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**The Origin and Evolution of Urban Form in  
Wanganui East, Gonville and Castlecliff.**

**A Thesis Presented in Partial Fulfilment of the Requirements  
for the Degree of Master of Arts in Geography  
at Massey University.**

**By  
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Massey University  
1970.**

PLATE 1: WANGANUI EAST.



PLATE 2: GONVILLE.





PLATE 3: CASTLECLIFF.



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## CONTENTS.

	<u>Page</u>
Acknowledgements.	11
Contents.	
List of Tables.	
List of Figures.	
List of Plates.	
Introduction.	1
Scope.	1
The Conceptual Framework.	1
The Morphological Study: A General Statement.	3
An Approach to the Morphological Study.	4
The Problem of the New Zealand City.	6
Geography and Planning.	7
Chapter 1 : The Subdivision of Land.	9
The Principle Methods of Subdivision.	10
Legislation Governing the Subdivision of Land.	15
The Resultant Form of Subdivision in the Suburbs.	19
Conclusion.	27
Chapter 2 : The Development of the Street System.	31
Introduction.	31
The Legislative Origins of the Street System.	33
The Pattern of Growth of the Street System in Each of the Suburbs.	38
Conclusion.	50
Chapter 3 : Take-off, Recession, Regeneration : The Growth of Population in the Suburbs.	52
Introduction.	52
The Main Periods of Growth.	53
Take-off.	55
Recession.	65
Regeneration.	66
Conclusion.	68
Chapter 4 : The Spatial Evolution of Buildings.	73
Aims.	73
Origins of Settlement.	74
The Years Prior to the Town Board Era.	76
The Early Town Board Years.	77
The Late Town Board Years.	80

Amalgamation to World War II.	83
The Post-War Years.	87
The Suburbs and General Theories of Growth.	94
Conclusion.	101
Chapter 5 : The House and Urban Form.	103
Introduction.	103
Origins of the House Form.	104
The Classification of the Basic House Forms.	105
The Cottage.	106
The Villa.	109
The Bungalow.	113
The State House.	118
The Modern House.	121
Conclusion.	122
Chapter 6 : An Assessment of the Influence of the	
Town Board Years.	125
Subdivisions and Streets.	125
The Spatial Evolution of Buildings.	127
The Growth of Population and Buildings.	128
The Main Styles of House.	131
Conclusion.	131
Conclusion : The Urban Form of Wanganui East, Gonville, and Castlecliff.	132
Appendix A.	149
Bibliography.	151

LIST OF TABLES.

<u>TABLE</u>		<u>PAGE</u>
I	Section Size : Approximate Percentage Distribution by Five Areal Categories.	23
II	Location of Buildings in the year Prior to the Establishment of the Suburbs as Separate Towns (Approximate Percentage).	29
III	Street Width : Percentage Distribution.	35
IV	Comparison of the Average Annual Percentage Increase of Population and Buildings in the Period 1951 - 1966.	53
V	Increase in Population in the Suburbs and Borough (1886-1966).	57
VI	The Population of Each Suburb Expressed as a Percentage of the Combined Population of the Suburbs and Borough (1886-1906).	58
VII	Population : Average Percentage Increase Per Annum in the Suburbs and Borough (1886-1966).	59
VIII	Added Population in the Three Suburbs and the Borough (1901-1906).	61
IX	Population in 1906 Expressed as a Percentage of the Population in that Suburb in 1966.	62
X	Increase in Population in the Suburbs in Three 15 Yearly Periods.	72
XI	Composition of Houses According to Architectural Type (1968) Percentage.	110



## LIST OF FIGURES.

<u>Figure.</u>		<u>Page.</u>
1.	Wanganui : Streets and Subdivisions (1965).	Cover
2.	Part of a Map of the Country Sections in the District of Wanganui (1842-1843).	11
3.	The Rural Subdivisions (1842).	13
4.	The Original Subdivisions for Urban Purposes.	21
5.	Origins of the Street System.	40
6.	Topography (1968).	42
7.	Growth of Population (1886-1966).	54
8.	Growth of Buildings (1910-1968).	56
9.	Buildings Erected Yearly in Wanganui East (1910-1968).	65
10.	Buildings Erected Yearly in Gonville (1910-1968).	67
11.	Buildings Erected Yearly in Castlecliff (1910-1968).	69
12.	Growth of Buildings (Pre 1900-Town Board).	75
13.	Growth of Buildings (Town Board - 1912).	78
14.	Growth of Buildings (1913-1919).	81
15.	Growth of Buildings (1920-1923).	82
16.	Growth of Buildings (1924-1939).	84
17.	Growth of Buildings (1940-1946).	86
18.	Growth of Buildings (1947-1955).	88
19.	Growth of Buildings (1956-1961).	89
20.	Growth of Buildings (1962-1968).	90
21.	Growth of Tram and Rail Routes.	93
22.	Generalised Diagram of the Major Zones of Landuse and Socio-Economic Grades of Population in the New Zealand City.	96
23.	Wanganui : Sectors.	98
24.	Architectural Styles of Buildings.	108
25.	Bungalow Styles.	116
26.	Non Residential Landuse.	137

## LIST OF PLATES.

### Following Page 1

1. Aerial Photograph of Wanganui East.
2. Aerial Photograph of Gonville.
3. Aerial Photograph of Castlecliff.

### Following Page 148

4. The Cottage.
5. The Bach.
6. A Villa Node.
7. High Grade Villa.
8. Low Grade Villa.
9. Bungalow Suburbia.
10. The Spanish Bungalow.
11. State House Suburbia.
12. Multi Units.
13. A Cul-de-sac.
14. A Contemporary High Grade House on Bastia Hill.
15. The Wanganui East Retail Area.
16. Gonville Town Hall.
17. St. Peters Church.
18. All Saints Church.
19. Landuse Zones in the Vicinity of Balgownie.
20. Kowhai Park.
21. Williams Domain.

## INTRODUCTION.

### Scope.

The decision to study the urban form of Wanganui East, Gonville and Castlecliff (Plates 1,2 and 3) was made in 1968 after discussions with Mr. Ross, the then Town Planner for the City of Wanganui. The topic was chosen for two reasons. It was felt that the results could provide an insight into the evolution and nature of the suburbs concerned, which would be of use to the City Planners. In addition it allowed for study in depth of concepts which appeared to be of considerable relevance not only to the geographer, but to the community as a whole.

The three suburbs were selected because they alone within the present Borough of Wanganui had once existed as separate towns (see AppendixA), and it was thought that because of this they might exhibit distinctive characteristics in their physical form. This hypothesis appeared to be supported by a preliminary investigation of the material available. Concomitant with this assumption and resultant hypothesis was the belief that it was in any case important to examine and identify the elements of form in urban areas. It was felt that these, if investigated properly, could be helpful in correcting some of the problems inherent in the suburbs, and in New Zealand towns in general.

### The Conceptual Framework.

The following conceptual framework has been

developed for this study. It is largely original and is based upon research results, but it has at the same time a clearly established affinity with the type of morphological study developed by geographers such as Dickinson.<sup>1</sup>

Urban areas may be considered as ecological units in which there is by definition a close relationship between the various elements. These urban units or suburbs vary in the size and complexity of their elements, and also in the subtlety of the inter-relationships of these elements. The three suburbs under examination in this study are in these respects relatively small and simple. The urban unit has many characteristics, many elements. These for the sake of simplification, and at the risk of oversimplification, may be organised into three fields; physical, social, and economic.

This study is concerned primarily with an examination of the physical characteristics of the three suburban areas. More specifically its attention is directed towards an examination of their morphological structure. Five elements have accordingly been selected for investigation.

- (i) The pattern of the original subdivision of land.
- (ii) Development of the street system.
- (iii) Growth of the population.
- (iv) The spatial evolution of buildings.
- (v) The essential characteristics of the basic unit of the suburbs, the house.

The above are not considered to be the sum total of all the elements, but it is felt that they are among the most

important underlying the form of the suburbs. Other elements such as natural features, open space, transport, commercial and industrial uses are also referred to.

The study takes the following form:

(i) An investigation of the historical evolution of the elements which have given rise to the urban landscape.

(ii) An examination of this landscape, based upon a synthesis of the elements.

#### The Morphological Study: A General Statement.

There are a number of ways in which the city may be considered. One of the most important of these conceptual approaches sees 'function' and 'form' as the two essential factors in the delineation of urban areas. The problem of the geographer asserts Dickinson, "is to determine not only the distinctive functions of urban settlement, but also how its elements are arranged in relation to each other, and to the streets and places,"<sup>2</sup> or in other words the nature of its morphological structure.

The weight of literature in the field of urban geography indicates that there have been many more functional than morphological studies. This imbalance and neglect has been recognised by Collins who has stated:

"very little more is known about the present day composition, function, and morphology of towns, than is known about the ancient cities. Little progress has been made in establishing definitive techniques, let alone laws which stand the test of universal application. Furthermore most present day studies are descriptive rather than interpretive, and fail to explain the dynamics of human evolution."<sup>3</sup>

If this last criticism is true of this thesis, it is very possibly because the recency of the field (claimed by Collins himself) has not permitted the development of a satisfactory descriptive methodology, upon which to base more sophisticated interpretive work. This being so further descriptive work of this kind is highly desirable, and indeed is a prerequisite for such interpretive study.

One further viewpoint expressed by Collins is worthy of consideration. It is only when the geographer can come to grips with the urban microcosm that he can hope to arrive at any significant conclusions regarding the nature of towns. Much of the essence of the form of large cities can be explained by examining small urban areas. Extensive studies of large areas in the past have often invited superficiality. Thus investigation of three small areas such as Wanganui East, Gonville, and Castlecliff, provides an opportunity for much needed study in depth.

#### An Approach to the Morphological Study.

The methodological framework of this study is based on the type of morphological study postulated by Dickinson, who states that the geographical study of urban settlement is concerned with four main problems.<sup>4</sup>

(i) The physical and cultural conditions involved in the origin of settlements.

(ii) The reaction of the nucleus in its functional and morphological development to historical events.

(iii) The life and organization of the settlement viewed areally, both as a whole, and with respect to



differentiations within it.

(iv) The interrelationships between the settlement and its surrounding territory.

The investigation of the first three of these problems, is the central concern of this thesis. As it is morphological in nature, the study is logically concerned more with the physical than the specifically cultural conditions of urban areas. It should not be forgotten however that they are a direct expression of the character and personality of the society which built them. As such they will at points in the thesis suggest wider implications of a social and economic nature.

The reaction of the nucleus to historical events, and the organization of settlement viewed areally, are features fundamental to an understanding of the present form of urban areas. The maps included in this study depicting the changing spatial distributions and general growth of buildings through time, are thus of vital importance.

The study of settlements both as a whole, and with respect to differentiations within them, needs elucidation. This study is directed towards the examination of three suburbs, which may be regarded as sub-systems, and hence integral parts of one larger system. Although these sub-systems are treated individually, it is important to remember that they are segments of a larger unit.

There remains one further issue which should not be forgotten. In deciding to divide these urban areas

into two aspects, functional and morphological, it is realised that they are intimately interrelated. They are part of an ecological unit, which is in the philosophical sense one.

#### The Problem of the New Zealand City.

Studies of this type are often motivated by the presence of problems which because of their magnitude require urgent solutions. The three suburbs included in this study however, in line with most New Zealand cities, cannot be said to be in a serious condition. On the other hand they appear to contain a number of unfavourable attributes, which if not corrected soon may provide the basis for future problems of the kind (if not the magnitude) facing many of the cities of the world.

Fox states that to function well a city must deal with change. "The population explosion, the growth of industry, the development of the private motor car," and other associated factors (which include the burgeoning of the quarter acre section, the chain wide street, and the bungalow), have initiated rapid change, and have "weakened the design and logic of cities."<sup>5</sup> Suburban sprawl, engendered by growing affluence, and the development of dispersed units, has acquired as associated features, the breakdown of community and neighbourhood life. This has raised the question of whether the present pattern of suburban form, based often on different principles for a different age is suitable for today and for the future. Examination of urban form, and the processes which have given rise to it, may provide important

clues for the future. Although New Zealand towns are young, the past is clearly and indelibly stamped on them. They are as subject to obsolescence as any cities elsewhere in the world, indeed local body litigation and dwindling city centres are already features of New Zealand life.

### Geography and Planning.

There is an obvious although not necessarily a clearly defined relationship between geography and the field of planning, and more specifically in terms of this thesis between geography and town planning. The study of the morphology of an urban area illustrates this relationship, for it draws on material from both fields of knowledge. Zetter states that the Geographer and the Town Planner are both concerned with man's physical environment<sup>6</sup> a satisfactory summation, providing that he does not mean primarily concerned. His statement does in any case highlight one area in which the two disciplines meet and overlap. The morphological study concerned as it is with the physical structure of urban areas, is one of the ways the Geographer chooses to appraise the surface of the earth, as the habitat of man. The Town Planner on the other hand studies the physical form of an urban area as one of the important (perhaps the most important) indices by which he can plan both for the present and for the future. They share literally a common 'area' of interest, although their conceptual viewpoints and the forces which motivate them are different.

Footnotes.

1. Dickinson, 1959, 20-24.
2. \_\_\_\_\_, 1959, 20.
3. Collins, 1965, 215.
4. Dickinson, 1959, 12.
5. Fox, 1964, 1.
6. Zetter, 1966, 270.

## CHAPTER 1

### THE SUBDIVISION OF LAND.

"In the entire process of city growth there is no step more critical than the original subdivision of raw land. To a considerable extent the size and shape of the lots, the street system that is provided, and the general character of land planning, determine the use to which the land is to be permanently put. The character of the neighbourhood is largely established by the way in which the land is subdivided. Furthermore there is little chance to offset or remedy the mistakes\_ \_ \_for once the lots have been sold off into individual ownership, replanning and re-subdivision become virtually impracticable. The subdividers then are the city builders."<sup>1</sup>

This chapter is directed towards an investigation of the development of legislation governing the partitioning of land, the growth of subdivision in the three suburbs, and finally an assessment of the present nature of subdivision, particularly in terms of section size, shape and general suitability for living.

The influence of the lot on living is worthy of further clarification. It would be a truism to state that many of the ills that affect humanity arise from their improper surroundings. New Zealand society has a number of ills of a psychological and sociological nature. The tendency of segments of the suburban housewife population to display symptoms of neurosis has been highlighted in recent literature as one example of this.<sup>2</sup> One of the factors giving rise to problems of this kind, may well be the organization of sections. Where sections are monotonously aligned face-on to long lines of straight streets,<sup>2</sup> as opposed (for example) to the intimate clustering of sections in culs-de-sac, communication may be reduced

to a minimum, and in some cases cease to exist.

This throws a considerable responsibility upon the early surveyors. A number of the conclusions that are drawn in this chapter reflect critically upon these men. It is acknowledged however that their work should be judged within the technology of the day. While questioning the suitability of some of their principles in the 1960's, it is appreciated that they were well trained, their work was onerous, and that many worked under serious disadvantages. As the succeeding pages demonstrate they played a vitally important role in the development of the morphological structure of these three suburbs.

#### The Principle Methods of Subdivision.

In New Zealand as in the United States of America two general forms of survey were developed. The first was the planned settlement laid out by surveyors acting for the government, or for private persons, and the second was the selection before survey in which private individuals were allowed to determine the boundaries of their holdings, a procedure which led to irregularly shaped sections and administrative confusion.<sup>3</sup>

The 1842 Rural Subdivisions. The Wanganui Town Belt with its rigid geometric grid structure is a good example of the planned settlement (figure 1). The early maps, of which figure 2 is a typical example, show that as well as planning the town, the surveyors laid off rural subdivisions in Wanganui East and Gonville, although there is no evidence that this happened in Castlecliff. These first subdivisions, designed as they were for a



PART OF A MAP OF THE COUNTRY SECTIONS IN THE DISTRICT OF WANGANUI (1842-1843)

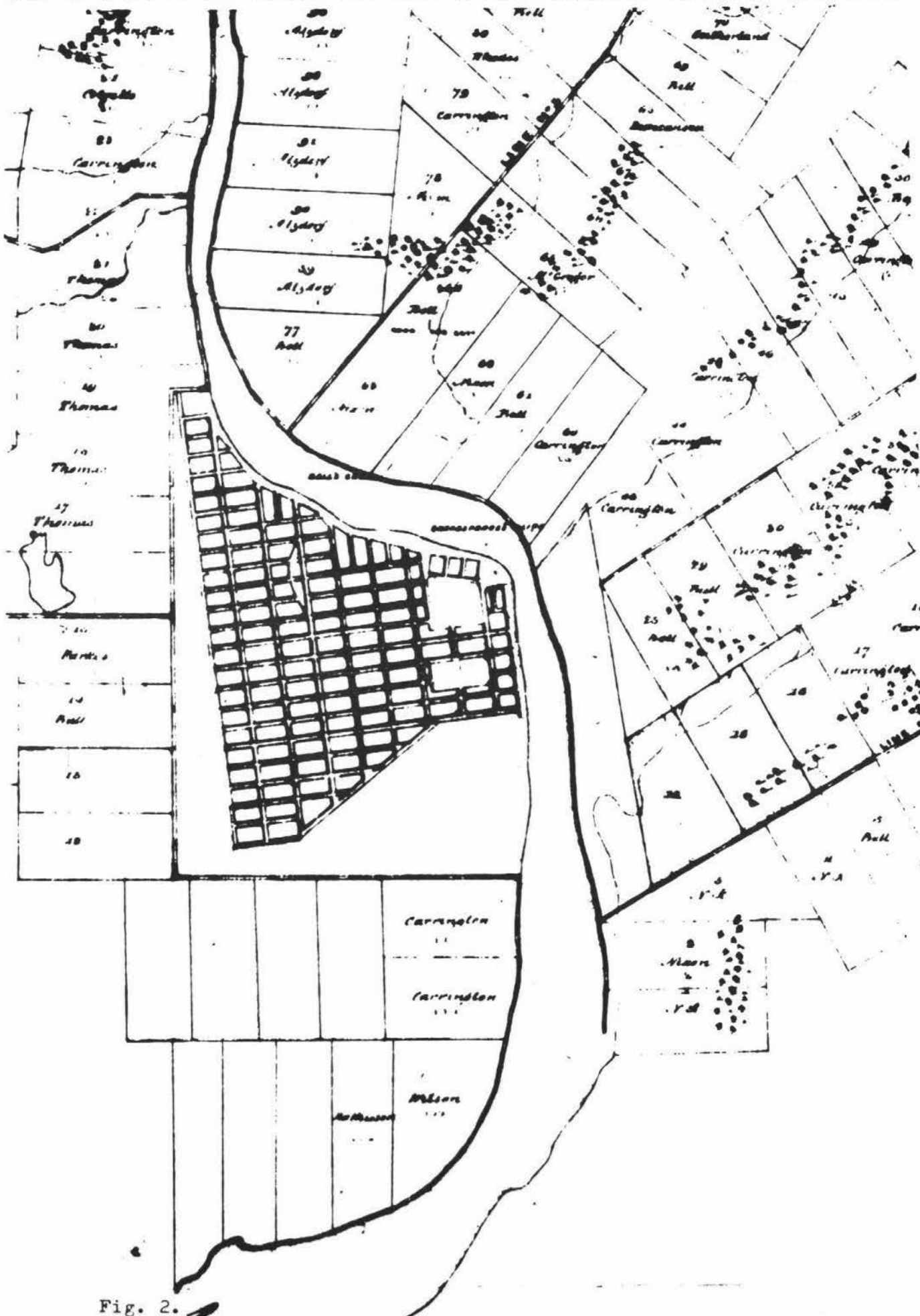


Fig. 2.

quite different type of landuse, have had a distinct influence on the form of the two suburbs. An investigation of the early lot boundaries in Wanganui East (compare figures 1 and 3) reveals that although the subdivision system (and the street system) is primarily a grid one, the angle of both alters markedly along the boundary between lots 63/64 and 77. This difference is seen if the sections in Duncan Street and Jones Street are compared. A similar comparison can be made between Jellicoe Street in lot 77 and Patapu Street in lot 89.

A very distinctive morphological structure situated between the boundary of lots 77/89 and the railway is also highlighted on this map. In this area the subdivision and street systems are aligned at an angle quite different from any of the adjacent areas. Indeed it would almost appear as if this area was originally part of a plan covering a much larger area, but that this part alone has survived crudely terminated at its boundaries.

The form of Gonville has also (although to a lesser extent) been influenced by the 1841 subdivisions. On either side of Carlton Avenue, which was once the boundary between the Borough and Gonville Town Board, the subdivision and street systems are at variance in their alignment. On the Borough side the lots are generally aligned north east - south west, while in Gonville they are aligned north west - south east. A further contrast in the alignment of subdivisions is to be observed on either side of Kings Avenue, another early boundary. On the eastern side the sections tend to be aligned north west - south east, while on the western side the orientation is

# RURAL SUBDIVISIONS 1842

After: Wanganui and Suburbs 1909 (Map, Wanganui Museum).  
 Plan of the Country Sections Laid  
 Out on the Wanganui (1842-1843) (Map, Turnbull Library)

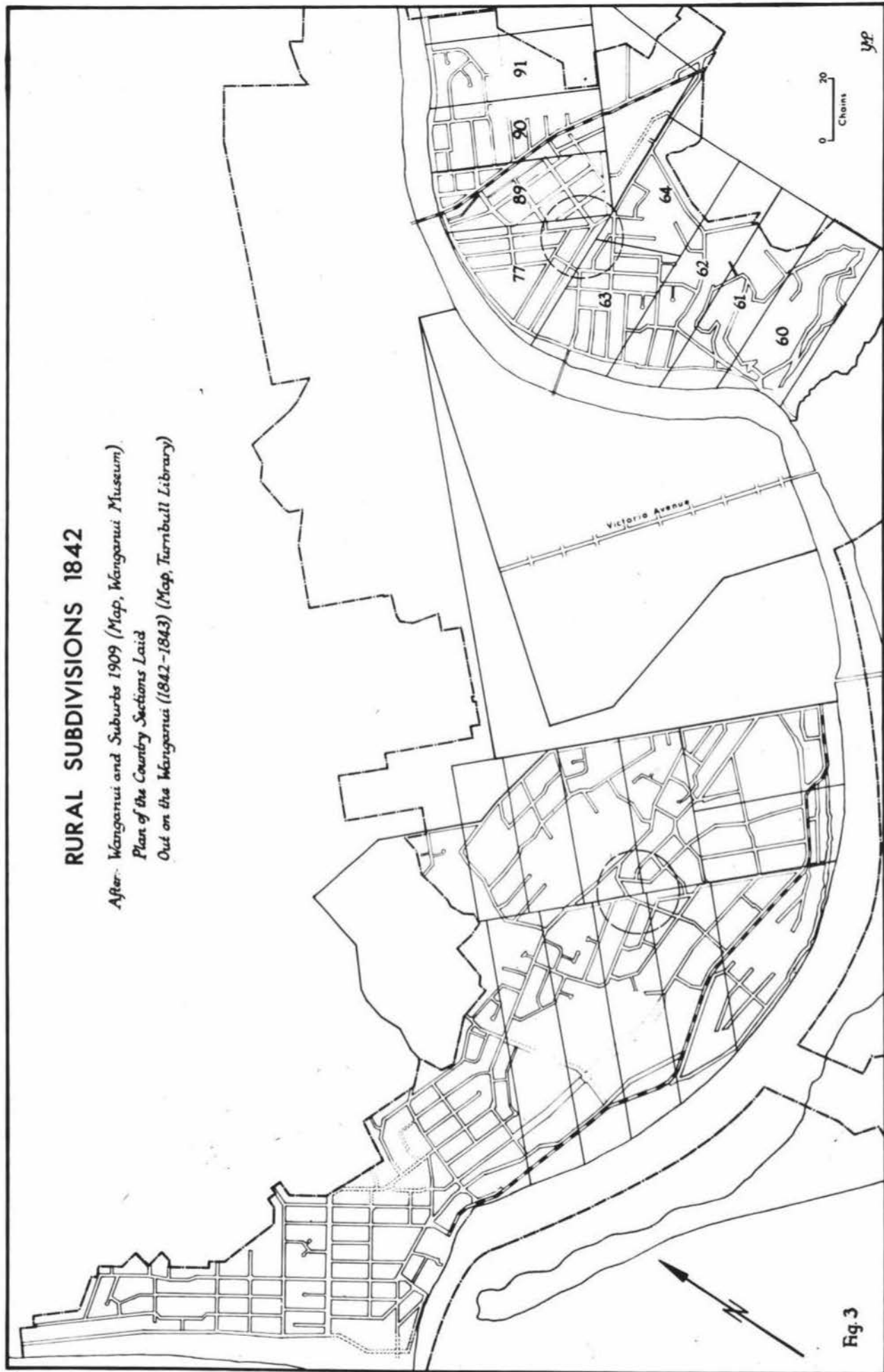


Fig. 3

closer to west-east.

The north-south boundaries of the early subdivisions do not appear however to have exerted any great influence on the present lot system. On the contrary while the early subdivisions tend to lie in a north south-east west grid, the lot system along with the street system cuts across it in a north west - south east pattern.

Selection before Survey. Some 30 to 40 years later the subdivision of land for urban purposes was set in motion in the three suburbs. This would appear to have been carried out by the second main process, selection before survey. Nowhere in the evidence considered is there reference to plans of these settlements, although there are repeated references to extant plans of the Town Belt. Indeed if there had been plans, it is likely that their effective implementation would have been considerably reduced, and possibly nullified by the fact that they experienced their growth under three quite separate local bodies. Furthermore the first of these, the County, had something of a nationwide reputation at the time for avoiding its responsibility towards urban minorities within its largely rurally-orientated area.<sup>4</sup> Thus if one defines "irregularity" as deviation from the geometric grid type, both Wanganui East and Gonville display quite distinctive irregularities in terms of their subdivisional boundaries, which, as indicated by the cadastral map NZMS 16 (Town Series), are aligned on the whole with the street frontages. The areas encircled on the map provide evidence of this (figure 3). The same cannot be said of Castlecliff, its geometric structure is almost as rigid

as that of the Town Belt. This does not however imply that it was planned. It could as effectively be argued, (as Smailes has acknowledged<sup>5</sup>), that the grid structure, paralleling as it does the coastline, is in effect a 'factor' of that coastline.

The majority of the sections in the three suburbs as far as their internal structure is concerned cannot be described as irregular. Despite the fragmentation inherent in the selection before survey most are (and here there is a much closer affinity with the Town Belt) either rectangular or close derivatives of that type. Furthermore, given that these sections are primarily rectangular, one would hesitate to argue as De Vries appears to imply that rectangular means regular, and that anything else is irregular and confused. Too often successive repetition of the rectangular section and street block provides only monotony. Irregularity if it is planned and positive can provide that variety which is the stuff of life, and the excitement of the old cities of Europe.

#### Legislation Governing the Subdivision of Land.

The Land Act 1870. The first specific item of legislation to have affected the urban subdivision pattern was the Land Transfer Act of 1870. This Act required that where land was being subdivided for sale in allotments the proprietor must produce a map showing all roads, streets, passageways, squares, and reserves set aside for public use. While ensuring that these functions were catered for, at the same time it fostered discontinuity, for sections were allowed to evolve in fragmented segments, rather than as parts

of a larger planning system.

The Plan of Towns Regulation Bill 1875. This bill included a requirement that a plan of the town be prepared before the sections were sold. It thus demonstrated that at least some people in New Zealand saw the need for planning though Ross comments that the Bill was virtually limited to the extension of towns on to Crown Land. Thus this far-sighted measure probably exerted very little influence on the three suburbs, which could have benefitted greatly from such an act if well administered.

The Health Act 1867. The 1867 Health Act gave Local Authorities power to prescribe by-laws defining the minimum area of land on which a dwelling could be erected and the minimum space allowed around buildings. While it is not known how specifically legislation of this type affected the suburbs, it does demonstrate that important planning principles were in the public eye. The act is illustrative of one of the most difficult problems that has confronted planning in New Zealand. It was permissive, and as a result few Local Authorities took steps to carry out its recommendations. Nevertheless the fact that no section in any of the three suburbs is less than 16 perches, suggests that acts of this type exerted at least an indirect influence.

The Land Act 1877. This Act, was probably the only legislative attempt to relate directly the ratio of frontage to depth in lot dimensions. Section 40 states

"all sections shall as far as the features of the country will permit, be of a rectangular form and when fronting a road, river, lake, or the sea, be of a



depth not less than twice the length of the frontage"<sup>6</sup>.

As a result of legislation of this nature, upwards of 90 per cent of the sections in the three suburbs are basically rectangular, and generally conform to the specifications of frontage and depth.

The Land Act 1885. The 1885 Land Act was passed to control specifically the subdivision of land for building purposes in rural areas. Thus the surveyor was called on to prepare schemes of subdivision for land offered in urban lots by farmers. But "as there was no zoning there was however no master plan for an area."<sup>7</sup> The surveyor could only create a pattern of roads and sections within the limits of his individual rural block. If the land was of easy grade he would generally lay off roads in a new subdivision in a grid form to correspond with the rectangular rural block, and the neighbouring urban pattern. Roads then replaced the old boundary fences. Thus the pattern of rural blocks was faithfully reproduced in the new pattern of landuse. These provisions of the Act, and the method of subdividing land associated with it, were both of very great importance in the evolution of subdivisional form within the suburbs. Together they explain the discontinuous nature of subdivision and the predominance of the geometric grid form.

A further provision of the Act stated that where subdivision was on hilly terrain, the roads were to be irregular to suit the topography. Here again a provision of the Act can still be clearly observed today. Bastia Hill in Wanganui East for example has a road pattern

which was designed to suit the topography.

The Period 1890-1930. The period between the Land Act of 1885 and 1930 by which time most of the land had been subdivided in the suburbs, was characterised by increasing demands for effective legislation governing the subdivision of land. The surveyors were in the vanguard of this agitation, although for them planning probably meant little more than subdivision. Never far from the core of this problem was the question of the relative rights of the individual on the one hand, and the community on the other. Ross concludes that "in the face of the individuals apparently sacred right to do what he liked with his property, the community bowed and paid the price."<sup>8</sup>

In view of the above it appears legitimate to state that during this period, even after the Town Planning Act 1926, which is generally held to have been ineffective, there was no sound body of planning law effectively controlling subdivision. Indeed, despite the mounting awareness of the need for town planning in the first three decades of the twentieth century, culminating in the Town Planning Act of 1926, the notion of the city as an organic unit would seem to have been lacking. It may be concluded that the only really suprising fact about the first 80 years of legislation (1840-1920) was that the standard of development of individual lots remained as high as it did. Unfortunately the Local Authorities didn't have the quantity or quality of staff to implement the existing legislation. But in any case "however good the legislation might have been the endemic weakness of the Local Bodies would have rendered it ineffective unless the community had been

excited by it."<sup>9</sup>

The Resultant Form of Subdivision in the Suburbs.<sup>10</sup>

The Importance of the Original Subdivisions. It has been claimed<sup>10</sup> that "a comparison of the original plan of the towns and their suburban \_ \_ environs shows the very interesting correlation between the street pattern of the modern town beyond the original core, and the original rural or suburban allotments."<sup>11</sup> This it is held, can be seen clearly from the cadastral maps produced by the Department of Lands and Survey (series NZMS 177) which show the original survey boundaries. The writer concludes that the same geometric outlines have been imposed on the modern landscape despite the fact that the landuse of the area has changed completely from rural to urban in character. In other words the function of the area has changed but the earlier form has remained.

There appears however to be little visual correlation between the original subdivisions as shown on NZMS 177 and the present street system of these three suburbs. If on the other hand the boundaries of the original subdivisions, shown by the heavy black line on the cadastral maps NZMS 16 (Town Series) are compared with the present street system, a very striking correlation is observable. The original subdivisions have, with not many exceptions, remained to provide the basis for the street system. This leads one to suspect that the wrong cadastral serial number may have been stated in De Vries' thesis.

