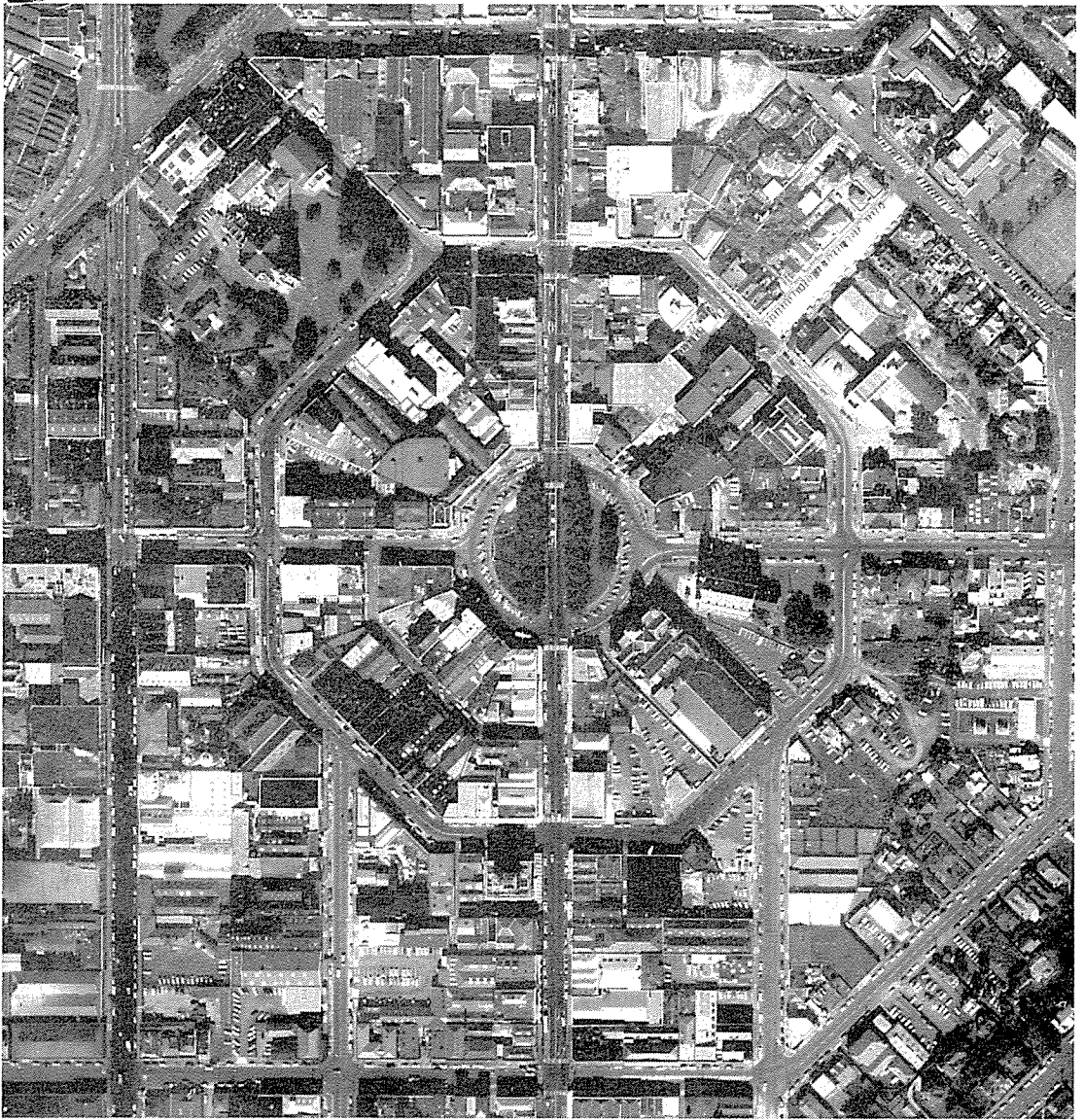


# TOWN PLANNING QUARTERLY /14





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# TOWN PLANNING QUARTERLY

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Number fourteen December 1968

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**Town Planning Quarterly** is the official journal of the Town and Country Planning Institute (New Zealand) Incorporated, P.O. Box 5131, Wellington. Opinions expressed are not necessarily those of the Institute.

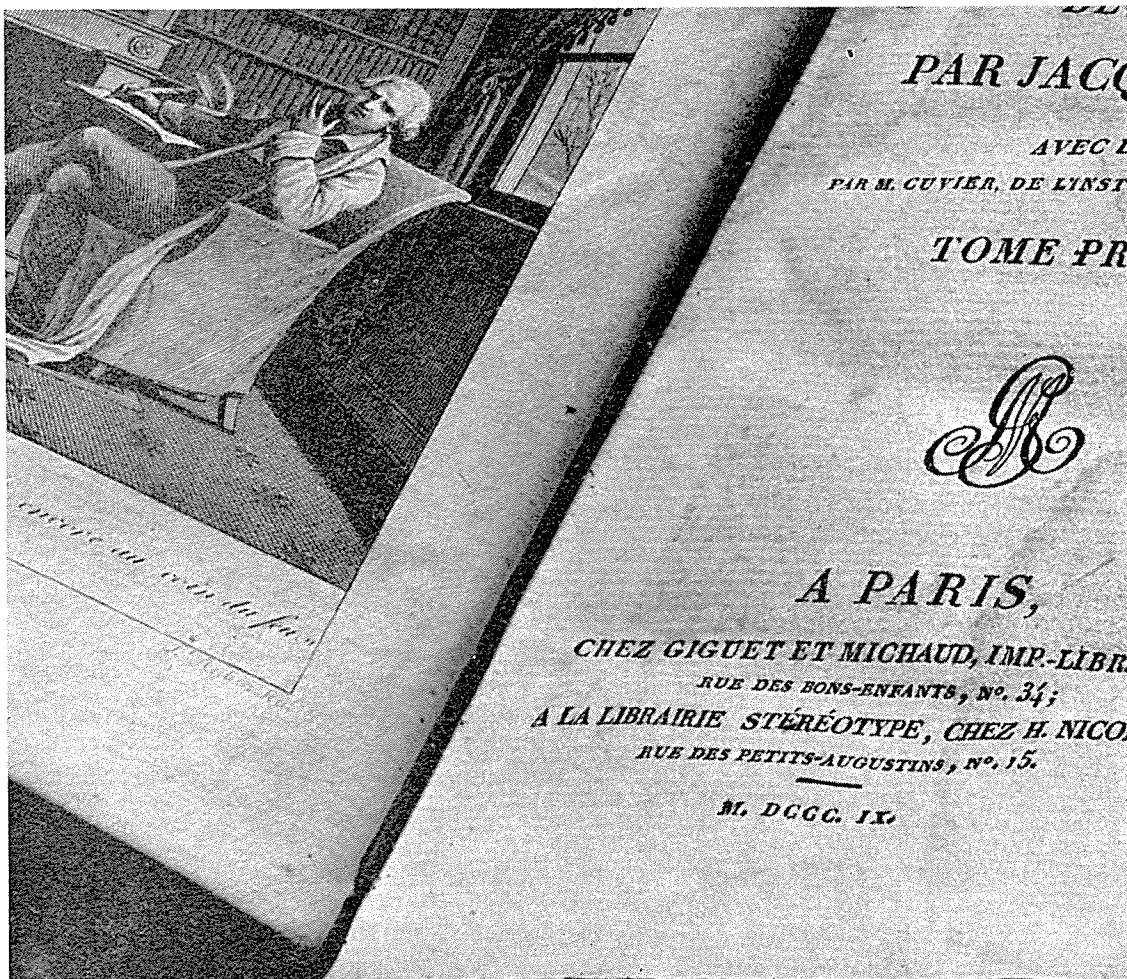
Incorporating New Zealand Branch, Town Planning Institute, London.

**Address** all correspondence to the publishers: Southern Cross Books, Box 60005, Auckland 7. Telephone/Telegrams: 750 D Titirangi.

**Annual Subscription:** \$3 post free.

Published March, June, September, December.

Printed by Acme Printing Works Ltd., 55 Upper Queen Street, Auckland.



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# FACT & OPINION

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## An editorial notebook

### **National Development Conference committee**

Professor Kennedy, in an article appearing in the August issue of "New Zealand Local Government," drew attention to the fact that the effectiveness of town and country planning as we know it in New Zealand, has now become a matter of some concern to, among others, lawyers, engineers and government-appointed committees.

In October it was announced that the National Development Conference had set up a committee "to consider the physical environment to which the community might aspire; to identify the problems of physical environment, and to examine the measures, organisational machinery and policies for dealing with such problems."

Perhaps the proximity in time of the two events is a happy coincidence; perhaps the latter is, in part at least, a response to Professor Kennedy's plea for an examination of the working and effectiveness of the planning legislation.

Whatever the cause, planners, professional and lay, should not miss the opportunity to state their views in the expectation that the committee's findings will be treated by the government as authoritative opinion and not merely the work of some clerk directed to offer a range of platitudinous clichés under appropriate subject headings. The absurdly early closing date for submission of 30 November may suggest to the more cynical among us that the committee did set out to be a "going through the motions" exercise. We assume that the date need not be taken too seriously; the occasion should.

### **New Special Appeal Board Chairman**

Consequent on the appointment of Mr. J. W. P.

