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Intensive Boundaries and Liminality: What Drives Melbourne's *Suburban Sprawl*

Ian Nazareth
RMIT University

Conrad Hamann
RMIT University

Rosemary Heyworth
RMIT University

Lisa Gargano
RMIT University

Abstract

The dominance of protective dispersal then freeway building in 1950s and 1960s Melbourne planning reflects a view of its suburbs as an undifferentiated sprawl, with little internal agency, difference, nuance, cultural or visual texture. It is seen as primarily determined by demands of Melbourne's CBD, and is assumed to spread in almost magic fashion: landscape one minute, 'suburbia' the next. For varied reasons this view is consolidated in planning imagery, responding to concerns at commuting and transport distance, disappearing food-producing land near the city, and concerns at raising population density. The result is urban form perceived constantly through liminality and outer boundary conditions: extensive borderlines. This suited urbanism that dealt with cities through quantification and circulation routes. This paper argues the dynamics of Melbourne's suburban development come not from concentric spread but from the steady, sequential emergence of nodal suburbs, themselves major generators of commercial, industrial and transport activity.

The original determinants for these suburban nodes were (i) the inability of Melbourne suburbs to remain in walk-to-work scales; (ii) the means to commute lowering urban density – initially through train and tram, and later cars commuting; (iii) these nodal suburbs' breaking of the long arterial road system that shaped Melbourne's early suburban form till the 1880s, largely by developing off or away from these arteries; (iv) the imagery of clustered institutional buildings with increased mass and expression beyond those of surrounding suburbs; (v) the specialisation of tributary suburbs as a

residential hinterland, not for Melbourne the collected city, but for each of these localised nodes; and (vi) each suburban node gained a series of standard assets in making it an urban focus.

These nodes form part of a series of intensive boundaries: more nuanced and individually distinctive. Intensive boundaries also encompass the miniature urban forms and specific urban models emulated in suburban nodes.

Introduction

In the 1950s and 1960s Melbourne planning schemes affirmed a view of its suburbs as an inherently consistent and uniform *sprawl*, with little internal agency, difference, nuance, or cultural or visual texture. Framed at the Cold War's height, Melbourne's 1954 plan¹ focused on civil defence and dispersal of industry as a protection against attack by unspecified enemies. Melbourne's 1969 plan² focused on transport corridors, and how to traverse Melbourne's large *suburbia*, using a generalised freeway grid drawn over its entirety, as fast as possible. In each plan suburbs were cast as an *undifferentiated sprawl* originating from around a colonial CBD, now compressed and towering. This CBD that has become an increasingly distant form for most Melbourne dwellers, experienced, if at all, at the end of long commutes. Melbourne's suburbs, of far less density than those of Los Angeles or New York,³ urban realms widely consulted when Melbourne's suburban spread is considered, were assumed to spread in almost magic fashion: landscape one minute, 'suburbia' the next. The raw 'fringe' of recent housing tracts is, in many senses, suburban form at its most dramatic: the instant when it is conquering or burying landscape assumed to be in either permanently and homogeneously natural condition, or vital food-producing land. This image is in a tradition going back to one at the outset of major suburban development in London: George Cruikshank's 1829 *The March of Bricks and Mortar*,⁴ or Elizabeth Gaskell's 1853 novel *Cranford*:⁵ suburbs conceived as dynamic, menacing *extensive boundaries*. For varied reasons this view of sprawl and menacing outer front, *suburban liminality*, consolidated in planning imagery, crucial to concerns over infrastructure provision, commuting and transport distance, disappearing food-producing land near the city, and concerns at apparently declining population density compared with Australia's national average.⁶ The result is urban form perceived constantly through liminality and outer boundary conditions: *extensive borderlines*. This may have been

reinforced by Melbourne mapping, which from round 1900 depicted travel times and distances through suburbs as a web of 50 or so concentric circles around the central business district, and after 1954, for some years, the outermost of these circles paralleled much of the city's designated western boundary.⁷

This also suited urbanism that dealt with cities through quantification and circulation routes, as a kind of social, political and economic plumbing where people, goods and fluids could be transported as quickly as possible. This paper, however, argues the dynamics of Melbourne's suburban development come not from concentric spread but from the steady, sequential emergence of *nodal suburbs*, themselves major and decentralised generators of commercial, industrial and transport activity. These have, since the nineteenth century, continued to replicate, each usually with five or six ancillary or *tributary suburbs* developing radially around each. Melbourne's suburban development was generated from eighteen to twenty of these nodes pre- World War II, and as its suburban population increased from 1.1 million in 1940 to the present 5.15 million, so these train-based nodes increased in number, though at a much slower rate, to around 33 today.