This correlation does not however mean that

subsequent development followed the pattern suggested by the map showing the growth of original subdivisions. Comparison of this map (figure 4) with those showing the growth of buildings (figures 12 to 20), demonstrates that a number of early subdivisions have never been developed. Parts of Bastia Hill in Wanganui East first subdivided before the turn of the century perhaps as a result of land speculation have still to this day never been taken up. But it is interesting to note, that even in these areas the road system is still closely aligned to the pattern of original subdivision.

There is rather less evidence to indicate whether or not the present boundaries of individual sections, are the original ones. It is well known that within some original subdivisions, the individual sections have been re-subdivided, more than once, so that they now bear little resemblance to the original pattern. There are however some reasons to believe that most of the present lots may be the products of the original subdivisions.

It is known that the subdivision of land in the suburbs quickly gathered momentum after the first subdivision in Wanganui East in 1876. With the exception of a large block of land subdivided in Castlecliff in 1883, the bulk of this occurred in the period 1896-1924. It is known too that the major population increases also took place in this period. Gonville grew from 1 to 47 per cent of its present population in the period 1886-1924, while Castlecliff in the same period expanded from 2 to 44 per cent. Figures for Wanganui East are available only up to



# ORIGINAL SUBDIVISIONS FOR URBAN PURPOSES

1883-1893	Town Board-1912	1924-1930
1894-Town Board	1913-1923	Data Unknown <sup>1</sup>

<sup>1</sup> Deposited Plans missing  
or date of subdivision unknown.

Source:- Deposited Plan Files  
Department of Lands & Survey,  
Wellington.

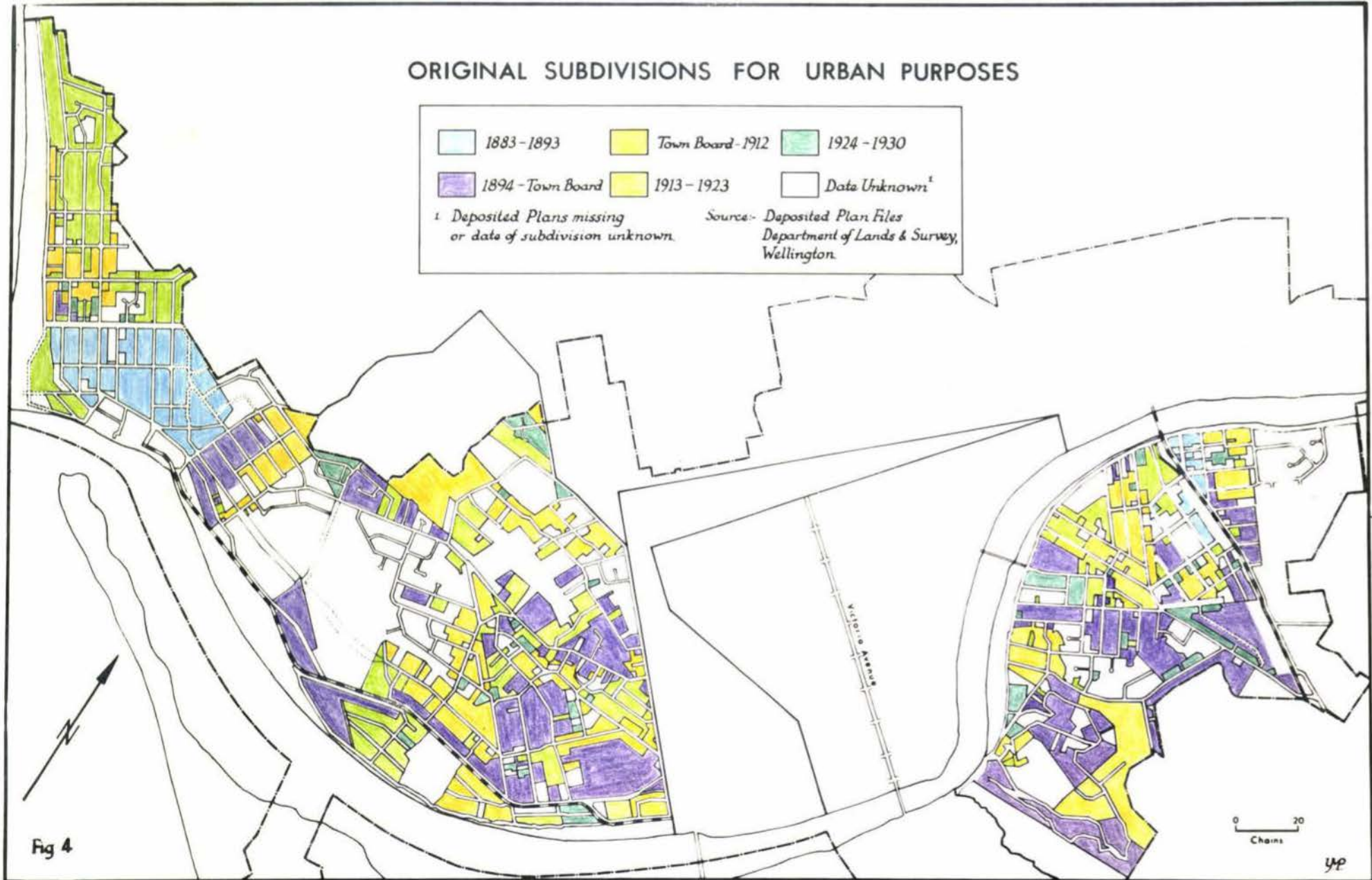


Fig 4

1911. In this period (1886-1911) the population of Wanganui East rose from 2-28 per cent of its present population. The graph (figure 8) demonstrating the increase in building in the period 1911-1924 in Wanganui East suggests that it also had between 40 and 50 per cent of its present population by the end of this period. The concentration of the bulk of original subdivision into a period in which these suburbs acquired not far short of half of their present population also suggests that much of the land must have been taken up on the basis of the original subdivisions.

Section Size. The lots in these suburbs (see Table 1) are characterised by uniformity in size, a condition which seems to be general throughout New Zealand. Over 90 per cent of the occupied residential sections are between one-tenth and two-fifths of an acre (16 to 64 perches) in size. The range is actually much less than this as most of the 90 per cent lie within a range extending from slightly less than one-fifth up to one-quarter of an acre.

There is a widely accepted viewpoint in circulation in the community that the average section is one-quarter of an acre (40 perches) in size. Its origin is not clear, but it probably arose "because it was a convenient way of dividing up an acre, and anything larger might have led to speculation as it did in Wellington."<sup>12</sup> It would seem however that the quarter acre cult, as it has come to be known, is something of a misnomer in these suburbs as indeed it is for many New Zealand suburbs. The

TABLE I

SECTION SIZE : APPROXIMATE PERCENTAGE DISTRIBUTION BY FIVE AREAL CATEGORIES.

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>
One-tenth of an acre or less (0-16 perches)	1.5	0.2	4.9
One-tenth to one-fifth of an acre (exclusive) (16-32 perches)	16.0	21.5	23.2
One-fifth of an acre (32 perches)	44.0	36.4	22.5
One-fifth to two-fifths of an acre (exclusive) (32-64 perches)	36.0	36.5	46.1
Two-fifths of an acre or over (over 64 perches)	2.5	5.4	3.3
<hr/> Total.	<hr/> 100.0	<hr/> 100.0	<hr/> 100.0

Source: Calculations based on subdivisions in Figure 1.



average section size is nearer one-fifth of an acre, the size which is generally held to be the real national average.

Few sections lie outside the one-fifth to two-fifths continuum. There are nevertheless two such categories worthy of note. About 5 per cent of the lots in Castlecliff are considerably smaller than the average, many being not more than one-tenth of an acre in size although none are smaller. Many of these are located along Seafront Road, and are commonly the sites of small seaside dwellings.

In Gonville, and to a lesser extent in Castlecliff there are a group of sections which are considerably larger than the others. Those in Gonville tend to be concentrated in the older part of the suburb and some contain large villas suggesting that they were once the more affluent areas. In Castlecliff the larger sections do not exhibit any particularly distinguishing qualities, apart from one group on the coast in Upper Karaka Street, which contain high grade houses and were bought for elevation and view.

Section Shape. The possibilities for variation in section shape are very limited, particularly with the current commitment by the community to traditional principles and methods of subdivision. As a result New Zealand suburban lots are even more repetitive and predictable in terms of shape than in size.

The majority of the sections have a basically rectangular shape. Many of the variations from this form, retain two or three straight sides and 90° angles at their

corners. Thus not more than 4 per cent of the lots in Wanganui East can be said to differ from the rectangular in any important way, and there are less in Gonville and Castlecliff.

The two most important variations are the culs-de-sac sections, which are often of necessity irregular in order to fit the physical dimensions of the street, and the small minority of lots which are bounded by natural features, such as the sections backing on to Matarawa Stream in Wanganui East (figure 1). All of these however, except for the culs-de-sac which are in some ways engendered by the search for diversity, are variations which have been forced by circumstances. It is significant that these sections retain where possible their rectangular properties.

It is important to note that rectangular sections are not in themselves to be condemned. They are the most simple form known to man. But when they are applied in an unmodified grid over large areas they give rise to justifiable charges of dullness and monotony. The widely prevalent view that they are the most efficient and economic form known, is open to question. It is spurious to argue that the most important economic return is a fiscal one. Beauty and comfort surely have their value too. Alternative types of subdivision may be less profitable, but far more aesthetically desirable.

Subdivision in Recent times. The basic structure and form of subdivision in the suburbs was established early in their history, and subsequent subdivision has tended to be a continuation of much the same procedure. It is most

unfortunate as Dart has observed that the emphasis continues to be on the development of individual sites for sale, because the detached house is the most difficult to plan for. Nevertheless it seems that the detached house will be with the community for a long time, and consequently, so will the individual section. Professor Kennedy the recently retired head of the Department of Town Planning at Auckland University, has stated publicly that he can see no great harm in the detached house per se. Indeed it has been demonstrated that if New Zealand suburbs had a population density equivalent to those of the suburbs of Mount Albert or Devonport in Auckland, the population of New Zealand in 1963 could have been fitted into a circle with a diameter of only 24 miles.<sup>13</sup>

In recent times with the introduction of controls to govern subdivision, there has been a swing from one extreme to the other - from a laissez-faire to a more rigid policy. Daish and Austin claim that subdivisions today are dictated by stringent regulations, which appear to be applied with little thought. They assert, a little too strongly, that most subdivisions "are carried out in mass developments, the bulldozer being used to carve out a maximum number of sections, leaving the area with a minimum number of such important attributes as trees."<sup>14</sup>

The last few years have nevertheless witnessed in a small, but increasing number of subdivisions, a movement away from bulldozer tactics, towards the preservation of the best aspects of the natural environment. Houses built around existing trees are one example of this trend. In this respect a more acceptable policy would be

the recognition of the qualities of a locality by designing a minimum standard which would emphasize its individuality. But the 'mechanistic' approach to the partitioning of land, as effected in most subdivision standards and requirements now in operation, is incapable of producing satisfactory results. There are in these suburbs few examples where the quality of the site in its undeveloped state, has been enhanced by the process of urbanization.

### Conclusions.

It has been a characteristic of New Zealand and Australian towns that their outward growth has until recently been haphazard and spasmodic. Events in these three suburbs are therefore recognisable as part of a much wider pattern. A pattern characterised by the fact that when there was a demand for more urban sections, the fortunate owners of rural land next to the urban frontier sold their blocks one by one as the profitable opportunity presented itself. Thus one returns to the point, that from the earliest days of organised settlement the layout and development of urban and rural lands has been in the hands of the surveyors and the landowners for whom they acted.

It is recognised that these suburbs were planned some time before the advent of motorised transport, so that those responsible could have had no great notion of the form that was to be required after its introduction. The grid pattern is, and has for some time, consequently provided complex planning problems typical of the cities of the advanced world. The three suburbs are already

beginning to experience some of the problems crippling the big cities, for example suburban sprawl, traffic difficulties and urban decay.

The early surveyors who planned the towns, probably did not consider that they might also be setting the pattern for suburban growth beyond the central core. But determine it they did, if unwittingly. The surveyor strongly influenced the form of residential areas, while preparing the land for a completely different function.

#### Footnotes.

1. Ratcliff, n.d. 415.
2. See New Zealand Listener Nov.11.1966. The Fringe Dwellers: a Strange Environment.
3. De Vries, 1964, 6.
4. Fraser, 1916, 11.
5. Smailes, 1955, 112.
6. Dart, 1963, 32.
7. De Vries, 1964, 229.
8. Ross, 1967, 198.
9. ———, 1967, 128.
10. Limitations in the data.

Two inadequacies in the available data make it difficult to draw valid conclusions regarding the nature of subdivision, and its effect on urban form. A number of the records of the early subdivisions are missing. The areas so concerned have therefore been classified as 'details unknown' in figure 4.

It is generally held that the conventional method by which urban areas are established involves two steps, the subdivision of land, followed by the construction

of buildings on it. The data indicates however, that in each of the three suburbs the settlement process did not necessarily proceed in that order. As table II suggests each of the three suburbs in the year immediately prior to their establishment as separate towns had about three-tenths of their buildings on land, which according to the records had not been officially subdivided.

TABLE II  
LOCATION OF BUILDINGS IN THE YEAR PRIOR TO THE  
ESTABLISHMENT OF THE SUBURBS AS SEPARATE TOWNS  
(APPROXIMATE %)

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>
Buildings on subdivided			
Land.	70.0	73.5	64.0
Buildings on unsubdivided			
land.	30.0	26.5	36.0
<hr/>	<hr/>	<hr/>	<hr/>
Total.	100.0	100.0	100.0

Source: Figures 4 and 13

They conform however in almost all respects to the general subdivision system. The one exception is a small number of lots, located along Seafront Road in Castlecliff, which once provided a view of the sea. A view which has since been blocked out by high unstable transverse sand dunes. These sections, along with others settled before the land was subdivided just inland from the coast, are rather smaller (16 perches) than the average lot size. This poses the interesting possibility that they may have been desired for the scenic view, and settled illegally, the thoughts of their occupants perhaps based on the supposition

that possession was nine points of the law.

11. De Vries, 1964, 230.
12. Dart, 1963, 24.
13. —, 1963, 54.
14. Daish and Austin, 1962, 51.



## CHAPTER 2.

### THE DEVELOPMENT OF THE STREET SYSTEM.

"The street provides view, movement, and mystery. The web of streets is the base for the whole city. It is a pattern which to greater or lesser extent conditions the city's life."<sup>1</sup>

#### Introduction.

The following discussion of the street network, is directed towards an investigation of the legislative provisions governing the physical characteristics of streets, and an examination of the growth and general nature of the street systems of Wanganui East, Gonville, and Castlecliff.

The three suburbs are characterised by a street structure which is basically 'grid' in nature. This is very clear in the case of Castlecliff, which has developed a classical grid system almost as rigid as that of the Town Belt. The street patterns in Wanganui East and Gonville, though distorted and fragmented by forces which are discussed in the following pages, are also basically grid in nature as indicated by the predominance of straight streets. Luke's statement that "the Town Belt is distinguished from the rest of Wanganui by its regularity of street pattern"<sup>2</sup> is therefore incorrect.

The examination of the subdivision of land revealed how very close the relationship was between the evolution of the lot, and of the street system. It demonstrated that in the method of survey employed in the three suburbs, the street system was of secondary importance to the partitioning of the land. In all probability streets were organised as conveniently as possible on what land remained after profits had been maximised. This

happened even if it meant a discontinuous street system both within subdivisions and between them.

One of the criticisms which has been made of the early planned Town Belts, as distinct from the surrounding accretions is that they are little more than a street plan, with embryonic town planning elements such as reserves added.<sup>3</sup> Often in these types of development, it was the street system which was accorded first priority, the subdivision pattern being relegated to second place. This process, where it has been observed overseas, has been widely condemned. The dictum still widely accepted today, that the environment should be designed around, and to suit the street pattern confuses the order of priorities for the function of the street is to provide a means of access to the lot. Thus it would seem more logical to locate the house site first and define the road alignment later. The environment however is the first priority.<sup>4</sup>

Paradoxically the process of subdivision in the three suburbs has utilized this very procedure of defining the lot first. It has however differed in two ways so important as to have rendered it as equally ineffective as the early plans. The street system was not designed so that it could service the environment, it was organised that way to maximise returns. In addition, the most effective systems have the implicit assumption that any design will be part of a comprehensive plan. This did not happen in the suburbs. Thus instead of developing an efficient street pattern, perhaps hierarchical in nature and maximising the advantages of the environment, the suburbs inherited a system at its worst either fragmented or excessively rigid.

### The Legislative Origins of the Street System.

Early Thinking. Although the first recorded legislation affecting streets in the three suburbs does not appear to have been enacted until the 1870's in New Zealand, enlightened thinking had been evident in the colony as early as the 1840's. One writer in 1848 advocated the avoidance of obliquely angled streets, recommended that streets should be related to relief, and suggested that main streets should be 100 feet in width, with 66 feet the minimum for any other street. He noted that the error of any street being too narrow was so great, that too much care couldn't be taken.<sup>5</sup> The streets of Wanganui East, Gonville, and Castlecliff are generally in sympathy with the relief, even on Eastia Hill where relief intensity is at its greatest. The winding route etched out by Mount View Road follows closely, particularly in its lower courses, the pattern of ridge and valley. On the other hand it will be demonstrated in the following pages that Wanganui East and Gonville have fallen victim to the problems associated with obliquely angled streets (see figure 3). This is not to say that there is anything inherently wrong with such streets, as they can add essential variety to the street system. The mistake made in this particular case is that they service small commercial areas, and are busy traffic thoroughfares. The sharp angles inhibit traffic flow at the very points where friction should be at a minimum.

The Plan of Towns Regulation Bill 1875. This Act has acquired a reputation approaching notoriety for its effect on the street pattern of New Zealand urban places. Its

most famous (or infamous) provision was that the streets of all towns should as nearly as due regard to the natural features of the country, and the drainage of the land would permit, be laid off in straight lines and at right angles to each other. The grid pattern had been the traditional design for many of the military, trading, and colonial towns in history, and early New Zealand merely conformed to an age old international practice.

There is little doubt that the Act was to some extent responsible for the grid-iron layout of the suburbs, although it was probably a continuation of the principle used by the surveyors first sent out from Britain. The fact that right angled intersections did not develop in Wanganui East and Gonville, in the profusion that distinguishes the Town Belt and Castlecliff, may be attributed not to the failure to recognise the Act on this point, but to the piecemeal development dictated by the system of 'selection before survey'.

The Act also specified that streets were to be 99 feet (one and one-half chains) in width from building line to building line. This proposal has had little affect on New Zealand urban areas, but one area of Wanganui East, as table III suggests, is an exception. Ten per cent of the streets in this suburb are exactly 99 feet wide, and these are all concentrated in the distinctive area, discussed in the previous chapter, between Patapu Street and the Railway line. As illustrated in figure 5 these were probably planned 25 years after the Act. Consequently there is some doubt that they can be directly attributed to the 1875 Bill. Perhaps their origin is traceable to the personal convictions of

TABLE III

STREET WIDTH: PERCENTAGE DISTRIBUTION.

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>
Slightly less than 40'	3.0	7.0	9.5
c 40'	9.0	14.0	9.5
66' (1 chain)	76.0	79.0	77.5
99' (1½ chain)	10.5	0	0
132' (2 chain)	1.5	0	3.5
-----	-----	-----	-----
Total.	100.0	100.0	100.0

Source : Calculations based on street width in Figure 1.

a strategically placed individual, rather than to a legislative directive.

As a minimum for all streets 99 feet was too wide then, and is probably still too wide today. On the other hand Wanganui East may, as far as its main streets of this width (Tinirau and Hakeke Street) are concerned, be very appreciative of this measure in time to come.

The Land Act, 1885. The Land Act of 1885 modified the 1875 Act, and laid down that main streets only should be 99 feet, while lesser streets could be 66 feet. As has been stated, the provision for main streets has not been effectively implemented in the suburbs. Apart from the streets cited in Wanganui East, there are no other streets of this width. There are however two streets, Burton Avenue in Wanganui East and Bamber Street in Castlecliff, which are wider (132 feet). However they are both sited in positions in which neither are ever likely to function as main streets, and consequently their extra width is wasted.

The provision that lesser streets be one chain wide has had far reaching effects in New Zealand. The chain wide street has become as predominant a feature of New Zealand urban areas, as the fifth of an acre section. Over 75 per cent of the streets in each of the three suburbs are 66 feet wide, and in addition there are many just under one chain (table III.) The predominance of the chain wide street is held to be attributable to the early English surveyors who being "brought up on it", found it to be the easiest and most convenient measure in the colonies.<sup>6</sup> In terms of street width then these suburbs are typical of

the New Zealand norm. As the suburbs are about 90 per cent residential, there is less need for variation in street width than in an area of high commercial or industrial use. Nevertheless, it is ironical that residential Barber Street should be two chains wide, while the streets servicing Castlecliff Port are only half that size. As few specific areas were planned for specific functions, there was little need in the minds of the early planners to provide for streets of different width.

Subsequent Legislation. Two further legislative provisions would appear to have influenced the development of the street system in the suburbs. One of the clauses of the Town Planning Act, 1926, gave the Director General of Town Planning power to propose streets under 66 feet in width. However, most Local Authorities preferred to abide by a number of less binding alternatives such as the various Land Acts and Municipal Corporations Acts, so that it was largely ineffective. On the other hand, ignored or not, the Act acknowledged the existence in New Zealand of the viewpoint, that some streets could usefully be less than one chain in width. This concept was given more definite status in the Town and Country Planning Act, 1953, in which provision was made for a special law allowing certain streets to be under 66 feet, but not less than 40 feet in width.

This provision is directly related to the recent growth in the numbers of culs-de-sac and similar 'No Exit' streets. Except for two culs-de-sac (Walker Place and Clapham Place) in Wanganui East, which were established as part of a State Housing Development Project during the



Second World War, all the culs-de-sac in the three suburbs have been established since 1953, and all are about 40 feet wide. The reduction in the width of the street, is a recognition of the need to vary street width according to function. As a result of their terminal nature culs-de-sac have much reduced traffic densities.

The incidence of the growth of culs-de-sac and similar types of street in New Zealand is in actuality part of a world wide trend. It is a combination of pragmatism and idealism. On the one hand it provides an efficient method of subdividing undeveloped pockets of land which are not amenable to grid type development. It is also a belated acknowledgement of the deficiencies of the grid system, particularly the break down in community life.<sup>7</sup> It is in effect part of a movement towards 'cluster development',<sup>8</sup> having as one of its principle tenets the regeneration of community spirit in a society which is becoming increasingly impersonal.

It is not often realised that the cluster system is also a reaction against the traffic pattern imposed by the grid concept. The cul-de-sac is an important example of the lowest order in Buchanans hierarchical access system. As such the culs-de-sac that have emerged in New Zealand urban areas, may be seen as a 'grass roots' attempt to improve the environment and cure the street network of endemic weaknesses before they become crippling.

#### The Pattern of Growth of the Street System in each of the Suburbs.

As a result of the paucity of evidence, the

following discussion and the associated map (figure 5) examine only the broad growth of the first streets. As it happens however these early streets do generally define the present network, and therefore constitute a useful depiction of the development of the streets. A number of influential factors in the development of the street pattern, for example topography, are considered. Important as these were, it should not be forgotten however that the method of 'selection before survey' was the basic factor in the formation of the street network.

#### Wanganui East.

It is in some respects surprising that a rigid grid pattern has not developed in Wanganui East. Situated as it was on a flat river terrace the land was sufficiently uniform (except for Bastia Hill) to accomodate a grid layout (see figure 6). Furthermore, the sweep of the river far from hindering the development of a geometric pattern would have assisted it, by providing two clearly defined boundaries as it did for the Town Belt. That a rather less formal street structure than that of the Town Belt has developed may be attributed to a number of factors in the history of the suburb.

The First Streets. Although urban growth was not initiated until the 1880's the first road in Wanganui East appeared early in the history of the colony. Anzac Parade (initially Riverbank Road) is shown on maps of Wanganui as early as 1841. (figure 5) It would appear that it was pushed around the river from the old ferry just below the site of the present town bridge, presumably to provide access up river, and later into the interior of the North Island. But its

## ORIGINS OF THE STREET SYSTEM

	1842		1909 (a)
	1886		" (b)
	1906 (a)		1912 (a)
	" (b)		" (b)

(a) contained buildings therefore probably formed  
(b) no buildings therefore possibly unformed

Sources:- Plan of Country Sections in the District of Wanganui (1842-1843);  
Plan of Wanganui (1886); Borough of Wanganui & Suburbs (1906)  
- all Turnbull  
Wanganui & Suburbs (1909); Wanganui Harbour General Plan (1912)  
- Wanganui Museum.

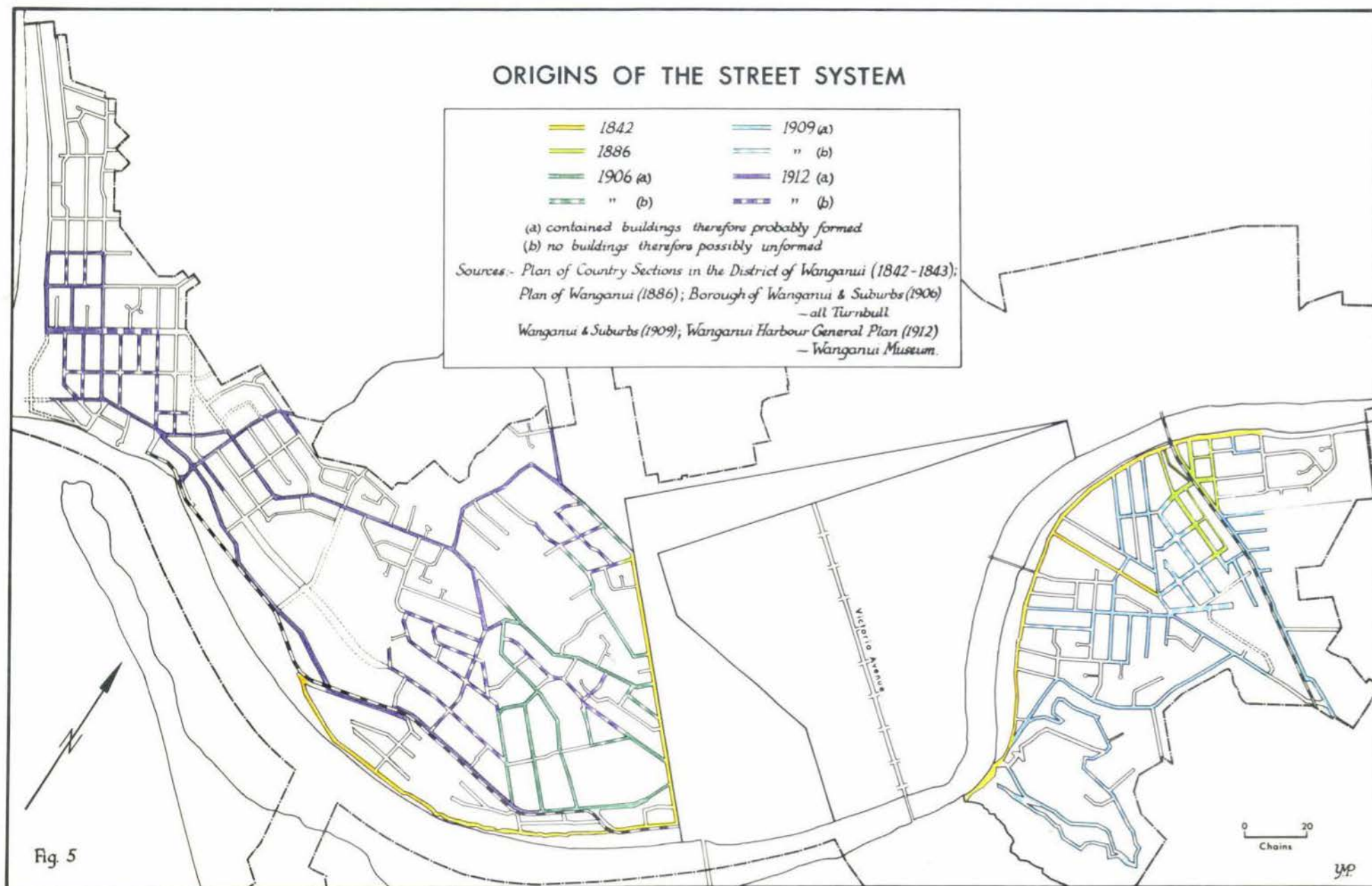


Fig. 5

potential as a main accessway in the formation of urban Wanganui East, was not to be fulfilled for another 30 or 40 years.

As Anzac Parade followed the sweep of the river closely, and occupied an important role in the development of the suburb, the natural sweep of the river has influenced the subsequent development of the street system quite strongly. The streets have a tendency to project inland from the river at approximately right angles. This combined with the curve of Anzac Parade, later produced problems where these streets met. The fact that some (for example Nixon and Jones Streets) are the longest and most important in the suburb, has increased vicariously the influence of the river.

One other road is shown on the 1841 map, Duncan Street, or Line Number 3 as it was then known. Only in one section between Moana and Tinirau Streets, has Duncan Street become the important thoroughfare that one might have expected from its early establishment. It was presumably constructed to provide access to the flat fertile alluvial river terrace on which Wanganui East now stands.

The 1842 Rural Subdivisions. Another important factor in the evolution of the street network, was the early pattern of subdivision (figure 3). These subdivisions have left a clear and unmistakable imprint on the present web of streets. The area bounded by Moana, Jellicoe and Nixon Streets, an area with a strong retail flavour, is one in which a number of important streets meet (see Plate 15). The principle has merit, but the structure is fractured, and is unlikely to support the heavy traffic load which will

# TOPOGRAPHY

contour interval 10'

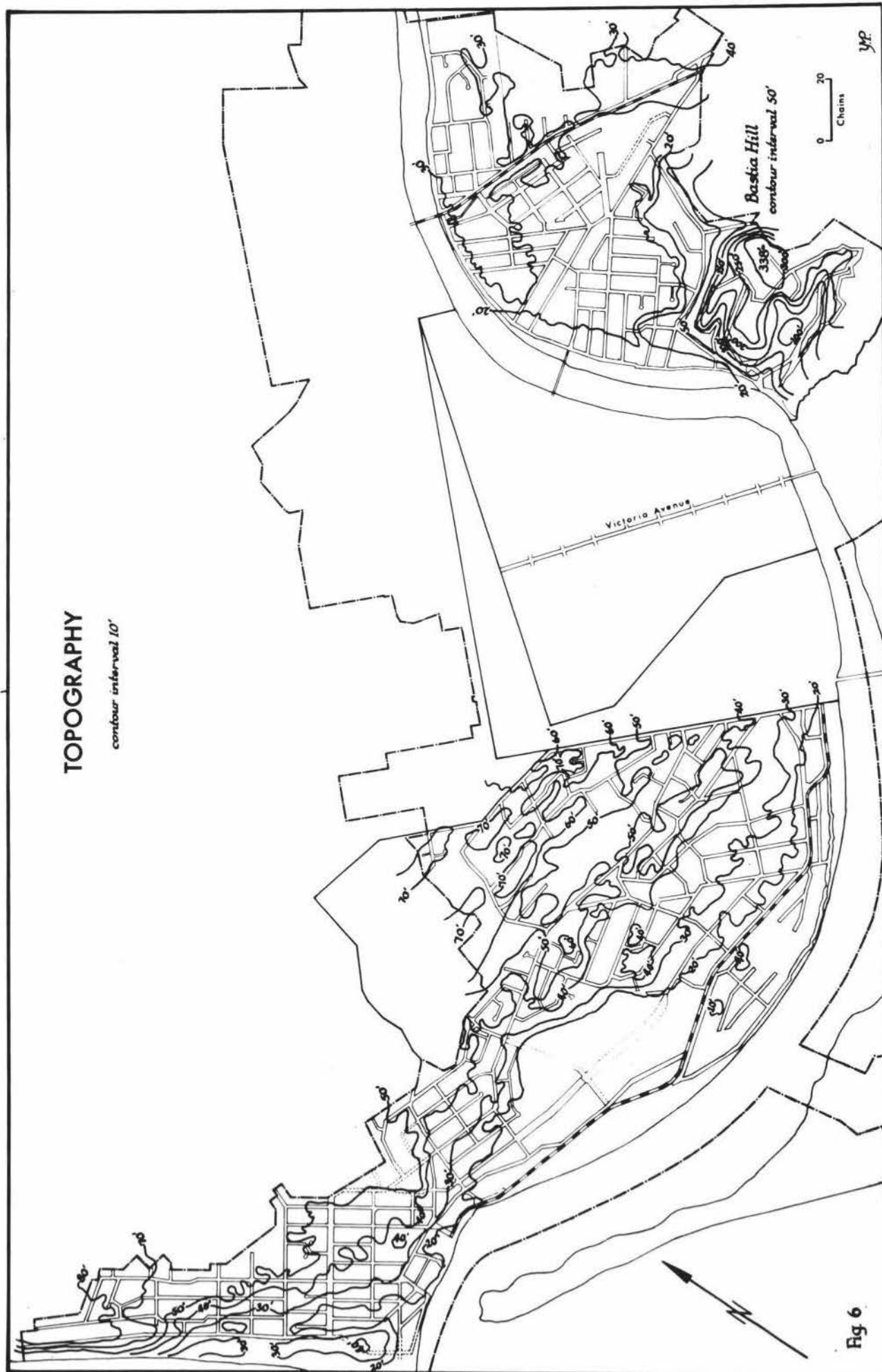


Fig 6



increasingly invade this busy thoroughfare in the future. This situation seems to have arisen as a result of the juxtaposition of the lot boundaries. The area is located at the apex of triangular lot 77, which is itself somewhat sandwiched between lots 63 and 89. Within lot 77 two streets parallel the south-western boundary, and three the north-eastern border. It seems likely that each of the streets was pushed progressively up from the river parallel with its appropriate boundary, but without a great deal of thought as to the solution when they finally met at the apex of the triangle. Consequently, when they did reach this point, a rather unsatisfactory compromise was all that was possible.