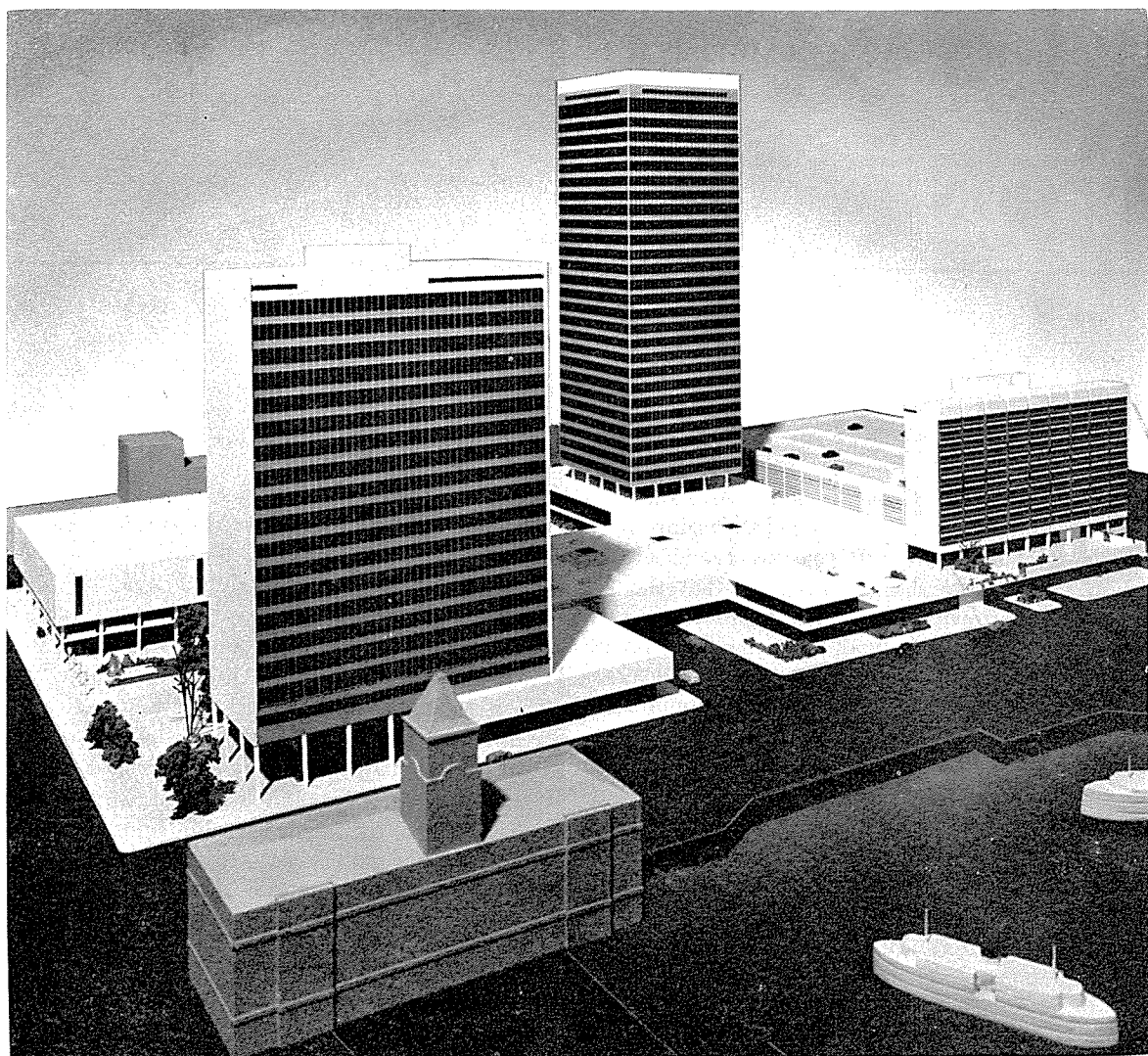
Watts as a Stipendiary Magistrate, Mr. J. H. Luxford, retired Stipendiary Magistrate, has been appointed chairman of the Special Town and Country Planning Appeal Board with effect from 1 September, 1968. Mr. Luxford had already been sitting as a board member.

Mr. Luxford acquired a high reputation while on the Magistrates' Court Bench and we will watch with considerable interest the manner in which he adapts himself to his new task.

We would be less than honest if we professed an unqualified confidence in his appointment. The work of a magistrate is demanding in the extreme and requires a quick mind, guided by a personal philosophy built up from many years of unremitting court work.

The task of a chairman of one of the Town and Country Planning Appeal Boards is still a pioneering one, concerned to synthesise a collection of still too vaguely discerned community aspirations within a continually changing framework of individual rights. It is a task that needs a flexible mind, prepared both to be educated and to educate. Mr. Luxford is a man approaching the end of a long, active and honourable career. His can only be seen in the light, therefore, of a stop-gap appointment, pending such time as the proposals for an administrative branch of the Supreme Court weave their delicate way through Parliament.

Be that as it may, we wish Mr. Luxford well and look forward with great interest to noting how he approaches the intricacies of planning and planning law and to marking the pattern of the decisions which are just beginning to emerge from his board.



## Progress calls for Planning

And wise planning calls for **experience**. This is one of the reasons why Fletcher Trust, in a consortium with Dillingham and Mainline Constructions has been entrusted with the Auckland Harbour Board's multi-million redevelopment scheme.

Fletcher Trust, whose land and property developments include Pakuranga Town Centre, and other shopping centres in Auckland, Wellington, Nelson and Christchurch, industrial estates in the main centres, residential developments, high

rise flats and office and shop blocks, have built up a background of experience unparalleled in New Zealand and are thereby able to offer services of a calibre until recently available only from overseas.

In association with other companies of the Fletcher Organisation they are also able to provide design and build facilities.

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## **The Town and Country Planning Amendment Bill**

The Bill before the House at the time of going to press is a most untidy affair. Clearly, it has arisen out of an apparent need to meet the demands of particular circumstances, but those responsible should constantly ponder on the adage that "hard cases make bad law." Enthusiasm for amending legislation might then be tempered by a better understanding of the likely range of consequences.

Regrettably, there is no space in this issue to comment upon the contents of the Bill, except to note that the Conditional Use procedure is to be further circumscribed. The public interest is, specifically, to be the paramount consideration in assessing the merits of any conditional use application and it is no longer to be inferred that such uses are, generally, to be allowed anywhere in the relevant zone.

These are welcome qualifications, but it is questionable whether the amendment in its present form will ensure the attainment of the objectives sought.

### **Government inquiry into public transport**

A committee of inquiry to investigate the increasing problems faced by public passenger transport administrations in city and urban areas is to be set up by the New Zealand Government. Announcing this the Minister of Railways and Transport, Mr. J. B. Gordon, said that interested parties will be approached for nominations to membership of the committee.

The inquiry will provide answers to the following specific points:

(A) What standard of public transport is necessary to meet the reasonable needs of a balanced and efficient passenger transport system for urban communities in New Zealand.

(B) What financial and organisational arrangements will be necessary to achieve such a standard, having particular regard to:

(i) What levels of service are required for large and medium communities to ensure a reason-

able balance between public and private transport, and what improvement, if any, should be made to existing services to bring them up to these levels.

(ii) What steps, if any, should be taken to ensure appropriate patronage of public passenger services.

(iii) What further provision should be made for the proper integration of public transport with town planning in New Zealand.

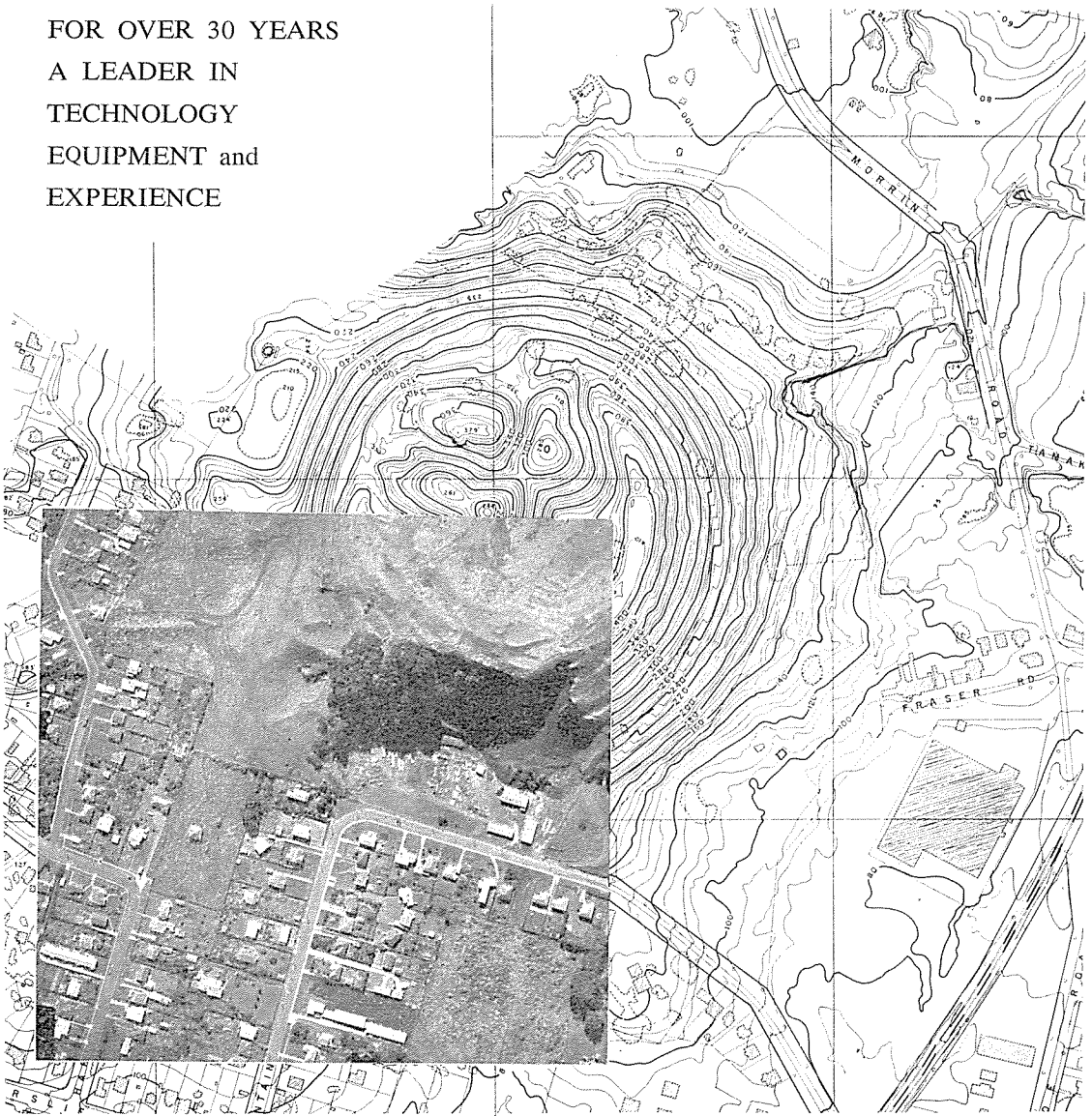
(iv) What changes, if any, are necessary in the present methods of providing capital for and meeting the operating expenses of public passenger transport services in urban communities.

(v) The most suitable type of organisation to secure the future sound management and better co-ordination of public passenger services in urban areas, and the scope for the operation of these services by or under contract to a territorial local authority or authorities, or any other public body.