Intensive Boundaries and Liminality

Cities evolve within spatio-temporal zones and are bounded by natural and artificial margins, that can be described as extensive borderlines. These include physical and geographical limits as well as technical and political processes of land use that include development and design of the built environment. They reference explicit conditions and specific identities.⁸ However, other well-defined zones are not bounded by spatio-temporal frontiers but by intensive boundaries.⁹ Intensive zones are more nuanced and rarefied than extensive ones. These can be understood as zones of intensity, that occupy the overrun between explicit territories. They include the highly differentiated morphogenetic processes and discrete architecture and urban qualities of the city, rather than a state of equilibrium that land-use planning anticipates. Liminality summarises the spatial, qualitative and material effects within thresholds and precincts, that arise between or across more 'even' urban conditions, or once more stable urban conditions that are no longer operational. Liminal urbanism is also transitional, emergent conditions that absorb the incompatible variables and forces in a city.

Urban Emulation and Nodal Suburbs

In Australia urban emulation is the importing of visual images – often impressionistic – of desirable overseas precincts and use of these images as an urban planning instrument.¹⁰ It was by then an established Australian way of handling cities and had often produced good or satisfactory results since Australia's early settlements incorporated visual imagery of other cities that made valuable contributions to urban life and amenity. Urban nodes use an earlier form of Melbourne urbanism: urban emulation of desired forms, usually from overseas sources, but also in varying degrees imaging and functioning as smaller CBDs. From 1860 to ca 1900, Melbourne builders and developers grew adept at compressing and imaging desired urban precincts overseas: Venice and the theatre districts of London and Paris especially. From there it was relatively easy to rebuild, in suburban settings, the accumulated typology and functions of central Melbourne buildings and their imagery of density, at generally (town halls excepted) smaller scale. Originally these clustered along major arterial roads and tramways, centring on the central city and reinforcing its pre-eminence. But this pattern began changing after seaside resorts with intended self-sufficiency developed from around 1860 (St Kilda, Brighton) and had largely transformed into a series of varyingly independent nodes by 1910-20. By then only two or three long tram extensions from Melbourne's inner areas – Brunswick-Coburg, Kew-Balwyn, Elsternwick-South Caulfield – spreading almost purely along arterial roads, extended Melbourne's earlier arterial pattern of commercial or administrative precincts.

The original determinants for these suburban nodes were (i) the inability of Melbourne suburbs to remain in walk-to-work scales; (ii) the commuter suburb as a new ideal; (iii) the means to commute spectacularly lowering urban density – by train and tram, and later cars; (iv) these nodal suburbs' breakage of the long arterial road system that shaped Melbourne's early suburban form till the 1880s, largely by developing off or away from these arteries; (v) the imagery of clustered institutional buildings with increased mass and expression beyond those of surrounding suburbs; (vi) the specialisation of *tributary suburbs* as a residential hinterland, no longer focused on Melbourne the collected city, but now on each of these localised nodes; and (vii) each suburban node gaining a series of standard assets – building types and visual density – all components of an urban imagery.

Outside the scope of detailed examination here, this nodal tendency also affects other cities accused of uniform urban 'sprawl': in Greater London these would include

Croydon, Stratford, Ealing, Richmond-Kingston, all around earlier villages outside the earlier walled city. In Los Angeles County they include Pasadena, Anaheim, Santa Monica, Burbank, Long Beach, Beverly Hills, Hollywood and San Bernardino. These suburban nodes continue to evolve. Similarly, Melbourne's older suburban nodes have all been rebuilt, refocused, or transformed themselves, often three times over. After 1960, Melbourne's newbuild shopping malls both paralleled and competed with older railway-generated nodes: Chadstone vs Oakleigh, Werribee vs Werribee Plaza for example, Northland vs Preston-Reservoir; Knox City competes with both Dandenong and Ringwood. Eastland-Ringwood, Frankston and Broadmeadows Town Centre are the only direct fusions of 1960s-90s malls with an earlier railway node. Away from the railway nodes, these shopping malls have offered greater schematic simplicity and institutionalised private transport at the appropriate moment, but lack the urban bulk, range and activity routinely part of nodal suburbs on the older Melbourne pattern: the churches, hospitals, night life, eating and socialising, local government, economically more marginal retail, and residential areas in the nodes' central fabric.