Although the street system is primarily a grid one, on each side of the boundary between lots 63 and 77, and between lots 77 and 89, the alignment of the street system, alters quite markedly (figure 3). It has already been stated that the area between the border of lots 77/89 and the railway line, has a different subdivision form than the adjacent areas. This is true also of the streets as they too are aligned at a different angle. Furthermore they are consistently larger than the other streets in the suburb; almost all are one and a half chains wide.

The Street System in the 1880's. There is little evidence to indicate the growth of Wanganui East between 1841 and this period. The population figures suggest that there was very little growth, although the "take-off" period must have been initiated during this decade. Figure 5, confirms the conclusions suggested by the growth of buildings (figures 12 to 20) namely that Easttown was the first area

developed. It would appear that streets were projected up from Anzac Parade on each side of the railway complex. The form was thus linear in nature, although the embryonic grid component was clearly present in the rectangular blocks slowly developing outwards from either side of the railway. On the north-east side, the railway curved eastwards and appears to have provided a barrier to the western extremities of successive streets and street blocks.

The Network in 1909: By 1909 two years after Wanganui East had become a separate town, the basic street nucleus had been surveyed, and most of it had been formed (figure 5). It grew as one would expect much in accord with the growth of buildings. The streets in Eastown were pushed further inland, perpetuating the linear nature of growth in this area. Observable also is the development of a grid pattern associated with the other early urban nuclei established in Wanganui East, namely Kawa Kawa. Access was apparently gained by way of Nixon Street. Such a concentrated urban nucleus serviced by one main road held promise for the development of cluster form, a potential quickly lost with the subsequent expansion of the nucleus into surrounding areas. To this extent Luke's comment "that the streets of Wanganui East were built back from the river with cross streets being constructed as residential areas filled up," is only partly true.<sup>9</sup>

During the same period a number of streets acquired important functions. Moana Street was developed early as a connecting link between the early nuclei. By 1909, Ikitara Road, which follows the 30 foot contour closely and whose shape consequently reflects the base of Bastia Hill (figure 6), along with Wakefield Street had been developed



as short cut routes from the Borough to the farming areas behind Wanganui East.

### Gonville.

In Gonville, as in Wanganui East, the grid structure has been distorted. There was less reason however, for a formal grid pattern to develop in this suburb, as the early urban nuclei were located on land whose relief intensity was sufficient to directly influence the street pattern.

The First Streets: Gonville had two roads by 1841 (figure 5). The first of these, Carlton Avenue, defined the south-western limits of the Town Belt. The second, Riverbank Road which no longer exists, followed the sweep of the river closely. It extended from lower Taupo Quay in the town centre to the Heads at Castlecliff, presumably to serve the lighthouse known to have existed there from an early date. Heads Road, as its name implies, later superseded it. It is interesting to note that both Riverbank Road, and later Heads Road, differed from Anzac Parade in Wanganui East, in that they gave rise to considerably fewer tributary streets. Consequently their influence and concomitantly the river's influence was considerably less in terms of the development of urban form than was the case in Wanganui East.

The 1842 Subdivisions: The positioning of Carlton Avenue appears to have been determined by the location of one of the 1841 rural subdivision boundaries (figure 3). As a consequence of its role as the boundary between the Town Belt and Gonville, Carlton Avenue is marked by disorientation in the alignment of the streets on each of its sides. The precise angle of the fracturing has been described in the discussion of the 'lot', and is particularly true of the

main streets such as Alma and Koromiko Roads. In addition the streets on either side of Carlton Avenue are, as a result of this barrier, discontinuous in nature. Heads Road is the only important unimpeded through-road from the Borough to Gonville.

The western boundaries of the early subdivisions have been influential in the siting of Kings Avenue and part of Puriri Street. The affect has been, in this case too, an obvious change in the alignment of the street system. On the whole however the 1842 rural subdivisions exerted less influence on the street system in Gonville than they did in Wanganui East. While these early subdivisions lie in a north south - east west grid, the street network like the lot system, generally cuts across this in a north west - south east pattern.

Subsequent developments: Lack of data precludes any statement about the position of the street system in the 1880's, but population and building statistics (figures 7 and 8) suggest that Gonville was much less developed than Wanganui East at the time. Figure 5 indicates that the pattern of growth was of the gradual ribbon development of the street system westwards from the Town Belt. There was also, although to a lesser extent, some growth northwards from Heads Road. Heads Road, Alma Road and Puriri Street were probably developed first to provide access to Castlecliff. To do this Puriri Street carefully skirted the northern edge of Balgownie Swamp, while Heads Road was constructed on land reclaimed from the southern edge of the swamp. North-west of Kings and Caius Avenue and south-west of upper Alma Road a zone of confusion exists in the web of streets. Available evidence suggests that in this area, as in certain areas of Wanganui East, streets were

allowed to develop with little forethought.

The influence of the river, although much less than in Wanganui East, is to be seen in Gonville's street system, particularly in the streets which approximate it most closely. Heads Road like the railway is generally, but not entirely, aligned with the curve of the river. The minor roads between Heads Road and the river similarly parallel and bend with it. Bignell Street and its associated parallel streets (Swiss Avenue, Duigan and Harper Streets etc.) are also obligingly aligned to suit the change in the direction of the river.

The street network in Gonville has also been influenced quite strongly by the topography. The predominant relief runs east-west in a series of minor terraces which grade into consolidated longitudinal blowout sand dunes (figure 6). The street system reflects this pattern, particularly the main through roads - Heads, Koromiko, Alma, Smithfield Roads and Upper Puriri Street. The fact that these are the main routes serves to reinforce the influence of the topography. Nowhere however does the relief intensity become so great that roads are as noticeably influenced as they are on Bastia Hill. The major exceptions to this trend are Kings, Caius, Lower Gonville and Carlton Avenue. These, it has been demonstrated parallel the 1842 rural subdivisions.

With these facts in mind, Lukes claim "that the remarkable feature about Gonville is the apparent lack of system in the street pattern"<sup>10</sup> may be challenged. The street network is the product of the selection before survey, the curve of the river, the grain of the land, and in the case of many of the smaller streets the need to

connect and rationalise the existing network. A street system which has been developed piecemeal to accommodate so many factors, is unlikely to ever produce an efficient result. In some areas of Gonville, the streets are as confused and disorientated as they are in Wanganui East. There are also some areas, (mainly new developments it is pleasing to note) in which the basic elements of a more satisfactory system, fundamentally hierarchical in nature, have been laid; for example the area between Balgownie swamp and the present town boundary in the north-west.

### Castlecliff.

Historical Evolution of the Street System: There is much less evidence available with which to trace the development of the street network in Castlecliff. Access to the Port, and to the rest of the suburb, was gained via the two main routes through Gonville, which connected with Cornfoot Street and thus serviced the core of the suburb (figure 5).

Figures 12 to 20 showing the growth of buildings suggest that the grid structure in the vicinity of Matipo Street, was established before the turn of the century as a self contained unit. Evidence from the same source, plus the pattern of the original subdivision of land (figure 4) indicates that for the remainder of the suburb north of the Port, the street system was gradually extended in a series of isolated integuments. Each one was established, and then added on to the existing structure as and when the circumstances demanded.

Present Features: It has already been stated that Castlecliff contains a grid structure as rigid as that of the Town Belt.

In this respect it differs from the general pattern characteristic of New Zealand suburbs on the edges of Town Belts. A probable reason for this, namely the control exerted by the coastline a feature typical of some overseas locations, was described in a previous chapter.

There are on the other hand exceptions within Castlecliff. These like the new developments in the other suburbs are part of a new breadth of thinking and are related to the growth of Town Planning in Wanganui since the early 1950's. They reflect the increasing role of qualified and knowledgeable planners in the direction of the cities growth. The area around Gibbons Crescent, and the proposed developments adjacent to Polson Street are good examples (figure 1).

Grid street systems are most commonly associated with flat land. But it is interesting to note that in Castlecliff, the relief intensity at least equals that in Gonville (figure 6) and yet for the bulk of the suburb it has had almost no influence. The grain of the relief similarly bears a close resemblance to the grain in Gonville. In fact the one is a continuation of the other. Thus in the area of Castlecliff most closely associated with Gonville (the area east of the Port surrounding upper Puriri Street) the east-west trend of the streets is very similar to that in Gonville.

North of the Port, however, the grain of the land bends north-westwards, and runs across the grid out to the coast. The street system on the other hand parallels the coast rigidly, and in so doing it cuts across and nullifies the effect of the predominant relief.

This grid north of the Port is terminated quite

sharply at the Port itself. In the immediate vicinity of the wharves the streets parallel the river, which changes direction at this point to discharge into the sea. Thus the associated streets are aligned at a distinctive angle, so that this area is identifiable as a small zone of variance within the Castlecliff street system. Adjacent to the southern edge of this small zone there is another zone of variance. This early established area, of Matipo, is characterised by a grid structure equally as rigid as that north of the Port. Its alignment, however, rather than being a function of the coastline, is closely related to the orientation of the river in that locality.

### Conclusion.

The street system together with the predominant pattern of subdivision, constitutes the skeletal framework of the suburb. The streets once built will continue to exist unchanged as long as the urban settlement around them persists. Careful consideration both for the present and for the future is therefore of supreme importance. It is clear that mistakes have been made in the suburbs - the excessive emphasis on the grid structure and the disjointed nature of street growth provide evidence of this. These mistakes were made because of a lack of understanding of the needs of urban areas. It was not realised that the structure of a street could and should be varied according to its function. The early planners of course could not have known the future demands that were to be made on streets. And finally the need for comprehensive planning was not appreciated as being of fundamental importance in the construction of an effective street network.

These mistakes must somehow be cured or avoided



in the future. The raising of the question is however very much easier than the provision of a solution. A hierarchical street structure, as proposed by Buchanan, is a possibility which has been given some emphasis in this chapter. The growth of culs-de-sac type structures, which are the basis of such a network, constitute then the beginnings of a more effective street system. The correction of deficiencies in established urban areas is a problem which poses greater difficulties. The fact that the renewal of stable residential areas normally takes place in small isolated segments, individual houses being replaced one at a time, makes the possibilities for the restructuring of the total suburban street network an extremely difficult task.

#### Footnotes.

1. Tunnard, 1953, Page unsourced.
2. Luke, 1942, 48.
3. Ross, 1967, 86.
4. This is the general thesis expressed in Buchanan, R., 1963, Traffic in Towns. Subsequent statements relating to the concept of a hierarchical street system are based on the findings in this book.
5. Whitehead, 1848, 31.
6. Dart, 1963, 25.
7. Dickson, 1969, 57.
8. Whyte, 1964, 11.
9. Luke, 1942, 54.
10. —, 1942, 52.



### CHAPTER 3.

#### TAKE-OFF, RECESSION, REGENERATION:

#### THE GROWTH OF POPULATION IN THE SUBURBS.

##### Introduction.

This chapter is directed towards an examination of the general growth of population in Wanganui East, Gonville, and Castlecliff, and a comparison with population growth in the Wanganui Borough. Population growth by itself does not demonstrate the creation of urban form, but along with the evidence relating to the spatial evolution of buildings it does provide vital information regarding the time and pattern in which urban form was developed. It is held, in this respect, that a suburbs population prior to 1966, if expressed as a percentage of the population in 1966, is indicative of the extent of urbanism at that date.

There are a number of deficiencies in the population statistics which make assessment difficult. One of the most serious of these is that separate population figures were not kept for the suburbs between the time they amalgamated with the Borough and 1951, the year in which the Department of Statistics commenced its compilation of figures for suburbs within boroughs. As the suburbs are predominantly residential in nature, information from the Valuation Department on the erection of individual buildings provides an approximation of the growth in the suburbs during the intervening years (table IV).

TABLE IVCOMPARISON OF THE AVERAGE ANNUAL PERCENTAGE INCREASE OF  
POPULATION AND BUILDINGS IN THE PERIOD (1951-1966).

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>	<u>Borough.</u>
Population	2.0	2.5	9.5	2.1
Building	2.7	3.5	11.6	2.5

Source: Population - Unpublished Census Returns held by  
Department of Statistics.

Buildings - Valuation Rolls, Valuation Department  
Wanganui.

The building figures in the Valuation Rolls are, however, only available in completed form for the years after 1910, and do not include buildings which are no longer extant. Finally the lack of consistency in the definition of suburbs between censuses is a problem for which there is no real solution. Statistics have therefore been accepted as valid, only when they are consistent with those preceeding and succeeding them.

The Main Periods of Growth.

Each of the three suburbs, and to a lesser extent the Borough, have experienced since 1886 three main phases of growth:

- (i) A take-off period of very rapid growth.
- (ii) A recession beginning in the 1920's and lasting until World War II.
- (iii) Regeneration of growth in the post-war years.

These three periods are well illustrated in figures 7 and 8. It is relevant at this point to state that one of the properties of these semi-logarithmic graphs is that they

# GROWTH OF POPULATION

Source : N Z Population Census (1886 - 1966)

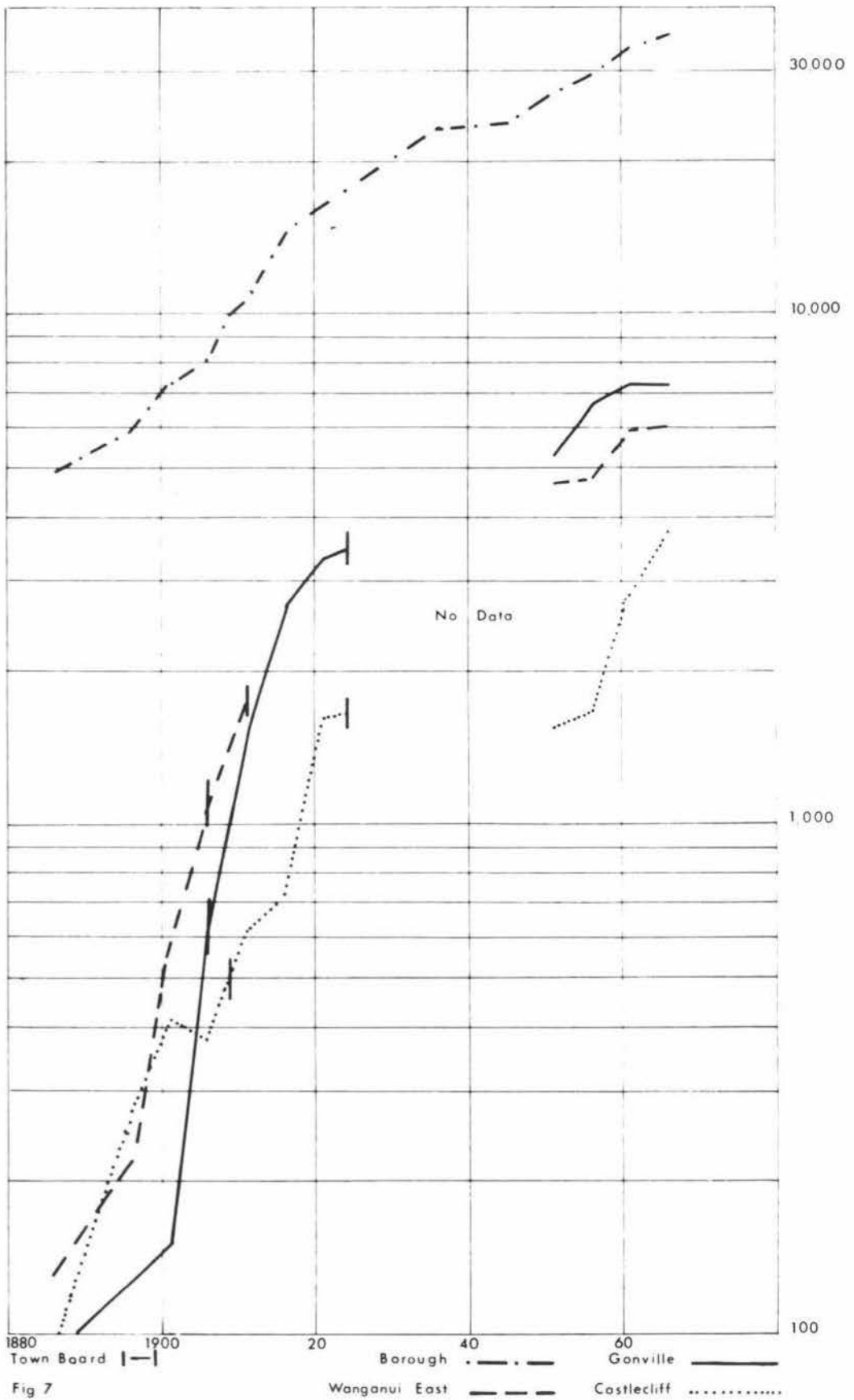


Fig 7

can be used to show directly rates of change where the range of absolute values is considerable. Thus they allow direct comparison of the pattern of growth in the suburbs and the Borough. On an arithmetic graph the population of the Borough would appear to be increasing at a much faster rate than the population of the suburbs. The semi-log., graph demonstrates however, that for certain periods the rate of growth in the suburbs considerably exceeded that of the Borough.

(1) Take-off.

The Beginnings.

The earliest account of any habitation in these suburbs, which could be called primarily urban, was recorded in the 1886 census (Table V). The district of Eastown (in Wanganui East) was the largest node, but the 130 residents constituted little more than 2 per cent of the population of the Borough (Table VI).

The opening of the Town Bridge in 1871, (the first permanent link with the Borough) and the completion in 1876 of the Wanganui - Foxton Railway which traversed the suburb and provided employment opportunities, together provided the impetus for the establishment of an urban node in the area.

Gonville and Castlecliff had rather smaller populations. The advent of refrigerated shipping in 1882, the opening in 1883 of the Wanganui - Castlecliff Railway which skirted the south-western edge of Gonville, and the completion in 1884 of the first wharf at the Port of Castlecliff, were together significant factors in the establishment of the first urban nodes in these two

# GROWTH OF BUILDINGS (1910-1968)

Source: Valuation Department, Wanganui.

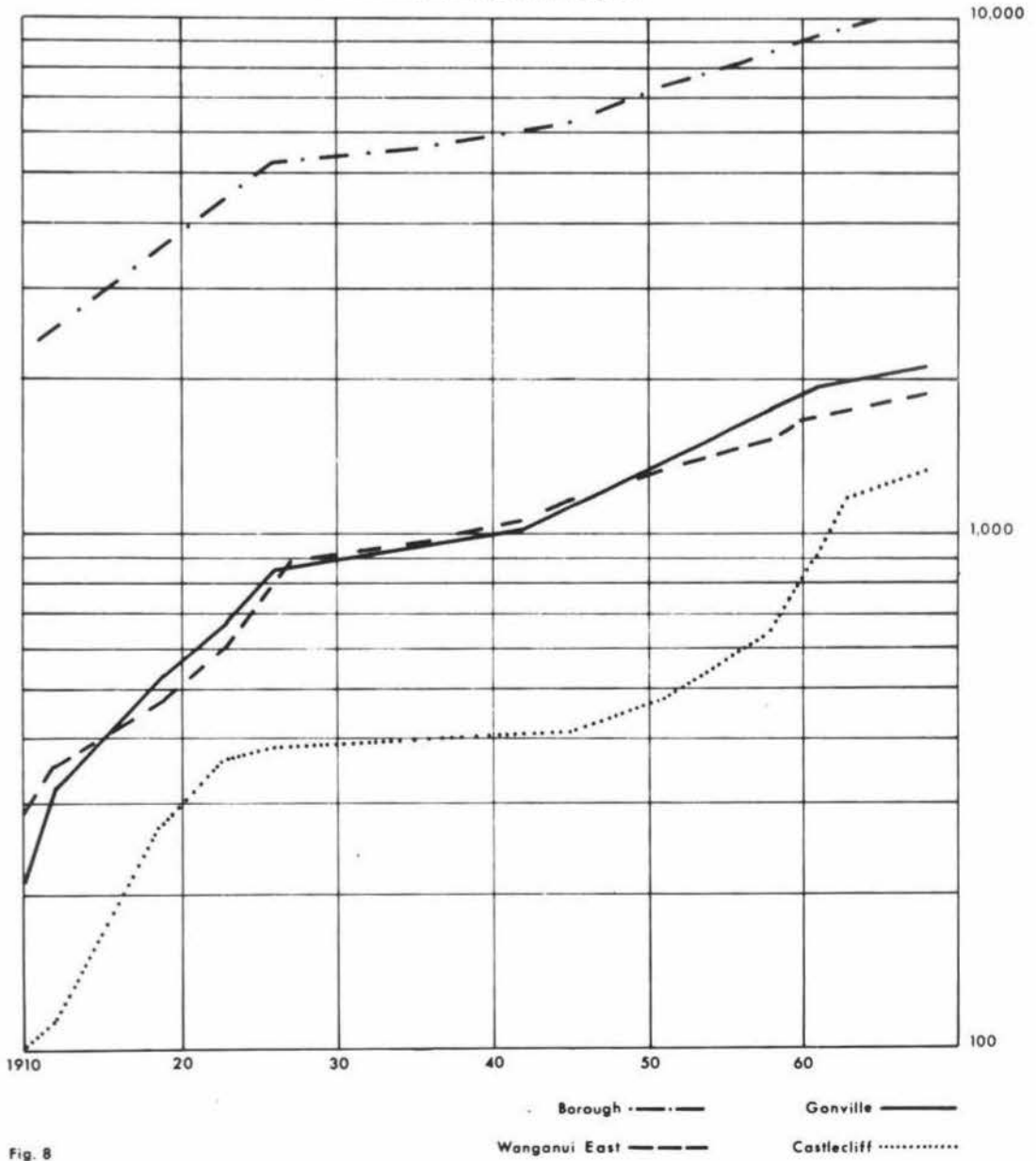


TABLE VINCREASE IN POPULATION IN THE SUBURBS AND BOROUGH (1886-1966)

	<u>Wanganui East</u>	<u>Gonville</u>	<u>Castlecliff</u>	<u>Borough</u>
1886	130	75	82	4,901
1896	228	NA <sup>a</sup>	269	5,936
1901	552	150	412	7,329
1906	1,041	600	380	8,175
1911	1,737	1,557	620	10,929
1916	NA <sup>b</sup>	2,693	734	14,442
1921	"	3,312	1,629	16,490
1924	"	3,470 <sup>c</sup>	1,675 <sup>c</sup>	17,165 <sup>c</sup>
1936	"	NA <sup>b</sup>	NA <sup>b</sup>	23,178
1945	"	"	"	23,842
1951	4,647	5,314	1,563	27,254
1956	4,744	6,630	1,697	29,671
1961	5,944	7,362	2,845	33,316
1966	6,065	7,321	3,792	35,629

a No figure.

b Amalgamation - No figure.

c Estimate.

Sources : Results of a Census of the Colony of New Zealand (1886-1901).

Results of a Census of the Dominion of New Zealand (1906-1966).

The Annual Statistical Reports (1886-1926).

The Municipal Handbook of New Zealand (1903-1926).

Unpublished Census Returns held by the Department of Statistics.

suburbs during the 1880's. But altogether these suburban nodes were very small compared with the Borough (table VI).

TABLE VI

THE POPULATION OF EACH SUBURB EXPRESSED AS A PERCENTAGE OF  
THE COMBINED POPULATION OF THE SUBURBS AND BOROUGH (1886-1906).

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>	<u>Suburbs- Total.</u>
1886	2.1	1.4	1.5	4.9
1901	6.5	1.8	4.9	13.2
1906	10.2	5.9	3.7	19.8

Sources: Results of a Census of the Colony of New Zealand  
(1886-1901).

Results of a Census of the Dominion of New Zealand  
(1906).

The Annual Statistical Reports (1886-1906)

### 1886 - 1906.

Between 1886 and 1906 each of the suburbs experienced (to use Rostow's term) a 'take-off' into rapid population growth. (table VII, figure 7). Castlecliff initiated this process in the years 1886-1896, and maintained the highest rate of growth recorded in the period 1886-1901. Thus at different times in this period it had the largest population of the three suburbs. A position which was soon lost and never regained.

The decline in growth which Castlecliff underwent after 1896 was marked by a rapid growth in population in Wanganui East in the period 1896-1901. It is tempting to conclude that these two events were related, and that the



TABLE VIIPOPULATION : AVERAGE PERCENTAGE INCREASE PER ANNUM INTHE SUBURBS AND BOROUGH (1886-1966)

	<u>Wanganui East</u>	<u>Gonville</u>	<u>Castlecliff</u>	<u>Borough</u>
1886-1896 (10 years)	7.5	NA <sup>a</sup>	22.0	2.0
1896-1901	28.4	" <sup>a</sup>	10.6	4.6
[1886-1901 (15 years)]	21.4	6.6	26.6	3.3
1901-1906	17.6	60.0	-1.5	2.2
1906-1911	13.2	31.8	12.0	7.0
1911-1916	NA <sup>b</sup>	19.5	8.8	6.4
1916-1921	"	4.6	24.4	2.4
1921-1924 (3 years)	"	1.5	0.9	0.8
1924-1951 (27 years)	"	1.9	- 0.25	2.2
1951-1956	0.4	5.0	1.7	1.7
1956-1961	5.0	2.2	13.5	2.4
1961-1966	0.4	-0.1	6.6	1.4

a No 1891 figure.

b Amalgamation

Sources : Results of a Census of the Colony of New Zealand  
(1886-1901)

Results of a Census of the Dominion of New Zealand  
(1906-1966)

The Annual Statistical Reports (1886-1926)

Unpublished Census Returns held by the Department  
of Statistics.

growth impetus passed from the control of Castlecliff to Wanganui East. But these were not the only areas in the Wanganui region likely to have experienced growth, and therefore it cannot be assumed that there was a direct relationship between them.

In summary it may therefore be said that in the 15 years 1886-1901 Wanganui East and Castlecliff underwent the first stages of a minor population explosion. The population of Castlecliff increased 400 per cent, and that of Wanganui East 320 per cent. Gonville by comparison, experienced a much slower growth rate although it still doubled its population during these years. Despite the fact that the suburbs were individually small, by comparison with the Borough they contained 13.2 per cent of the population of the three suburbs and the Borough combined (Table VI). Thus they formed in 1901 a peripheral urban population of some significance.

Between 1901 and 1906 the growth impetus again changed hands, on this occasion from Wanganui East to Gonville. Although growth in the former was still rapid, it had declined from the previous period. Gonville on the other hand experienced a dramatic increase in its rate of population growth (Table VII and figure 7). The 60 per cent average increase each year, was the highest ever recorded in a comparable period in the suburbs, or for that matter in the Borough after 1886. The construction of the Wanganui Public Hospital in this suburb in the late 1890's was the principle factor giving rise to this growth. It is interesting to note in this respect that although Gonville was the closest of the three suburbs to the Borough, it was in fact the last to develop. The lack

of an economic base enjoyed by the other two suburbs, and the presence of forbidding windswept sand dunes interspersed with swamps, were amongst the major reasons for the late development of this suburb. Despite this the growth rates of Gonville and Wanganui East in this period were sufficiently high for them to collectively acquire more people than the Borough. (table VIII).

TABLE VIII

ADDED POPULATION IN THE THREE SUBURBS AND THE BOROUGH  
(1901-1906)

Wanganui East. Gonville. Castlecliff. Borough

1901-1906	489	450	-32	846
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Source: Results of a Census of the Colony of New Zealand. 1901  
Results of a Census of the Dominion of New Zealand 1906

Castlecliff on the other hand appears to have undergone a startling regression and declined in population. Figure 7 demonstrates that this was contrary to the dominant trend of growth in Castlecliff at the time. The statistics have been checked and confirmed by the Department of Statistics, but they are not above suspicion, particularly as at least 46 new buildings (almost all of them residential) were constructed between 1900 and 1909 (figure 12). It is of course possible that these buildings were all erected in the years 1907 to 1909, after the 1906 census. But on the other hand figure 7 illustrates that on either side of this period population growth was very rapid. Official census records have been wrong before, and area boundaries have

been known to change between censuses. Perhaps in one of these possibilities lies the answer to the anomaly.

Although the size of population alone does not indicate the degree of form established at any given time in an urban area, in the case of these three suburbs (particularly Wanganui East) Table IX confirms that the urban nucleus, the base of the suburb today, had been well established by 1906.

TABLE IX

POPULATION IN 1906 EXPRESSED AS A PERCENTAGE OF THE  
POPULATION OF THAT SUBURB IN 1966.

Wanganui East, Gonville, Castlecliff, Borough.

	Wanganui East	Gonville	Castlecliff	Borough
1906	17.1	8.1	10.0	22.9

Source : Results of a Census of the Dominion of New Zealand  
(1906-1966)

#### 1906 - 1911.

The rapid growth rate experienced by each of the three suburbs was continued during the years 1906 to 1911, although there was a marked fall-off in Wanganui East and Gonville (figure 7). Despite the fact that the average rate of growth in Gonville was halved over the previous period, it was still more than double that in Wanganui East or Castlecliff. Thus by 1911 it was 90 per cent of the size of Wanganui East, whereas ten years earlier it had been smaller than Castlecliff. This latter suburb underwent a considerable resurgence in its growth rate, and almost equalled the rate of growth in Wanganui East in the period, but still remained very much smaller than the other two

suburbs.

It is noticeable that the Borough also increased its rate of growth considerably during these years, but even so the rate sustained in the suburbs was considerably ahead of it. It is of course important to remember that the populations of the suburbs were much smaller than that of the Borough and it is to be expected that when a catalyst is provided the growth rate will be much greater.

During these years, the three suburbs left the county and became separate towns, Wanganui East and Gonville in 1907 and Castlecliff in 1909. Thus it may be concluded that it was not their establishment as separate towns which initiated the 'take-off', nor indeed did it increase the rate of growth. On the contrary there was in two suburbs a decline in growth. It would seem therefore that the establishment of Town Districts was in fact the result of rapid population growth.

#### 1911 to the Onset of Recession.

For Wanganui East there remained only one more effective year before amalgamation. Gonville and Castlecliff on the other hand were to remain separate towns until 1924. Officially Wanganui East amalgamated with the Borough on the 1st February 1913, and Gonville and Castlecliff together on the 1st April 1924. Thus the last effective years as separate towns were really 1912 and 1923 respectively. For this reason statistics relating to the growth of buildings are based on these latter dates.