The committee has been set a formidable task indeed. No doubt one of its first pieces of background reading will be the recent British White Papers on Transport and Town Planning, but, at this stage, we can merely speculate on the nature of the committee's reaction to the conclusions reached in those documents. Quite apart from the need to relate highway design and investment with public transport systems and land use planning, "new thinking is required, not only about types and combinations of public transport, but also about how they should be financed. To attempt to solve these problems in exclusively commercial terms is to bring the Victorian mentality to the solution of modern needs."

Public transport, more and more, must become a utility, not an anachronistic grasping at an opportunity to make a profitable return on money invested. It is but one aspect of the total problem of the inter-relationship between patterns and intensities of land use, the movement of goods and the movement of people. If the committee fail to see it in that light, their findings are unlikely to have any long term usefulness.

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## **Kealy, SM**

J. W. Kealy has been chairman of the Town and Country Planning Appeal Board for six years. It is a long time to be actively engaged in travelling up and down the country listening to endless argument concerning the relative merits of alternative land uses on the one hand and interpretations of planning law on the other. The task is a formidable one and Mr. Kealy has withstood its demands remarkably well. That he should have found the time to write an article for this journal is an event which readers will warmly acclaim. For our own part, we are pleased indeed that he should have accepted our invitation to contribute and we hope that the occasion does not prove to be unique.

## **Minister of Works memorandum**

The following extract from the August, 1968, issue of the American Society of Planning Officials' Newsletter caught our eye:

"A new environmental development division has been created within the Bureau of Public Roads to foster environmental factors in the location, design and construction of freeways. The division will develop standards for evaluating the economic, social, aesthetic, cultural and environmental factors that must be weighed in selecting a highway route. It is to be staffed with a team of experts including planners, architects, landscape architects, sociologists, economists and highway engineers.

"A major focus will be the bureau's joint development concept, which involves using the normal severance damage payment to acquire entire blocks of property instead of the minimum width required for freeway right-of-way. The state highway department would buy an easement for the right-of-way and the rest of the total property acquired by the local authority — over, under and adjacent to the freeway — could then be used for community purposes such as replacement housing, recreation centres, parks, public buildings and commercial development."

We look forward with interest to the publication from time to time of the division's findings and know that our own engineers will be eager to examine any results that are likely to be of relevance to New Zealand's motorway programme.

It is certain that the engineers will be intrigued to learn that the USA, that bastion of non-governmental interference in the rights of property owners, should be searching for ways and means of extending public acquisition beyond the immediate limits of the right-of-way itself.

We are of the opinion that our own Minister of Works is too timid in the exercise of his powers of purchase. Numerous opportunities to achieve a happier relationship between highway and adjoining land use patterns are being needlessly lost. To quote but two of the more obvious examples: In Auckland, all of the land lying between Grafton Road, north of Grafton Bridge, and the gully motorway, could have been acquired. Areas surplus to the motorway itself could then have been resubdivided to produce sites of sufficient size and dimension for release to developers wanting to build the flats and hotels that will inevitably be generated by the hospital and university complexes.

Similarly, severances resulting from the Tinakori Hills motorway in Wellington, are needlessly pinched. A more generous policy could amalgamate the numerous small parcels that private developers find too frustrating to attempt.

We are not advocating the wholesale public acquisition of land under the guise of highway construction, but the seizing of an opportunity to produce a more rational land tenure pattern as an indirect benefit of the direct consequences of millions of dollars of construction investment.

It is a policy that the Urban Renewal Group could have turned its attention to with some advantage.

## **Journal deadlines**

Material submitted for inclusion in the Quarterly must be in the hands of the editor no later than the first week of the month prior to that of publication. Thus, articles and the like intended for the March issue must be received by the beginning of February at the latest if they are to be considered.

J. W. Kealy, S.M., Chairman Town and Country Planning Appeal Board.

## Some thoughts on the Act

The Town and Country Planning Act has now been in force since February 1, 1954, so ample time should by now have passed for a "pattern" to be apparent as regards its implementation. To a large extent, indeed, such a pattern can in fact be traced in the numerous decisions of the Town and Country Planning Appeal Board (and those of the additional "Special" Board established in 1964), as well as in certain decisions of the Supreme Court.

It is true, however, that a number of local authorities have unfortunately "dragged their feet." Wellington still has no operative plan and the same state of affairs applies in the case of several of our major counties, while some of the smaller local authorities have, as yet, barely commenced the framing of their draft schemes; though it should be stated in fairness that in some cases considerable delay has been caused by a shortage of qualified staff in the office of the Ministry of Works. Under the Act, as amended, every council is now required to have an operative district scheme by January 1, 1971 (Section 19).

Leaving "regional" schemes out of consideration, the "backbone" of town planning in every borough and county in New Zealand will, once it has become operative, be the "district scheme." It is this set of plans and documents which will define the various zones, lay down the types of buildings, activities and land uses which are normally permissible in each zone, and define a number of relevant requirements such as yard space, distance from boundaries, etc.

To enable the status quo to be preserved when necessary until such time as schemes become operative the provisions of Sections 38 and 38 (A) have been enacted. Very briefly — and subject in each case to a right of appeal to the board — Section 38 prohibits excavations and similar works and the erection of buildings which will detract from amenities "likely to be provided or preserved" under any draft scheme and subdivisions likely to be in conflict with the scheme.

Section 38 (A) deals with a change of the use of land or buildings in any case where the use proposed "detracts or is likely to detract from the amenities of the neighbourhood." In the case of *Lionel Lawrence v. Waitemata County Council* 1964 (Volume 2, Town and Country Planning Appeal Reports at page 190) it was held by a Full Court (over-ruling an earlier Supreme Court decision) that the restrictions imposed by Section 38 (A) could still be applied even though the contemplated change was to a use expressed as being a permitted use in terms of the draft scheme.

In the view taken by the board the "detraction" contemplated by Section 38 (A) is a detraction or likely detraction from existing amenities, not from amenities which may only be present at some time in the future.

Another important Full Court decision bearing upon the interpretation of Section 38 (A) is that in the case of *F. B. Oakley and Others v. I. Clark and Son Limited* and the Wellington City Council decided on December 20, 1966, and reported (1967) NZLR 353. It was held that it was only "when there is a detraction, or a likely detraction, from the amenities of the neighbourhood, that the council's consent is necessary," and that power still exists to grant permission for a change of use even in cases where there is such a detraction.

In another recent Supreme Court decision — *Attorney General and Another v. Borough of Bir-*

kenhead and J. R. Towle and J. P. Bissett (1968) NZLR 383 — it has been held that, where Section 38 (A) is applicable, the onus is on the person seeking a change of use to make a specific application under the section to the council concerned. A mere application (for example) for a building permit is not sufficient.

Section 30 (B) operates “when any proposed change in an operative district scheme is publicly notified” and forbids action contrary to the suggested change. It has been held inapplicable in a case where a council had already given its formal approval to a proposed work before notifying the proposed change. (See the decision in the case of Attorney General ex rel R. F. Wilson and Others v. Radonich Holdings Limited (1968) NZLR 955.)

Section 35 only has application when a scheme is operative, or has reached the “proposed” stage. It does not permit any “alteration” to a scheme, but does allow, in a suitable case, for an “exception” to be granted, with the effect of permitting an activity which would otherwise be in breach of the scheme.

The effect of Section 35 of the Act is to make provision for a local authority to consent to some departure from some requirement or restriction imposed by its proposed or operative district scheme. The local authority, however, may give its consent, or rather only qualifies to give its consent, if it observes the principles specified in subsection (2) of Section 35. Two principles are specified in the alternative and should be considered in the same way as a condition precedent, that is to say, the power to consent is not operative until the condition precedent has been fulfilled.

If it is fulfilled, the local authority has then to consider whether the consent should be given, and in coming to a decision on that question it is required, under subsection (4) of Section 35, to make the public interest the paramount consideration.

The Appeal Board is in exactly the same position as the local authority before it may decide the appeal in favour of consent being given to the departure unless, in the words of subsection (7) of Section 35, “for reasons to be specified by the board some dispensation from those principles (i.e., the principles specified in subsection (2), is considered by the board to be warranted in the public interest.”

The reference to the public interest in subsection (7) applies solely to the matters which, in the opinion of the board, warrant some dispensation from the principles which create the condition precedent to be fulfilled before any consent may be given. Whatever dispensation it may make under subsection (7), the board is still required, before deciding in favour of consent being given, to make the public interest the paramount consideration. In those cases where subsection (2) applies, and the council may give its consent, it would appear that no breach of subsection (4) would occur so long as the granting of the application would not conflict with the public interest.

The principal Act has already been amended on four occasions and a further proposed amendment is before Parliament at the time of writing. Notwithstanding this fact, however, it is highly probable that the legislation has by no means as yet reached its final form.

A committee which sat recently under the auspices of the Justice Department has recommended that further rights of appeal be allowed to the newly set up Administrative Division of the Supreme Court, and it seems likely that some effect will be given to this recommendation. While strong grounds can be advanced in favour of allowing further rights of appeal on questions of law and the interpretation of the Act, the position is not so simple when appeals on the merits are concerned.

This latter type of appeal would either involve a lengthy rehearing of evidence, or alternatively a fairly elaborate system of recording evidence given at the hearings before the two present Appeal Boards. An even more serious difficulty is that such a right might play into the hands of a wealthy litigant to the detriment of one or more of moderate means. The question of the granting of further rights of appeal, however, will finally be a matter of government policy and not the direct concern of the Appeal Boards.

Another matter which will at some time surely require consideration is illustrated by the board's decision in the case of New Zealand Institute of Surveyors v. Hamilton City Council (3 T & CPA at page 53). In this case, on the basis of the evidence placed before it, the board ordered that (despite the opposition of the local body concerned) a proposed traffic outlet be shown as “designated” on a district scheme plan. The effect

of the designation is, of course, that new building work that would interfere with the proposed new road could be prohibited. The remedy of a land owner thus adversely affected would be an application for compulsory purchase of his land in terms of Section 47 (3), followed by a claim for compensation for the value of his land.

At this stage, however, if the local authority was still unwilling to carry out the work proposed by the designation it could presumably invoke the powers given to it by Section 45 and "modify" its scheme to avoid the designation — a state of affairs similar, surely, to that of the proverbial cat chasing its proverbial, or should we perhaps say adjectival, tail.

