

BY BARRY RAE & SONIA ANDERSON BARRY RAE TRANSURBAN LTD

IWITINIOPOLIS: PAST AND FUTURE URBAN REGIONS

INTRODUCTION

As we look into the future, informed by the past, we need to recognise that urban growth in New Zealand is concentrated in the northern half of the North Island. A dynamic urban system in the contiguous regions of Auckland/Waikato/Bay of Plenty is emerging as the dominant urban region of New Zealand (Rae:1972). This system was initially based on the connectivity of Auckland-Hamilton urban areas, and later, on their connectivity with Tauranga to the east, Rotorua to the south-east and Whangarei to the north. The scale of future growth of this region will be highly dependent on how immigration to New Zealand is managed. Its form will reflect past and current trends for urban nodes to extend along principal transport routes and coastal edges. The inevitability of this regional network will be reinforced by planning intended to relieve stress in the main urban areas (particularly Auckland), to promote a more balanced and

sustainable urban system supporting a diversity of life styles and cultures, and to provide a choice of urban environments, while helping to protect and enhance natural ecosystems.

PAST SETTLEMENT IN NEW ZEALAND

An examination of the past provides significant clues for the future. Pre-European Maori settlement of Aotearoa was concentrated in the northern half of the North Island – an estimated 80% of the total population (Cumberland:1949) (Refer Map 1). This settlement pattern was the result of migration from the north, climate, suitable conditions for cultivating sub-tropical food crops, and the availability of other food sources.

The northern Maori region (*Iwitini*) was a distinct region differentiated from areas to the south by its almost continuous settlement system and its relatively high population density. The larger settlements were small towns of several thousand people, and in the most populous areas nucleated settlements occupied almost every hilltop, spur, or coastal projection. Almost without exception such settlements were heavily fortified pa, essential features of the "urban" landscape (Cumberland:1949).

The tribes of *Iwitini* were in constant and close contact with one another. The region was threaded by a network of local tracks, and main highways followed the northern peninsula, the Waikato Valley, and the coasts.

The local diversity of environment made for frequent exchange of many commodities, and local specialisation of craftspeople gave rise to an exchange of high-grade services. The broken east coast was the scene of regular canoe traffic. The Tamaki isthmus was probably the most frequented part of Aotearoa, and the meeting place of the most travelled routes on both land and sea. (Cumberland: 1949).

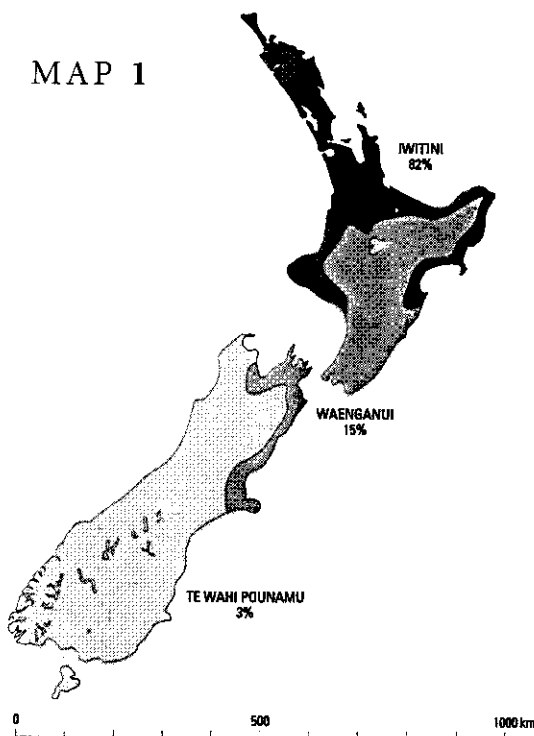
Initially planned European settlement concentrated in the South Island as a result of the gold rush, the land wars of the North Island, and the relative ease of farming the open pastoral lands of the South Island. However, in time European migratory settlement occurred mainly in the north of the country. This was spread over a large number of closely spaced settlements, encouraged initially by the development of the dairy industry, the growth of forest processing industries, and exploitation of deep water harbours accessible to world shipping routes. The importance of *Iwitini* in this development is confirmed by the fact that over the last 70 years only Auckland/Waikato/Bay of Plenty regions have experienced population growth at a rate greater than the national average (Refer Map 2); and over the last 30 years only Northland/Auckland/Waikato/Bay of Plenty regions (with the exception of Tasman) experienced population growth greater than the national average. Since 1966 both Auckland and Bay of Plenty regions grew at approximately twice the national average rate.