The Town Board years in Gonville and Castlecliff witnessed a gradual decline from the peaks of growth reached in the take-off period. In Gonville population growth in

the years 1911 to 1916, although still rapid, was again halved and declined steadily thereafter. (Table VII). The initial spurt had been such, however, that it was still consistently ahead of the other suburbs and the Borough, and during these years it became the largest suburb.

The pattern in Castlecliff was not as consistent. Growth continued to fluctuate as much in this period as it had done in the years before. But apart from one period of very high growth (1916 to 1921) which was contrary to the trends in the other two suburbs, growth in Castlecliff also generally declined. Thus despite the upsurge, between 1916 and 1921 Castlecliff at the time of amalgamation was still only half the size of Gonville.

Although there are no comparable figures for Wanganui East, the evidence relating to the growth of buildings (figures 8 and 9) show that it too underwent a decline in growth. This low rate continued, with the exception of a small upsurge in 1920 and 1921, from 1913 to 1924. In this period the number of buildings increased by 63.2 per cent, whereas in Gonville and Castlecliff still separate towns, the increase was 90 per cent and 179.4 per cent respectively.

It is interesting to note that the upsurge of growth experienced by Wanganui East was in effect part of a short period of increased development experienced by all of the suburbs. Although begun during the First World War in Castlecliff, it is recognisable as part of the post-war boom felt throughout New Zealand. This boom commenced in Gonville in 1919 and lasted (with the exception of 1922) until 1926. The upsurge was not felt in Wanganui East until 1923 and lasted with fluctuations until 1929. Growth in

NUMBER OF BUILDINGS ERECTED YEARLY IN WANGANUI EAST

(1910 - 1968)

Source: Valuation Department, Wanganui.

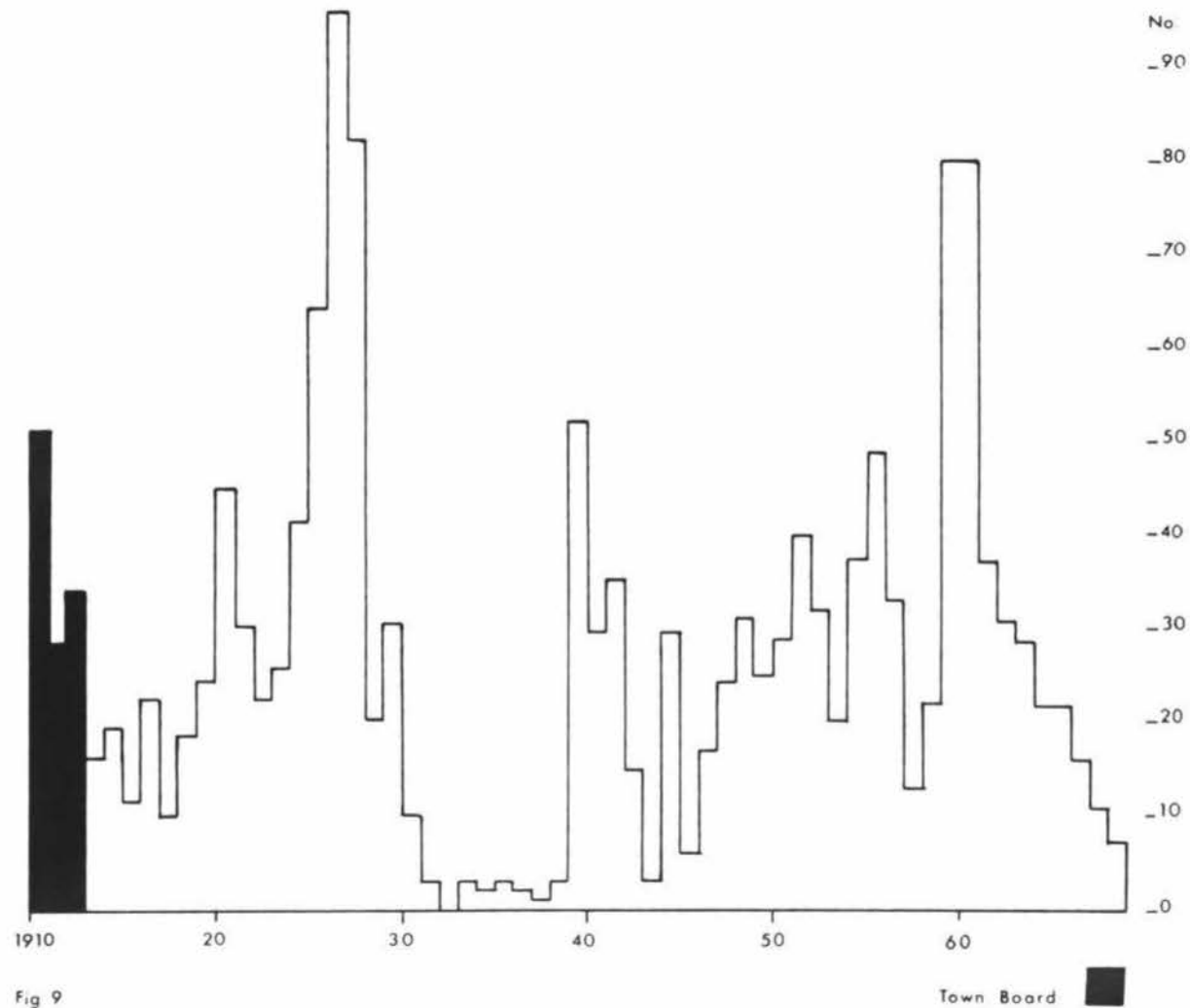


Fig 9



these years was sufficient to re-establish Wanganui East as the largest suburb (figure 8). Two years, 1926 and 1927 were almost undoubtedly the biggest building years in the history of the suburb.

#### (11) Recession.

Just as the 'take-off' had been initiated at different times in each of the suburbs, so it ended at varying intervals during the 1920's. Castlecliff the first of the suburbs to experience rapid growth, was also the first to undergo a rapid decline in growth (figures 8 and 11). Gonville followed shortly afterwards, and Wanganui East completed the process towards the end of the decade. Two factors would at a cursory glance appear to have been instrumental in initiating this recession. The rate of growth which had characterised the early years could not have continued indefinitely, thus a decline was inevitable. Second, the World Depression which commenced towards the end of the 1920's contributed considerably to the fall-off. Wanganui with its frugal economic base was one of the hardest hit of the New Zealand cities. Indeed, between 1931 and 1936 the Borough experienced a reduction in the size of its population. The three suburbs did not escape this process.

The effects of the recession were severest, and most prolonged in Castlecliff (figure 11). Along with Gonville (and probably Wanganui East) the growth of population was in fact lower than in the Borough in the period 1924-1951 (Table VI). The decline began in 1927 (figure 11) and showed no improvement until 1943 16 years later. In three of these years - 1930, 1931, and 1935 - there would appear to have been no building at all. Thus between 1924 and 1951 there was (possibly for the second time in its

# NUMBER OF BUILDINGS ERECTED YEARLY IN GONVILLE

(1910 - 1968)

Source : Valuation Department, Wanganui

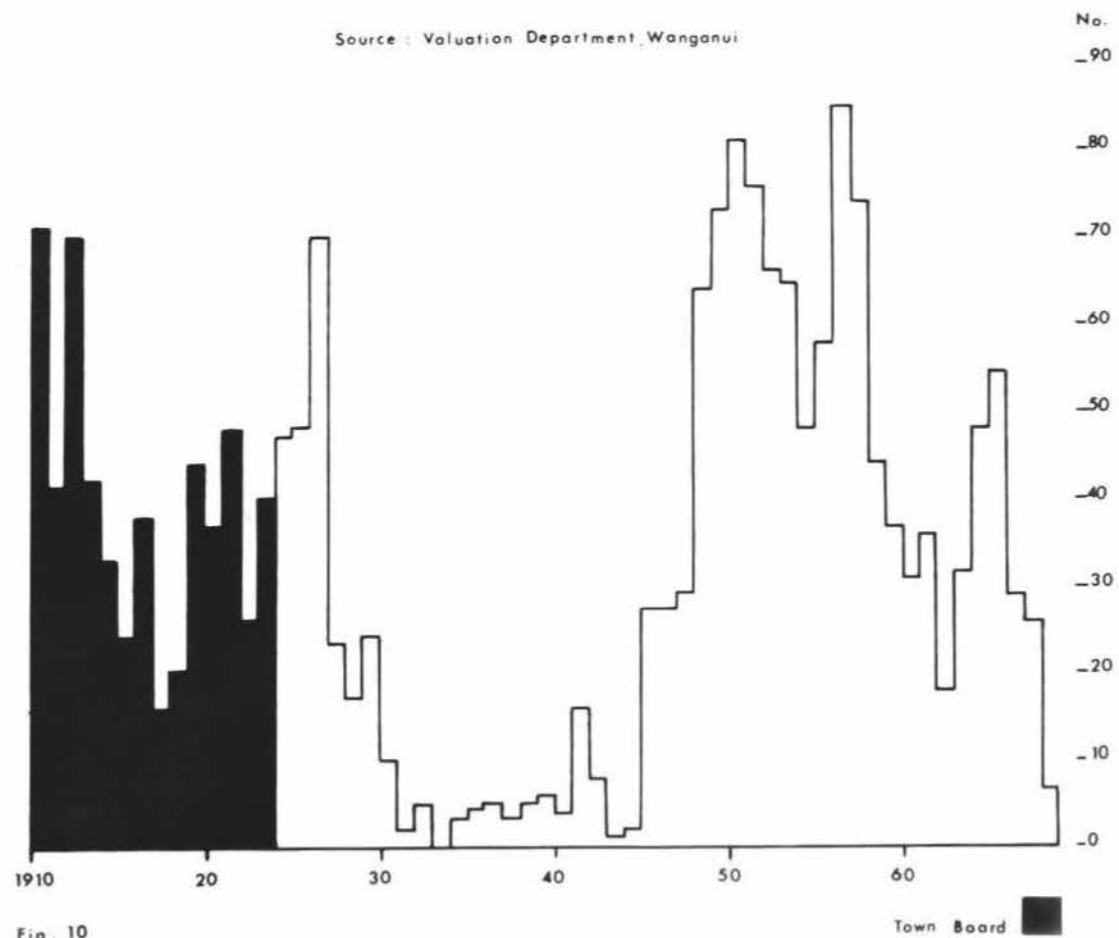


Fig. 10

Town Board

history) a loss of population in Castlecliff. In 1924 Castlecliff had been half the size of Gonville and by 1951 it was only one-third of its size.

Minor fluctuations in growth lessened the severity of the early recession years in Gonville so that the worst effects did not become noticeable until about 1930. However growth never became as consistently low as in Castlecliff, although for the only time in its history, Gonville experienced between 1924 and 1951 growth rates below those operative in the Borough as a whole.

The recession was shortest, and compared with the amount of building in the periods immediately before and after it, perhaps most spectacular in Wanganui East. It lasted from 1930 to 1939 (figure 9) and although building was never quite as low as in Castlecliff, it was during this period lower than in Gonville.

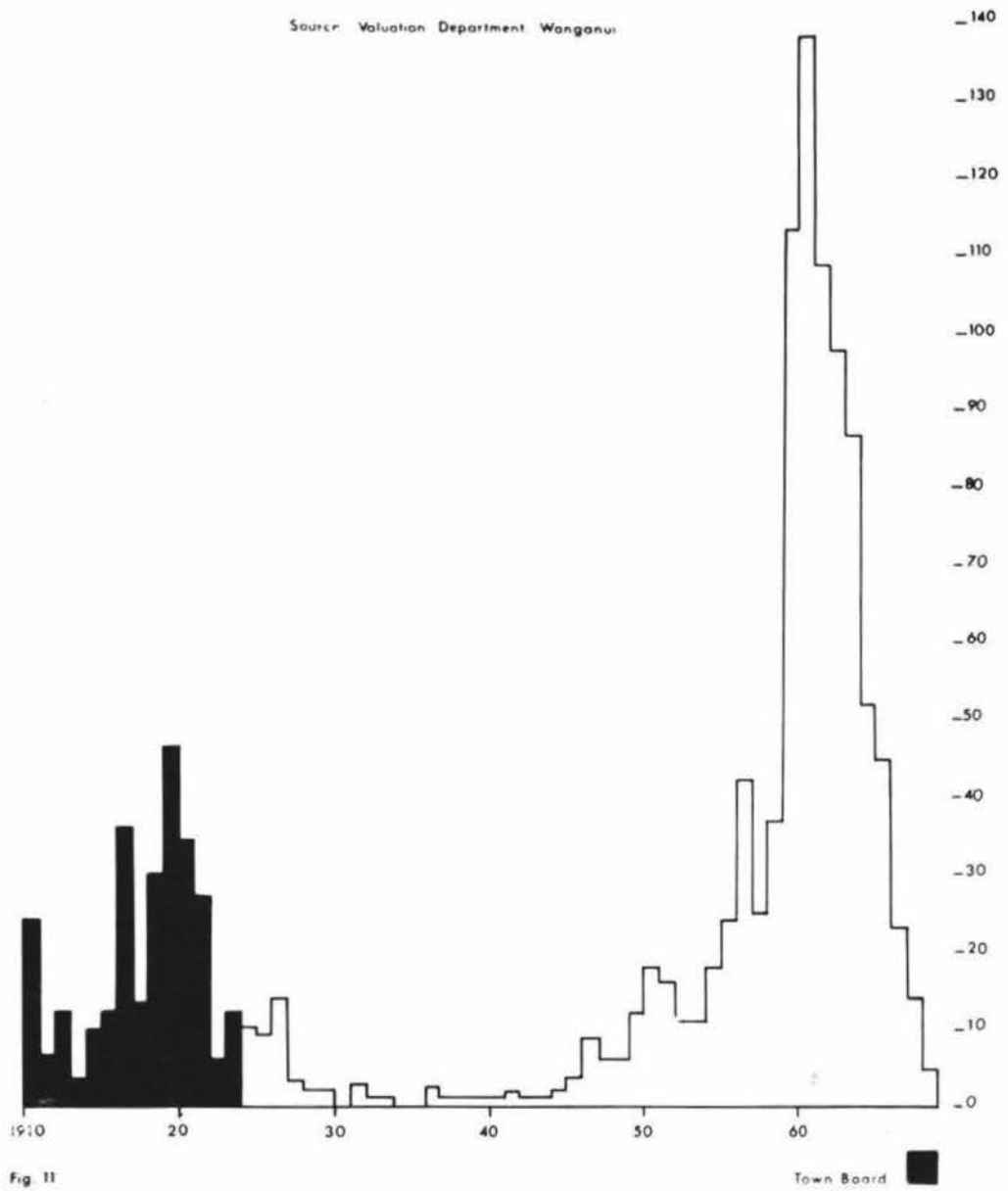
#### (iii) The Regeneration of Growth in the Suburbs.

At various stages during the Second World War the recession ended in each of the suburbs and there ensued a regeneration in growth (figure 8). Wanganui East was the first to recover (figure 9) and in the period 1939-1942 it underwent a small upsurge in growth (emulated on a much smaller scale by Gonville). During these four years, occupied as they were with a world war, it would hardly have been suprising if there had been no growth at all. Nevertheless buildings were erected in Wanganui East in these years at a rate of 3.2 per cent per annum, a much higher rate than in any other suburb at the time. Most of this was incorporated in the construction of a block of state houses, following the establishment of the State

NUMBER OF BUILDINGS ERECTED YEARLY IN CASTLECLIFF

(1910-1968)

Source: Valuation Department, Wanganui



Advances Corporation in 1937. Figure 8, confirms that in Wanganui East, in the years following World War II growth generally fluctuated, and was until 1956 quite unspectacular. Between 1946-1956 the rate of increase of buildings averaged only 2.7 per cent per annum. In fact only in the years 1956 to 1961 could there be said to have been a marked increase in growth. During these years the increase in population reached 5 per cent per annum (Table VII).<sup>1</sup> Figure 9 suggests that two peak years 1959 and 1960 provided the bulk of this increase. Rates of growth even in these two years do not however compare with the peaks reached in the take-off years.

The recession lasted longer in Gonville than in Wanganui East. In 1945 however there was a very sudden increase in the rate of growth (figure 10). It is clear from the graph that Gonville was the first of the suburbs to experience sustained growth in the post war years. With the exception of one year (1962) this continued until 1965. In the 19 years 1946-1965 (excluding 1962) building growth averaged 5 per cent per annum, which represents a substantial average for that number of years. This was sufficient in 1950 to carry it ahead of Wanganui East in terms of size (figure 8). Since 1956 there has been a marked decline in the rate of growth (figure 10). In the last intercensal period 1961-1966 Gonville actually lost population (Table V). It is possible that this is part of a cyclic pattern observable in many communities. Namely that as the suburb ages the young move out, the family size dwindles, and the total population declines.

The recession lasted longest in Castlecliff, and as would appear to have been the case for most of its history

recovery was slower than in the other two suburbs. The period 1956-1965 (with the exception of 1957) was however one of very high growth (figure 11). Building in this period (1957 excepted) averaged a growth rate of 14.5 per cent per annum, and in the five years 1958-1966 it reached 16.9 per cent per annum. The population figures (Table VII) confirm that the rate of growth in the period 1956-1961 rivalled and in fact exceeded the increase in the take-off years 1936-1944. Growth in Castlecliff during this period was consequently far ahead of any other suburb or the Borough. In 1951 Castlecliff had been less than one third the size of Gonville, but by 1966 it was half the size of that suburb.

Immediately after the peak year of growth (1961) a general decline set in. Considering the peak that growth had reached this was to be expected. It has however continued quite unabated and is identifiable with the general decline in growth that has been experienced by the other two suburbs during the 1960's. Population growth in the period 1961-1966 was still however markedly higher in Castlecliff than in the other suburbs or the Borough (Table VII). Nearly 58 per cent of the population of Castlecliff has been settled since 1951. It is in this respect quite different from the other suburbs or indeed the Borough,

### Conclusion.

Since World War II one of the most important processes at work in New Zealand urban areas has been the rapid growth of suburbia. McGee has commented, "most obvious has been the striking increase in the proportion of

population resident in the outer rings of urban areas."<sup>2</sup> Castlecliff is in some respects an example of this trend. It is situated on the outskirts of the Borough, and has in the period 1951 to 1961 increased its population considerably, particularly when compared with the next highest growth period in its history the take-off years (Table X).

TABLE X.  
INCREASE IN POPULATION IN THE SUBURBS IN THREE  
15 YEAR PERIODS.

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>	<u>Borough.</u>
1896-1911	1,509			
1906-1921	NA	2,712	1,249	7,315
1951-1961	1,318	2,007	2,229	8,375

Source : Results of a Census of the Colony of New Zealand  
(1886-1901)

Results of a Census of the Dominion of New Zealand  
(1906-1966)

Unpublished Census Returns held by the Department  
of Statistics.

Wanganui East and Gonville on the other hand, although containing areas of peripheral development, do not generally fit this model. Their post-war growth has actually been less than in the highest growth period during the take-off years. They differ from Castlecliff in that they contain much larger areas of long establishment.

Footnotes.

1. The 1951-1966 census boundaries in each suburb correspond exactly with the early Town Board boundaries.
2. McGee, 1969, 149.



## CHAPTER 4.

### THE SPATIAL EVOLUTION OF BUILDINGS<sup>1</sup>

#### Aims.

The spatial growth of buildings, of all the elements considered, provides perhaps the most precise index of the evolution of urban form, despite the fact that other factors such as the original subdivision of land were responsible for the basic morphological structure.

A study of the spatial evolution of buildings, also has a number of other important functions. It enables identification of areas of a similar age, which may be expected to display a certain homogeneity not only in terms of age, but also in style of dwelling. It also provides basic material which may be used in the formation of theories or models of the nature and growth of urban areas. There are in this respect two limiting factors in the data. Such models have traditionally concerned themselves with socio-economic grades within residential areas and in addition seek to formulate hypotheses for the whole city. This study, however, is not directed to the solution of either of these problems.

Although the maps do not contain an inventory of all the buildings ever erected in the suburbs, the City Valuer, from whose Department the material was collected, estimates that over 90 per cent (possibly over 95 per cent) of all the buildings ever constructed are still extant. Furthermore, the pattern of growth indicated by the data is consistent with what little evidence is available in the form of early maps. Thus figures 12 to 20 may be accepted as valid visual representations of the growth of

the suburbs.

Figures 12 to 20 were drawn before the main periods of growth referred to earlier had been precisely identified. Thus the division into periods was made without a complete knowledge of all the facts, and consequently the maps do not reflect completely these periods. They are however, so close that it was decided that no added advantage would be gained by changing them.

### Origins of Settlement.

As indicated in the previous chapters urban nodes were established in both Wanganui East and Castlecliff before the turn of the century, but not in Gonville until the period 1901-1906. In Wanganui East this first settlement was polarised into two distinct nucleations namely Eastown and Kawa Kawa (figure 12). Eastown developed along each side of the railway line creating the characteristic linear 'ribbon' pattern often associated with transport lines. At a later stage, just before the turn of the century, a second node was established at Kawa Kawa. It differed from Eastown by developing from the beginning a rigid grid structure. It was probably not by chance that both these original nuclei and before them the railway were located on higher ground in Wanganui East (figure 6). This area was probably selected to avoid the flood prone lower areas. Thus surface configuration was here (as in other New Zealand urban areas) very important in the location of the first nodes.<sup>2</sup>

Castlecliff, like Wanganui East, was also established in two original urban nodes. One of these was a somewhat loose collection of buildings north of the harbour, and the other a grid formation which was probably located on land bought

# GROWTH OF BUILDINGS

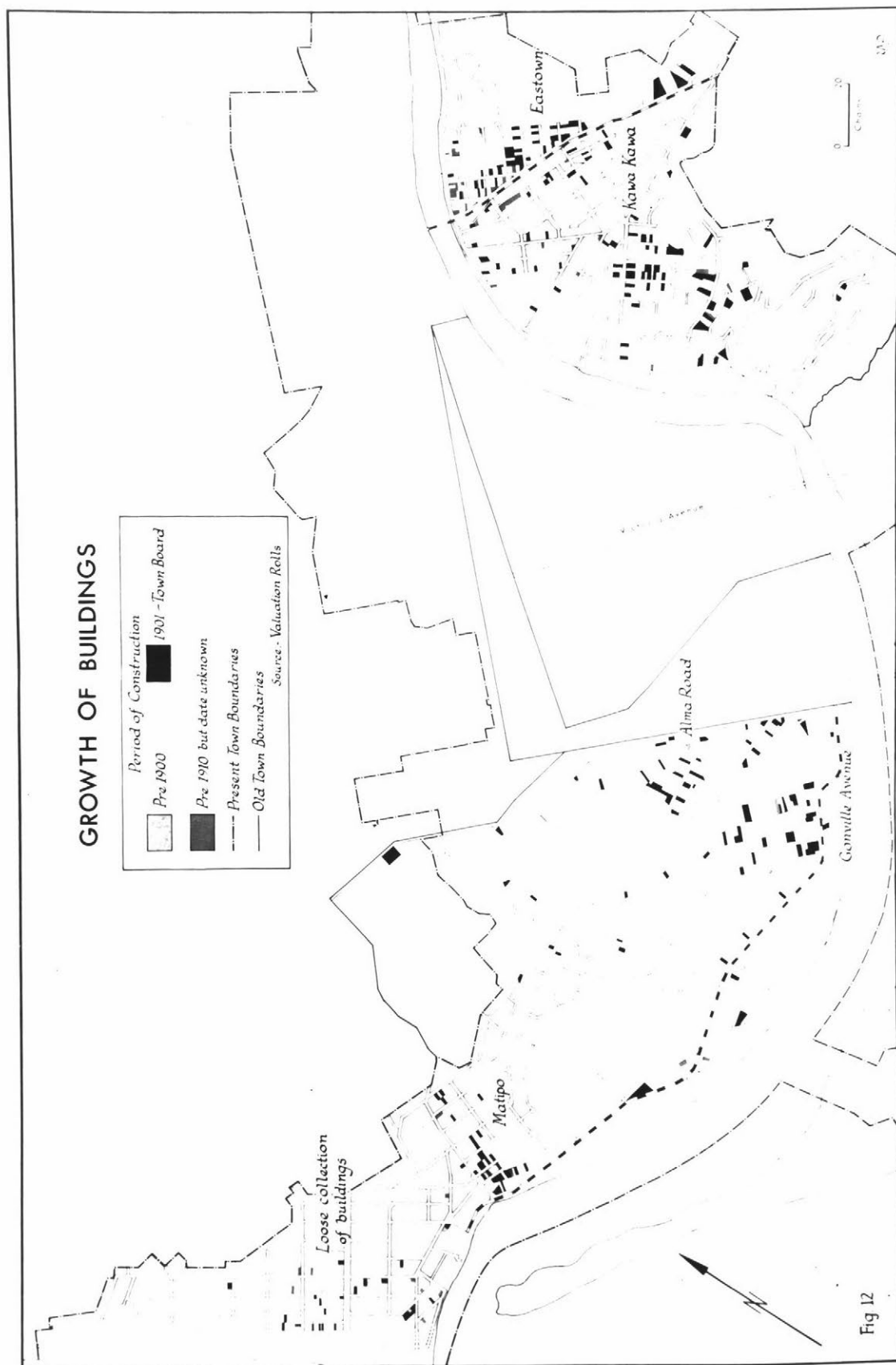
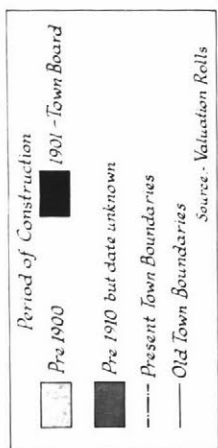


Fig 12

by the Matipo Land Company, and is thus referred to here as 'Matipo' (figure 12). It is interesting to note that although for most of its history the growth of buildings in the area north of the harbour was more dispersed than in Wanganui East, a much more rigid geometric grid eventually developed.

#### The Years Prior to the Town Board Era.

The rapid growth in population which characterised the pre-Town Board years is clearly reflected in the growth of buildings (figure 12). This spread of buildings supports the claim made earlier that the basic morphology of each of the suburbs had been established prior to the Town Board Years.

This period saw in Wanganui East a trend which subsequently characterised all the suburbs throughout their history. Each succeeding period has generally been marked by consolidation of the previously established nuclei (made necessary because of their loose and dispersed structure), additions to the perimeter of these nuclei, and the creation of further nuclei elsewhere in the suburb. This pattern approximates almost exactly Pownalla's following description of the generalised growth of New Zealand towns.

"a process of scattering buildings lightly over one or two sectors of the site, subsequently there is a consolidation among the scattered buildings, and at the same time the first stage of development proceeds in another sector."<sup>3</sup>

In none of the suburbs would there appear to have been any consciously planned development, such as the complete construction of a core, with the addition of previously planned integuments as the need arose.

Both Eastown and Kawa Kawa were consolidated in

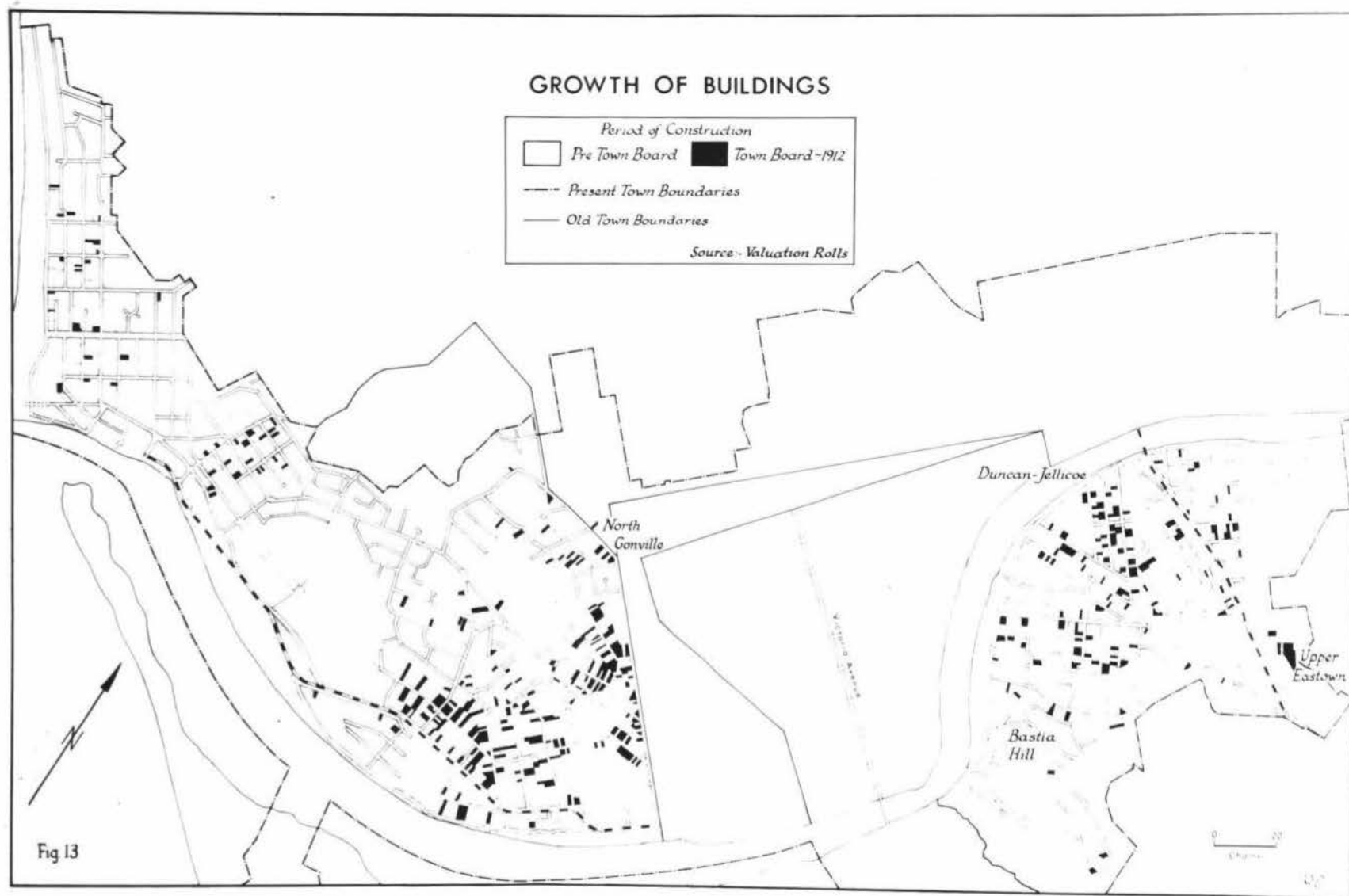
this period, and at the same time minor nodes developed on Bastia Hill and in Upper Eastown, again both areas located on higher ground. Scattered buildings also appeared in a triangular zone between Duncan and Jellicoe Streets. Wanganui East in this respect differed from the other two suburbs. While development basically proceeded from two nuclei in Castlecliff, and three in Gonville, in Wanganui East there has (in addition to the two original nuclei) been development from at least four other minor nodes.

In the take-off period initiated in these years in Gonville, two closely associated nuclei emerged; the first located around the southern end of Gonville Avenue, and the second associated with the eastern edge of Alma Road (figure 12). These two nuclei at one and the same time surrounded the Public Hospital and were separated from each other by it. At the same time settlement gradually 'ribboned' along Heads Road, no doubt as a result of its function as a through road flanked by an important railway.

Castlecliff in the same period continued the dispersal - consolidation process with two noticeable features. First, the inland migration of the Matipo nucleus, and second, the tendency for dispersed buildings north of the harbour to concentrate along Seafront Road, which in those days still provided a view of the sea.