But with all its defects, and, as I think it must be admitted, uncertainties, there seems no doubt that the Act has gone a long way toward bringing at least a modicum of order out of the chaos that for so long bedevilled the subdivision, development and use of land throughout New Zealand. If one dare forecast the future, it would seem that the road ahead is likely to be one of continued clarification, refinement and maybe, tightening up of the present legislation, rather than one of violent upheaval and scrapping.

The position will also undoubtedly improve as more and more local authorities become, not merely aware of their obligations, but willing fairly to face up to them and meet them.

One of the difficulties faced today, not only by planners, but also by property owners generally, is that of the case of two nearby local authorities, one of which enforces the Act rigidly, while its neighbour still holds to the philosophy that "anything goes." It must not be forgotten that the Appeal Board has no power of initiation and it can only act when a matter is formally brought before it by appeal, or application in terms of the Act. In many of these cases, too, the canons of legal interpretation have to be applied, occasionally leading to what many a planner would consider a somewhat surprising result. It has, for instance, been held by the Supreme Court (*E. H. Shirley and Sons Limited v. Wellington City Council*, 2 T & CPA 117) that "Theatres and halls and places of public and private entertainment and assembly" included "The use of land for the business of a funeral director."

That decision has been in part over-ruled by the Full Court in the *Lionel Lawrence* case, but not on this point of interpretation.

W. F. Mandle

## Urban renewal — an outside opinion

□ W. F. Mandle, MA (Oxon), is Senior Lecturer in Political Studies, University of Auckland.

I have no expertise in town planning; I have not even an informed amateur interest. Dreadful, but there are plenty of us. I do not know what the norm of town planning reports may be, but if this is a fair sample then something needs to be done about town planning, in more than one sense. This report\* is characterised by vagueness, circular argument, unsupported assertion, reliance on jargon, occasional nonsense and from time to time we find touches of schizophrenia. There is no doubt that a case can be made for urban renewal. I am not sure that this report tells me why it should be done and how it could be done. Some parts are stronger than others — the chapter on legislation is somewhat less vague than usual, although even there we find examples of the report's love for the fine-sounding phrase that does not even have the shell of meaning possessed by a cliché.

I was most annoyed at the report's habit of bland assertion without there being any evidence adduced in support. In the letter of submission we find "a most significant factor leading to the creation of unsatisfactory environmental conditions throughout the world is the rapidly increasing use of the motor vehicle." "Most significant" has a meaning, yet nowhere in the report do we find real statistical support for the assertion that has become a glib commonplace. Is it true? How will urban revivalists provide real competition for the convenience, comfort, availability, even music-while-you-drive of a car? Then again, on the same page, we are told that the "flight to the suburbs" has had "tragic results." "Tragic" is a strong word, and is it fair to neglect the fact that suburbs are on the whole pleasant, green, airy places to live in, where there's pride in gardens, increasing numbers of shops grouped in centres, two-car garages and Pleasant Valley Sunday afternoons? I need more than a loaded phrase to convince me.

The report is overfond of fine words and phrases. It loves "heterogeneous population" — at one point it's got to be a "virile" one, the only indication of what they mean. Or do they? The stand-up-and-cheer adjective is always at hand — "enlightened local authorities," "informed public opinion" and so on. Admittedly there is a glossary for some of the jargon, but a glossary that's

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\* **Urban Renewal in New Zealand:** Report of the Urban Renewal Study Group (Wellington; Government Printer, 1966), 90 pp, 50 cents.

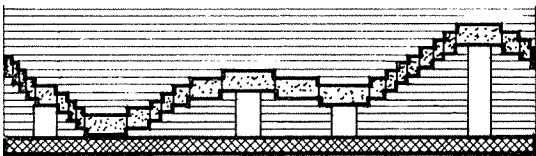
almost useless as a source of information. One fine-sounding definition refers to the "3-dimensional concept of urban renewal." Aha, we think, this is really with-it stuff. Turn to "three-dimensional" and we get "having the dimension of height as well as those of length and breadth (usually illustrated by a drawing or model)." Blimey!

I do not think I am exaggerating when I claim that the report is written throughout in a vague pretentious style that fails to conceal lack of substance. It is not a serious report. There is hardly a statistic, even where statistics are clearly necessary to show how great a problem is or how much ought to be done to solve it. Remedies are couched in woolly terms and seem to me to be entirely inadequate if the situation is as bad as the unsupported generalities would have us believe. The report does not seem to be willing to make up its mind on the relative roles of private and public enterprise, although what it advocates would seem to demand enormous public powers and a degree of investment and control that only public enterprise could provide.

Overall, it looks a cheaply-done job by a committee ill-equipped with either expertise or information who have been content to string together a set of cloudy aspirations, prescribe a series of dubious remedies and couch the lot in bargain-basement prose. The committee has wasted its time, and anyone who reads its report will be wasting theirs too. Heaven knows what a town planner would think of it — unless (horrid thought) this is the way all town planners go about their business. In my field reviewers often end up their pieces by stating that the book is so good that the work need never be done again. This book ought never to have been done at all.

It is difficult to see who is to blame, but there are clues. Two departmental officers only were sent on a brief world tour, only one architect was on the commission, there was no Ministry of Transport representative, the members of the commission were often "very busy people," one can see no indication that expert evidence or submissions were widely sought. I am prepared to agree that our inner cities need a great deal of attention, that Auckland in particular has growing troubles, but if the problem is as great or as urgent as the report claims, then it demands fuller, better-informed and better-expressed treatment than it gets here.

## Topographical models — a new method



Figures 1, 2 & 3

Polyurethane foam plastic is an ideal material with which to make topographical models. Its advantages over the traditional model making materials of cardboard or plywood include lightness and ease of cutting. Foam plastic models are usually made with solid block or thin sheet material, but both methods are expensive because of the large amount of material used.

This is the account of an experiment exploring the principle of overlapping and glueing contours in a vertical plane.

Figure 1 illustrates a model shaped out of a solid block of foam plastic, the method of which is fully described in an article by de Laine and Clarke, "Topographic Models," in the September, 1964, issue of the *Australian Geographer*.

The current price of polyurethane foam plastic in Auckland is \$3 per cubic foot. With this method a nominal 40% of the material is wasted.

Figure 2 illustrates a model built up of thin sheets of foam plastic which are cut to the contours and glued together. It is possible to economise on material by a certain amount of hollowing out of the base layers and the utilisation of offcuts of sheets for the top contour layers. A nominal 20% of material is wasted, but the thin sheets are more costly to obtain. There is a cutting charge for sheets less than one inch thick of 1.5 cents per square foot, which increases the price of  $\frac{1}{8}$  inch sheets by 50% and  $\frac{1}{4}$  inch sheets by 25%, etc. Another disadvantage is that it is not possible to obtain sheets less than  $\frac{1}{8}$  inch thick, which limits the choice of contour height and vertical exaggeration.

Figure 3 illustrates the new method of model making, using a single sheet of polyurethane of nominal thickness for ease of handling, in this case  $\frac{1}{4}$  inch. The cost of material is minimal and the waste is nil, while contour height and vertical exaggeration can be as desired.

### Experimental model

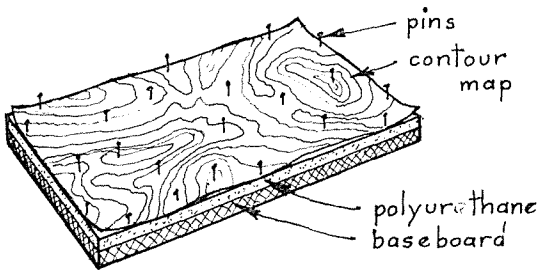
The experimental model was 2ft by 2ft 6in in size and the actual contour height was  $\frac{1}{6}$ th in. The thickness of the polyurethane was  $\frac{1}{4}$ in, or four contours, but experience indicates that the sheet should be about six contours thick to improve friction at the joints.

Polyurethane is superior to polystyrene because of the time-saving ease of cutting, the friction characteristics of the cut surfaces which saves

□ Graham Rose, BArch (NZ), has been in private practice as an architect in Auckland for some years. He is presently a student at the Department of Town Planning, Auckland University.

hours (or days) at the assembly stage, and the open nature of the cells which enable it to absorb the paint necessary for the glueing of the vertical joints. Polyurethane is also insoluble in turps and has a much higher melting point to resist the hazards of cigarette ash and spent matches.

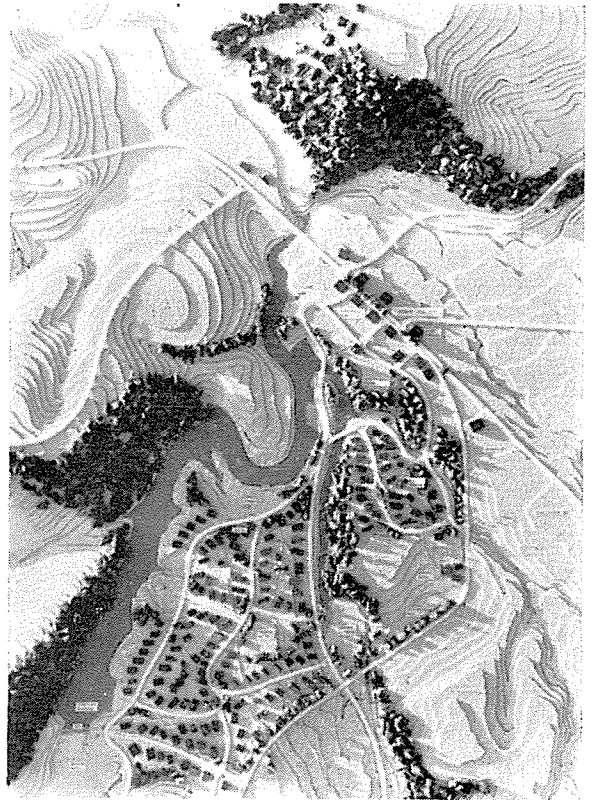
Work commenced by pinning the contour map through the polyurethane sheet into a baseboard of  $\frac{1}{8}$ in softboard. The map and the polyurethane was cut as vertical as possible along each contour line with a narrow bladed scalpel capable of negotiating sharp corners. The baseboard for the finished model also acts as a cutting board, so there need be no fears for the best office drawing board.