These nodes form part of a series of *intensive boundaries*: more nuanced and individually distinctive. Intensive boundaries also encompass the miniature urban forms and specific urban models emulated in suburban nodes. But all are well inside Melbourne's *extensive borderlines*, its perimeter. If they are near an edge, as Sunshine, Dandenong, Broadmeadows and Epping all were, they are not at the borderline for long, each generating several surrounding suburbs that rely on it for retail and administration.

1969 Melbourne Transport Plan

With rising car ownership after World War II, Melbourne was ready to increase its suburban area radically, breaking from its pre-war pattern which had largely kept suburbs to within ca 1.5-2 kilometres walking distance of railway stations or tram lines. Melbourne's 1954 Metropolitan Planning Scheme (MPS, 1954) saw Melbourne as a kind of Cold War air base, where, with some optimism, factories and its other crucial urban components were to be dispersed like aircraft to reduce strafing damage from unnamed but clearly dark forces.¹¹ The Melbourne Transport Plan (MTB, 1969) largely abandoned this airfield dispersal theme, seeing Melbourne's physical spread away from railways and trams as already accomplished. It now focused on how to deal with (or live with) 'suburban sprawl' and large travel distances that had been left to buses, cars or trucks. This 'sprawl' was read as the uniform and unplanned reproduction of

detached housing, credited with little or no perceived societal variance, internal agency or dynamics, and measurable largely as an area to be traversed at speed. Neither plan brought much ideology to bare: it was generalised Cold War in 1954, and a mind's image of American freeway-city as urban *maturity* – an urban emulation – in 1969.



Figure 1. Proposed freeways, Melbourne Transport Plan 1969
(Drawn by Gargano and Nazareth).

The 1954 and 1969 plans still assumed Melbourne would be served commercially and in much of its administration from a single urban core, its old CBD, but its population was assumed to be spreading largely uncontrolled through still more concentric circles away from that CBD. In transport these plans focused on travel time and volumes, and the size of traffic routes necessary to accommodate them. With the perimeter now equal as a determinant to Melbourne's CBD, and with an arterial commuting already covered by earlier roads, suburban railways and trams, *new* transport routes were not obliged to have especially clear destinations or termini, and they did not. In this new planning, just traversing *expanses* became sufficient *raison d'être*. So, Melbourne's Transport Plan of 1969 proposed a distributive *grid* of freeways, evenly carrying *movement* this way and that across many suburbs, and endless in its circulation and character. It resembled the broad grid of main roads through and around the unfolding Milton Keynes in England (1967 ff.), and in Australia contemporary town planning – the University of Melbourne, for example, stressed British New Towns as a central paradigm.¹² Accordingly, Melbourne's 1969 plan proposed one city rail loop to distribute suburban commuters through a marginally increased CBD area, two other rail extensions to reinforce the arterial commute, and then 86% of its budget for 510

kilometres of freeways and another 520 kilometres of further “highways and arterial roads.”

These programmes compare with the 670 kilometres of freeways planned for Los Angeles County by 1960 and the 851 projected for it by 1964. Melbourne’s planned network would serve a projected population of 3.8 million in 1985, 54% of Los Angeles’ County’s projected 1970 population.¹³ The freeways were mapped out and sat in dotted lines on Melbourne’s street directories for some years, subsiding in Rupert Hamer’s term as Victoria’s premier and resurgent in Jeffrey Kennett’s term (1992-99) – in those days performative individualism was saluted in transport as everywhere else. Most of the planned freeways were without a substantive end destination though named for a broad region (*Peninsula*), a small town in the general direction (*Healesville*), the general direction itself (*Eastern, South-Eastern, Western Ring Road*) a named interstate highway intended for connection (*Hume, Prince’s*) and one notable person (*Monash*). Graeme Davison saw it as the “most expansive and expensive freeway scheme in Australia’s history,” and Melbourne’s new shopping malls, based broadly on those in Victor Gruen’s *Shopping Towns USA* (1960),¹⁴ seem carefully sited as far as possible from existing public transport nodes, announcing that cars would supplant public transport.¹⁵ Wilbur Smith of New Haven, Connecticut, who devised a ring-road freeway used to remove two large ghetto and several older districts in that city (1962-70), was chosen as the 1969 Melbourne Plan’s major road engineering consultant. Smith’s urban demolitions and use of freeways for demographic change was lacerated – in 1969 – by the architectural historian and New Haven native Vincent Scully.¹⁶