#### The Early Town Board Years.

During these years there was created in Wanganui East by the same dispersion - consolidation process two new nuclei. One of these was centred in the Duncan-Jellicoe Street zone, and the other was located at Sedgebrook (see



Sedgebrook Street figure 1). This then dispels the view held in some quarters, that Sedgebrook along with Eastown was the first nucleus developed. With the exception of these developments in Sedgebrook, urban growth in Wanganui East had until this period been characterised by an avoidance of low lying areas. It is relevant to note that although in terms of topography Wanganui East had typified the New Zealand norm, the question of transport lines was another matter. Until 1914 the major link with the city was via the Town Bridge and Anzac Parade. Thus the density of growth should have been greatest along this route if the suburb was to conform to the New Zealand norm. Other factors were apparently more important.

During the years 1907 to 1912 there occurred in Gonville a marked expansion in growth outwards from the Gonville Avenue nuclei along Bignell Street. Consequently when the two tramlines from the Borough to Gonville were built, one of these was constructed along Bignell Street, while the other was built through the growing Alma Road nuclei (figure 21). There was in Gonville during these years then a direct relationship between the growth of transport services and the growth of the residential areas. The growth in this period of a small urban node in North Gonville on what was probably then, as it is now, a communications link with Castlecliff and the adjacent rural areas was consistent with this trend.

An extension of the Gonville tramline was continued into Castlecliff and completed in the same year (1912). The effects of this are to be seen in the continued inland migration of the Matipo settlement in this and later periods.



Elsewhere in Castlecliff, however, the presence of the tramline had little noticeable effect on the dispersed pattern in which buildings continued to be erected. A pattern much more dispersed than in the other suburbs, although the latter could hardly have been described as 'concentrated'.

#### The Late Town Board Years.

The year following amalgamation (1914) saw the completion of the Dublin Street Bridge, which was subsequently to become the main accessway to Wanganui East. In the same year a tramline was constructed which crossed this bridge and passed through what is now the core of the suburb (figure 24). At the time, however, it avoided the immediate concentrations of settlement (figure 15). Indeed the areas adjacent to it were not developed until 1939, and even then there were still undeveloped areas of land close by (figure 17). Communications routes and transport systems in Wanganui East did not play the important role which has been their lot in other New Zealand urban settlements. Instead growth continued to be concentrated in the same zone as in the Town Board years, although there was a slight tendency for development to shift around the river towards the centre of the Borough.

There continued in Gonville during these years a process observable since the inception of the take-off in this suburb, namely the gradual merging of the two original nuclei. This was hindered in the early years only by the avoidance of an upland area between the two nodes in the vicinity of the western end of Koromiko Road. One instance in which, contrary to the exponents of the sector theory,

GROWTH OF BUILDINGS

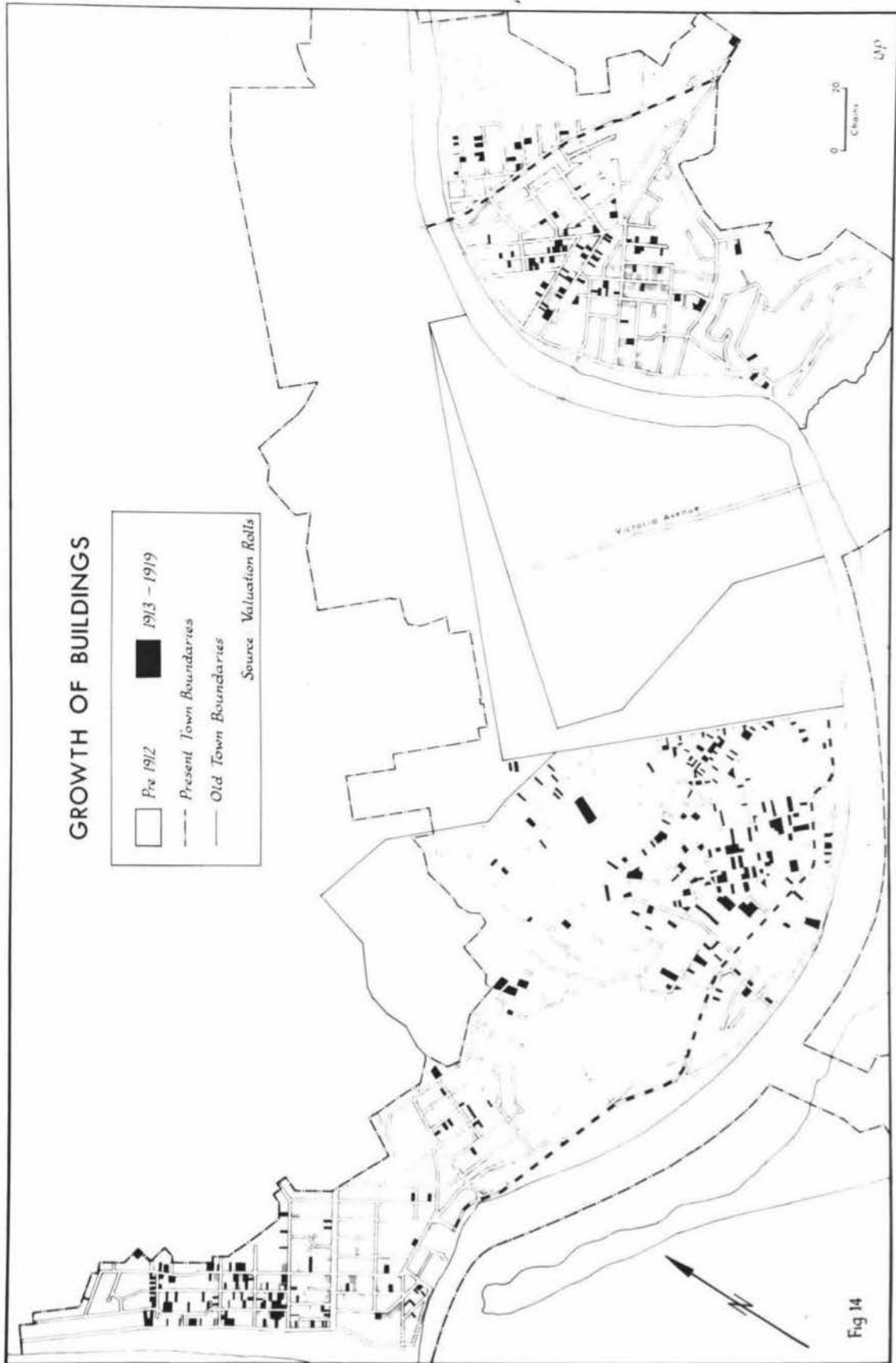


Fig 14

GROWTH OF BUILDINGS

Period of Construction

Pre 1919

1920 - 1923

Present Town Boundaries

Old Town Boundaries

Source: Valuation Rolls

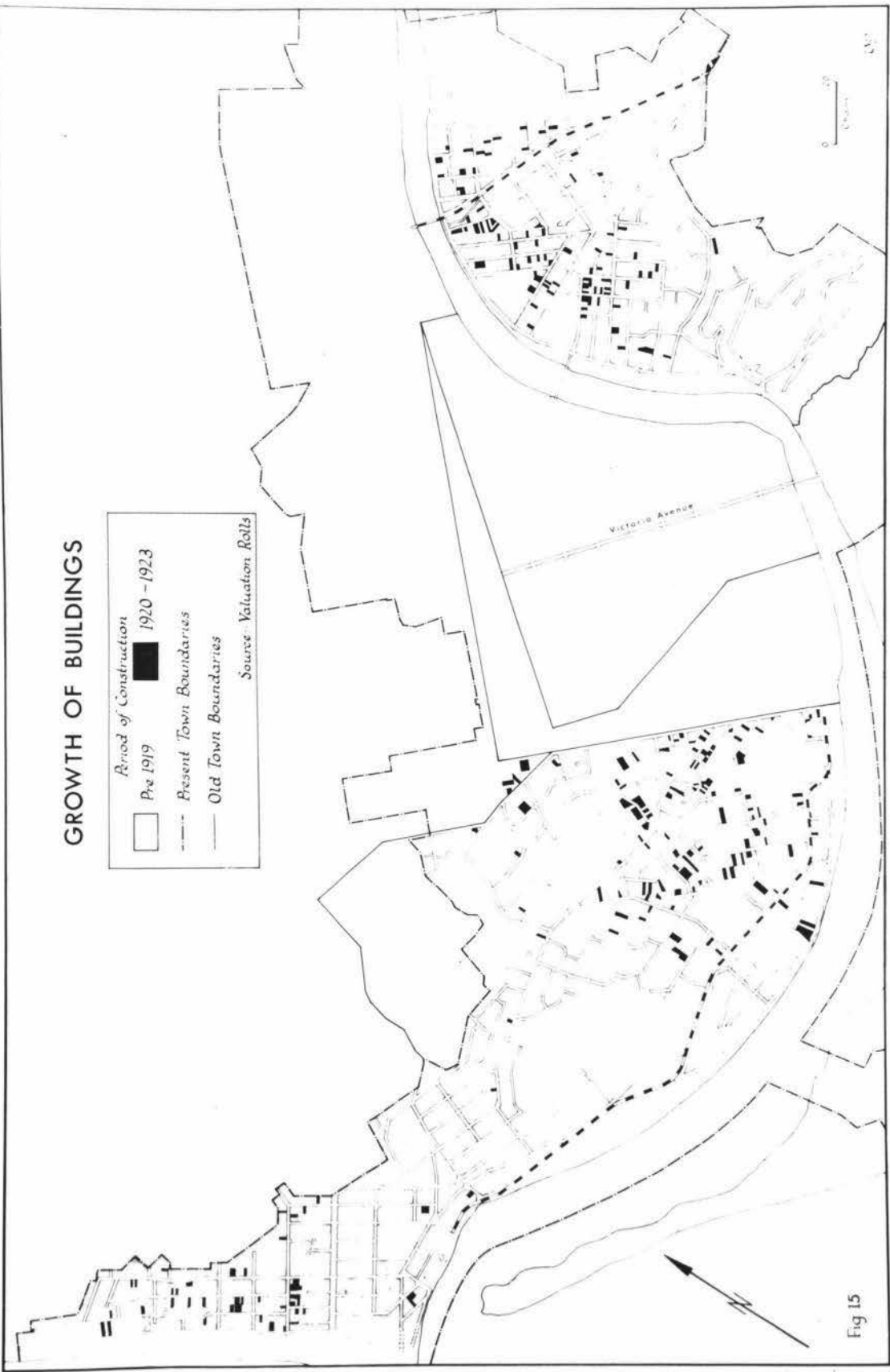


Fig 15

growth did not proceed completely naturally from lower to higher areas. Now noticeable in Gonville during these years was the process of gradual 'infilling' in the vicinity of Gonville Junction, where the two tramlines met. This, plus the gradual growth of buildings along Alma Road and Puriri Street, may be attributed to the location of the tramline and the general importance of this accessway as a through route from the Borough to Castlecliff.

In Castlecliff, despite the presence of a tramline on a route which subsequently became the main access, these years witnessed (particularly in the area north of the Port) a continuation of the pattern of widely dispersed growth. The only apparent unifying factor was the gradual creep of the core growth area northwards, in classical style, from the lower to the higher areas. The concentration of the nucleus, which characterised the other two suburbs, would not appear to have occurred in this area of Castlecliff.

#### Amalgamation to World War II.

The onset of this period heralded the introduction of a practice which has since exerted a considerable influence on the morphology of all the suburbs, that is the mass development of blocks of land as well as of individual sites. This was initiated by the State and later copied and complemented by private enterprise.

The movement towards the development of street blocks occurred in a number of areas of Wanganui East. In Kiwi Street, east of the railway, over 24 houses were built for railway employees in the mid 1920's. But it was not until the setting up of the State Advances Corporation in 1937 that group housing projects became an important feature

# GROWTH OF BUILDINGS

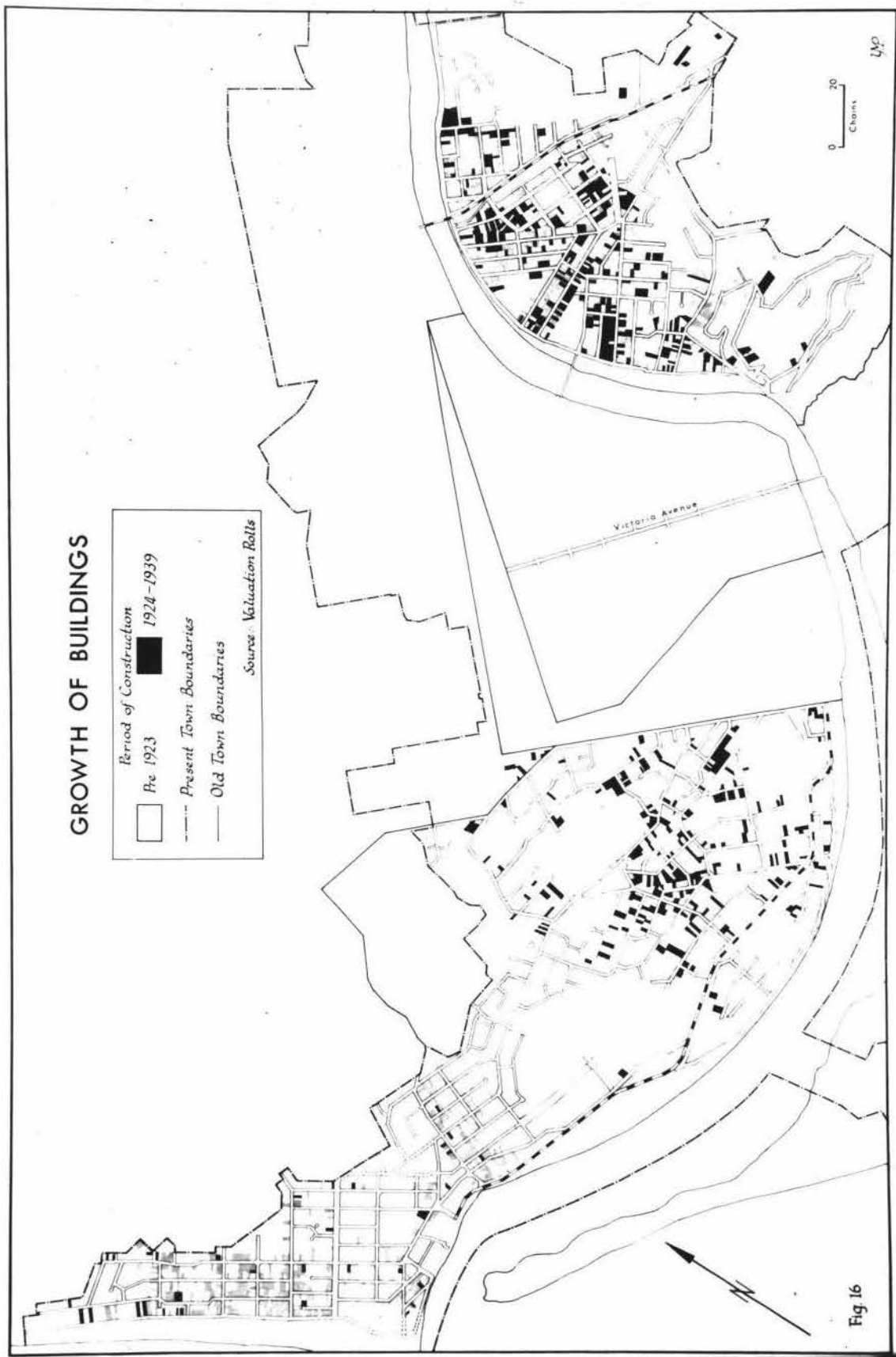
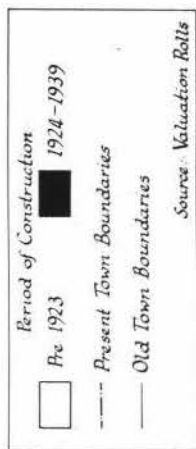
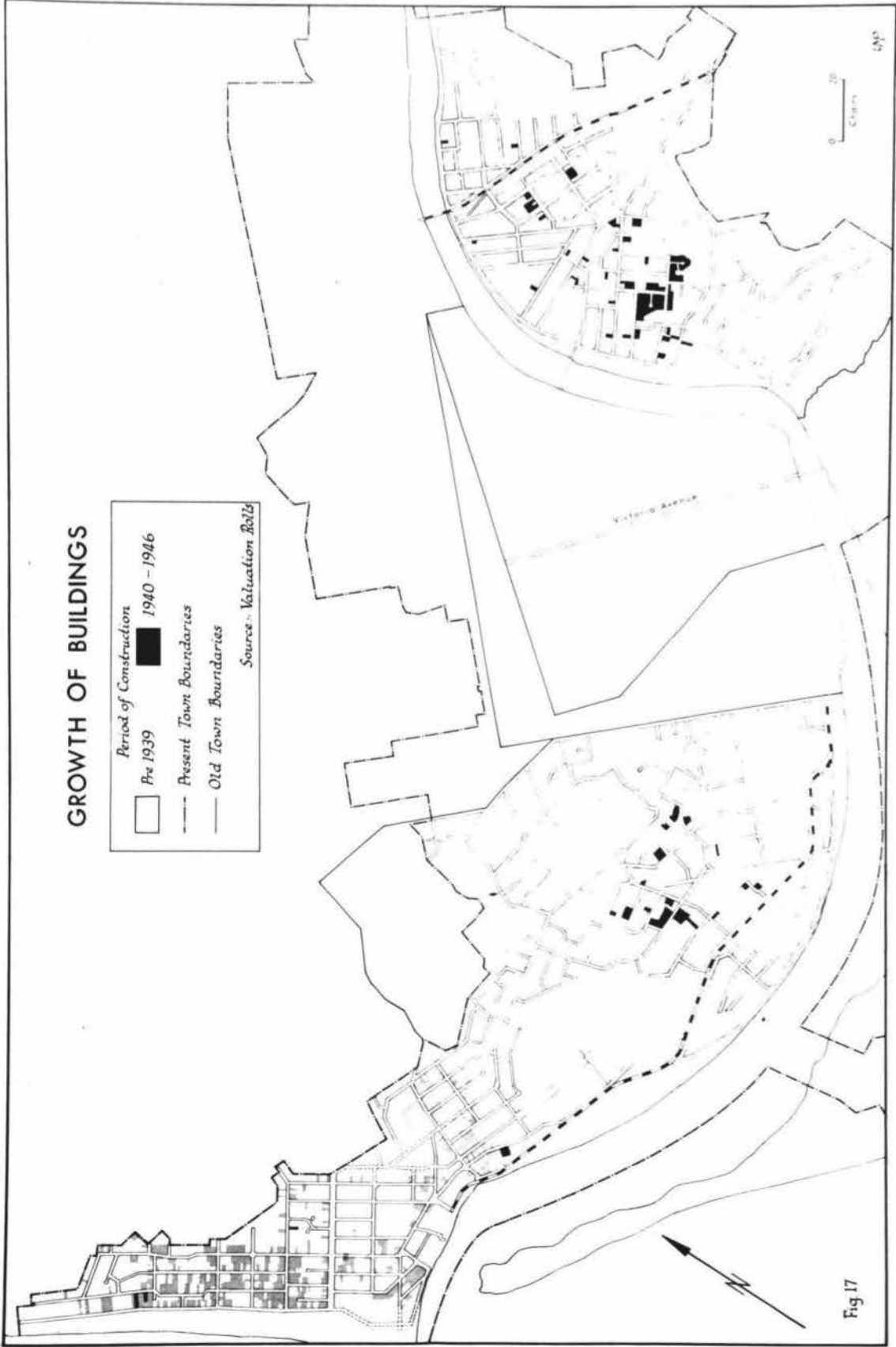


Fig 16

of the urban scene (figures 16 and 17). These housing projects, for example the block bounded by Nixon and Broughton Streets in Wanganui East, were not relegated to potentially inferior areas, such as the low-lying flood prone area close to Bastia Hill, to become State slums. On the contrary more expensive privately - owned residences were sited here. There has been considerable condemnation of State Housing in New Zealand. But in aspects such as the choice of site in Wanganui East much care was taken.

The rise of street block development was slower in Gonville and Castlecliff, although developments in mid-Koromiko Road (Gonville) during these years heralded their introduction. On the other hand, the major feature of this period, was the continued merging of the original nuclei in the north west of that suburb, and the gradual growth of housing westwards from the Junction.

In summary it may be said that by 1939, the original nucleations in Gonville and Wanganui East, were no longer identifiable as such, and that growth rather than being centrifugal, was more a process of developing unused pockets of land within the urban complex. What little growth there was in Castlecliff in this period continued as it had in the past to be loose and dispersed. There was nevertheless some continuation of the trend towards a slight concentration up the coast, with an expected preference being shown for seaward locations. The war years brought little change in this pattern, although both Wanganui East and Gonville, but particularly the former, experienced some State House street block development. (figure 18).



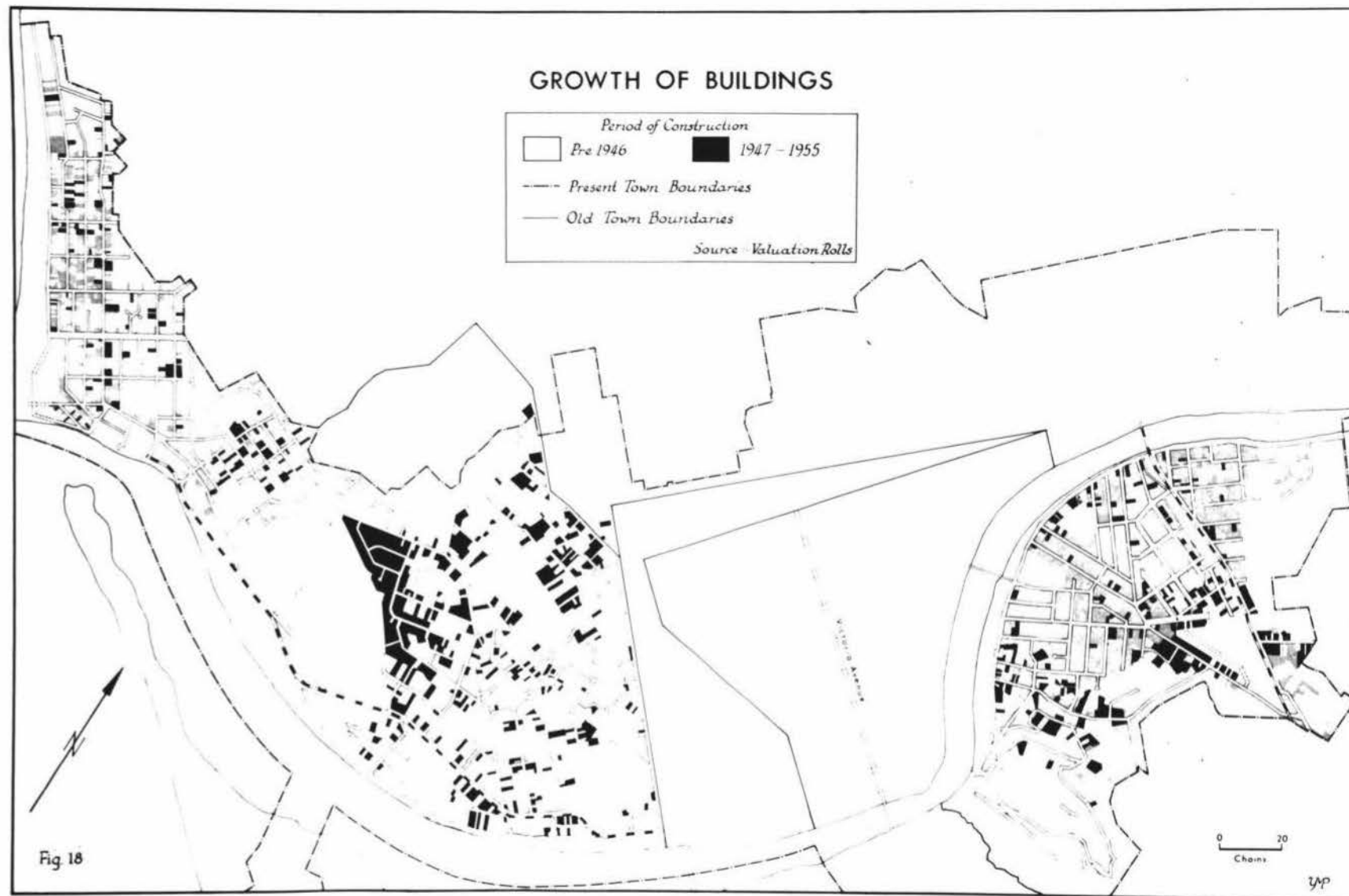


### The Post-War Years.

Two main features have characterised the spatial evolution of the suburbs in the post-war period. The first has been the continuation of group housing projects. Although as in earlier periods there has also been considerable development of individual sites. The second has been the large scale development of peripheral urban areas, made possible in large part by the advent of the private motor car. This has been acknowledged by McGee as a New Zealand wide phenomenon.<sup>4</sup> Each of these three suburbs have important parts located in what McGee calls the outer ring of urban settlement. In this ring are contained many suburbs which have been developed since the Second World War. In this respect none of the three suburbs are typical of those in the ring. Nevertheless in all three, although less so in Wanganui East than the other two, there has been considerable growth, and this has been concentrated on the periphery of each suburb noticeably close in each case to the Town Boundary (figures 18,19 and 20).

Of the peripheral developments observable in Wanganui East since World War II, two single themselves out as deserving of particular attention. Soon after the War there occurred a resurgence of growth on Bastia Hill and the adjacent lowland areas (figure 18). In both these cases, and particularly on Bastia Hill, high-grade housing has been developed, no doubt in response to the advantages of social prestige and scenic view inherent in these locations.

Later, during the years 1958 to 1961, the Government embarked on a housing project on the northern edge of Wanganui East. The 'Pepper Block', as it was named after one of



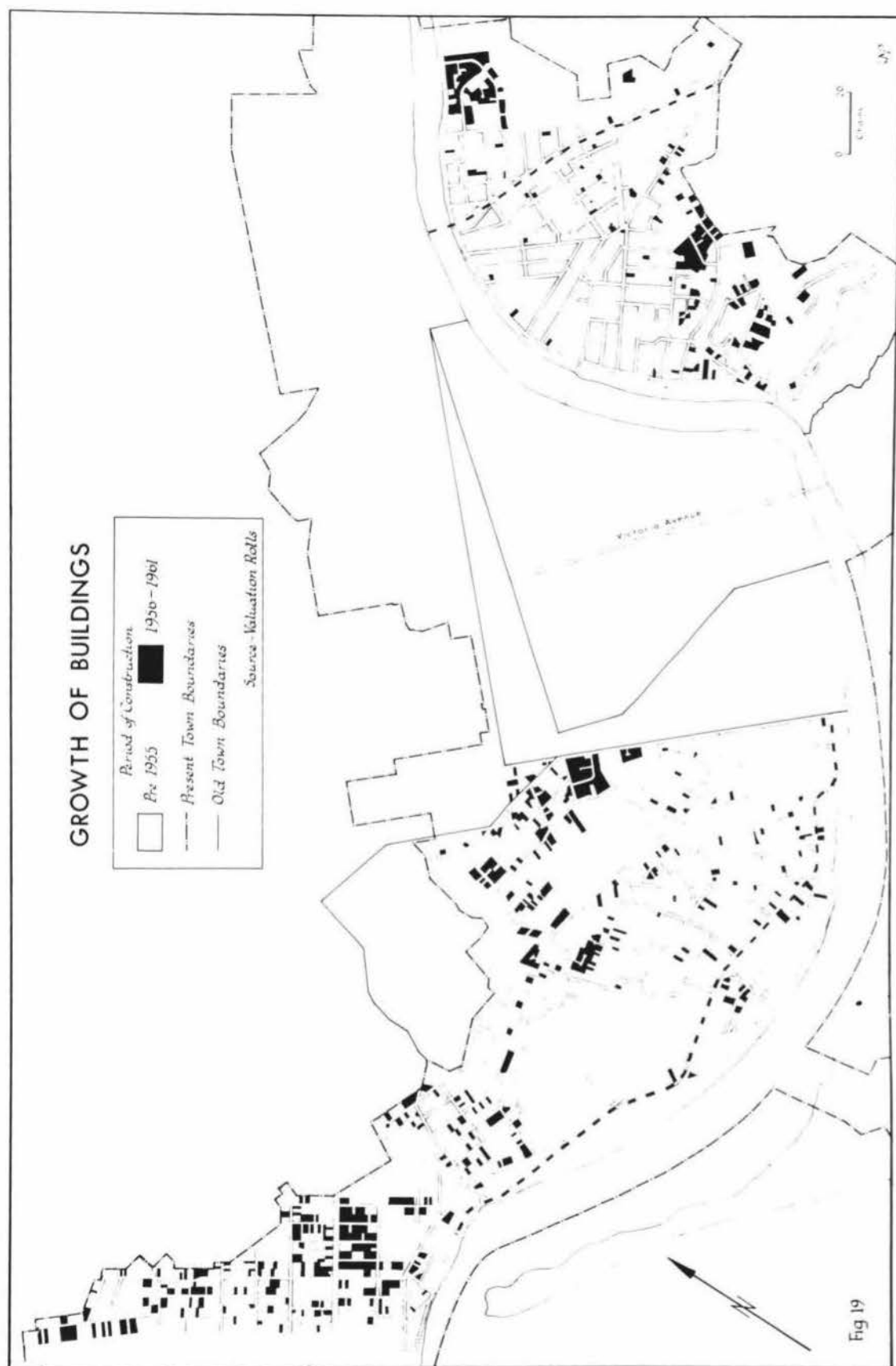


Fig 19

# GROWTH OF BUILDINGS

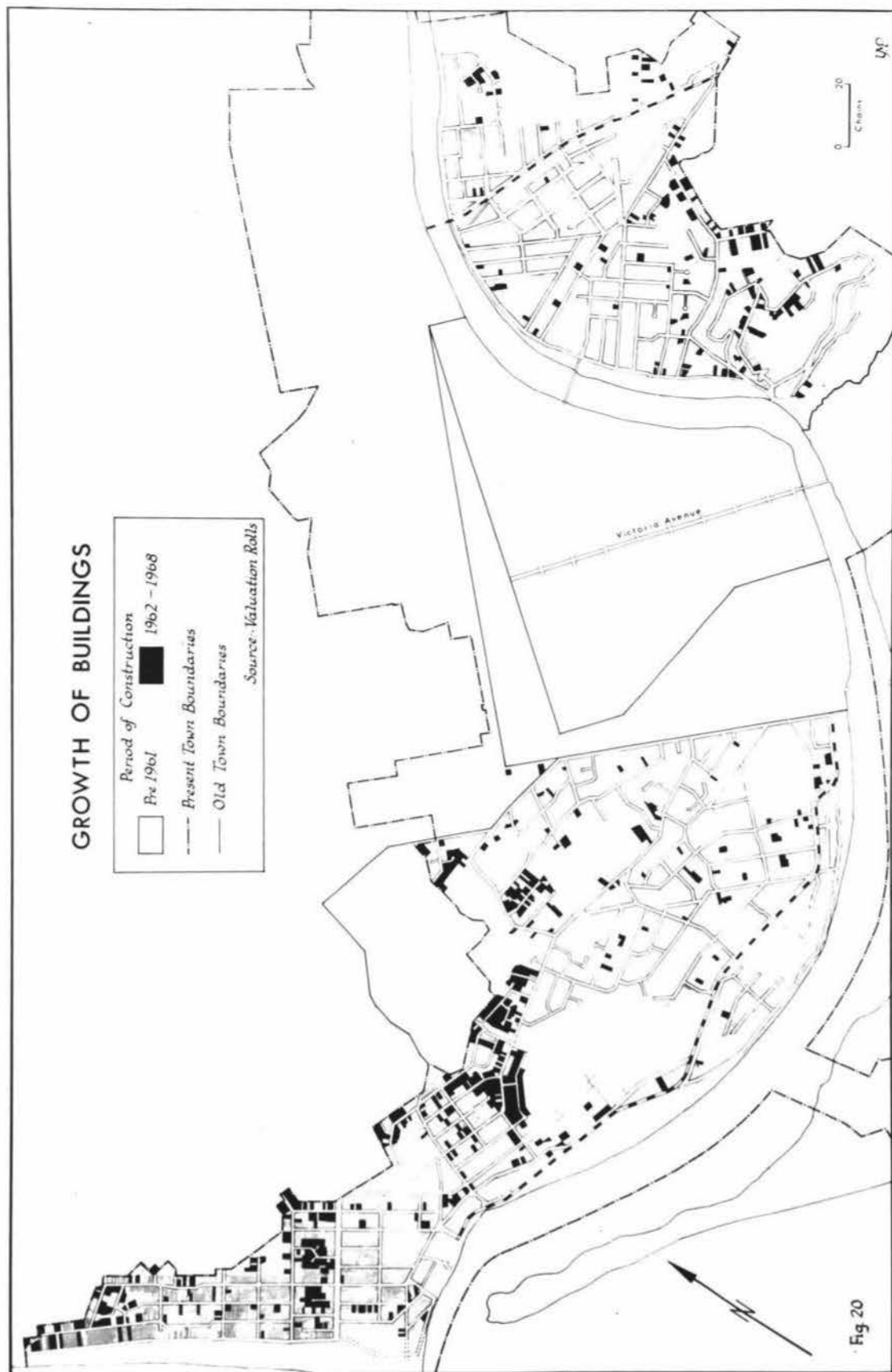


Fig 20

the principle builders, has incorporated in it a number of innovations based upon current world trends. Two of the more important of these are, the multiple units which are part of the movement towards higher density housing, and the clustering of houses around culs-de-sac and similar no exit streets, based on the desire to foster a greater degree of community life and spirit. Like many other housing projects the 'Pepper Block' has become the legatee of a number of pressing problems, not the least of which has been the difficulty of attracting residents from only the lower socio-economic grades of society.