When all the contours were cut and freed (with a needle) and the remnants of the contour map cleared away, the contours were carefully lifted and blocked into place, starting with the lowest, which is glued to the baseboard. Blocking pieces consisting of multiple layers of cardboard glued together in various heights were glued to the baseboard and to the relevant contours. Experience and reflection indicates that a "decimal coinage" system of blocking pieces representing 10, 5, 2 and 1 contour heights made of various materials such as cardboard, softboard or wood, etc., could be stacked in various combinations to suit all required blocking heights.

There is no need to block every contour because they hold each other up by friction until paint is applied to make a permanent model. When the contours were blocked up and adjusted for correct height, the joints and the surface of the model were glued together and sealed with quick drying latex paint. The best method of applying the paint is with a spray system, since the contours can be easily dislodged by brushing.

The lifting, blocking, adjusting and paint-glueing operation is an exacting task with this method of model making, but will improve with further practice. Now it's over to you.



# System constraints & measures of effectiveness in urban transport planning

The increasing complexity of our urban environment and its recognition as a dynamic system, makes the reinforcement of empirical and subjective judgment with objective criteria vitally important. Planners must rationalise argument rather than adopt a mystique of planning which obscures the decision making process. Consciously or subconsciously, anyone who makes a decision, implying a rational choice between alternatives, must be employing some criteria by which comparison is made.

If the conflicting interests of various sections of the community are to be reconciled objectively in planning urban transport facilities, then a necessary first step should be the definition of what in operations research literature are referred to as "figures of merit" and "system constraints."

## Figure of merit

From the point of view of a particular section of the community, the solution to a problem can be defined in terms of the optimisation of some particular quantity. The quantity optimised can be referred to as a "figure of merit" and represents, in parametric form, a desirable goal. Changes in the figure of merit can be reckoned as measuring the relative effectiveness of alternative courses of action and can be used to determine net benefit in cost/benefit analysis. Simple examples are not hard to find. Consider the operation of a single intersection within a

highway network in which fixed time traffic lights are installed. The usual approach to phasing the lights is to allocate green time on the basis of the simple formulae:

$$C_o = \frac{1.5L + 5}{1 - y}$$
$$g_n = \frac{y_n}{y} (C_o - L)$$

These expressions are obtained by equating the derivative of Webster's delay formula (1) to zero, so that in applying them, consciously or not, the solution to the problem of assigning priorities at the intersection is judged to be an optimum when the average overall delay at that particular intersection is a minimum. The average overall delay is the figure of merit used in comparing alternative phasing, but the solution derived would be considered an optimum only from the point of view of the driver in the most favoured traffic stream.

It is not difficult in even this simple example to think of alternative criteria which could be adopted as the figure of merit. If the length of queue on any arm interferes with the access to shops, then, from the point of view of the shop owner, the best criterion of success would be the minimising of average queue length on that arm. For pedestrians, the best solution would be one which minimises their delay or perhaps maximises their opportunities for crossing the traffic stream. For any particular point of view the best solution optimises the conditions for a narrow interest.

## System constraints

Since all conflicting requirements in the system cannot be given the optimum, the final choice of solution in optimising a particular figure of merit must be made without unduly penalising conflicting demands. If the minimum acceptable conditions for each conflicting use can be expressed quantitatively, then these values can be regarded as "system constraints," the implication being that as a minimal acceptable condition, a figure of merit can become a system constraint which defines the bounds of a proposed solution.

All too often, however, the point of view from which a figure of merit for optimisation is selected, is that of the traffic engineer whose judgment is influenced by the threat of traffic chaos and

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rising transport costs. But urban transport planning must be considered to be more complex than the optimisation of the costs in money and time, of the transport of goods and people, or the minimising of traffic congestion and chaos.

In looking at the definition of, and solution to, urban planning problems, there can surely be no disagreement with the principle that the point of view from which figures of merit are determined, must be that of the community whose activity determines the predominant land use in an area. System constraints can safeguard the minimal requirements of sectional interests which, of necessity, introduce conflicting requirements. To apply this reasoning to overall urban planning, it is necessary to consider system restraints arising from environmental considerations, as well as traffic conditions and not allow them to get lost in ambiguous jargon which obscures their fundamental importance.

#### **Description of environmental standards**

The ease with which a parameter can be measured is no indication of the weight which should be given to it in determining optimum conditions and yet it is clearly those parameters which can be measured easily and accurately that are usually considered important in decision making, other considerations usually being referred to as intangible benefits. The difficulty of expressing environmental standards in quantitative terms, tends to eliminate them as critical factors in determining an acceptable compromise between conflicting interests. Yet the preservation, or perhaps establishment, of an acceptable living environment in the face of increasing traffic demands must surely be a main goal of urban planning and administration.

The obvious lesson is that environmental standards must be described objectively with no pretence to a special mystique of planning based on the subjective judgment of intangible benefits by the planner. The use of quantitative expressions for environmental factors as system constraints should become an accepted part of decision making, regardless of the discipline or source of authority of the decision maker.

When considering problems in operations research a common denominator for expressing figures of merit is cost in terms of time or money. This approach has been adopted in traffic engineering, but should be argued against in urban

planning. Environmental considerations are of fundamental importance and consequently impossible to express in terms of dollars, particularly where they represent system constraints rather than optimum conditions. The difficulty of advancing an argument for a decrease in the level of service given by a traffic facility, in order to preserve environmental conditions imprecisely expressed in money terms, is obvious if, as a consequence, there is a clearly defined increase in the time and money costs of transport in the urban area.

#### **Quantitative expression of system constraints**

Instead of cost, a more fundamental descriptive parameter, such as traffic flow or density, should be adopted as a unifying measure in expressing dissimilar system constraints and figures of merit. Martin and Wohl (2), for example, in their discussion of figures of merit, mention as common measures: flow, volume, delay, travel time, travel costs and the like.

Arising out of environmental considerations, there could be added such factors as safety standards, pedestrian convenience, levels of noise and the like. The list in either case is by no means exhaustive, but it does seem possible that any one of them could be related to a common parameter such as flow or concentration.

The terms "flow" and "concentration" must themselves be rigorously defined (3), but, to continue the reasoning, assume that a suitable unifying measure in traffic engineering, highway design and urban planning can be taken as the average daily traffic flow on a particular facility. It should be possible to survey each street in the system, define a street function related to predominant land use and to a road hierarchy, and then relate environmental factors to an A.D.T. in the street. System constraints on the proposed solution to a particular traffic problem could then be defined for all streets in the network in terms of a predicted A.D.T. for each street.

#### **Flexibility in planning**

It can be argued that, if system constraints are allowed to define a domain within which a problem solution must lie, then the resulting inflexibility in decision making would mean that there would be no progress and no evolutionary development of the urban area to cope with the undeniable rising demand for traffic facilities.

In urban areas with an outmoded and inflexible

street system incapable of dealing with modern traffic needs, even with the application of the best of traffic management techniques, upheaval is inevitable resulting in a redefinition of environmental areas and street functions. A minimum level of service to traffic will, in itself, be a system constraint on the planning of environmental areas, and the adoption of levels of service to traffic will be a deciding factor in the scale of the revolutionary rather than the evolutionary land redevelopment considered necessary.

Where, however, levels of service to traffic within environmental areas which are in no way ready for redevelopment are above an acceptable minimum, then changes in traffic facilities to maintain or improve a level of service should only occur within the bounds imposed by the system constraints. This does not, of course, rule out the possibility of changing the system constraints by providing alternative facilities. An example could perhaps be the provision of an underground pedestrian crossing in a busy commercial street where the environmental system constraint is defined by pedestrian crossing opportunities. Such a measure would be part of an overall proposal which may actually originate with a traffic facility remote from the particular environmental area.

### **Comparison of alternatives**

When considering any problem in transport planning, particularly on a microscopic scale such as, for example, the location of a primary distributor to cater for rising trip demand to the CBD, the reduction of travel time for through traffic from outer areas is obviously a main consideration. "Travel time" could logically be adopted as a figure of merit in comparing alternative highway schemes. Changes in this figure of merit would then be used in a cost/benefit analysis to assess the relative economic advantages of alternatives. It might be mentioned here that to adopt, as a figure of merit, the level of congestion on a particular facility, appears illogical. Travel time is dependent on congestion and so reflects changes in congestion, while the reverse is not necessarily true. It is the dependent variable rather than the independent variable which should be chosen as the figure of merit.

### **Consideration of the whole system**

The effects on the whole urban system associated with the proposed traffic measure must

also be assessed. Ideally, this must involve a full-scale prediction of changes in the equilibrium of trip demand as the supply function changes; changes in the modal split as the cross elasticity of mode demand changes; changes in trip distribution as journey times between zones changes; and changes in traffic assignment as capacity restraints change. In effect, a model of the urban transport system must be modified and, using a computer, new predictions of traffic volumes in the system network made. Since the initial model has been set up, as it has been in many New Zealand cities, it should be used as a dynamic tool in assessing the effects of system changes.

If the final predicted traffic assignment to any street in the system exceeds the system constraints, then, regardless of the economics of the proposal, the solution must be considered unacceptable and either modified or other alternatives such as the manipulation of trip demand or modal split considered.

### **Conclusion**

The ultimate goal in urban areas should be the development of mature areas of defined land use served by a fully developed and stable road hierarchy which is not subject to "upgrading" to the detriment of the environmental areas. Any citizen investing in property, whether commercial, industrial or residential, is entitled to assume that his environment is not going to be arbitrarily and drastically changed in order to solve imprecisely defined traffic problems in other parts of the system. The real problem in transport planning is to establish system constraints which define the bounds within which changes may be permitted to occur, instead of assuming that any measure which relieves congestion, even locally, is necessarily beneficial.

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## Planning for traffic & parking in Wellington

Preparation of this article has involved me in some soul searching to find out just where we have got to in town and traffic planning in Wellington in this year 1968. To establish a basis on which to measure our progress, I compared Colin Buchanan's conclusions in "Traffic in Towns" with the progress that has been made in Wellington. This proved most interesting. Buchanan's report was published in 1963 — just five years ago — and has generally been regarded as a milestone in the thinking of transportation, traffic and land use planning, and I have been somewhat heartened in again reading the conclusions of that report to find that perhaps in Wellington we are not faring too badly.

The city council, in appointing De Leuw Cather, was one of the first, if not the first, authorities in New Zealand to engage a transportation consultant and although the lack of co-ordination between traffic planning and town planning has been criticised, this to a large extent has been corrected. When the district planning scheme was prepared about two years ago the proposals contained in the De Leuw Cather report were not blindly adhered to. The whole situation was re-appraised, in part by a technical committee set up especially for co-ordination purposes comprising Professor Kennedy, officers of the Ministry of Works, the City Council, the Harbour Board and New Zealand Railways. Wherever it

was found necessary, alternative proposals were considered and the district scheme was eventually produced containing a modified version of De Leuw Cather's proposal.