Melbourne 1969 was in essence a transport plan, and drawn up entirely by transport agencies and consultants, projecting quantitative demographic burdens onto an otherwise undefined carpet of ‘suburbia’. This reflected a long-developing stereotyping of Australian suburban life. The freeway network, set out in an abstract grid, was intended to *cope* with suburbs rather than actually engage them, and to make getting out of them, around or through them, bearable. Nuancing differing suburban identities and other suburban differences – even socio-economic differences – were not in the equation. The 1969 plan’s one transport mode intersection – a railway line through one of the freeways toward the famously train-free Doncaster-Templestowe and a left-over from Melbourne’s 1929 plan – was progressively abandoned between 1976 and 1984; others to Monash University, Waverley Stadium and Knox City never commenced:

only the freeway grid remained. This could in part be attributed to urban planning theories that focused objectively on movement of numbers and services, and cast cities as circulation and streets as pipes or channels. There were other more loaded perspectives besides. To this day, Melbourne's car and truck-based future was continually credited to people in mid-band or outer suburbs 'voting with their feet' or showing their 'love affair with the car' – basically affirming car advertisers' hopes rather than just coping with carefully inadequate public transport. In 1970-71 Victoria's state government considered ending all off-peak train services and abandoning trams as well. In this perspective the only suburbs that deserved routine identity or cultural recognition, so thinking went, were those in the inner 5-kilometre radius and a few outer Suburbs of the Discerning (Eltham, Warrandyte, Research, Mount Eliza, Mount Martha).

Liminality and Boundary Urbanism

Even in these years the concentric circle visualisation of Melbourne's structure remained as strong as ever: aerial photography joined in, emphasising the towering CBD amid a carpet-expanse, a sprawl, of *everything else*. Legal maps showing urban administrative and designated growth areas even reinforce this concentric geometry, especially as, in recent years, it has been realised this suburban carpet is swallowing arable land in the relatively small food-growing areas once available round Australian cities.

And what need to 'allow' the suburbs agency and internal dynamics? By the 1960s, they were given a visual and political dimension in Robin Boyd's widely read generalisation of 'the Australian suburb' (1952, 1960), and not only cast as 'the present popular mess' visually, but routinely deemed a social, political and even spiritual swamp of complacency, conservatism, insularity and stagnation.¹⁷

This imagery was part of a line that emerged with others in the 1920s, but the message was clear enough. None of it was then deemed of value – from the average house design to suburban activity to the cars, the shops, the merchandise. This Australia was indeed a realm you would be best to whisk through at 60 miles per hour *en route* to – somewhere else. In contrast Robin Boyd provided an odd urbanism populated by beings who evidently, as *Europeans* did, glided from high-rise towers to the 'old city' across parkland and back again. This may have applied to Boyd's own suburb of South Yarra (where he lived as far as possible from the public transport

routes in the area), but how this was to be enacted in a city already 45 kilometres in diameter defies imagining.

Much in these issues and enactments derives from a sense that Australian suburbs appeared almost by magic: one minute, the essential *landscape* was there, the next, a blanket of ghastly suburbs had seemingly spread over everything. Newspaper coverage of suburban expansion invariably uses boundary images to show the suburban ‘wave’, setting aerial or telescopic-lens views of roofing set against paddocks or open hillsides respectively. Much of this derives from earlier English reactions to London Metroland and American reactions against post-war ‘suburbia’ in the 1950s and 1960s.¹⁸ Robin Boyd’s influential commentaries on Australian *suburbia*’s deficiencies seem to draw heavily on the latter, and Boyd’s *The Australian Ugliness* (1960) was among the first Australian books to use telescopic-lens photography to pile up new and treeless stacks of housing.¹⁹ Though compressive imagery, its real message was of sameness and an absence of valuable spirit or soul. The sprawl model was easily explainable by economics and a sustained belief in the CBD as an enabling magnet. But the persuasive image of suburbs’ magic, inevitable apparition is in significant part behind the strange lack of agency, belief and texture they gain in 1960s urban strategy, in and outside Australia. In contrast the actual emergence of nodal suburbs – and the smaller networks of suburbs that develop around them – have a different character altogether.