Today, 75% of New Zealand's 3.8 million people live in the North Island, almost 50% (1.9 million people) live in the contiguous regions of Northland/Auckland/Waikato/Bay of Plenty, and 31% (1.2 million people) live in the Auckland region alone.

FUTURE SETTLEMENT OF NEW ZEALAND

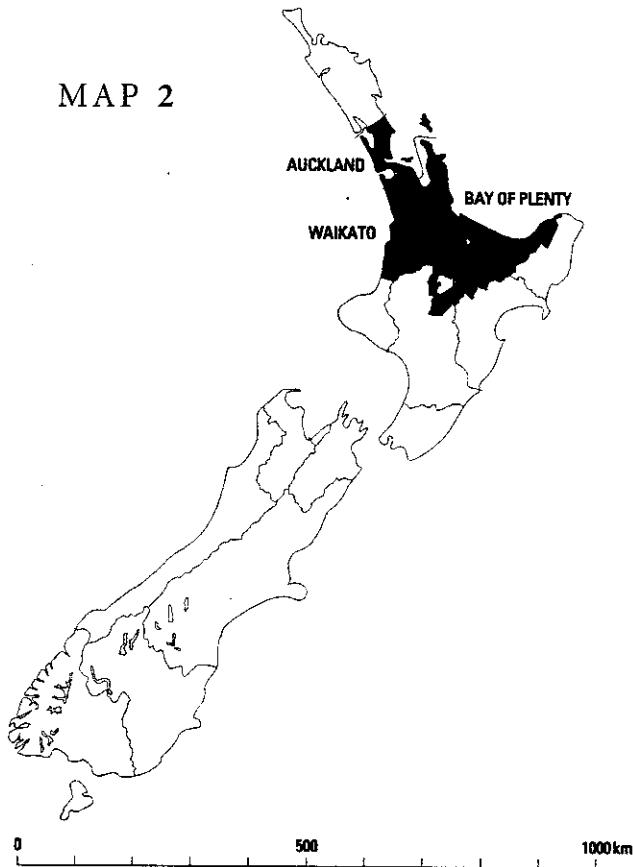
Land suitable for intensive urban development comprises 44% of the whole country. When this land is rated for natural habitability¹, approximately 70% of the total urban-suitable land of above mean attractiveness

MAP 1



Left: Approximate distribution of Aotearoa Maori population by region 18th century.

MAP 2



MAP 3



is situated in the north island, and 50% is situated in the Northland/Auckland/Waikato/Bay of Plenty regions (Rae:1972) (Refer Map 3).

Official population projections (medium-range estimates) for New Zealand 21 years from now indicate that 80% of the estimated 4.3 million national population will live in the North Island, with 57% of the national population (2.5 million) living in the Northland/Auckland/Waikato/Bay of Plenty regions. Auckland region alone will house 36% (1.5 million) of the national population (Department of Statistics:1998).

In the longer term, major external migratory pressures on New Zealand must be assumed in the context of global population growth and distribution. If today's world population of 6 billion was evenly spread over world habitability zones with no significant limitations for extensive habitation (Doxiadis & Papaioannou:1974), New Zealand would theoretically have a population of 40 million. Further, in about 100 years time, the world's population is likely to double. At this time, ecumenopolis (global settlement) will be emerging which, together with associated open land, will cover the entire habitable area of the world as a continuous inter-connected urban system (Doxiadis & Papaioannou:1974). In this global context, New Zealanders' current share of the world's habitable land resources is

inequitable and, in the future, likely to be untenable. New Zealand has the choice of planning for future inevitable migration in a sustainable manner.