The modifications included the new waterfront road and a ramp to connect this road with Boulcott Street, The Terrace and the motorway. This latter modification germinated from a proposal contained in the Gabites and Beard Study of Wellington.\*

### Traffic planning

One of the criticisms that Colin Buchanan's team made of the statutory development plans in England was that very few of them really faced up to future problems of traffic and transport. Most seemed to have been stultified by a feeling of hopelessness that funds would ever be available on anything like the scale required. Many contained proposals of a palliative nature, which if proceeded with could have done irreparable harm. The team considered that plans to be more constructive needed re-examining with more optimism in respect of finance.

Wellington planning has been very optimistic and resisted the wails of the Jonahs. All the works and reserves in the district scheme, including major roading proposals, have been costed and it is hopefully anticipated that the finance can be found to do all these necessary works. The proposals shown on the district scheme are for the most part capable of being financed over the 20 years' planning period. These are almost all essential and must be pursued with vigour. At the very worst, financing of the proposals would increase the rates by just under 1 per cent.

### The increase in car ownership

A study of the Wellington situation shows that the number of motor vehicles per head of population is continually rising. The number of cars in 1967 stood at one car for every 3½ persons. If one takes all motor vehicles, the figure is one for every 2½ persons. This number is increasing at a rate of about 7½% per annum and traffic volumes at about 3½% per annum. Overall then, we have an increasing car ownership, an increased number of cars and increased traffic volumes.

\* A. L. Gabites, J. A. Beard, "Precinct Planning for Wellington 1965."

□ Mr. Clarke, BEstMan (Lond), DipTP (M), is City Planner with Wellington City Council. This article follows closely an address by Mr. Clarke to a recent meeting of the New Zealand Road Federation in Wellington. The views expressed in the article are his own and have nothing to do with the council's policy on the subject.

At the same time the actual street surface has not been increased to any great extent. Except for the major new street proposals and some minor street widening proposals that have proved obviously necessary, the scheme does not provide for too much widening. It is considered desirable that much greater use of the existing streets be made by improving traffic flow upon them. On a national level a crude comparison shows that the motor vehicle trade output is increasing at a fairly rapid rate, but the expenditure from National Roads funds, plus expenditure by local bodies on roading, does not seem to be keeping pace with the growth figures.

Slow but sure steps in accordance with overall planning are being taken in Wellington to cope with the 3½% annual increase in traffic volumes. The motorway is making progress, although the opening dates of various sections are continually being deferred. To increase the speed and the easy flow of traffic in the lower part of the city, as well as to tie in with the opening of the motorway, a one-way street system will be implemented later next year in Featherston Street and those streets in that general vicinity.

At the same time the pedestrian has not been forgotten and it is anticipated that the Cuba Street Mall will be in operation early next year. This will provide a very pleasant environment for the pedestrian, but may cause some hardship to the car driver and perhaps some inconvenience in the city overall. However, this is a matter of compromise and what is strived for is an overall balance between the conflicting demands.

The provisions of the district scheme are, therefore, gradually being implemented and recently the Loans Board approved a proposal to raise \$200,000 to effect the one-way street system and to provide an improved temporary transport terminal at the bottom of Lambton Quay. More traffic controls will also be introduced to improve traffic flows and bus services and so encourage greater use of the public transport system.

### **Parking**

Planning for parking is an integral part of all traffic, transportation and land use planning. Off street parking policy poses many thorny questions. The Buchanan Report states that the development of parking policy is of immediate importance. Parking can be controlled in accordance with an

overall plan, but it is essential that the public authority should retain complete control of (1) the amount, (2) its location and (3) the charges levied. (1) and (2) are clearly functions of the streets's ability to cope with the traffic likely to be generated and the charges that are levied should determine whether it is used by long or short term parkers.

Long term parking will generate greater flows at peak hours than short term parking and thus affect the street's ability to cope with traffic generated.

The local authority with full control can also ensure that parking is economically used by making it available at all times so that evening uses, such as cinemas or taverns, can utilise emptied day time parking. This would not be possible if parking were provided by the developers in many small private parcels. Such a policy of control has been adopted by the Wellington City Council. The only question on car parking that is still debated here is whether or not a cash contribution should be paid by developers in lieu of off street car parking, but the council has accepted that planning for parking is an integral part of the overall development plan of the city and must be pursued with considerable vigour.

There are more squabbles between developers and the officers of the city council on the question of providing off street car parking than on any other single factor. It is only too apparent that the streets that are essentially intended for moving vehicles are regarded as free parking space and society is still not prepared to pay for the land occupied by the car. Society in fact will buy a second car before providing off street parking for the first.

Buchanan comments that parking policy is best kept on a rational basis if it stems from the principle that it is the liability of the owner or driver of a stationary vehicle to dispose of it off the highway. Departure from this principle rapidly leads to anomalies and unfairness.

The situation in many of the residential streets in the suburbs is almost intolerable and I am pessimistic about any real improvement in this city until such time as the general public expresses its dissatisfaction and accepts the need for strict enforcement of off street parking requirements.

### **Servicing facilities**

The Wellington district scheme has made pro-

vision for many service lanes, and almost all were the subject of objections. Most land owners agreed that service lanes were essential, but not if located on their property. The same attitude is seen in property owners who are quite unconcerned with blocking a major traffic route with trucks manoeuvring into docking spaces. Providing service lanes where possible is, of course, one way to improve flow of traffic in the central city area.

### **Parking locations**

The implementation of parking policy in the central city area and the control of development will no doubt prove very contentious over the next few years. It would be gratifying to be able to scheme for overall redevelopment of large blocks within the central city with parking space located conveniently underneath or close to buildings, but with the piecemeal development extant in Wellington, the insertion of parking space into every new building will not only complicate the design of the building, but will create problems of circulation and prejudice any chance of converting streets to malls if this should later prove desirable. Already developers are submitting for approval proposals for major traffic generators to be located at points of enormous pedestrian flow or congested traffic conditions.

The planners' job as I see it is to endeavour to forecast what is likely to happen and warn of the consequences, and to encourage the location of major traffic generators in the most suitable places. The traffic officer may be able to sort out the mess of congestion that would result from unco-ordinated development, but I do not think he should be placed unnecessarily in this position. It seems likely in the development of the central city area that the Wellington City Council will move more and more toward prohibiting piecemeal parking in private buildings. The required off street parking will in fact be provided in parking buildings at strategic locations and the stage must be reached in the not too distant future when developers will only be permitted to provide enough parking for essential servicing.

This is the case in London where developers are restricted to one car park per 15,000 square feet of floor space. It may also be of interest that the Greater London Council policy on parking meter fees is to set the fee at such a high figure

as to ensure that one out of every six metered spaces is free at any one time.

### **Peak flows**

There is the possibility of reducing peak hour traffic flows by staggering working hours — but not by very much. It seems quite clear, as the Buchanan Report stated, that the concentration of travel into peak hour periods must be expected as a fact of life and transport systems designed to cope with it. The choice facing society is between the convenience of a costly and elaborate road system and the inconvenience of staggered working hours.

If the country's standard of living continues to rise, then one important demand will be for normal hours of day time work for as many people as possible and society is likely to feel it can afford the various facilities — including transport — that will make this possible. A small reduction of peak flows could result from extending the period of the peak, but this is not likely to be very significant.

### **Conclusion**

We have not progressed as fast in traffic planning as we should have done since De Leuw Cather presented their report and I consider that the initial transportation study should have been followed up with greater vigour and the five-year-old study revised. Growth factors used by De Leuw Cather have nevertheless been recently revised and these show quite clearly that in some central parts of the city the growth in the last five years has been as much as De Leuw Cather anticipated in the next 20 years.

In the recent creation of a separate town planning department within the Wellington City Council organisation, the traffic engineer was transferred from the Department of Works and Planning to the new Town Planning Department. His work will be closely integrated with the planning team, but his staff must be increased to carry on from the initial ground work of De Leuw Cather.

I am hopeful that considerable progress will be made in the gradual implementation of the town plan toward improving both the traffic and living conditions in the city, making it a more convenient place to travel around in, do business in and live in.

# Lessons from Halifax, Nova Scotia

## Part two

In comparison with the dramatic and large urban renewal programme in the city, general planning played very much a secondary role. Halifax adopted a zoning by-law (roughly equivalent to our code of ordinances) and a zoning map in 1950 under provincial enabling legislation. The "Official Plan" performs a similar function to our district schemes, but does it much more loosely and with greater flexibility, at the cost of less security to property owners. Zoning changes were frequent and could be carried out

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by simple resolution of council subject only to appeal to the responsible provincial minister, who seldom, if ever, defied city council's wishes.

Applications for zoning or use changes which came before the planning department were referred to a planning committee of council whose usual procedure was to debate the staff report together with submissions from the applicant in open committee sessions that were always fully attended by the press. Decisions then taken were referred as recommendations to city council who inevitably would then again debate the merits of the staff versus the developer in cases of disagreement.

The basis of this process was the development control machinery which was extremely weak in its entirety. The process of open debate does, I think, have much in its favour, even though it did produce in Halifax a level of political pressure and lobbying of a kind not usually encountered in this country. Yet, despite the legislative weaknesses, the lobbying, the power of the developer over the planner, and the violent swings of community feeling expressed through political action, there is no evidence to suggest that the environment of Halifax suffered as a result. Similarly, there is no evidence to suggest that tight zoning and code control measures show positive benefits in New Zealand cities in terms of environmental quality. It was in Halifax, and must always be in any city, the combined efforts of private enterprise and local government working together to the same end that achieve good standards of physical environment.

The fluid zoning system offered a minimal level of protection from changes in value of property, but it tended to follow rather than attempt to predict the changes in the use of land wrought by public and private action. For this reason it operated simply as a crude tool of development control. This is all that can and should be expected of the zoning system as practised in Canada and New Zealand.

### Urban renewal

It was the urban renewal programme which produced the major incentive for active planning and which by now is the central process in planning in Halifax. Specific development plans played a large part in the background activity of these specific urban renewal projects. I emphasise that

there were many plans because at no time was the entire city the subject of a single, comprehensive long-range development plan. Though preparation of development plans was active through a period of ten years after 1957, and remains active now, never did it seem to successive administrations or planners that a single plan was sufficiently important to take priority over sectional development plans.