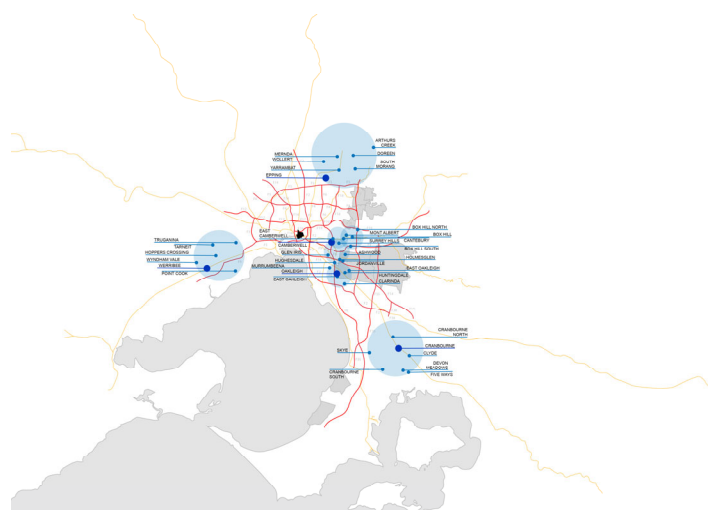


Figure 2. Nodal suburbs and rural edge
(Drawn by Heyworth and Nazareth).

Liminality and Infrastructure Space

In several cases Melbourne's nodal suburbs are small settlements in Melbourne's former rural edge that grew up into suburbs: Preston-Reservoir, Brighton, Dandenong, Heidelberg, Lilydale, Ringwood, Frankston, all developed this way. While their outskirts merged with surrounding suburban areas, they often kept something of their earlier town form, as in wide main streets, war memorial tree groves, long-standing local businesses serving rural or agricultural roles, agricultural high schools, rural or regional industry such as timber milling, lime or plaster processing, and brick pits. As each consolidated the Melbourne suburban area, they did so not by being swallowed in a radiating suburban wave but in spreading tributary suburbs that eventually bordered those of a nearby node. So Oakleigh, spreading residential areas through Murrumbeena, Hughesdale, Huntingdale, Clarinda and East and South Oakleigh, linked up with outlying residential suburbs serving other nodes. Jordanville, Holmesglen, Ashwood and Glen Iris were all linked to the southern spread of Camberwell's sphere. In turn, Camberwell, spreading eastward into East Camberwell, Canterbury, Surrey Hills, linked up with Box Hill and four of its tributaries: Box Hill South and North, Surrey Hills and Mont Albert. At Melbourne's current outer edge, Mernda, South Morang, Wollert, Doreen, Arthur's Creek, and Yarrambat have all been influenced by the node, Epping, for a many years a rail terminus. In the west, Wyndham Vale, Tarneit, Hoppers Crossing, Point Cook, and Truganina have all been affected by Werribee and its suburban rail terminus. In the south, Devon Meadows, Five Ways, Clyde, Skye, Cranbourne North and South, have all been shaped by Cranbourne, the current rail terminus.

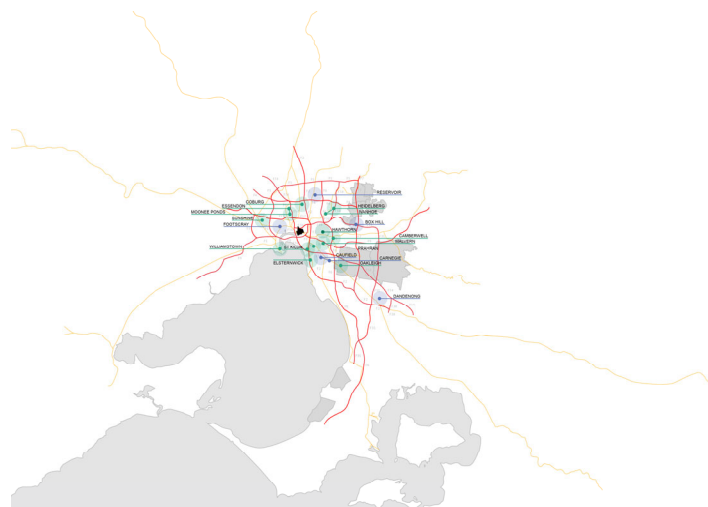


Figure 3. Nodal suburbs and commuter nodes
(Drawn by Heyworth and Nazareth).

