn plan. It is Village Homes, however, that offers the most dynamic and diverse landscape commons, with its open-flow 'day-lighted' storm drainage system, its utilization of native plants for reduced maintenance and wildlife habitat establishment, and its incorporation of small-scale productive landscape zones. Village Homes' origin as an anti-establishment/non-traditional/communitarian eco-burb is an essential aspect of its identity and it is regarded as a built illustration of the potential for greatly enhanced ecological 'content' for communal neighbourhood landscapes (Francis, 2003).

5.3 Transitional zones of ownership/autonomy

It is an oddity that of the three neighbourhoods, the one located in Canada offers the greatest degree of resident autonomy. The Wildwood Park designers (the architecture firm Green Blankstein Russell, or GBR) had studied Radburn and concluded that the Radburn backyards were inadequately scaled for post-war-era needs (Nelson and Crockett, 1984). Radburn's designers (Stein and Wright) considered the vehicular lane and its associated spaces to be a necessary nuisance, and hence they scaled this lanescape to minimal dimensions for access and storage of one car per household (Schaffer, 1982). By increasing the backyard depth at Wild-

wood Park to 50 feet, GBR provided a flexible-use zone for each residence that allowed individuals to ‘customize’ one side of their home landscape to suit their needs, while maintaining a more communal, connective and orderly landscape on the commons that their home fronted upon (Martin, 2001). This enhanced autonomy and landscape ‘duality’ has a density cost, of course – with their larger lot areas, neither Village Homes nor Wildwood approaches the Radburn units-per-acre density figure. However, that duality seems essential to resident satisfaction at Wildwood Park, as it allows residents not only the freedoms of individualized landscape expression, but also affords residents the freedom to engage or disengage, as mood or need dictates, from direct participation in the ‘fishbowl’ commons.

5.4 Accommodation of cars

Contemporary Radburn is overrun with resident and visitor cars (Martin, 2001b). On the other hand, the generous accommodation of cars is exactly what has limited the typical North American suburb’s streetscape as a safe or comfortable commons. This is perhaps the essential dilemma confronting the designer of our hypothetical neighbourhood. The scale of Radburn’s various outdoor spaces suggest intimacy and communality in the landscape, essential to Radburn’s unique character. A modern programme would necessarily include accommodation of a greater number of cars per household, with some provision for visitor parking, but the less formal ‘lanescape’ (as opposed to a standard over-designed suburban-scale streetscape) would seem the proper ingredient of a neighbourhood that de-emphasizes vehicular access in favour of pedestrian flows. An appropriate compromise might be a hybridisation that combines the intimate scale of the Radburn lane with the more accommodating cross-section of the Wildwood Park lane.

Key Concluding Points

- The Radburn concept, as expressed in all three of these places, has intrinsic shortcomings that relate to its inward focus, and these problems are well documented in case study literature and design criticism literature. (One persistent problem is difficulty in wayfinding for visitors unfamiliar with the ‘inner’ connections that residents understand; another is the ambiguity presented by ‘reversed’ houses that subvert conventional behavioural norms regarding front and back doorways.)
- These various shortcomings are, in essence, trade-offs, for it is also evident that this radical design approach has afforded tremendous benefits to residents of these three neighbourhoods, with centralized communal open space unquestionably at the heart of these advantages.
- Because of this, the Radburn concept merits further consideration and continuous experimentation in the form of newly conceived neighbourhoods. Further experimentation with the Radburn concept could potentially yield resolution of some of the trade-offs that have been noted in the built examples.
- As noted, the inherent conservatism of the real estate market tends to inhibit such experimentation and the refinements or discoveries that result. Further development of the Radburn concept may well depend on free-thinking designers of hypothetical new Radburns that will constitute a synthesis of 20th-century archetypes and 21st-century culture.

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