Growth in Gonville in the post-war years has been concentrated on the western and north-western edges of the suburb, the furthest points from the original core areas. Two merging sub-sectors are distinguishable, the early North Gonville node, which experienced a resurgence after the War under both state and private impetus (figure 19), and the much larger State Housing Project on the western edge of Gonville adjoining Balgownie Swamp. As Figures 19 and 20 demonstrate this project has crept steadily westwards around the northern edge of Balgownie Swamp and is slowly merging with growth in Castlecliff. It is relevant to note at this point that large parts of Balgownie swamp, particularly the western edges, have been zoned for industrial use when they are reclaimed. It is hoped that this State Housing area, which has few environmental advantages, will not be prejudiced as a result.

McGee's argument suggests that it is not by coincidence that Castlecliff the most peripheral suburb in Wanganui, should have experienced the greatest growth of the

three suburbs in the post-war years (figures 18, 19 and 20). This growth endorses the fact that Castlecliff is, if assessed on the basis of the age of the majority of buildings, a much younger suburb than the others. Growth in Castlecliff since the war has continued, as before to be more dispersed than in either of the other suburbs. One of the main features has been the resurgence of development in the Matipo nucleation. Growth has gradually crept north-eastwards from this node along Puriri Street towards Gonville. This development along a main accessway is already blurring the distinction between Gonville and Castlecliff, and will eventually lead to the disappearance at that point of the boundary between them. Evident also has been the inland movement of growth nodes in the area north of the harbour. This was bound to happen as the number of available sites close to the coast declined. Up the coast, close to the Town Boundary, where some sites were still available the associated ribboning development which marks the quest for such locations was still to be observed in the period 1956-1961 (figure 19). The seaward location of these sites has no doubt been responsible for the development here of higher grade housing than in other areas of Castlecliff.

The development areas immediately behind the Port in the vicinity of Castlecliff School (figure 19), along with other small areas, are characterised by localised variances in the street system, such as culs-de-sac. These have been designed to break away from the dominant grid pattern. The overwhelming dominance of the grid system is, however, evidence of the resistance to change of a street network once it is established and the buildings

GROWTH OF TRAM AND RAIL ROUTES

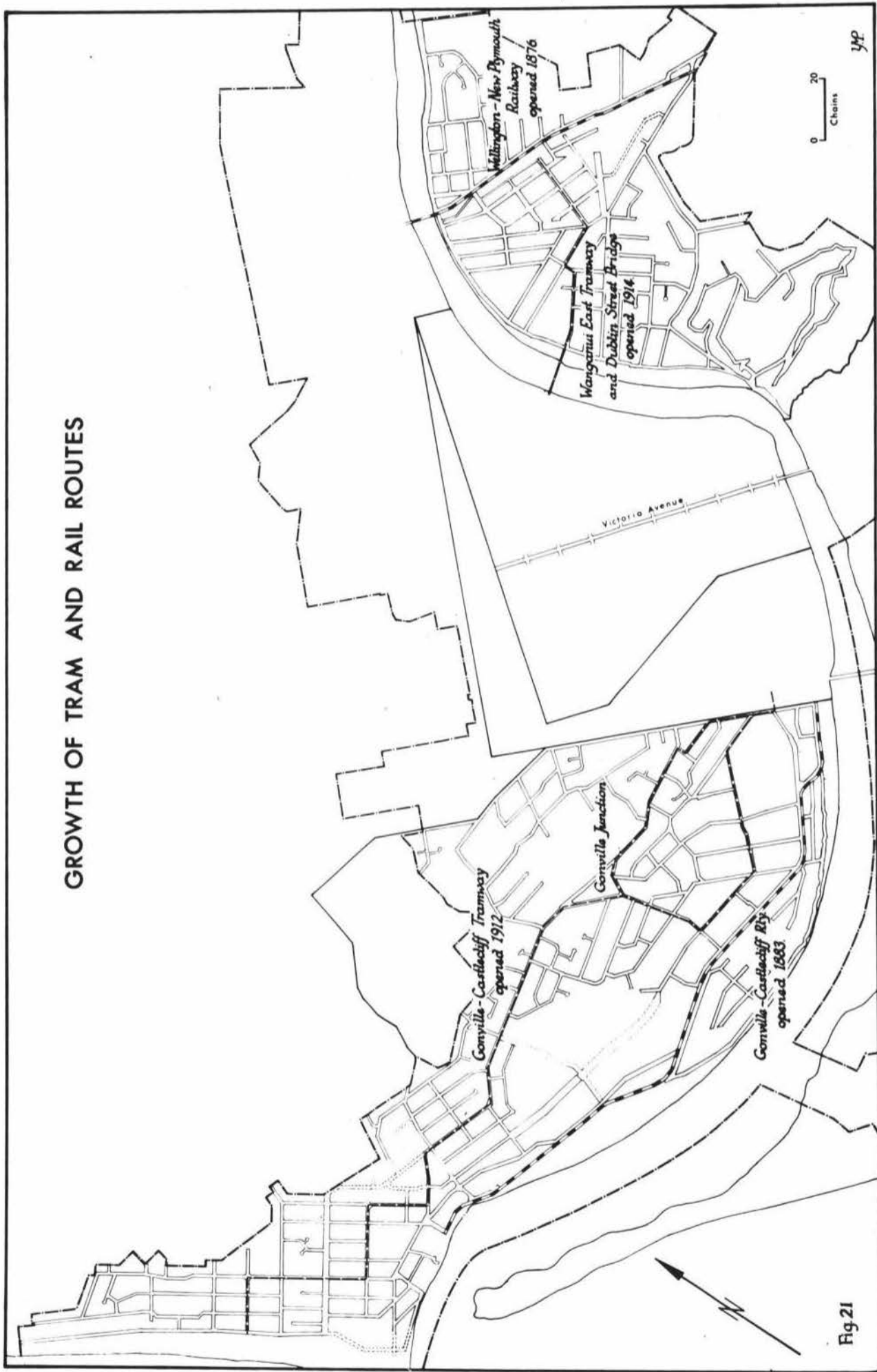


Fig 21



constructed.

One of the most obvious conclusions arising from this particular examination of the suburbs, is that for much of their history growth has been loose and dispersed. Two factors provide evidence of this, the scattered nature of early buildings even in the more nucleated areas, and the amount of infilling which has been necessary in most periods of their history. It would seem that laissez-faire conditions have predominated (in some areas they still do) and that until recent times comprehensive planning, of for example the type advocated by the exponents of the neighbourhood and cluster schools of thought, has been the exception rather than the rule.

#### The Suburbs and General Theories of Growth.

It is appropriate at this juncture to make a comment about the general spatial growth of the suburbs. There is now a considerable body of research on the spatial aspects of cities, and while there is no agreement on a uniform model applicable to all cities, three theories have distinguished themselves as being the most acceptable.

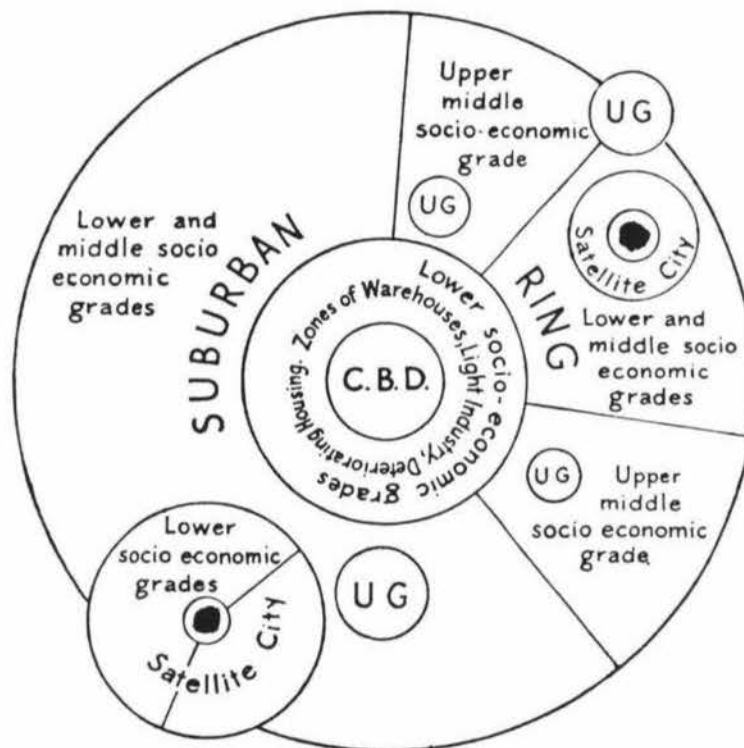
The first of these, The Concentric Zone Theory, postulated by Burgess in the 1920's, sees the city as a series of concentric zones, radiating outward from the central zone or Commercial Business District (C.B.D.). The second is The Sector or Wedge Hypothesis, developed by Homer Hoyt, which asserts that the city grows in wedges or sectors. Finally, Harris and Ullman have developed a third theory, The Multiple Nuclei Theory, for a group of cities which have grown outwards from more than one nuclei or C.B.D.

Like most New Zealand cities of a comparable size

Wanganui has only one C.B.D., although it is interesting to note that each of the three suburbs have themselves grown from more than one original node. Thus the Multiple Nuclei Theory does not appear to apply to the Borough, unless the pattern of growth in the suburbs represents a modified form of multiple nuclei.

The question of the relevance of the Concentric Zone and Sector Theories, is somewhat more complex as elements of both would appear applicable. McGee claims that the New Zealand city conforms with a modified version of the Concentric Zone Theory. He demonstrates<sup>5</sup>, that it is composed of three broad zones (figure 22). In the centre of the city is the C.B.D., adjoining this there is a zone of light industry and manufacturing with some deteriorating housing, and surrounding this is a suburban ring containing a socio-economic mixture of residential areas. He describes this third category as a "large zone of middle groupings\_ \_ \_ by no means homogeneous" and remarks upon 'the considerable mixture of upper, middle, and lower graded groups (which) can only be described as assuming a chequerboard pattern'<sup>6</sup>. Without further evidence, apart from local knowledge, it seems reasonable to state that Wanganui has these three zones, although as Pownall partially demonstrates the first two are lineated rather than circular.<sup>7</sup> Furthermore as far as the suburbs are concerned, although there is no evidence of socio-economic grades, the photos emphasizing the considerable range in the type and standard of dwelling - from bach to contemporary dwelling, and from the high grade residences on Bastia Hill, to the relatively low grade structures in Castlecliff - endorses the view that this is a valid description and classification of the three suburbs. But to

GENERALISED DIAGRAM OF THE MAJOR ZONES OF  
LANDUSE AND SOCIO-ECONOMIC GRADES OF  
POPULATION IN THE NEW ZEALAND CITY.



KEY: U.G.=Nodes of Upper Socio-Economic Groups.  
● =Retailing Centre.

Fig. 22.

After McGee T.G., 1969, The Social Ecology of  
New Zealand Cities, J. Forster (ed.) Social  
Process in New Zealand.

claim that these zones are Concentric is open to question. In this respect McGee himself does not seem to regard it as necessary that they must be concentric in nature. But as both of the other theories recognise the same zonal differentiations (C.B.D., residential etc.) it would appear that the essential difference between them must be the spatial organization of these zones.

A subjective assessment suggests that the spatial structure of the zones in Wanganui approximates more closely a sector pattern of the type developed by Pownall (figure 23). Wanganui's site does not lend itself to the development of concentric zones. Its situation in a valley with a river meandering through, is a major barrier to the evolution of such a pattern, and has favoured the development of an elongated linear urban structure. Within this structure, the steady extension of urban wedges, may be clearly seen in the suburbs (figures 12 to 20.) In the case of Gonville this wedge has gradually pushed out from Carlton Avenue, and in Castlecliff from Heads Road (Matipo) and the Port. The wedge analogy is not as obvious in Wanganui East in the earlier years, although it is to be seen along the dynamic urban edges in later years.

The Wedge Hypothesis has been summarised as follows

"growth tends to proceed from any point of origin, along transport routes towards high ground which is free from floods or atmospheric pollution and has scenic interest, and along waterfronts not used for commerce or industry, and tends to avoid 'dead-end' directions in which growth is limited by natural or artificial barriers. The highest density of development is along the wedges that are served by the best transportation routes.

Once started in a particular direction, urban growth tends to retain similar characteristics, as it proceeds outward along the wedge. The resultant urban form is often that of a star or a diamond,

# WANGANUI : SECTORS

Source : Pownall N.Z. Geogr. 13 : 112

## KEY (presumed)

- 1 C.B.D.
- 2 Manufacturing
- 3 Low grade houses
- 4 Middle " "
- 5 High " "

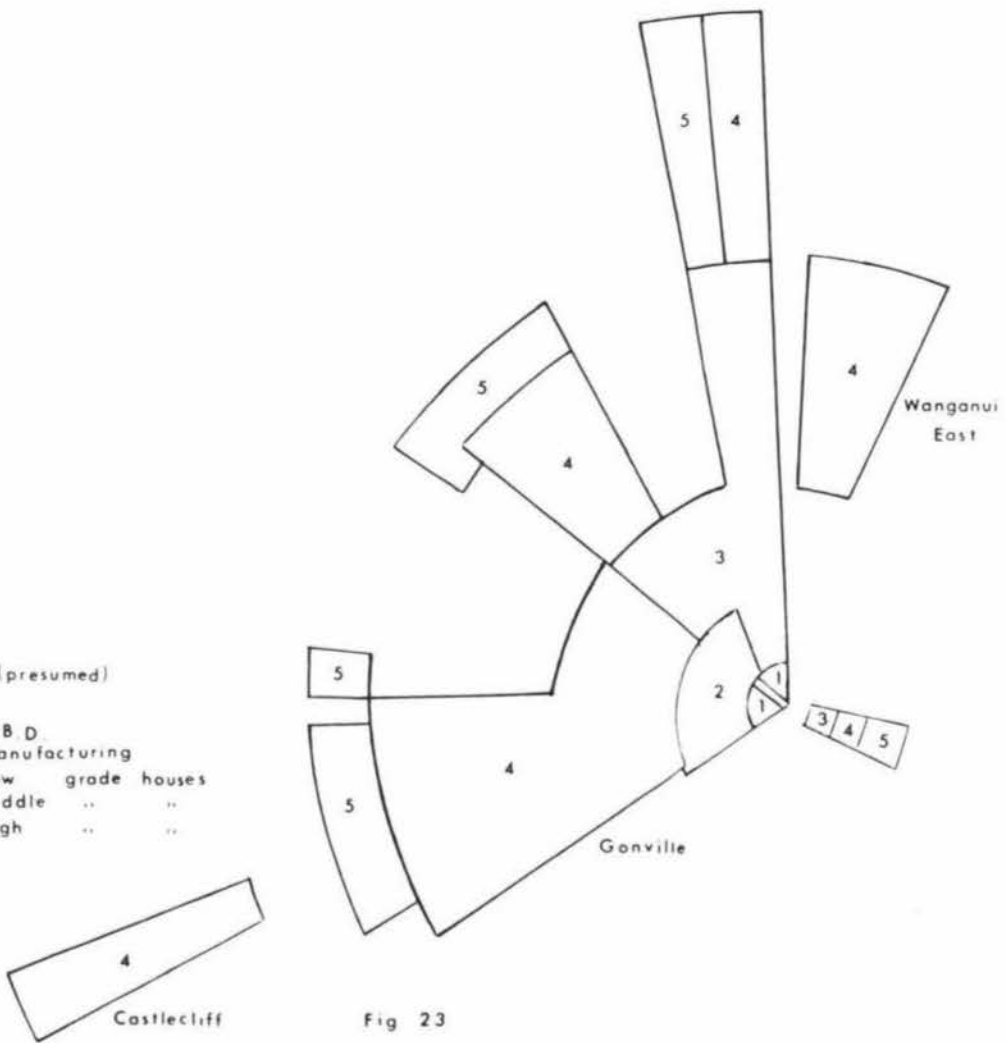


Fig 23

depending on the number of major radiating routes. Protuberances and higher density development take place along the major transportation lines"<sup>8</sup>

Pownall claims that two parts of the hypothesis apply particularly to New Zealand conditions first surface growth has been affected by drainage, slope, and scenic interest.<sup>9</sup> The inhibiting effect of poor drainage has been seen in the manner in which urban Gonville and Castlecliff skirted Balgownie Swamp, and lowlying areas were settled rather late in the history of Wanganui East. The question of slope is somewhat more difficult to resolve. Growth in Castlecliff has certainly proceeded toward higher ground, but it could be argued that the boundary was such that there was really no alternative. In Gonville the only area which might be said to be relatively high was avoided for some time, but eventually settled. In Wanganui East, the only suburb with any great change in slope, there has been a distinct movement up Bastia Hill. But it has been responsible for only a small portion of the growth in this suburb, and certainly does not constitute a major trend. Scenic interest has also been an important factor in growth. The preference for coastal sites and sites commanding a view in Castlecliff and Wanganui East respectively provide good examples.

The second area of the theory which is held to apply to New Zealand, is that "the highest density of development (in the dynamic sense) has occurred along the wedges best served by transport." This has been shown to be broadly true of Gonville, particularly in the early years, but not of Wanganui East or Castlecliff.

It has been claimed that New Zealand towns in which growth by sectors is apparent do not have the form of

a star or diamond. A superficial examination of Wanganui in terms of the current street system illustrates that while this conclusion is generally true, there are protuberances, which although highly distorted, do bear some resemblance to the wings of a star. The suburb of Castlecliff itself, and the extension of Upper Aramoho may be cited as examples.

Pownall's schematic representation of the growth of Wanganui's sectors is however somewhat obscure for the following reasons. First the differentiation of sectors has traditionally been based on socio-economic criteria. This Pownall has done in part in his figure 2 (page 102) in which he delineates five landuse categories; core, commerce etc., although the last of these, his residential zones, are not based on the conventional high, middle, and low grade criteria. Figure 23 in the thesis demonstrates that the conventional delineation if applied to Pownall's sectorization of Wanganui is broadly acceptable and is furthermore similar to his landuse zones. Nevertheless there are a number of important defects. It is too broad to state that they are middle class areas, it would be nearer the truth to describe the suburbs as basically chequerboard in nature. Second the diagram omits the industrial areas associated with the railway in both Gonville and Wanganui East, and the industrial area associated with the Port at Castlecliff. Finally the areas on the western edge of Gonville could not be described as high grade housing. If then his numbers do not refer to these landuse categories it would appear that they only indicate five stages of growth as shown in the lower portion of Pownall's figure 2. This is in effect hardly a sectorization based on the Sector Hypothesis.



### Conclusion.

Although there is insufficient evidence to permit strong conclusions, a consistent stream of thought underlies this discussion. Namely that the most satisfactory description of the way in which the three suburbs, (and it would seem Wanganui as a whole) have grown, is to state that they have developed as wedges from initial cores. To state, however, that these wedges are homogeneous would be to overgeneralise the case. Their internal structure corresponds with the heterogeneous nature of the average suburb as described by McGee, who in his diagram actually depicts some of his suburbs as sectors and thereby acknowledges the applicability of this concept to New Zealand urban areas, and demonstrates that they contain facets of both theories.

### Footnotes.

1. It should be noted that for the purposes of this thesis the term 'building' refers to any structure which is used for any of the functions defined on the Town Planning Map of Wanganui.

These are as follows - residential, commercial, industrial and community use. Thus it does not include buildings which perform a subsidiary role such as car ports, and private sheds.

2. Pownall, 1957, 113.
3. \_\_\_\_\_, 1957, 102.
4. McGee, 1969, 149.
5. \_\_\_\_\_, 1969, 169.
6. \_\_\_\_\_, 1969, 170.

7. Pownall, 1957, 112.
8. Mayer, 1954, 153.
9. Pownall, 1957, 101.

## CHAPTER 5.

### THE HOUSE AND URBAN FORM.

#### Introduction.

As the three suburbs are largely residential, the house may be regarded as the basic unit of each, therefore the external characteristics of the various dwellings may be said to exert a considerable influence on urban form.<sup>1</sup> This is particularly so in terms of the visual impact of the suburbs, an impact which often conveys the strongest impression of form. Price has aptly summarised this, "mention the name of a known city, and one will identify it with a visual image of one of its landscapes."<sup>2</sup>

It has been claimed that "in Britain a few basic (housing) forms are especially responsible for the differential character of the\_\_ \_\_fabric of towns\_\_ \_\_each of which typically multiplied over tracts of townscape produce a distinctive texture of relief."<sup>3</sup> One of the essential factors responsible for this differentiation is that, apart from variations in the detached house, there is considerable diversity in those which are not detached. Thus the detached house may be described as studded over the urban landscape, the semi-detached house ribbed, and the multi-unit blocks clumped within urban areas. With the preponderance of the single detached house in Wanganui East, Gonville, and Castlecliff, such a categorization is not possible. There are nevertheless clearly distinguishable house forms within the suburbs, and these have been influential in adding some diversity to the urban landscape.

Although specific dates are generally prescribed for each style of building, it is well recognised that the

change from one style of architecture to another is a gradual process. Therefore the boundaries between eras are in reality periods of gradual transition. It is also realised that many houses have undergone considerable modification. Where this has occurred, such buildings have been classified on the basis of the predominant features of their current style.

Finally less attention has been paid to the legislative origins of the house, than was the case with the other elements. This has been caused in part by the paucity of evidence, and in part by the fact that the origins of the various house styles are largely to be found in overseas trends. For this reason some attention is devoted to the investigation of the influence of overseas ideas and concepts.

#### Origins of the House Form.

Garrett in An Encyclopaedia of New Zealand (58) states that "architecture may be considered as a cultural expression\_\_ \_the outward and visible sign of the changing patterns of thought, life, and society." Thus, although this study is primarily concerned with factors of a physical nature, these are both the product of and reflect upon the socio-economic characteristics of the community.

The first 100 years of New Zealand's architectural history were "characterised by the belated adoption of overseas fashions."<sup>4</sup> A tendency which some claim is still prevalent today, although it would appear that a form of building unique to this country is slowly evolving.<sup>5</sup> But rather than being a repetition of styles in the 'Home Country', as so much else of New Zealand society is alleged to have been, the building forms, materials, and techniques

have had more in common with New Zealand's close colonial relatives - Australia and the West Coast of America.

Two important features which the immigrants did bring with them were a taste for privacy based on a revulsion of the urban conditions of nineteenth century Industrial England, and the Elizabethan principle that each family should have its own home with a separate room for every person.<sup>6</sup> Both can be seen in the dominance of the detached house, and in the tendency for sections at the back of houses to be separated by boundary hedges or fences. That this process has not been repeated at the front of the house, which is generally open to the street, is a fact of some importance and is discussed in a later section.

#### The Classification of the Basic House forms.

There is no universally acceptable system for classifying houses according to their architectural style. The following system is based on that used by the Valuation Department in Valuation Rolls, and on Bates' work in this field. In the light of Garrett's work, which establishes the complexity of architectural evolution, the system proposed may be an oversimplification, but it is quite consistent with techniques used overseas by geographers such as Smailes.<sup>7</sup>

Three major residential architectural styles are to be found in the suburbs; the cottage, the villa (or 'T' house), and the bungalow. The bungalow however, contains a number of important subsidiary types, which in their extent and visual impact, are more important than some of the other house forms.

The house does not exist on its section in isolation

it has as an interrelated component, vegetation. It has been claimed that the amount and type of vegetation is similar to, and can be correlated with the age and style of the house.<sup>8</sup> Thus where it is appropriate, mention will be made of the characteristics of the vegetation associated with the various house types.

### The Cottage.

In Wanganui, as in New Zealand in general, the cottage constitutes the earliest extant form of permanent urban dwelling in terms of both age and style. It is based on that "universal primitive house form from which all domestic architecture is descended, a plan and shape that has persisted for a thousand years or more in the British Isles; low walls, a solid cube with minimum openings, two small windows in the front, a door between them, and a massive chimney in the centre, or on the gable end wall."<sup>9</sup> The cottage, and to a lesser extent the more complex T house in New Zealand, mirror the early basic house types developed in Australia. Namely the childlike conception of the (front) facade as a face, the two windows being eyes, the arches above them eyebrows, the front door the nose, and the roof the brimless hat.<sup>10</sup> This style was derived from the basic simplicity of Georgian architecture, which was the model for the early Colonists.

The cottage is also characterised by a ridge which extends across the top of the roof, from one side of the house to the other. To the front the roof is short and steeply pitched, while at the back the roof is long and the pitch gradual, sloping in to a lean-to over the kitchen and wash-house (Plate 4).

Like the majority of houses in the three suburbs, the cottage is usually sited square on to the street, with

little if any attempt at orientation to suit the sun or the prevailing weather. Furthermore, a number are located much closer to the street boundary than the current 15 foot minimum. All are small and many are the typical two roomed 'but' (kitchen) and 'ben' (parlour) cottage located on equally small sections. About half of the cottages in Castlecliff, for example, are located on lots which are considerably less than the average 32 perches (figure 24).

In Wanganui East and Gonville, because of the small numbers and dispersed nature, the cottage type has left little imprint on the urban landscape outside of the older areas of settlement. On the other hand the cottage is of more importance in Castlecliff (table XI). This may be attributed to a number of factors, amongst which the seaside location and the poorer status of the area are the more obvious. It has been assumed in various quarters that the cottage disappeared as a house form around the turn of the century.<sup>11</sup> But in fact 40 per cent of the present cottages in Castlecliff were erected in the decade 1910-1920, and some were even built in the late 1950's. It is not a coincidence that so many cottages were built in this period, which includes the years of the First World War. The scarcity of men and materials, and the cheapness of land in Castlecliff, probably made the cottage type the most viable prospect for the poorer sectors of the community.

It is interesting to note that rather than being concentrated in the immediate vicinity of the seaside, the cottages are generally scattered throughout Castlecliff (figure 24). Thus as in Wanganui East and Gonville, although to a lesser extent, the influence of the cottage on urban form has been diluted.



# ARCHITECTURAL STYLES OF BUILDINGS

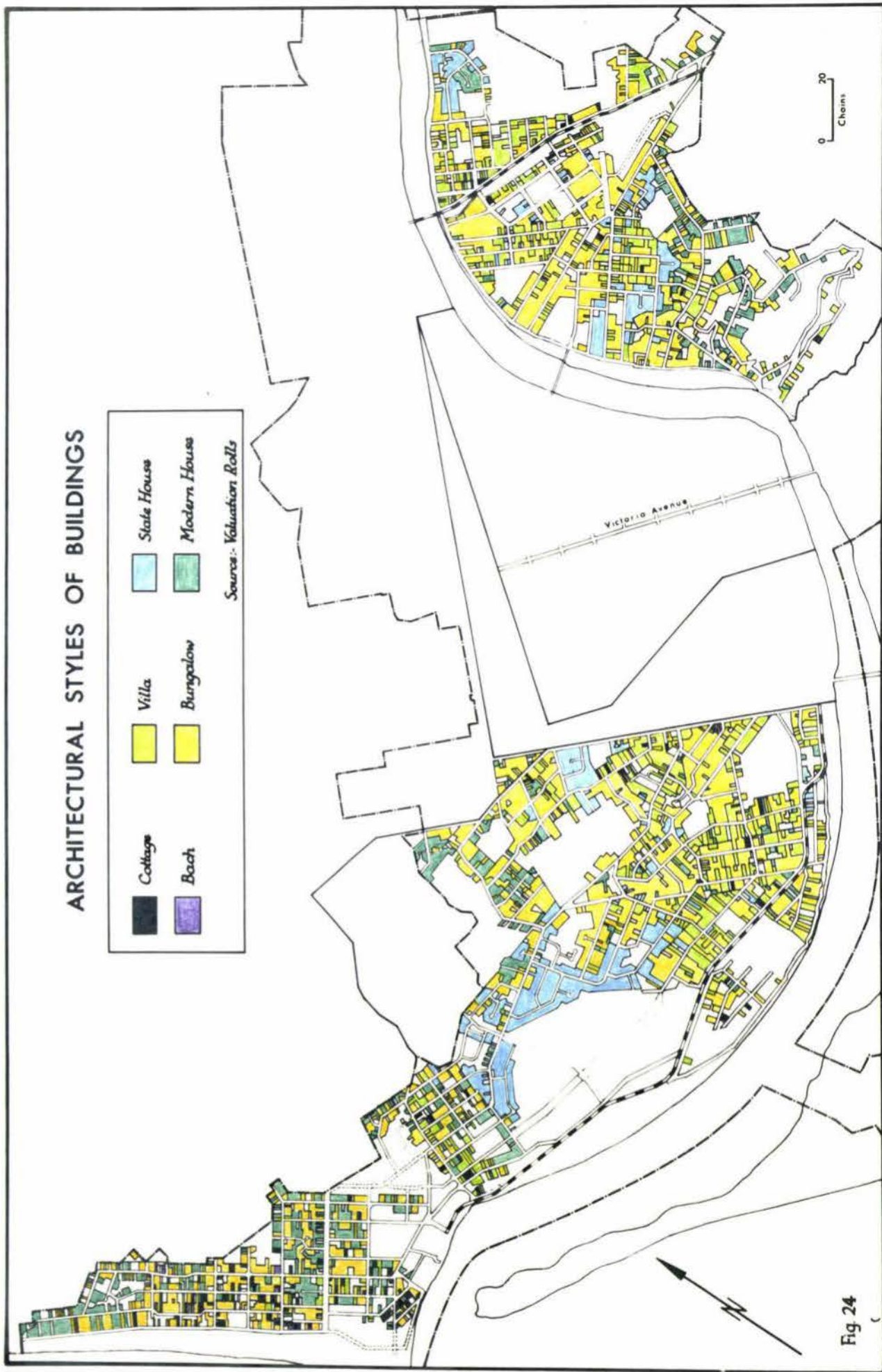
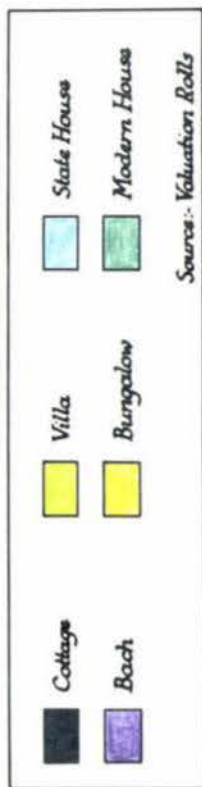


Fig. 24

It is appropriate at this point to state that a small number of baches, which have affinities with the cottage in terms of their size are located in Castlecliff. These one or two roomed bungalows, commonly associated with seaside locations, are similarly dispersed throughout the suburb, so that they too have exerted no great visual influence on the landscape. (Plate 5)

#### The Villa or T House.

The villa superseded the cottage about 1900, and remained the dominant house form until the First World War, during which it gradually declined in the face of the growing popularity of the bungalow. This pattern is in contradiction to the conclusion reached by Smailes that "overseas (from Britain) the villa became the chief form assumed by urban sprawl and motorized transport."<sup>12</sup>

In both Wanganui East and Gonville, somewhat less than one fifth of all houses are villas (table XI). Castlecliff on the other hand has considerably fewer, mainly because there were not as many buildings constructed in this period, and a number of those which were built were cottages.