As the railway link suggests, suburban node formation is shaped primarily by railways pulling the focus of suburban centres away from arterial roads leading to Melbourne's central city. Hawthorn central was the first: though its town hall was on the Burwood Highway leading into central Melbourne, its 1881 railway runs 250 metres to the north, drawing Swinburne Technical College that way and spreading the main body of its shopping strip a kilometre north along Glenferrie Road, at right angles to the arterial highway but past and around the railway station. Camberwell, Heidelberg, Elsternwick, Prahran, St Kilda, Malvern, Moonee Ponds, Coburg, Sunshine and Williamstown all had shopping and administrative precincts running at right angles to their main arteries and away from them, creating, in effect, miniature centres that were no longer 'wayside' but now geometrically placed to spread radially, even if the surveyors' prevailing street pattern was still a grid. A second group formed nodal cores that slanted away from the nearest railway at an angle or spread south or north from it. Box Hill, Oakleigh, Footscray, Reservoir, Caulfield, and subsumed country towns such as Dandenong, all did this and so began forming their own grids on angle, again into miniature versions of the Melbourne CBD. Several were twin nodes, usually with a transverse shopping street away from the artery and an intersections node where several angled streets came together: Caulfield-Carnegie, Heidelberg-Ivanhoe, for example, or Moonee Ponds with its long transverse shopping strip and its multi-point road junction joining it, and its extension in Essendon Central, one railway station to the north. These geometries, though often small or basic shifts, immediately established each node as a distinctive precinct or system, obvious points where tributary suburbs could cluster and in turn spread outwards.

These suburban nodes had different magnetism. Several originally had a large factory or grouped industry close to the node core, as with Footscray and its chemical works, abattoirs and rope factory. Box Hill had its brick pit and hosiery factory, Williamstown its boatbuilding yards, Sunshine its agricultural machinery works, Dandenong with its stockyard and then car, truck and food processing factories. Some had education as a magnet: Hawthorn had a large technical college by 1920; Caulfield and Coburg were teacher training centres by 1960. Broadmeadows had nine schools and colleges within a kilometre of its Town Centre. Hawthorn had six large schools around its nodal centre. The new public hospitals were crucial after World War II especially: Box Hill, Footscray, Frankston, Dandenong, Preston, all had major hospitals; Heidelberg gained three. These all attracted doctors, nurses, ambulance depots and other medical

servicing. All nodes had cinemas – usually two or three – drawing people in from tributary suburbs, and parliamentary offices, bringing people in with their higher grievances. Much of the population using these nodes either commuted to them as well or commuted to the CBD.

The rise in car ownership was the first big challenge to these nodes' early form. In 1939 Australian figures sat at one car or truck per 7.8 people, making public commuting quite sustainable. By 1969, however, the ratio had closed to one for every 2.3 people, and is one per 1.6 today, often forcing public transport into survival mode.²⁰ The new shopping malls functioned like the commercial parts of earlier 'railway' node form, though they often became surrounded by huge car parks rather than drawing on surrounding and existing built form, as the older 'railway' nodes did. The car parks, however, also pulled these new commercial nodes off major arteries in much the same way railways had pulled commuter nodes away from artery roads earlier. In each case the sense of these nodes being independent of the city was reinforced. At Monash University in the early 1970s, for example, it was common among students to think of 'the city' in shopping or cinema not in Melbourne's CBD but at Chadstone mall or its nearest railway node, Oakleigh. Southland shopping mall, set exactly halfway between two distant railway stations in true motorised mall fashion, was still right away from its nearest highway artery. Significantly, it beat Roy Grounds' National Gallery of Victoria to the annual bronze medal for architectural design that year: 1969.

But the malls found it hard matching the older railway nodes on several counts. They generally lacked local government centres, though both Doncaster and Knox City built municipal centres next to their shopping malls. Banks and some post offices went into the malls. But their high rents blocked smaller, often interesting but less wealthy shops and 'small' proprietors from settling there. Restaurants were also limited in the malls for the same reason. Multiplexes supplanted suburban cinemas in the malls, but the parliamentarians, doctors and lawyers, all staples of the older commuter nodes, largely stayed put. So did the real estate offices and till recently, most of the local press, who had easier access to factories. Malls made no provision for religious buildings – or local libraries, generally.