The Stevenson report itself was a collection of short range development plans. These, and the others produced since 1957, might more properly be termed action plans, for they each developed specific proposals over well defined areas. One example was a development plan covering a 185 acre residential area now being rebuilt and rehabilitated, another over the CBD which, despite initial apathy, has now become an instrument of policy, and a third over an area of several hundred acres at the north end of the city. Others were very small, such as a 30 acre development plan on the Halifax Common, which was completely implemented in two years, and a five acre development plan over the hospital-medical school complex. All of these were prepared by the city's planning agency. Other major institutions, such as Dalhousie University, had development plans prepared by their own consultants.

All of these plans and the projects that they led to in the public sector were dovetailed into a mid-range five year capital budget programme prepared in 1964. The staging and timing of all public works and the financial resources available to implement these works were therefore kept within the resources of the city over a period that was long enough to see the effects of undertaking certain works and short enough to allow for financial control. Naturally, modifications and reviews of the timing and programming within any current five year capital budget must be frequent, for in Halifax, as in New Zealand cities, sources of finance fluctuated, opportunities arose that could not be repeated, and short term measures introduced federally and provincially operated to the advantage or disadvantage of the city's financial planning. The important point was that the action plans for physical development were accompanied constantly by works, programming and capital budgeting and that all of this was carried on as part of the public planning process.

The development plans which were produced

served their various purposes with different degrees of success. Many of them were implemented quickly with little change. Others received varying measures of support and, of course, many were discarded. The absence of an overall development plan might very easily be seen as a basic reason for some opportunities that were missed, some failures and confrontations of opposing development activities that did occur. However, to expect that the little understood and intricately complex process of community development in the normal course of city development could have been amenable to comprehensive planning in detail and projected into the unknown is a naive mistake and one that we, in the planning profession, are still making.

### **Planning goals**

What general planning in Halifax did suffer from was almost total confusion over goals and disagreement over specific objective. Because of confusion and argument at public, political and administrative levels, action tended to be vigorous and productive, but was often unrelated. The machinery of comprehensive planning techniques which is available and has been developed within the planning profession was no answer to this problem. The process of trying to isolate goals based on real understanding of social and economic needs with consequent clarity over physical development objectives, does, I think, offer a better chance of more successful community development.

We are a very long way from clarifying this process sufficiently to make it comprehensible to ourselves and to the public, but I think we can, and in Halifax we should have tried, to spell out major policies in forms best suited to the particular issue. Had Halifax had a workable framework of goals for policy making I believe the renewal of the city could have proceeded with greater benefit once it began. I don't believe it possible to draw goals out of the community before some major development decisions have been taken and some significant action on the ground, for it is only after those decisions have been made that the areas of conflict and therefore the need for a consensus based on goals and objectives is thrown into sharp relief.

In Halifax the initial development decisions were worked out in conditions of social crises. Their successive implementation and the result-

ing massive interference by public investment into the free property market threw up vividly the gulf between individual and group ideals. That point was reached in Halifax in 1960. The failure of planning in Halifax at that time was not in the absence of a single long-range comprehensive plan for physical development or in the weakness of the development control machinery, but in the absence of a strategy that would have integrated goals with the existing short-term objectives and the capital budget programmes that were then coming into existence. With commitments on major policy issues in the public decision-making arena, private enterprise could then have been provided with the guidance that it literally pleaded for and a confused public set straight on where the city would go with, of course, that public's essential participation and endorsement.

For example, specific objectives might, in Halifax, have been evolved to seek these goals:

1. Restoration of the CBD as the unmistakable focus of the city's cultural, social and commercial life.

2. Reintegration of the two halves — rich and poor — of the city into a single group of Haligonians whose ways might always remain different but whose pride in their city might become the bridge between them.

3. A constant improvement in the quality of all the physical features and buildings that results from and in turn contributes to an increasingly affluent social and economic base.

4. An opportunity for every Haligonian to enjoy and select from the widest possible range of free-time pursuits.

5. A diffusion among Haligonians of the sensation that their city could and should generate qualities that were entirely its own — a character drawn from traditions worth keeping and changes worth making.

If such goals were followed through in some depth, specific objectives could be judged to flow from them. Alternative objectives might often appear and feed back upon goals, changing or reinforcing them. It was in this realm of social and physical planning, linked by economic circumstance, that Halifax failed to achieve a fuller realisation of community development.

### **Changing nature of development plans**

This is not a development plan in the tradi-

tional sense of the term. It is not even a single document, and parts of it may never appear in print. It is, in summation, the area of agreement on the assumptions, attitudes and observations of a large number of key groups who make the important decisions in any city. On the scale of the whole city it is the size of the consensus of these key groups which will determine the success of planning endeavours.

On the scale of smaller parts of the city a key group might vary from a few residents who play a key role in one type of development decision to the board of directors of an institution active in the city, but residing in its head office several hundred miles from it. The very essence of public participation in planning, renewal and development activities lies in isolating the appropriate key groups at the right time and soliciting their participation and achieving their agreement in that area of planning that is related to their interests.

Consequential upon this is the planner's ability to juggle each interest group with integrity and honesty and within the framework of the strategic planning system adopted.

To try to place this kind of approach clearly on paper is beyond the scope of this paper and perhaps not yet within the grasp of my understanding of the planning process. What is possible is to try to clearly state the goals, draw attention to conflicts, debate them in public, and to set limited objectives within capital works programmes written to meet those objectives. This is not only the responsibility but also the duty of a public authority charged with community planning. If it is lucky enough to find the resources to do the job that authority might also move into physical development as a catalyst for broader participation involving private enterprise with all parties moving toward the same ends.

### **Catalytic investment**

In these matters the various Halifax city councils since 1957 did produce the catalytic investment, but almost completely failed to communicate strategies clearly enough to key groups and consequently missed the essential working link between private and public development actions. It is this link that the planner provides and to stay effective in that role he must carry equally the confidence of his political decision makers and the confidence of each key group as their



involvement waxes and wanes from time to time in city development. It hardly needs emphasis that the political team must be effective too. In Halifax this was seldom the case and I think I can fairly lay the blame for many missed opportunities about equally on the heads of the aldermen and the successive planning directors, myself included. This is part of the mistake-learning process which I referred to earlier.

This widespread public investment programme, though poorly co-ordinated and verging constantly on serious over-commitment, as well as being hampered by political strife, was all important in bridging the economic base gap between declining defence support of the metropolitan area and growing financial, administrative and manufacturing industrial importance. Old institutions rebuilt and new ones came where they might easily have slipped away to other centres more centrally placed in the maritime provinces.

As catalysts, some specific projects enjoyed almost spectacular success. One, a \$500,000 landscaping of a 30 acre traditional common, turned a summer dust bowl and a winter snow field into a delightful park for use in both seasons. Before it was finished property values had risen in expectation of speculation around its rim and one 12-storey office building and parking structure was already half completed. Land assembly for apartment buildings was getting under way and it would be reasonable to assume that eventually the half-million dollars of public money spent in this way will help produce or even result directly in at least \$1,000,000 of private investment on its borders.

Perhaps more important than any of these tangible benefits was their combined effect in helping to change the way in which Halifaxians and other Canadians viewed Halifax. The city began to come to life and a diffused sense of goodwill and optimism replaced the years of despair born out of apathetic attitudes.

## Conclusions

This paper was based on four assumptions. They were:

(1) That long-range (say more than five to ten years) comprehensive land use development planning is not possible in societies where a free land market operates.

(2) That past attempts to plan land use far

ahead should be replaced by a process combining achievement of limited land use development objectives related to the near future, within a framework of social goals that is infinite but drawn from current innate social values.

(3) That successful land use planning is possible in a free land market only by the expedient use of development opportunities recognised and linked into a programme that falls within the current statement of goals.

(4) That actual development quality, whether through renewal or new development, can be raised on a city scale only by a working partnership between local government and private enterprise where government leads by stirring the public conscience or imagination and private enterprise is enabled to operate profitably to realise objectives agreed by the partnership.

Events in Halifax over ten years since 1957 did demonstrate, although not conclusively, that the city planning process met its best successes when development was not comprehensive.

Events in Halifax also demonstrated that long-range planning could have benefited from a thorough attempt to isolate goals that were meaningful in terms of current social values. This was the one big area of failure in planning in Halifax and was, among other things, responsible for the disastrous splits in council, the administrative fragmentation during complex renewal operations, and the confusion of private enterprise in its attempts to develop the city.

The programme in Halifax was essentially an evolutionary one. There was no master plan and there was no attempt to put into practice a system of development that originated in a schematic master plan of projected long-range land use development. Its beginnings lay in the simple needs of human beings who had been gradually deprived of a decent environment in which they could live, work and play. Once the lead from the city government had been well established, private enterprise moved in to add to the programme of continuing renewal and development.

In New Zealand urban society one of the failures of our planning system is that it is private enterprise and not city government that so frequently leads the way. I believe that private enterprise and the public both need and want government, whether local, regional or national, to play that role.

## APPENDIX

### Canadian Urban Renewal Legislation

The 1964 amendments to the Federal Urban Renewal Legislation freed the process of much of the rigid control exercised under the original Act and boosted financial assistance. The highlights were:

(1) Urban renewal studies were eligible for a nominal maximum (since exceeded in several specific cases) of 75% of total preparation cost contributed by the federal agency, Central Mortgage and Housing Corporation. In many provinces provincial assistance further lowers the cost to the municipality, thus placing adequate research within reach of virtually every municipality with renewal problems.

(2) Implementation of a scheme became eligible to CMHC financial assistance amounting to 50% of the total cost of acquiring and clearing a renewal site, including costs incurred in the process and 50% of the total cost of installing municipal services and works. Again, provincial assistance frequently reduces the share of the municipality's costs to 25% or less.

(3) National Housing Act loans were made available to help a municipality achieve its proportion of the costs of implementing a scheme at going rates of interest (5-6½%) up to two-thirds actual municipal share and repayable over 15 years.

(4) Loan assistance up to \$15,600 was available over 25-year terms at going rates of interest for homes in urban renewal areas not scheduled for demolition but intended to be conserved or improved.

(5) Federal-provincial subsidised and economic public housing earns a federal capital cost grant of 75% and in the case of subsidised schemes assistance up to 75% of total operating losses. In the case of Halifax the city's share, due to provincial participation, was reduced to 12½% of total capital costs and operating losses.