Within each of the suburbs there are zones wherein the density of villas is sufficiently high to differentiate them as areas of villa suburbia (figure 24). These areas correspond very closely with, and in places actually define, the earliest nodes of settlement (compare figures 12,13,14, and 24). But the concentration is restricted largely to the level of individual streets, and even within these streets they are often interspersed with bungalows (for example Kawa Kawa Street in Wanganui East). Thus the distribution of villas, as indeed of most architectural styles with the exception of the state house, approximates McGee's description of the New Zealand suburb as assuming a chequerboard pattern.

TABLE XICOMPOSITION OF HOUSES ACCORDING TO ARCHITECTURAL TYPE (1968)PERCENTAGE.

	<u>Wanganui East.</u>	<u>Gonville.</u>	<u>Castlecliff.</u>
Cottage	1.0	0.9	6.7
Bach	0.0	0.0	1.1
Villa	19.6	16.2	6.2
Plain Bungalow	45.4	39.7	36.6
Gable Bungalow	6.5	5.5	3.4
Hip Bungalow	5.4	5.3	4.2
Spanish and Parapet Bungalows	2.4	2.4	0.5
State House	9.7	19.6	9.2
Modern House	10.0	10.4	32.1
	<hr/>	<hr/>	<hr/>
Total.	100.0	100.0	100.0

Source: Valuation Rolls : Valuation Department, Wanganui.

In the case of these three suburbs, this chequerboard pattern is largely the result of the dispersed growth of the early nucleations, with the intervening gaps filled by later house styles.

#### The Basic Characteristics of the Villa.

The villa has a formal style in which the emphasis is on symmetry, and consequently most can be easily recognised from their external features (Plate 6). Although they were designed to give visual appeal, it is only in the middle and upper grades that this has been achieved. A basically simple plan was used to attain this appeal, but complexity was gained by the addition of features such as bay windows, (it is sometimes called the Bay Villa) verandans, and external ornamentation. In addition to these features the villa is often, although by no means always, characterised by double hung windows, a high stud, (often over 10 feet compared with the 7 or 8 feet of the modern bungalow) the widespread use of corrugated iron for the roof, and walls which were almost without exception constructed of wood. A number of the elements of the villa were carried over from previous styles. The T shape of the dominant bay windows room, and the long passage from front to rear are among the more noticeable of these.

#### Grades of Villa.

Research on house styles in Auckland, distinguished three main grades of house - high, middle and low grade. These were differentiated mainly on the basis of size, complexity, and socio-economic status.<sup>13</sup> While no such classification has been attempted here, it is clear from the photographs that examples of all three types can be found in these suburbs

(Plates 6, 7, 8.) Most, however are representative of the middle grade group.

The higher grade villas which mainly occur as individual units in Wanganui East and Gonville (figure 24) have been described as an "ornate box."<sup>14</sup> This ornateness arose because "the house became a symbol of social standing, and the medieval traditions of structure and function were forgotten."<sup>15</sup> Many architectural details such as moulded woodwork were thus used for symbolic rather than functional reasons.

These large villas may be relied upon to have at least one large bay window, (many have more) a large verandah, numerous chimneys (some of which are ornately styled), and a few contain prominently displayed turrets (Plate 7). The use of large verandahs and double hung windows, often with many layers of curtains and in earlier days wooden venetian blinds, has been cited as demonstrating a reluctance during the Victorian period "to adapt to the strong sunlight of the New Zealand climate," and hence represents a form of adjustment by the immigrants "to the warmer climate and stronger light."<sup>16</sup>

These large villas also tend to be characteristic of the older New Zealand suburb, "the framework of which consisted of a network of fences, walls, and hedges defining the boundaries of individual sections."<sup>17</sup> This framework expressed the privacy of each individual family and defined clearly the barrier between public and private. Anything opposed to this, such as the exposure of the present day state housing areas, was considered to be a sign of poverty.

The bulk of the villas, of which those in Smithfield and Koromiko Roads in Gonville are typical (figure 24 and



Plate 6) are, however to be found in the middle grade category. These are basically smaller versions of the high grade villas. They are more intimately sited on smaller sections, and thus form the basis for a denser streetscape. Most have the essential external features of the villa, but few have more than one bay window, and while most have double hung windows the heavy drapes are missing. As a result of their smaller size these middle grade (and also the low grade) villas are not characterised by the large scale of vegetation, or by the high boundary walls and fences of the larger villas. This is particularly true of the small area situated between the front of the house and the street, which could hardly accomodate large scale vegetation. As a result the middle and low grade villas are characteristically open to the street. In this respect they reflect the dominant pattern in the suburbs.

The lower grade villas of Eastown and Kawa Kawa in Wanganui East, in some respects resemble the bungalow more than they do the other villa types (Plate 8). Few have the bays, the double hung windows or the verandahs of the larger villas. The casement windows and front porch of the bungalow type are more common, and there is almost no external ornamentation. In their openness to the street they correspond more readily with the dominant suburban pattern than with the enclosed nature of the high grade villa.

#### The Bungalow.

Since the turn of the century there has been one major change in the architectural style of residential areas in New Zealand. This has been the change from the cottage and villa styles to the bungalow style which remains dominant

today.<sup>18</sup> This change occurred during the second decade of this century,<sup>19</sup> and was most marked in Wanganui after 1914. During this watershed period a small number of buildings were erected which contained elements of more than one style. In each house there was, nevertheless, a core that was basically the one type. Consequently these have been classified according to the predominant architectural style of that core.

Garrett asserts, regarding the period 1918-1946, "that unable to control the insecure and changeable world, and caught in expanding cities and towns, the suburban dweller sought to create an oasis where every brick and tree could be accounted for, and the unpredictable excluded from everyday life."<sup>20</sup> As a result of this, the period was characterised by a return to "simplicity and informality of nature and the 'olde worlde'."<sup>21</sup> Boyd, writing of the same era in Australia, has called it an "informal interlude."<sup>22</sup>

The introduction of the bungalow brought a definite advancement in planning and design.<sup>23</sup> The emphasis shifted from visual appeal and formal structure, which had characterised the villa era, to a commitment to flexibility. More thought was given to the orientation of the house to suit such factors as the site and the sun. Thus, for example, in an attempt to get the best juxtaposition of rooms, the long straight hall disappeared. This freer more complex plan is to be seen in many aspects of the bungalow, amongst which the intersecting and overlapping roof structure is perhaps the most obvious. The orientation of plan to suit the climate, particularly the planning of the living rooms to suit the movement of the sun which accompanied the introduction of the bungalow, is held to be



one of the main advancements in the development of housing in this century (Plate 9).

#### Characteristics of the Bungalow.

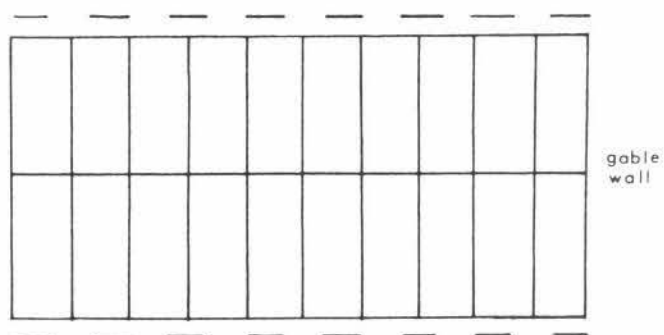
The bungalow has dominated the suburbs since its introduction (figure 24) and today at least 70 per cent of the houses in Wanganui East and Gonville and over 50 per cent of those in Castlecliff are of this type (table XI). Later statements regarding the 'modern house' indicate that this percentage is even higher. Thus large areas of the suburbs are characterised by houses of the same basic type, in which any diversity is due more to "do-it-yourselfers"<sup>24</sup> than to conscious attempts to vary the environment. The majority of bungalows conform to a model which may be described as - a three bedroomed one-storey bungalow of approximately 1,000 square feet, usually L shaped or rectangular with a roof which is hipped, gabled or of broken form. Individuality is usually superficial, being an amendment to a standard plan, and is found in size rather than shape.

Although this house form is generally held to lack diversity the Valuation Department recognises a number of subsidiary types : the plain bungalow (characterised by the features described) the gable, the hip, the spanish and parapet bungalows, and the state house. All of these apart from the state house, are chiefly distinguished by their roof structure.

The Gable Bungalow. This form is characterised by one plain gable, which extends from the front of the house to the back (figure 25). The gable is the upper triangular section of the wall which extends from the eaves to the ridge, at each end of a ridged roof. The houses of this type, which were

BUNGALOW STYLES

Gable B



Hip B

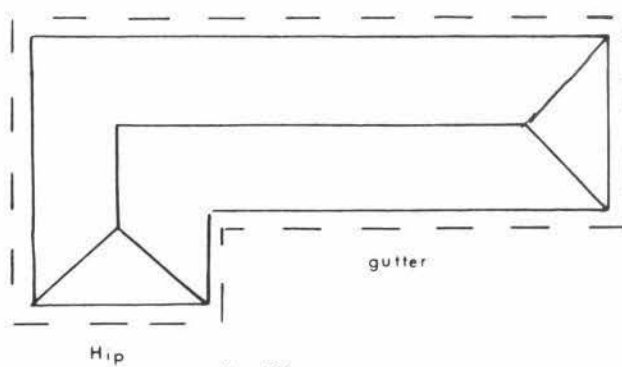


Fig 25

built mainly in the period 1915 to 1930, as for example those in the vicinity of Gonville Avenue, are widely dispersed throughout the older areas of the suburbs.

The Hip Bungalow. Introduced at a later stage, about the time of the establishment of the State Advances Corporation (S.A.C.) was the hip bungalow. At each end of the house the roof was constructed in the form of a  $45^{\circ}$  hip (figure 25). Because they were built about the same time they tend to be nucleated, as for example those in Upper Eastown Road in Wanganui East, and those in the vicinity of Gonville Junction. Although the differences between the plain, gable and hip bungalow are undoubtedly of relevance to architects and valuers, it is evident that they are not sufficient to lead to significant differences in the urban form of the three suburbs. Thus while it is interesting to distinguish between them, it is more appropriate in terms of this discussion to treat them as one basic type. For this reason figure 24 shows (with the exception of the state house and the modern bungalow) only the general distribution of bungalows. A master copy showing the distribution of all the styles of house referred to in this study is held in the Geography Department of Massey University.

The Spanish or Parapet Bungalows. are, however, easily identifiable within the urban landscape. They are distinguished by high walls, usually rough cast, with the front wall being the highest (Plate 10). The roof is very flat pitched and slopes gently from front to back. The parapet bungalow is mainly distinguished from its spanish counterpart by a low cap or parapet, which tops the walls just above the line of the roof. These bungalows were first introduced into the suburbs (and throughout New Zealand<sup>25</sup>) in the late 1930's,

but almost all were built in a short period from 1947 to 1952. Their short history was partly attributable to changing fashions, and partly due to the difficulty of maintaining flat roofs which proved prone to leakage.

Although they have a distinctive shape and provide contrast, the fact that they are so dispersed (it is unusual to find two together) has meant that they have not exerted any marked influence on the character of the landscape. On the other hand they provide an interesting contrast and some variety at the level of the individual house.

The movement toward a more flexible house plan, which characterised the introduction of the bungalow, was marked by a similar movement in the treatment of the garden which surrounded it. This trend has been described as "garden city landscaping."<sup>26</sup> The framework of hedges and fences between houses was broken down considerably in new areas, and in some cases, notably state housing areas, often omitted completely. The deliberate planning aim was to create a community garden, in which the houses were set in orderly rows. The view of the house as the families security and the garden as part of the community - two important principles associated with the bungalow era - broke down the concept of the house and garden as an integrated living area, a concept which had characterised the high grade villas of earlier years.

### The State House.

Although the state house is basically a bungalow, its spatial concentration in the peripheral areas of the three suburbs (figure 24) together with the incorporation of garden city principles makes it a distinctive subsidiary

type (Plate 11). Gonville clearly has the greatest proportion of this type of house as almost 20 per cent of its dwellings fall into this category (table XI). Wanganui East and Castlecliff have about half this percentage in state houses.

Garrett observes that the state house evolved "out of an amalgam of earlier styles, and has been the dominant style for the last 30 years, in which social and architectural planners expressed in builders vernacular the achievements of the practical man and the welfare state."<sup>27</sup>

Partly as a result of the Depression of the 1930's the S.A.C. was instituted in 1937, and in the following year the Housing Division began a programme of housing construction. The designs grew out of a number of well thought-out and clearly stated principles.<sup>28</sup> Each house was to have all the necessary amenities, was to look different, and the construction and materials were to be of the highest standard possible.

Whereas the bungalows are a mixture of rectangular and L shaped houses, the state houses are in fact basically rectangular, with a roof of hip or gable design. In both recently built state houses and private bungalows, tiles have tended to replace the corrugated iron roofs of the earlier bungalows, and brick has often replaced the increasingly expensive wood used in the construction of the walls. In addition, state houses have continued the tradition of lower stud heights and increased window size.

When the State Housing Scheme was first introduced, 300 house plans were produced to avoid monotony and much thought was devoted to them in order to avoid the mistakes of the past. Some attention was given to the sun, the

contours of the land and a little complexity and diversity was achieved. The need to economise intervened as a rather severe damper however, and as a result many of the aims behind the project were lost. Thus after the initial enthusiasm "control by minimum standards"<sup>29</sup> became the practice. Thus although many styles were used, the state house forms a relatively simple pattern in a group. Simplicity itself is not a fault and in many respects it is to be encouraged. The problem with this simplicity is however, that it has led to sameness. The smallness and predictable nature of the roof structure and overall size, plus the large amount of exposure between houses, are all important factors which have fostered this sameness. The lack of complexity has been further increased by the openness of these areas; this being the result of a combination of large setbacks and street widths unrelieved by vegetation and fences, or by differentiation in house styles.

Garrett has aptly summarised these sentiments in the statement, "the growing regimentation of life, with the decline of personality and individuality, is reflected in the extensive building programme of the State Housing Department. The Department achieved a uniform style based on minimum standards and on social not personal qualities. But it lacked individual or regional variation."<sup>30</sup> (Plate 8)

As well as attempting new styles of house, the S.A.C. ventured into what were for New Zealand relatively new arrangements of streets and houses. These culs-de-sac and other no exit streets together with curved and crescent streets, have already been discussed at some length. They were introduced in an attempt to add variety to the environment and to engender community life and spirit. In addition,

the density of occupance was increased by the construction of multi-unit housing, as for example in the Pepper Block in Wanganui East (Plate 12). These buildings dominate their single storeyed surroundings, but their physical appearance detracts from rather than adds to the environment.

In some areas (for example Walker Place, one of the earliest culs-de-sac in Wanganui East) a very stable community has developed, and there are by comparison with many state house areas few noticeable defects (Plate 13). They are quite as pleasant as the average bungalow street, although of course they also share its defects. In other areas however, noticeably the newer ones, a number of pressing physical, social, and economic problems would appear to exist.<sup>31</sup> Very often there is in these localities a marked concentration of the lower socio-economic grades of the community, who are discontented with their lot. Moreover there has often been a lack of care exercised by both the residents and the state in the maintenance of houses and properties. This has led to an atmosphere of drabness. Fox has concluded most appropriately, "in expecting a social pattern to grow from a landuse plan, one is confusing ends and means. City design can only realise the inclinations already there, it can't impose a social pattern."<sup>32</sup> Too often the physical conditions have been set up without adequate research into the sociological, psychological, economic, or general philosophical climate.

#### The Modern House.

The 'modern house' is a somewhat loose category employed by the Valuation Department, and includes most of the privately built houses of the late 1950's and the 1960's. These, like the state houses, tend to be concentrated in the



peripheral areas, although they are also scattered throughout the remainder of the three suburbs (figure 24). The majority may be described as modern builders bungalows, although there are a few (the New Zealand average is 5 per cent) which have been architect designed and may therefore be described as contemporary. Thus over three quarters of the houses in each suburb are essentially bungalows, constituting a very homogeneous and predictable landscape.

The contemporary house, and to a lesser extent the bungalows reflect "the slow development of something which may be described as typically New Zealand."<sup>33</sup> This is best seen as one would expect in the architect designed houses, and has manifested itself in various ways. The development of the open plan, incorporating, fewer partitions and the linking of the garden to the living area by means of floor to ceiling glazing is an important example of this. Many contain low pitched roofs and very low stud heights, although the increased height of the 'A' frame house is an exception to this. These contemporary homes also show a preference for sections (such as those on Bastia Hill) with elevation, view, and associated social prestige. Others, not built on higher areas, have incorporated the split level design to achieve this effect (Plate 14).

### Conclusion.

The bungalow very clearly dominates the three suburbs as the basic house form. There are, however, a number of small variations. The first of these the cottage is largely confined to Castlecliff, where it is sufficiently dispersed to have left little imprint on the landscape. The villa on the other hand does add useful contrast, although its generally nucleated nature has confined this variety to relatively small areas. The growing number of contemporary

dwelling add the greatest variety to the suburbanscape, but their small numbers and tendency to nucleate means that this diversity is also likely to be confined to relatively small areas. Thus the bungalow, and its offspring the state house, remain as the predominant house types in Wanganui East, Gonville and Castlecliff.

### Footnotes.

1. Reference is made only to the external features of houses, as it is only these which materially shape urban form.
2. Price, 1964, 243.
3. Smailes, 1955, 104.
4. Garrett, 1966, 58.
5. \_\_\_\_\_, 1966, 68.
6. \_\_\_\_\_, 1966, 62.
7. Smailes, 1955, 99-115.
8. Daish and Austin, 1962, 116 (supported by Middleton.)
9. Garrett, 1966, 58-59.
10. Boyd, 1961, Quoted by Solomon 256.
11. Although neither state this directly, both Garrett and Bates imply it in their writing. Furthermore the Valuation Department were, until this work was completed, of the same view.
12. Smailes, 1955, 104.
13. Daish and Austin, 1962, 96.
14. \_\_\_\_\_, 1962, 101.
15. Garrett, 1966, 62.
16. Daish and Austin, 1962, 80.
17. \_\_\_\_\_, 1962, 125.
18. Grundy, 1959, 11.
19. Bates, 1966, 252.
20. Garrett, 1966, 64.

21.	Daish and Austin,	1962,	80.
22.	Boyd,	1960,	Chapter 7.
23.	Bates,	1966,	252.
24.	Daish and Austin,	1962,	102.
25.	Bates,	1966,	254.
26.	Garrett,	1966,	65.
27.	_____,	1966,	64.
28.	Daish and Austin,	1962,	60.
29.	_____,	1962,	104.
30.	Garrett,	1966,	65.
31.	Dickson,	1969,	64.
32.	Fox,	1964,	16.
33.	Garrett,	1966,	68.

## CHAPTER 6

### AN ASSESSMENT OF THE INFLUENCE OF THE TOWN BOARD YEARS.

It was originally hypothesised that the Town Board era might have been the most influential period in the development of the morphology of Wanganui East, Gonville and Castlecliff. It is now relevant to recollect and consider how important these years were.

The only conditions under which it could be argued that the Town Board Years exerted no influence on urban form would be a situation in which there had been no development at all. Thus any development whether progressive or retrogressive may be regarded as having exerted some influence on urban form. During these years there was in terms of the elements considered considerable growth, consequently the relevant questions become :

- (i) Did the Town Boards initiate this?
- (ii) How much were they responsible for?
- (iii) Did development lead to any differences in urban form, which may be attributed to the Town Boards?

These questions may be investigated by re-course to the elements examined in the study ; the development of the subdivision and street systems, the spatial evolution of buildings, the growth of population and buildings, and the characteristics of the house.

#### Subdivisions and Streets.

The subdivision of land, and the associated creation of streets, was well advanced while the suburbs were still in the County. In Wanganui East and Gonville, a high proportion of this skeletal development was the result of a marked increase in the intensity of subdivision

in the years immediately preceding the Town Board period as demonstrated by the large area subdivided in the years 1894 to 1907.

This period of intensive growth continued in Wanganui East until 1912. Figure 4 demonstrates that quite a large area was actually subdivided during the Town Board years. This area may therefore be regarded as having acquired its form during these years. But there were factors at work whose origins preceded the Town Board era, and thus are not directly attributable to it. The largest block of land subdivided in these years was the triangular zone between Duncan and Jellicoe Streets, its form was strongly influenced by the 1841 rural subdivisions. The form of the remaining areas subdivided during these years, is basically in harmony with the earlier subdivisions which flank them. New subdivisions on the eastern edge of Eastown, for example, continued the grid system, while those bordered by Tinirau and Tanguru Streets continued the distinctive grid of that area, maintaining the width of streets and the orientation of the street blocks and subdivisions within them.

The two original nuclei in Gonville, Gonville Avenue and Alma Road, were located on land which had been subdivided before Gonville left the County. Thus the west-east trend of the street and subdivision systems, was established before it became a separate town. Apart from the group housing areas which comprise most of the area shown as unsubdivided, the bulk of the suburb was subdivided during the Town Board Years. Most of this, however, is a continuation of the pattern of subdivision established earlier, a pattern attributable to the lie of the land and

the method of selection before survey.

The pattern of increased intensity of subdivision prior to the Town Board Years undergone by Wanganui East and Gonville, was not repeated in Castlecliff. It experienced a large block of subdivision in 1883, followed by smaller partitionings in 1895 and 1907. During the Town Board Years two areas of Castlecliff, together constituting a large part of the suburb, were subdivided. The first of these on the north-eastern edge of Matipo was broadly a continuation of the grid which had been established in earlier years. The second area included almost all of the land north of Esmer Street. This area also continued the rigid geometric grid established earlier on the land behind the Port.

It may thus be concluded that neither the predominant forces influencing the type of subdivision and street system that emerged, nor the basic characteristics of each, were materially different during the years the suburbs spent as Town Boards. The homogeneity of the size and shape of the subdivisions and streets in the suburbs confirm this. Thus, the pattern in this period may be described as typical of the years preceding and succeeding the Town Board period.

#### The Spatial Evolution of Buildings.

In Wanganui East buildings were erected in two nodes, the Duncan-Jellicoe Street zone (whose subdivision in these years has been discussed) and Sedgebrook, which had been subdivided earlier. The development of the low-lying areas which formed part of Sedgebrook marked a departure by the Town Board from the previous pattern of avoiding floodprone areas.

In Gonville, the early Town Board years saw a more definite change in the evolution of settlement than occurred in either Wanganui East or Castlecliff. The Bignell Street nucleation was developed almost as a new 'tack' in the direction of growth. This may have been the result of a change in local body control. On the other hand, coming as it did on the other side of Kings Avenue, it may have been influenced by this 1841 subdivision boundary. In any case it marked little more than a change in the direction of development, rather than a change in planning philosophy. It is interesting to note that the only other development node to appear in Gonville (the North Gonville nucleus) was developed in this period. The main features of the Town Board Years, however, dispersed growth, some avoidance of the upland areas, the general influence of relief, and the tendency for growth to be associated with transport lines, were all trends which had been in operation while Gonville was still in the County.

There is even less evidence of any feature in the spatial growth of Castlecliff, which might be the result of Town Board influence. Indeed for this suburb, as for the others, the predominant conclusion that emerges from the study of the growth of buildings is that, rather than distinguishing themselves, the Town Board Years saw on the whole a continuation of processes and patterns which had already been established.

#### The Growth of Population and Buildings.

The following assessment of the influence of the Town Board Years on the growth of population and buildings



is limited by a number of deficiencies in the data. There is no evidence of the exact size of population or number of buildings in either Wanganui East or Gonville in the years they became separate towns. Similarly it is not possible to state the population of Wanganui East in 1913 when it amalgamated with the Borough. Thus Town Board population growth rates cannot be compared directly. Similarly the figures relating to the growth of buildings are for two reasons approximations. First, they do not include buildings which no longer exist, and second they do not allow for the time lag between the decision to erect a building and its final completion. This second point is of particular relevance to the amalgamations, for the figures of completed buildings in an amalgamation year do not show how many buildings had actually been started earlier under the impetus of the Town Board, nor do they show how many buildings finished after amalgamation were erroneously accredited to the Borough of Wanganui. It is possible, for example, that many buildings completed in Gonville after 1923 were begun under the Town Board. Furthermore, as the building figures are only available from 1910 onwards they, like the population figures, do not enable a complete coverage of the Town Board years.

Despite these above limitations a number of conclusions are evident. It is quite clear that the Town Board Years were not responsible for the initiation of the population take-off. In fact these Town Boards like so many others in New Zealand, were probably established as a result of rapid population growth. This is particularly true of Wanganui East which had 17.1 per cent of its present population before it became a Town District, and 28.6 per cent

the year before it amalgamated. Consequently it acquired only 11.5 per cent of its present population total during these years. Gonville and Castlecliff on the other hand, partly because they were Town Districts for a much longer period, had between 40 and 50 per cent of their populations by the time they amalgamated. Thus they acquired respectively about 39.2 and 34.1 per cent of their populations during these years. The Town Board Years therefore appear to have been very influential in the growth of Gonville and Castlecliff.

The evidence relating to the partitioning of land in Wanganui East, indicated that the rate and amount of subdivision declined markedly in the years immediately following amalgamation. This event was duplicated in the pattern of building. It is therefore tempting to conclude that amalgamation was responsible for this recession. That under the new authority growth was directed away from Wanganui East toward other areas. Figures 9, 10 and 11 demonstrate, however, the remarkably close relationship in the pattern of building between Gonville and Wanganui East, and to a lesser extent Castlecliff. Both of the former at their different levels experienced exactly the same fluctuations in the 21 years 1911 to 1931 (with the exception of 1921). Yet it was in this period that their relationship as Local Bodies changed twice. The same is broadly true of Castlecliff. In 15 of these years this suburb reflected faithfully the pattern of growth in the other two suburbs. This suggests that it was not each individual Town Board that was responsible for the pattern of growth, but a more general factor common to all three, namely the economic climate of the day.

### The Main Styles of House.

Chapter 5 revealed that the forces which gave rise to the various house types were quite independent of the Town Boards. Most were not only national in terms of influence, but were also international in origin. New Zealand is distinguished by the fact that few regional variations in either style or building materials have developed. Thus the house types which characterised the Town Board Years, the plain bungalow which emerged as the dominant style, the villa which declined steadily, and the small number of cottages and baches built in Castlecliff, all reflected current national styles. The Town Boards were therefore typical of other urban areas of the time. In addition these years spanned the transition from the cottage and villa styles to the bungalow, thus these Town Board areas lack the distinction they would have acquired had they been characterised by the one style. But even if they had been identifiable on these grounds, it would have been those persons responsible for the creation and spreading of architectural ideas, and not the Town Boards, who would have been responsible for the resultant urban form.

### Conclusion.

Although there are limitations in the evidence there is in the elements considered a consistent theme regarding the influence of the Town Board Years. Namely, that although they were important in terms of the amount of growth, particularly in Gonville and Castlecliff, they were not the vital years in the establishment of the urban form of the three suburbs. The structure of Wanganui East, Gonville, and Castlecliff had been established some years before this period.

## CONCLUSION

### THE URBAN FORM OF WANGANUI EAST, GONVILLE AND CASTLECLIFF.

The form of an area may be considered to have two aspects. The forces and processes which have given rise to it, and the essential character it displays today. This concluding chapter is concerned with both of these aspects, the goal being the acquisition of a total picture of the morphology of the three suburbs.

A number of value judgements are made in the following discussion about the relative attractiveness of the three suburbs. Some of these have not been measured, and others are beyond statistical analysis. Nevertheless they are considered to be justified on the grounds that they are personal convictions based upon observations stretching over some years.

#### Forces Giving Rise to the Form of the Three Suburbs.

Subdivisions and streets exist as the skeletal framework of the suburbs and indicate, along with the growth of buildings, the way in which the form of the three suburbs was created. The present pattern of subdivision in the suburbs is largely attributable to two processes, (1) the 1841 rural subdivisions, and (2) the method of selection before survey, by which the partitioning of land for urban purposes was accomplished. The second of these was clearly the most important, although the first has left a strong imprint in Wanganui East.

The majority of subdivisions contain very similar characteristics. They lie within a range of one-fifth to one-quarter of an acre in size, so that by world standards they are large, and the corresponding density of occupance

(14.5 persons per acre<sup>1</sup>) is very low. Furthermore, the overwhelming majority are rectangular, face square on to the street, and are characterised by general uniformity in frontage and depth. There has however been a change in the pattern of subdivision in recent years, in which more attention has been given to the planning of the environment. But the problem of modifying poorly planned established areas remains largely unsolved mainly because of the very large amounts of finance required.

The origin and evolution of the street network has been shown to be intimately associated with the development of the subdivision system. As a result of this process, the street patterns of Wanganui East and Gonville typify the confused and discontinuous grids which characterise the accretions that have developed around the original Town Belts of early New Zealand cities. With the exception of a small area in Wanganui East, the vast majority of streets are of the same width. They are wide by world standards, and adequate at present, but the fault has been the adoption of a uniform street width irrespective of their individual functions. The growth in recent years of a more enlightened policy towards the subdivision of land, has been paralleled by the introduction of sounder principles in the planning of streets. But for the reasons outlined above the chances of effective improvement of the existing environment remain very limited.

The pattern by which buildings have grown in the suburbs (namely by expanding in sectors or wedges,) corresponds closely with one of the basic models by which the cities of the United States of America and most cities of the Western World have grown. In so doing the three suburbs have

followed closely the generalised growth pattern of New Zealand towns. Broadly this has amounted to the scattering of buildings lightly over one or two sectors of a site, consolidating this, and at the same time initiating growth in another sector. This laissez-faire pattern has contradicted almost all sound planning principles. There has been one major exception to this 'dispersal-consolidation' process, that is the development of mass-building programmes in more recent times, particularly on the periphery of the suburbs. This has alleviated some of the problems associated with piecemeal development, but at the same time it has engendered difficulties of its own, of which the laying bare of large patches of land, and the construction of buildings with insufficient differentiation in style are among the most serious.

#### The Character of the Three Suburbs.

Urban form is also intimately concerned with the nature and functional differentiation of the buildings and various types of landuse which have developed in the suburbs. A number of conceptual frameworks have been developed for studying the morphology of urban areas. Of these the development of perception studies have provided one of the most useful methods of studying form. Lynch in one such study has suggested that, in terms of urban form cities may be considered to have three aspects - grain, focal organization, and accessibility.<sup>2</sup> The grain or texture is the pattern of functional differentiation of places of work, residence, trade, production and ceremony. Focal organization identifies the nodes of concentration and interchange, which arise out of the textural pattern. Accessibility arises from the grain and focal organization, and is the



proximity in terms of time, of an activity to all parts of the urban region.