Conclusion

These node suburbs, arguably as distinct from the generally more formulaic malls, form the intersections and shifts of *intensive boundaries*, and these give an intricate

texture and grain to the supposedly consistent and automatic urban sprawl in all manner of encounters and shades. Most importantly, they suggest the spread of Australian cities in middle-band and outer suburban areas has a radically different pattern of emergence and spread than is generally believed. They include distinctive morphogenetic processes, they focus distinctive cultures of specific regional areas, and distil or select the distinct architecture and urban qualities of the central city. Till recent years they differed in not being medium or high rise, so their emulation of urban form focused on churches, cinemas, town halls and municipal offices, which all had central city counterparts fairly close in scale. In recent years, though, urban emulation had spread into programs for high-rise buildings, mostly using apartments rather than offices as the vehicle. Box Hill specifically planned nine apartment and office towers several years ago and now has eleven; Moonee Ponds, Glen Waverley and Heidelberg have all gained similar groupings.

Given the parallels in London, Los Angeles and other cities, it would now be interesting to trace correspondences in node formation through other Australian cities. Arguably, all Australian state capitals and Newcastle have them, while Canberra gained its suburban nodes, perhaps unexpectedly, through the application of modified British satellite cities.

Endnotes

¹ Melbourne and Metropolitan Board of Works, *Melbourne and Metropolitan Planning Scheme* (Melbourne: Government Printer, Department of Environment, Land, Water and Planning, 1954), esp. "Civil Defence." This followed Patrick Abercrombie, Lord Latham and John Forshawe, *County of London Plan* (London: County of London, 1943-44), and Sydney's similarly related *County of Cumberland Plan*, initiated by William McKell's Labor government, and published in 1948. This scheme's descriptive map was divided into living, industrial and greenbelt regions, much as in the London scheme, but apart from nominating central Sydney as the County Centre, made no specific recognition of the city's emerging *nodal suburbs*, among them Hurstville, Burwood, Bankstown, Manly, even Parramatta. In the scheme's key map, all are simply grouped as unnamed living areas in with the more general fabric of private suburban streets. Melbourne's at least recognised suburban nodes in highlighting several suburban areas for development as 'centres': Footscray, Preston, Box Hill, Moorabbin and Dandenong, all established as nodal suburbs by 1954. The Melbourne plan was followed by Gordon Stevenson's 1955 Perth-Fremantle plan (Perth: Government Printer, 1955), another that effectively encouraged road development and is seen as giving no special prominence to suburban centres, preferring as universal system of plot ratios and fairly strict control of residential density.

² *Melbourne Transportation Plan* (Melbourne: Government Printer, 1969). A commentary is in Liam Davies and Ian Woodcock, "50 years on from the Melbourne Transportation Plan: What can we Learn from its Legacy?," *The Conversation*, 9 December 2019. As its name indicates, the plan focused on transit from one part to another. Its projected freeway net showed the freeways and their link to existing highways out of Melbourne but did not show a link to any commercial, administrative foci or even to agreed industrial zones. As Davies and Woodcock

argue, the scheme was a road plan rather than even a comprehensive transport plan. It made no engagement with or specifications for the development of suburban centres, though it cited the 1954 plan as covering other areas.

³ New York currently has 11,234 people per square kilometre; Los Angeles County has 940 per square kilometre, with significant concentrations of density in all its clearly nodal suburbs: Long Beach, Pasadena, Santa Monica, Beverly Hills, Hollywood, Burbank, San Bernardino, etc. Melbourne recently averaged 453 people per square kilometre, less than half that of Los Angeles county, but greater than Adelaide, Sydney Perth and Canberra (404, 400, 317 and 173 respectively). www.population.net.au/melbourne-population/, accessed 30 December 2022. The US figures are from the US Census Bureau at 6 November 2018, via Wikipedia.

⁴ George Cruikshank, *Going out of Town – or, The March of Bricks and Mortar*. From his *Scraps and Sketches*, 2nd edition (London, 1829), showing suburbs on the march from Islington toward Hampstead, literally in battalion rows scattering cattle and terrifying ancient trees in their path.

⁵ Elizabeth Gaskell, *Cranford* (London, 1851-53), first published serially in Charles Dickens' *Household Words*, modelled on Knutsford Cheshire, the village setting is threatened throughout by the onrush of railways, immigrant Irish labourers and the Manchester suburbs that were expected to follow, creating a wave or suburban *front*. In general perceptions the front and perimeter indeed become suburbs' offensive weapon, as defining as the sprawl is in generalising suburbs' internal character.