Over the last 100 years, New Zealand's average annual increase in population was 1.7%. Assuming this rate of growth could be sustained in the future, New Zealand could have a population of 20 million in 100 years time. Assuming a continuation of past trends of population concentration, at least 60% of these people are likely to be in Northland/Auckland/Waikato/Bay of Plenty, in which case this urban region could be home to 12 million people.

IWITINIOPOLIS

Long-term growth and concentration of New Zealand's population within, and dispersal of this population throughout, Northland/Auckland/Waikato/Bay of Plenty regions can be realistically assumed based on a synergy of the following factors:

- past historical urbanisation trends
- natural habitability
- external migratory pressures
- growth of service and knowledge-based economic activity
- advances in communication and transport technology
- increasing inter-connectivity of close urban

Above left: (Map 2) Regional population growth above national average 1926-1996.

Above: (Map 3) Natural habitability: Urban-suitable land of above mean attractiveness.

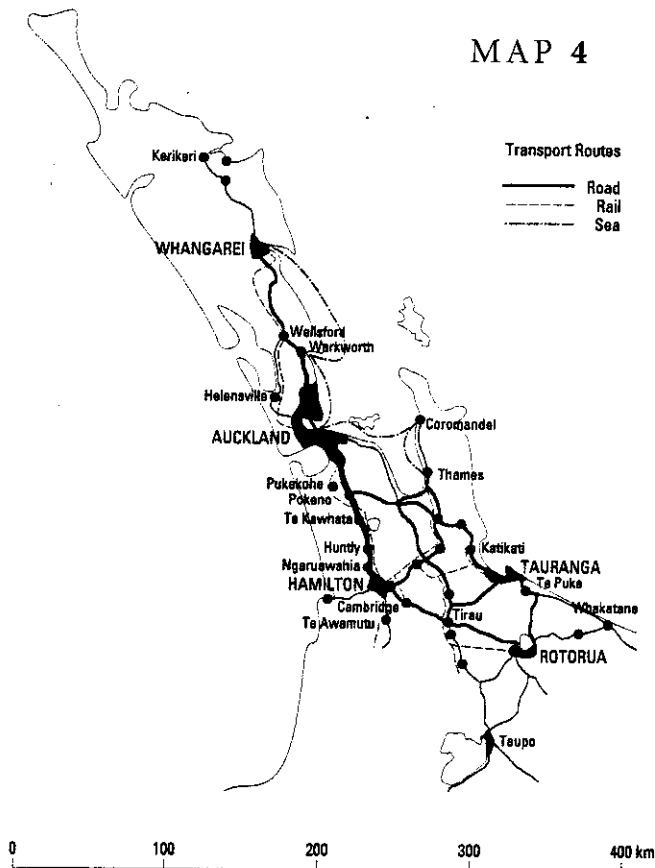
centres.

We have called this emerging urban region of New Zealand Iwitiniopolis, from Iwitini (the Maori word for "many tribes" used by Cumberland to identify the equivalent northern Maori region of Aotearoa) and polis (the Greek word for "city" [Refer Map 4]).

The main urban areas of Auckland, Hamilton, Tauranga, Rotorua and Whangarei form the basis of this region, the population of each having increased at above the national rate over the last 30 years, with Hamilton and Tauranga growing at approximately four times the national average rate.

The Auckland-Hamilton corridor will be the most intensive component of this urban system and the first to develop, as these two largest urban areas become connected by one-hour travel time by high-speed rail and motorway, probably within the next 20 years. Urban development potential exists throughout this corridor, which will offer significant growth options additional to those within the Auckland

MAP 4



Above: Iwitiiniopolis.

region (Fookes: 1973/1974). Other intensified corridors will evolve later amongst all of the main urban areas within the region.