The discussion which follows concentrates on the first of these three aspects, the grain or texture of the suburbs. This texture may be differentiated according to its use into, retail, community use, industrial, open space, and residential areas. The last of these has been shown to constitute the core of the suburbs, and as such has already received special attention. In the following discussion, some attention is devoted, however, to each of the other uses as integral components of form, although the focus remains on the house as the basic unit of the suburb. As a result of the deliberate stress devoted to the design and appearance of buildings in general, and the house in particular, this discussion constitutes an example of one type of townscape, or more appropriately suburbanescape. Solomon, an exponent of this particular view of townscape, has stated "the recognition of building styles, and the relating of these to historical periods, is the key to townscape analysis."<sup>3</sup>

The texture of the suburb may be said to vary along a continuum from fine to coarse grain, based on the degree to which the various urban functions have intermingled. In European cities the separation of functions is much less clear than in the western colonial towns.<sup>4</sup> In Italian towns, for example, there is much less segregation of business and residential units than has occurred in New Zealand urban areas. Most business buildings are used partly as dwellings, and the differentiation of social and economic functions is much less pronounced. Thus in these cities, which are the result of evolution rather than conscious planning, the

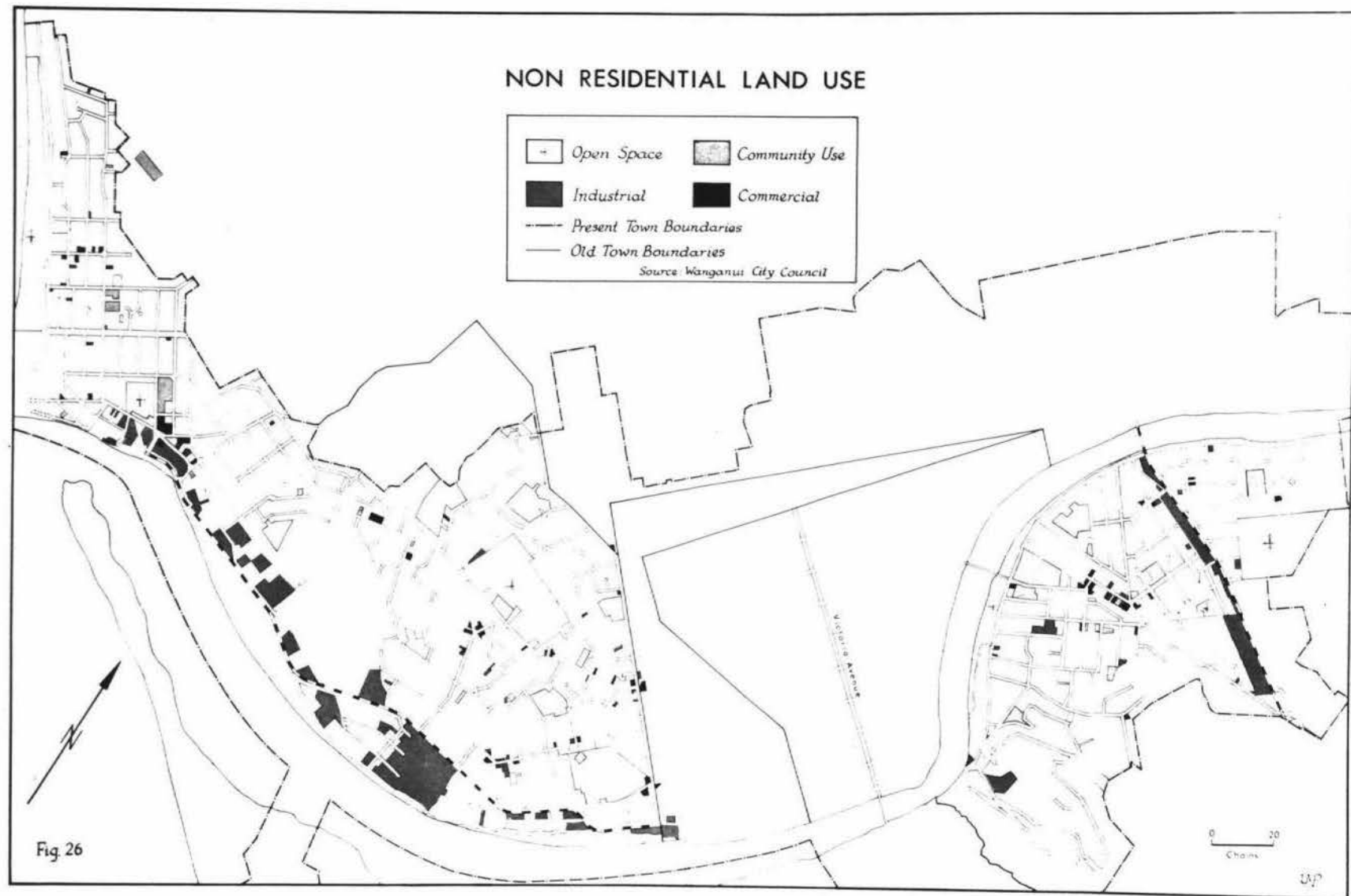


tendency has been towards the development of a fine grained texture, characterised by few focal points and little large scale specialization. As Fox has asserted, modern planning in the western world on the other hand leans toward a sharply differentiated coarse grained structure in which green belts, industrial and housing estates, and administrative, retail, and civic centres are clearly defined and separated by planning ordinances.<sup>5</sup>

It has been demonstrated that modern planning only became effective in the three suburbs during the 1950's. Thus with the laissez-faire planning which existed before this it would not have been unusual if the suburbs had developed a fine grained texture. But figure 26 demonstrates that the grain which has emerged has elements of both a fine and coarse texture.

Retail. The suburban retail areas are distinguished by their concentration along the major accessways, particularly the old tram routes. (figure 24) Their spatial distribution also has two other noticeable aspects, namely the small nodes of concentration and the typical scatter of dairies, the latter often located on important street corners.

Wanganui East has one major concentration of retail buildings along Moana and Duncan Streets. It is worth noting that this one important centre of focal organization did not develop in either of the two original nuclei. Gonville has rather more retail nuclei. Three main nodes service the suburb; the Alma Road - Carlton Avenue corner, the Tawa Street - Kings Avenue corner, and Gonville Junction. In addition a new retail area is developing on the western edge of the suburb. Thus its focal organization is much more fragmented than that in Wanganui East. Despite the



linear nature of Castlecliff and the dispersed growth in the early years, it has acquired only two centres of retail organization. Both of these have developed in predictable locations. The first is in the vicinity of the Port, (strangely it did not develop in residential Matipo) and the second along Rangiora Street, the main access to the beach and strategically placed at the centre of the suburb.

Residential buildings are located in very close proximity to all the retail nodes, and in addition a number of retail buildings combine both commercial and residential functions under the one roof. Thus they contain some of the essential components of a fine grained texture. This is heightened by the fact that they, along with most non-residential buildings, are often repetitious of the basic architectural styles of the residential areas. On the other hand the high proportion of two storied buildings in the larger of these nodes, the preponderance of verandahs which extend across the footpath to be supported by poles at the curb, the high number of large paned windows which dominate the front, and the tendency for whole nodes to look unkempt and visually unattractive, does segregate them perceptually if not locationally much more than the traditionally fine grained cities. (Plate 15).

Community Use Areas: Compared with the retail nodes, the areas of community use occupy quite a large area of the suburbs (figure 26). They too are scattered thus adding to the fine grained texture. With the exception of the Wanganui Public Hospital in Gonville, community use buildings are composed mainly of schools, churches, and an assortment of halls.

It is well recognised that certain types of

community building such as churches and town halls may contain distinctive architectural styles, which can therefore enhance the urban environment. Although it has not been possible to classify these buildings, the following points are relevant in this respect. The three town halls are single-storey, weatherboard, gable roof structures. Thus apart from their size they remain undifferentiated within the urban texture (plate 16). The other halls, and most of the churches, are usually smaller versions of this type. Consequently they too have added little in the way of useful diversity. Furthermore, they have failed to utilise the advantages offered by high land, a process employed in the erection of public buildings in many urban areas to gain visual distinction and contribute to suburbanscape.<sup>6</sup> Two churches in Gonville are exceptions to this general failure (Plate 17). In these cases the use of elevation, along with some individuality in style, has resulted in their making a valuable contribution to the suburbanscape. Elevation alone is not necessary however as demonstrated by two contemporarily styled churches in Wainui East. Both are strategically sited on corners, one in the Moana - Duncan Street retail node (plate 18). Their fresh and somewhat unusual appearance, enhance the surrounding landscape. Unfortunately only a very small minority of the non-residential buildings can be said to achieve a similar visual appeal. Consequently the suburbs have little of the visual excitement associated with the old cities of Europe.

**Industrial Areas:** Although the industrial areas are never far from the residential sectors they, more than the other non-residential uses, have emphasized the coarse grained

effect, particularly in Gonville and Castlecliff where the largest areas of industry are located. This is important as industrial areas because of their size, appearance (often unattractive) and capacity for noxiousness, may seriously disrupt urban life in a fine grained area.

There is not a great deal of industry in Wanganui East. The bulk is confined to four main areas, and apart from the Eastown Railway workshops, they are all small. Although the Railway Workshops reduce the visual appeal of their immediate locality, only a small area of the suburb is affected. Gonville and Castlecliff have much larger areas of industry. These are channelled into a lineated belt paralleling the river and are separated from the rest of the suburb by the Castlecliff Railway - Heads Road complex, and by Balgownie Swamp (plate 19). The interesting feature about this coarse grained development is that this process, as Luke noted in 1942,<sup>7</sup> was initiated many years before the advent of effective planning in Wanganui. But there has also been considerable planned industrial development in this area since the creation of the Town Planning Department in the late 1950's. Balgownie is being developed as one of the major industrial zones of the city and provides a good example of the current policy of developing a coarse grained urban structure. The intention is to preserve this coarse grain by creating an area of open space between the industrial and residential areas. Industry in Castlecliff is concentrated in a small depression around the Port. Thus, although surrounded by residential areas close at hand, the topography has endorsed the separateness of the zones. However, the presence of at least a few interspersed houses has prevented the development of a completely coarse grained texture.

Finally, there are in Castlecliff, as in the other two suburbs and indeed in most New Zealand suburbs, a number of small secluded 'backyard' industries, which have exerted almost no influence on the predominant urban texture.

Open Space. Open space is usually regarded as including only those areas specifically designated as such within the town boundary. The issue of how well a suburb is equipped with open space is difficult to resolve. It raises numerous questions, amongst which the problem of whether they should be judged in terms of extent, usefulness, aesthetic appeal or a combination of these is very important. Moreover the amount of street frontage devoted to lawn and trees, and the influence of surrounding rural areas, particularly in terms of their proximity and propensity to be seen, must also have a bearing on the extent to which human beings feel they are satisfactorily provided with open areas. The adequacy of open space is often judged by its acreage per capita, but the presence in many urban places of relatively large areas of open space of little functional use and almost no visual attraction makes this an unsatisfactory index. The question of the amount and type of open space necessary is further complicated by factors such as the increased mobility of the populace, and the uncertainty of knowing what is needed for a community which is undergoing quite rapid socio-economic change. The following remarks are therefore prefaced by the recognition that they are subjective and tentative in nature.

Wanganui East is relatively well equipped with open space. It is surrounded in the east and south by hills, which are visible from all parts of the suburb.



These are farmed on one side and bush clad on the other, although the bush is giving way to residential encroachment. In the north and west the suburb is bordered by a wide river and, for most of the length of the river, and adjacent reserve (figure 26). Both provide, in addition to their extensive recreational facilities, an effective break-of-point in the urban pattern. The reserve contains Kowhai Park whose facilities for children have been accorded national acclaim, and have proved tremendously popular (Plate 20). This venture has thus proved (despite the evidence to the contrary suggested in the structure of most of the other parks) that there is a clear awareness of contemporary social needs. The remaining open spaces consist, however, of little more than grassed reserves, some of which are only used in season for specific sporting purposes. Williams Domain is typical of these. It is a flat area in which the monotony is broken only by goalposts, swings, and a solitary row of trees. It is almost completely devoid of any other vegetation or of contrast in elevation. One doubts if the area has ever been used effectively (Plate 21).

The affinity with the surrounding rural areas which characterises Wanganui East, is not present in Gonville. The main reasons for this are that it is bounded on two sides by urban areas. The river which borders the third side is inaccessible so that the boundary in this area perceptually becomes the industrial area along Heads Road. And finally there is in the north-west a dearth of usable through roads to link Gonville with the adjacent rural areas.

Gonville is not well equipped in either the amount or nature of its designated open space. The largest area which incorporates the Municipal Golf Links and the Gonville



Domain is pleasantly laid out, but these two areas make little contribution to the suburb for two reasons. For most parts of the year their use, is confined to those involved in specific sporting activities, and furthermore they are located in depressions and are therefore out of sight of the suburb. The other main area of open space, Lorenzdale Park, is an untidy grassed area with a few swings and even less visual appeal than the worst open spaces of Wanganui East. The sector of Balgownie Swamp, which is to be developed as open space, constitutes one of the bright prospects in the future of Gonville for it provides a valuable opportunity for creating an exciting environment. The results of the Kowhai Park venture demonstrate that the potential exists in Wanganui for this to be achieved.

As a result of its linear nature large areas of open space are close to all parts of Castlecliff. But they are of a very different type from the orderly farmland of Wanganui East. The inland areas are composed mainly of partly consolidated tussock covered sand dunes, which grade into rough grazing land. The major area designated as open space is naturally the considerable beach foreland, with its typical west coast surf, black ironsand, and unstable coastal foredunes. For those who do not see beauty in the natural environment this area has no real appeal, and their tidy minds would like to see it 'cleaned up'. Development to date, however, although considerable has been restricted to the relatively small area associated with the Surf Club Building. The other main areas of open space, the Motor Camp and the Castlecliff Golf Links, because of their specific use contribute little to the suburb. The one remaining

public area Londons Park, has never been developed and in its present state detracts if anything from the environment. Finally Castlecliff contains a rather large number of empty exposed and unkempt sections, particularly in the older parts of the suburb. These have introduced into the 'urban' area the characteristics of the surrounding tussock-dune landscape. Thus whereas within Wanganui East and Gonville the natural vegetation has largely disappeared, Castlecliff in a number of areas resembles a partly completed urban nucleus which has been imposed on the landscape, but through which the natural landscape protrudes at numerous points (Plate 5).

The Residential Areas: One of the most outstanding features of these three suburbs, as of most suburban areas in New Zealand, is the predominance of the single storey detached house sited on its predictable section facing its predictable street. Over 90 per cent of the houses in the suburbs are of this type (Plates 1,2 and 3). This has given rise to a very homogeneous skyline and a repetitive suburbanscape. These suburbs therefore contrast sharply with overseas areas in which housing densities vary considerably, and in which the detached house may even be in the minority. Although changes are coming to the inner-city areas of the large New Zealand cities there is little evidence to suggest that there will be any marked change in this pattern in the three Wanganui suburbs in the foreseeable future.

The dominance of the bungalow type, serves to increase the homogeneity of the suburbs. In small areas however cottages, villas and contemporary houses add variety. But of these only the contemporary houses and a small number of the villas actually enhance the suburbanscape. It would seem that what is needed is a delicate combination of

homogeneity and variety. The correct balance is however very difficult to achieve or even specify. On the one hand effective contrast is difficult to attain, particularly with the pre-eminence of the detached bungalow on its individually owned section. On the other hand while most houses have architectural affinities with those surrounding them, few have ever been built with any regard for their neighbours or for the street.

It is important to remember also that the complexity in style and form, which is to be gained by areas evolving gradually, has not been possible in these suburbs for two reasons. First, large areas have been developed in mass-subdivisions in recent years, and second, these suburbs are in any case very young by world standards, and large areas are by New Zealand standards even younger. Areas developed at the same period in time reflect the current philosophy of the day, thus their form is likely to be largely homogeneous. This is not to be condemned per se. In fact if it leads to simplicity a strong case can be made for it. On the other hand, compared with the complexity and contrast of the European cities, the presence in the suburbs of large areas in which the houses, sections and streets are of the same basic specifications, has resulted in an urban landscape which is open to charges of repetitiveness and monotony.

The Suburbs and Openness: Another notable feature of the three suburbs is their openness, a condition which stems from the combination of large sections, wide streets and detached houses. There are two ways in which this openness is expressed. The newer bungalow areas are much more open than the older villa dominated areas of New Zealand, and the suburban areas in general are much more open than the cities

of the older civilizations. They contrast strongly for example with the Italian city which "compresses time by the intimate assemblage of its buildings, and the narrowness of its streets."<sup>8</sup> Similarly the preponderance of houses facing open to the street is in direct opposition to the urban areas in which the streets are long, barren and bordered by high walls with the orientation of the house and family life inwards around the central court.<sup>9</sup> This absence in the suburbs of effective boundary walls, particularly those at the front, is of very great importance in the formation of suburbanscape. For beings of human stature much of the impression of suburbanscape is formed at street level.

A Concluding Comment: By comparison with the living space of large sectors of humanity, the three suburbs are in most respects idyllic. Nevertheless there are features of their form which are little more than tolerable, a fact which serves only to emphasize more dramatically the squalor of existence in the less well endowed urban areas of the world. Speaking to the New Zealand Institute of Architects in 1958, Dr. Pevsner asserted "your suburbs are terrible, miles of closely spaced bungalows, in small gardens without any plan, system, rhythm or reason\_\_it is a most urgent problem."<sup>10</sup> His comments are at least partially true of these suburbs. The bungalow does predominate, but by world standards the houses are not closely spaced nor the gardens small. Furthermore, it would be incorrect to state that they are without plan etc. What is true, is that there is no adequate plan or rhythm. Thus although the problems of the suburbs are not urgent, nor are they likely to become urgent in the near future in the sense that the problems of the big cities are

urgent, they have in microcosm a number of the seeds which are capable of the self same destruction.

Despite the hint of extravagance (perhaps deliberately contrived) in Cumberlands reported claim that "expansive treeless deserts of tiles have been created in New Zealand urban areas"<sup>11</sup> the point is well taken. There is, as Dart has asserted, a feeling after driving through the streets of monotony and restlessness, and the impression left is of clean spacious urban areas which lack any real cohesion.<sup>12</sup>

There appear to be two prospects facing the future of these suburbs and of New Zealand urban areas in general. The first is a continued commitment to the procedures which have produced the present urban morphology of the suburbs. The second is what Huxley has identified as a new stage in evolution. A conscious purposive stage in which planners emphasize the more subtle elements of art and science. A stage which will lead to a more satisfying and fulfilling environment. There are signs of this in the changing structure of streets and subdivisions, but they are as yet only beginnings and their success will depend upon the initiation of accompanying advances in the social and economic spheres of life. Perhaps the most important change will be the acceptance and commitment of society to these ideas.

#### Footnotes.

- |    |          |       |      |
|----|----------|-------|------|
| 1. | Ross,    | 1968, | 173. |
| 2. | Lynch,   | 1960, | 11.  |
| 3. | Solomon, | 1966, | 254. |
| 4. | Price,   | 1964, | 243. |
| 5. | Fox,     | 1964, | 11.  |
| 6. | Solomon, | 1966, | 260. |
| 7. | Luke,    | 1942, | 52.  |
| 8. | Price,   | 1964, | 243. |

9.	Nelson,	1963,	78.
10.	Daish and Austin,	1962,	1.
11.	Grundy,	1959,	78.
12.	Dart,	1963,	35.

PLATE 4

THE COTTAGE.



The cottage is characterised by a short steeply pitched roof at the front, while at the back the roof is long and the pitch gradual, sloping to a lean-to over the kitchen and wash-house. Many cottages are located on small sections in Castlecliff.

PLATE 5

THE BACH.



This is a small two roomed bach adjacent to unkempt sections. These sections are examples of the natural landscape protruding through the urban nucleus in Castlecliff.



PLATE 6

A VILLA NODE.



Note in this villa the formal style, prominent bay windows, verandah, double hung windows, and high stud. More closely spaced than many bungalows they form the basis for a denser streetscape.

PLATE 7

HIGH GRADE VILLA.



This relatively high grade villa is distinguished from other villas by its large size, greater ornateness, turret, and larger scale of vegetation.

PLATE 8

LOW GRADE VILLA.



This is an example of the smaller simpler villa. Note the casement window instead of the bay window and the openness to the street.

PLATE 9

BUNGALOW SUBURBIA.



The bungalow demonstrates a much greater flexibility and freedom in design, than was the case with the earlier house styles. This is seen in the broken roof structure.

PLATE 10

THE SPANISH BUNGALOW.



The spanish bungalow is distinguished by high walls, and a low pitched roof.

PLATE 11

STATE HOUSE SUBURBIA.



Note the openness of the state house areas. The success in the creation of the community garden is open to doubt.

PLATE 12

MULTI UNITS.



Dwellings such as these constitute an attempt to increase the density of occupance. Currently there is considerable controversy regarding their desirability in urban areas.

PLATE 13

A CUL-DE-SAC.



Stabilised state house areas such as this cul-de-sac are equally as pleasant as the average bungalow street, although they also share its defects.

PLATE 14

A CONTEMPORARY HIGH GRADE HOUSE ON BASTIA HILL.



Note the use of vegetation to enhance the suburbanscape. A comparison of this plate with plate 11, suggests that the use of vegetation can make or break an urban scene.

PLATE 15

THE WANGANUI EAST RETAIL AREA.



The preponderance of verandahs and large paned windows, and the tendency for whole nodes to look unkempt and visually unattractive, segregates these areas perceptually if not locationally. Note also the awkward alignment of streets in this main accessway (figure 1) posing traffic problems for the future.

PLATE 16

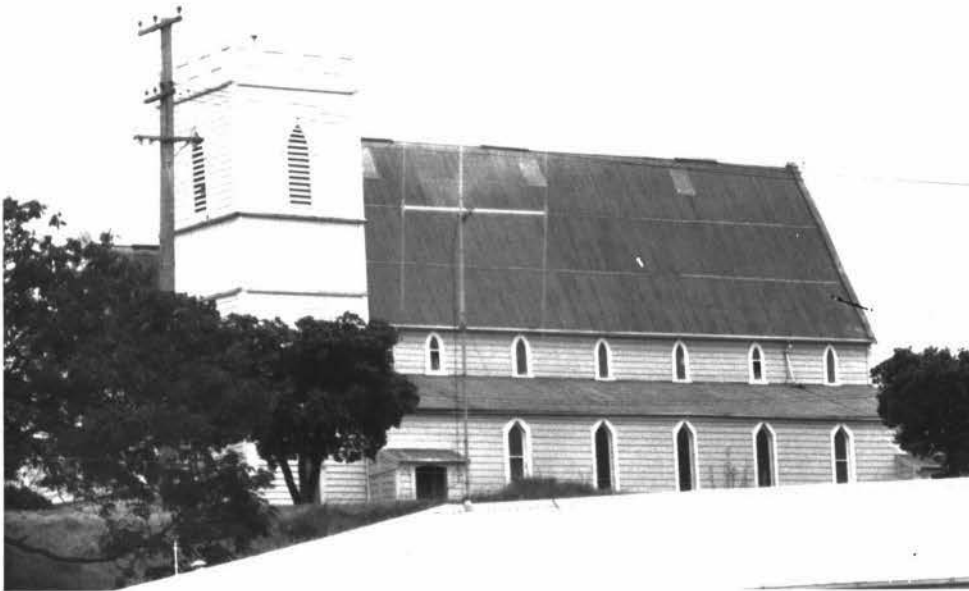
GONVILLE TOWNHALL.



Apart from its size Gonville Town Hall remains largely undifferentiated within the suburbanscape.

PLATE 17

ST. PETERS CHURCH.



The use of elevation along with some variation in style, in the siting of this church, has resulted in a useful contribution to the urban landscape.

PLATE 18

ALL SAINTS CHURCH.



The strategic location of this building adjacent to the Wanganui East retail area has enhanced the immediate suburbanscape.

PLATE 19

LANDUSE ZONES IN THE VICINITY OF BAIGOWNIE.



Note the separation of uses emphasizing the coarse-grained effect.



PLATE 20

KOWHAI PARK.



The popularity of this park demonstrates that there is an awareness in the community of contemporary social needs and requirements.

PLATE 21

WILLIAMS DOMAIN.



The monotony is broken only by goalposts, swings and a solitary row of trees. One doubts if the area has ever been used effectively.

APPENDIX A.TOWN DISTRICTS.

The Town District was conceived as a connecting link between the county and the borough, and it has occupied a prominent place in the chain of local government in New Zealand. Although some were created under provincial ordinances the Town District as a distinct sphere of local government really came into existence with the passing of the Town Districts Act of 1882 which was later incorporated in the Town Boards Act of 1908.

Constitution and Administration. The Town Board Act of 1908 provided that a Town Board could be constituted by the Governor General on petition of not less than two-thirds of the resident householders in any locality outside a borough not exceeding two square miles in area in which no point was more than four miles from any other, and in which there were not less than 50 resident householders. It was created for the purpose of providing self government for the inhabitants of a small portion of a county in which a certain concentration of population had given rise to local interests, which from their local nature could not adequately be provided for by the county system the underlying principle of which was the tending to the needs of a comparatively small population in a large area. This concentration of population gave birth to the necessity in the public interest for more extensive powers though not to the extent of those required by boroughs.

The existence of the Town District as an intermediate type is shown by the fact that after constitution it was still part of the county, so that for certain purposes

it was subject to county control and rating, and could under certain conditions be dissolved by the county council. But at the same time for the purpose of carrying out its function under the Town Board Act, it was a separate entity. The size reached by a number of Town Districts brought about a state of affairs in which the dual control of county and Town Board over the same area caused inconvenience and tended to lead in the direction of making the Town District a means of swelling the county revenue, without a corresponding return of county expenditure. The conditions which made county control of great assistance to a Town District in its infancy, in particular the duty of the county to maintain and control main roads thus relieving the Board of what might otherwise have been a great strain on its small revenue, did not apply to the same extent and in some cases did not apply at all when the Town District contained a population of between 700 and 1,000, and when the increase in the rateable value of the properties led to the county revenue from the District exceeding considerably the county expenditure therein. This state of affairs was met by the Town Boards Amendment Act 1908 which provided that certain Town Districts should no longer form part of the county and gave the Governor General power to declare that any Town District containing a population of more than 500 residents should cease to form part of the county within which it was situated.

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Maps.

Source : (T) Turnbull Library, Wellington  
 (WCC.) Wanganui City Council.  
 (W.M.) Wanganui Museum.

Scale : Where the scale is not stated it has either not been printed on the map, or it is now indiscernible, or (as in the case of the recent maps) it has not been sourced.

Date Drawn.

1841. A Plan of the Country Sections in the District of Wanganui. (T)

1842-1843. A Map of the Country Sections in the District of Wanganui. (T)

Original held in the Hocken Library, Dunedin.  
 Shows; streets in the Town Belt and surrounding rural area, relief, rural subdivisions, and landowners names.

1848. Plan of the Town of Petrie. (T, WM, WCC.)  
 Contains; streets, subdivisions, open space, and community use buildings in the Town Belt.

1848. Map of the Settlement of Wanganui. (WCC.)  
 Scale : c 1 inch to 100 chains.  
 Similar to the 1842-1843 map above.



- c 1860. Map of the Town of Wanganui. (T, W.M.)  
 Scale : 1 inch to 6 chains.  
 A lithograph of the Town Belt with the location of the main buildings, banks, churches, hotels, shops etc.
- n.d. Town Belt and Surrounding Farms. (W.M.)
- n.d. Layout of Sections and Owners on the Periphery of the Town Belt. (W.M.)  
 Scale : 1 inch to 40 chains.
- c 1860. A Plan of Buildings and their Owners along Taupo Quay. (W.M.)
- c 1866. Map of the Wanganui District. (W.M.)  
 Scale : 1 inch to 40 chains.  
 Location of streets, houses, churches, and native reserves, outside the Town Belt.
1876. Wanganui Harbour and River Conservators Board Act. (W.M.)  
 Scale : 1 inch to 10 chains.  
 Streets and some houses are located within the Town Belt, and in the peripheral areas.
- c 1880. Plan of Wanganui. (T.)  
 Scale : 1 inch to 10 chains.  
 The Town Belt and insets of Elderslie (Aramoho Railway Station) and Eastown are shown.
- c 1880. Plan of Wanganui. (T.)  
 Scale : 1 inch to 10 chains.  
 A street map of the Town Belt.
- c 1900. Plan of Reclaimed Land in the Town of Wanganui. (T, W.M.)  
 The Taupo Quay reclamation.
- c 1906. Borough of Wanganui and Suburbs. (T.)  
 Scale : 1 inch to 10 chains.  
 Shows the Town Belt and the growing accretions.
1909. Wanganui and Suburbs. (W.M.)  
 Scale : 1 inch to 5 chains.  
 Contains; streets, sections, open space, community use areas etc.

- n.d. Cycling Road Map of Wanganui. (W.M.)  
Shows; street, rail, and tram networks  
in most suburbs.
1912. Wanganui Harbour General Plan. (W.M.)  
Scale : 1 inch to 10 chains.  
shows; street, rail, and tram networks  
in Castlecliff, Gonville and part of the  
Town Belt.
- n.d. Wanganui and Suburbs. (W.M.)  
Scale : c 1 inch to 30 chains.
1920. Map of the Borough and Suburbs. (W.M.,T.)
1922. Map of Wanganui and Suburbs. (W.M.)  
c. 1 inch to 80 chains.
1955. Wanganui and Environs. (W.C.C.)
1955. Landuse Map of Wanganui. (T.)
1959. Landuse Map of Wanganui. (T.)
1960. The Town Plan. (W.C.C.)
1962. The District Planning Map. (W.C.C.)
1963. The Approved District Planning Map. (W.C.C.)
1966. Landuse Map of Wanganui. (T.)



# STREETS AND SUBDIVISIONS (1965)

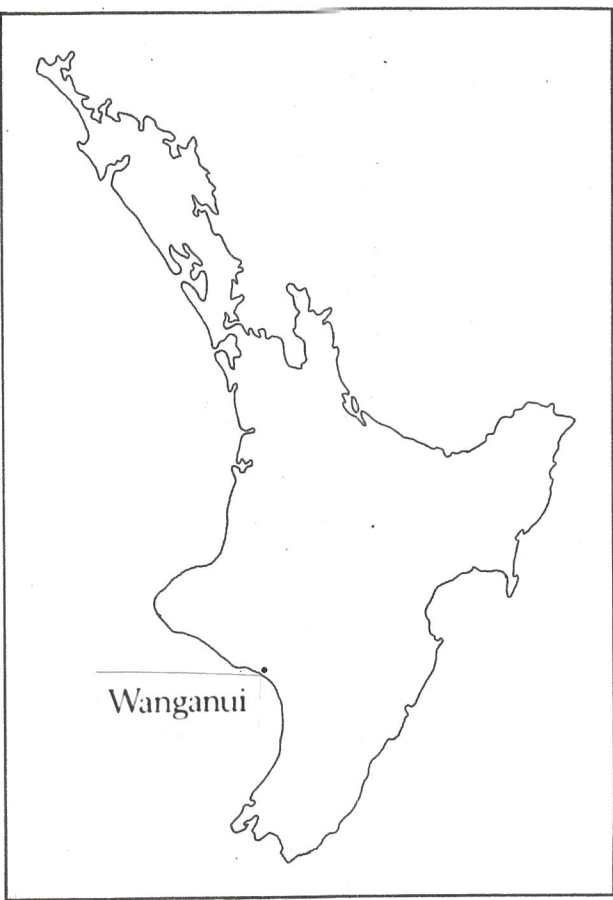
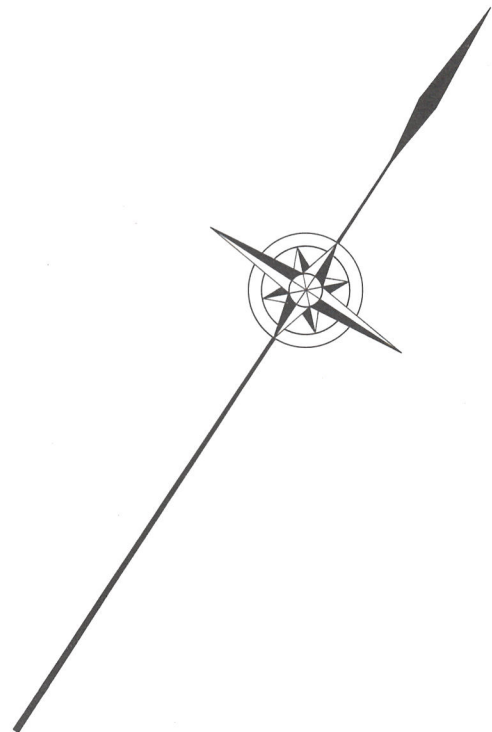


Fig. 1