⁶ Liam Davies has observed that population densities in outer suburban areas are not significantly less than in many of Melbourne's inner suburbs, The balance has been maintained to a degree through double- and triple-density home unit conversions, originated in Box Hill-Nunawading in the early 1980s, which have produced, along with new pressure on older suburban infrastructure (gas, electricity and water), a drastically increased car storage density and the rise of carriage-sweep front yards as a standard middle and outer suburban carry-over.

⁷ Between 1954 and the 1960s, when it was challenged by the freeway grid proposed in the 1969 Transport Plan.

⁸ M. DeLanda, "Extensive Borderlines and Intensive Borderlines," in *Borderline*, ed. Lebbeus Woods and Ekkehard Rehfeld (Vienna and New York: Springer, 1999), 78.

⁹ DeLanda, "Extensive Borderlines and Intensive Borderlines," 78.

¹⁰ Conrad Hamann and Ian Nazareth, "Provenance – Emergence, Emulations and Disjunctions in Urban Melbourne," in *Proceedings of the 14th Australasian Urban History Planning History Conference 2018* (Melbourne: UHPH, 2018).

¹¹ See, esp., the "Civil Defence" section of the 1954 MMBW Plan. Given its legacy in thinking from the 1944 London plan, and its implementation during the Cold War, the emphasis is hardly surprising. The New Towns planning that dominated post-war Australian training also had a large part of its formation in Britain's re-armament and dispersed factory programme of the late 1930s, which used open farmland, outer suburbs in Liverpool and other Midlands and Northern cities, and Welwyn Garden City (pharmaceuticals). "Dispersal" itself was a term for placing war assets – aircraft primarily – in irregular or spread-out patterns or on satellite airfields rather than in easily attacked lines at major bases, as previously favoured.

¹² Paul Fox, who studied Town Planning at the University of Melbourne in the late 1970s, recalled the dominance of British New Towns planning in that period: correspondence Conrad Hamann, 1978-79. Two leading figures in Canberra's satellite cities programme, Lord Holford and Sir John Overall, were major shapers of Britain's New Towns program previously, and Gordon Stephenson, formulating Perth's 1955 plan, had worked on London's 1944 plan previously.

¹³ Sebastian Gurciullo, "Deleting Freeways: Community Opposition to Inner Urban Arterial Roads in the 1970s," *Provenance: The Journal of Public Record Office Victoria*, 18 (2020), <http://provenance.vic.gov.au/explore-collection/provenance-journal/provenance-2020/deleting-freeways>, accessed 31 December 2022. US figures are from various sources including the US Census Bureau listed above, and maps of projected and completed freeways in Los Angeles County measured by scale.

¹⁴ Victor Gruen and Larry Smith, *Shopping Towns USA: The Planning of Shopping Centers* (New York: Van Nostrand, Reinhold, 1960).

¹⁵ For example, Chadstone (1960) was placed exactly halfway between two railway lines, with no direct bus route from the nearest railway stations or from the Oakleigh node. Southland

(1969) was placed exactly halfway between Highett and Cheltenham stations on the Frankston line, a mile (1.6 kilometres) from each, though it has now been accommodated collectively with a new railway station opposite. Northland (1966) was placed three miles from both the Preston and Reservoir railway nodes.

¹⁶ Vincent Scully, *American Architecture and Urbanism* (London: Thames and Hudson, 1969), discussing Smith's Oak Street Connector to the nearby I-95 freeway and his proposed ring road through New Haven centre. These were used to remove ghetto regions, though they were only half-completed. For Smith, see www.bae.edu/188759/WILBUR-S-SMITH19111990, accessed 31 December 2022. Smith was subsequently hired to plan Brisbane's freeways.

¹⁷ Robin Boyd, *Australia's Home: How Australians got to Live the Way they Did* (Melbourne: Melbourne University Press, 1952), esp. "The suburb was...", pp. 3-6; and more generally in *The Australian Ugliness* (Melbourne: Cheshire, 1960).

¹⁸ Boyd seems to have been affected, particularly, by American critics of 'suburbia' and social conformity and collectivism, as with David Riesman, Nathan Glazer and Reul Denney's *The Lonely Crowd* (New Haven, CT: Yale, 1950), or William Whyte's *The Organization Man* (New York: Simon and Schuster, 1956).

¹⁹ 'Arborophobiaville' especially, included in *Australia's Home's* 1970s editions.

²⁰ These figures are drawn from the Australian Bureau of Statistics' *Car Census*, begun in 1955, and from state and federal yearbooks.