Connectivity within Iwitiiniopolis will be enhanced by development initiatives in all of the various secondary and minor urban areas within the region, most of which are potentially within 0.5 hours travel time of a main urban area. Of particular strategic importance will be those situated midway between main urban areas in attractive locations, such as Warkworth, Te Kauwhata, Thames, Katikati and Te Puke. Continuing settlement intensification of the "rural" areas within Iwitiiniopolis will also be an integral part of the urban system.

The rest of the country, with the possible exception of Nelson/Tasman/Marlborough regions, is likely to be devoid of significant urban growth opportunities. The relatively static urban regions of Wellington, Canterbury and Otago will be maintained primarily by government services, tourism and education respectively.

Any re-introduction of regional development policies in an attempt to promote significant settlement development in regions other than Iwitiiniopolis is likely, in the long term, to be

unsuccessful. However, substantial social and physical infrastructure will be needed to accommodate the continuing rapid urbanisation of Iwitiiniopolis. Further, not all towns within Iwitiiniopolis have been increasing their population at rates above the national average, and some have been shattered by recent economic policies. Wellsford, Meremere, Te Kauwhata, Huntly, Ngaruawahia, Thames, Te Aroha and Morrinsville would all benefit from regional development policies which, in turn, would benefit Iwitiiniopolis as a whole.

Large primary cities elsewhere in the world indicate that they eventually reach a point where the advantages of economies of scale and access to high-order facilities and services do not justify the resultant

congestion, pollution and stress. To minimise these effects, the dominant growth of Auckland could be partly diverted elsewhere within Iwitiiniopolis, while still maintaining good access to Auckland's specialised facilities from throughout the urban region.

A WIDER REGIONAL RESPONSE

The anticipated urban system will not recognise local government boundaries. There is a need for an Iwitiiniopolis Growth Forum, with central government assistance. The current efforts of the Auckland Regional Growth Forum (Auckland Regional Growth Forum: 1999) ignore the potential roles of other growth areas within Iwitiiniopolis and within the sphere of influence of Auckland. Ironically, the maintenance of a tight Auckland metropolitan "limit" endorsed by the Forum will force development to "jump the fence", thereby assisting the formation of Iwitiiniopolis.

Throughout Iwitiiniopolis, co-ordination and restructuring of local government, transport providers and national development agencies will be necessary to integrate issues of

immigration, housing, education, health, employment and transport. Moreover, the potential of Iwitiiniopolis as a dynamic multi-cultural urban system deserves creative strategic development planning on a macro scale, addressing broad social, cultural, economic and environmental issues.

Unlike many countries, New Zealand has no national urban spatial development strategy. Without one, Auckland will follow the trend of all primary cities and will eventually become hopelessly stressed. A strategy that fully embraces the potential of Iwitiiniopolis would have the following advantages:

- Efficient use of existing urban resources
- Provision for a range of settlement sizes and choice of environments
- Maximum opportunities for diversity of life/work styles
- Promotion of settlements of specialisation, difference, identity and complementarity, rather than competition
- Promotion of a larger urban system having an international role
- Provision for cultural diversity
- Reduction of pollution, congestion and urban stress, particularly in Auckland
- Provision of access to a full range of urban facilities within the urban system
- Provision of easier access to natural environments.

The concept of Iwitiiniopolis, a multiplicity of connected centres within a regional urban system of many cultures, could be a sustainable response for future human settlement of New Zealand.

END NOTE:

1. Criteria for urban-unsuitable land were: slope/ruggedness, marshes/flood ponding, surface water, indigenous forests, national parks, exotic forests. Criteria for natural habitability were: mean hours sunshine, mean temperatures, number of rainy days, proximity to coast or river, earthquake hazard, proximity to active volcanoes.

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