(6) Land assembly projects for new housing on unbuilt land is financed in the same manner as federal-provincial housing projects.

The federal agency responsible for administering the Act is Central Mortgage and Housing Corporation. This is a trading corporation of the government, dependent upon it only for the flow of capital, and containing all financial administrative and technical groups, including design, to make it responsible for all housing projects. Renewal and development other than public housing was handled in varying forms of partnerships involving the corporation, private developers and other levels of government.

These main provisions of the Amended (1964) NHA are gradually being extended by ever wider additional discretionary powers and ever broader application. The urban renewal provisions are equally applicable whether content, before or after renewal, is mostly housing or mostly commercial.

Canada's legislation runs between five and ten years behind the United States federal government's very comprehensive programme, but still is far in excess of any provision likely to be made in this country.

It is significant to note that in neither the United States nor Canada was this legislative and financial approach adopted by federal, state or provincial governments before those senior political systems had grasped the importance of urban development in the nationhood.

It seems that our New Zealand cities and towns may have to deteriorate in their social and physical quality very much more before central government and the highest office in that government provides the leadership to develop an urban society out of a country that still seems to be hanging ever more tenuously on to its agrarian background.

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## Institute affairs

### RECENT MOVEMENTS

R. B. Riddell, DipTP, MNZIS, ARICS (M), has taken up an appointment at the Department of Town Planning, University of Science and Technology, Kumasi, Ghana.

Wellington members of the Institute have organised themselves into an informal group with the intention of holding regular meetings to discuss a wide range of planning activities. Anyone interested, whether or not they are members or student members, should contact G. A. Town at the Town and Country Planning Branch, Ministry of Works, Wellington.

### MEMBERSHIP

The following have been elected to membership:

D. M. L. Francombe, DipTP

V. Plawinski, DipTP

G. G. McFarlane, DipTP,  
MNZIS

### NEW STUDENT MEMBERS

B. S. Cranwell, DipUrbVal

J. R. Betts, DipArch

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## Reviews

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**Principles and Practice of Urban Planning**, edited by W. I. Goodman, Washington. International City Managers' Association, 4th Edition, 1968, pp 621, \$US12.50.

Twenty-six books and publications have been reviewed so far by TPQ, ten from New Zealand, three from Australia, five from Britain and eight from the United States. One would think that in three years at least one comprehensive text book would have appeared on the market for sale to local government planners, but it is a strange fact that there has been practically nothing available as a general reference source.

Perhaps because of this one finds Stuart F. Chapin's "Urban Land Use Planning" on nearly every book shelf, along with Keeble and Gibberd. These are not books for the working planner in New Zealand. Chapin's book is a unique contribution, but it covers one man's work in the academic research field, and is written for post-graduate students. Keeble and Gibberd represent the full flowering of British architectural planning practice and have little relevance in this country.

Edmund T. Bacon's "Design of Cities" was one of the United States publications re-

viewed in TPQ, as was John Reys' "The Making of Urban America." These magnificent books show that while our history of urban growth has greater affinity with the United States than with Britain, differences in physical scale make the work of Bacon and other great American urban physical planners of little comparative value in this country.

Similarly, the wide range of excellent paper-back literature devoted to experimental fields of social and economic planning in the United States are post-graduate material rather than day-to-day references.

Filling this gap in the professional literature there has been for years only one publication setting out current practice for local government planners: an important book, almost unknown in New Zealand despite its direct relevance to our own local government planning at district and regional levels. Currently titled "Principles and Practices of Urban Planning," it was formerly known as "Local Planning Administration" and first appeared as correspondence course texts, edited and bound together in one volume in 1941. This edition, now a collector's piece in United States planning libraries, makes fascinating reading. Predictably it was inspired by early zoning techniques and the aesthetics of the City Beautiful movement, and it no more represents current United States urban planning practice than Ebenezer Howard represents the current thinking behind the Mark III British new towns.

The immediate post-war years produced a second edition (1948) of "Local Planning Administration," but this was little

more than a superficial revision of an earlier work. This too is significant, showing that the profession in the United States was involved at the time with nothing of comparable significance with the post-war activity in British planning, the era from which we derive most of our professional traditions.

In 1955 the third edition of "Local Planning Administration" appeared, at the height of the post-war mass building boom, and in the early years of the urban renewal movement. The subject matter of this edition is strong on subdivision design and on techniques for meeting the federal government's statutory requirement in urban renewal planning programmes — requirements which make the burden of preparing a New Zealand district scheme look like an afternoon's work.

Thirteen years have now passed since the third edition. Electronic data processing and systems analysis have revolutionised the tools of quantitative analysis throughout every branch of science. Social goals have replaced design goals for urban planners and government officials at every level. Massive federal grants to planning agencies have stimulated activity in all aspects of planned urban development and redevelopment. The fourth edition, retitled and completely rewritten by 21 specialist authors under the editorial and general direction of Professors Goodman and Freund of the University of Illinois, is one more a milestone documenting the current state of planning practice for the growing body of planners within and outside the profession. It is a thoroughly admirable book, readable, prac-

tical, no-nonsense and up to date, written for the average professional and sub-professional inside local government. It is also a larger book than ever before, with a better balance of contents, well illustrated, with a first-class bibliography, and selling at a bargain price considering the number of other excellent reference books one does not therefore need to have handy.

It is, of course, surprising to us to find such a book published by the International City Managers' Association. This organisation is responsible for a whole library of training material, known as the "Municipal Management Series," prepared for the Institute for Training in Municipal Administration, to provide in-service training courses for local government officials. The institute issues a certificate jointly with the American Society of Planning Officials to graduates of its training course in planning.

The book's value to New Zealand planners in the late 1960's is very great. First, the fact that it exists is important to every one of our 365 local governments and to every member of our tiny profession. Second, its range of subject matter demonstrates the breadth of the profession's skills, as well as the vastness of its admitted ignorance. Third, it focusses attention on those aspects of United States urban planning that are currently thought to be of greatest value in the political decision-making process. Fourth, it provides a yardstick by which to measure our own goals and achievements and a starting point from which to modify current United States practice to

our own use.

The subject matter of the book is divided into six parts.

Part 1 deals briefly with the historical and governmental antecedents of urban planning in the U.S., from traditional 18th century designs for town and village, through the Revolution to the rise of land speculation in the older settlement areas, to the 19th century colonisation of the west (largely gridiron layouts on flat land), the growth of urban slums in the older cities and the consequent moves toward housing reform, the rise of the City Beautiful movement at the beginning of the 20th century and the much slower rise of effective land use controls in an environment of free enterprise. The origins of zoning are linked with the dominance of middle-class values at local government level. After the depression came recognition of the need to broaden the scope of land use controls into fields other than physical environment, and after World War II came an increasing ferment of innovation and experiment that has, as yet however, made little impact on local government's massive legacy of 19th century tradition.

The need to reorganise the process of urban decision and change receives brief attention in this part with an outline of the political structure of government and inter-government relations that contribute to the planner's problem of organising his lines of communication to make himself an effective instrument in the process of decision.

Part 2 deals clearly, and in practical terms, with the basic techniques of the planner: population and economic studies; out-

lining methods of mapping and classifying land use and coding it for machine processing; and following with examples of general land use allocations in typical urban areas; concluding with methods of estimating future land requirements.

Transportation planning is then introduced, not so that in 47 pages the urban planner can become a transportation planner, but so as to put transportation in its proper relationship to urban land use.

Similar treatment is given to open space planning. Thus, "What is done with open spaces will obviously affect the character of development and what is done with development will likewise affect open spaces. Open space must be seen not just as space remaindered from development or green splotches for parks on land use maps, but as an essential element determining the character and quality of the urban environment." An admirable argument against some interpretations of our Section 33A!

The section then goes on to mention methods for estimating recreational land needs and to discuss design alternatives for making the best use of available open space acreage in suburban developments. The range of public utilities within the orbit of U.S. planning control is then covered. Where utilities are such that guide lines for unit demand can be formulated, these are quoted.

Part 3, entitled "Special approaches to planning," seems an odd place to find a section on civic design. A reference to Jane Jacobs, suggesting that "City design is so complex and fluid, so uncertain and beset with con-

flicting values as to be thought an impossibility by many thoughtful critics" sets the tone for a careful and balanced assessment of the views of such well-known urbanists as Ian Nairn, Kevin Lynch, Gordon Cullen and Camillo Sitte.

Following this section is a 17-page introduction to methods of quantitative analysis applied to planning, including the purpose and value of mathematical models, an example of how a planning agency could be organised to make full use of these techniques, together with appropriate warnings about the limited relevance of many experimental methods to conventional planning agency work. In other words, don't put new wine into old bottles. The section following, on social welfare planning, acknowledges emerging professional acceptance of social welfare as a planning goal, but is far from specific about the relevance of current planning practice to social change in an urban environment, summarising rather vaguely that the planner should recognise organisations set up to protect the underprivileged, and that he should encourage grassroots (neighbourhood level) participation in the formulation of planning goals.

Part 4, on Planning Implementation, is once more back in the main stream of normal practice, and is reassuringly thorough in outlining alternative techniques for defining development objectives and getting them translated into action. The planner is here seen as an unashamed participant in the process of government, and his skills are largely the skills of a fluent administrator, advocate and political adviser. The view

that the city is essentially a large design project is seen as traditional and of decreasing relevance, while the phrase "normative planning" (in plain English, "planning for change"), describes what is of primary relevance to the practice of political decision making and investments in land within which the local government planner operates. Many clever planners have tested their skills in this arena. I have observed that successful planning is found in the same office as a successful personality, and in "Principles and Practice" will be found a valuable survey of how some of the most successful U.S. planners analyse the process of influencing political decision.

Part 5 appropriately carries the process of planning implementation to further degrees of detail; to the level of zoning and the basic rules of law and practice that underlie a zoning ordinance; to the practice of land subdivision design; to the mechanics (not the politics) of urban renewal.

Part 6 deals with the organisation of a local planning agency — in our language the council's town planning department. Many organisational structures are illustrated and a great deal of detailed material is supplied. One needs to remember here that in this huge nation of over 500 million people there are still major as well as minor urban governments whose only form of land use control is a zoning code dating from the 1930's and whose planning activity is nil. Doubtless any social pathologies found in such cities could not be traced to the absence of up-to-date planning skills, but the federal govern-

ment has no hesitation in withholding a wide range of financial aid programmes from such cities until planning agencies have been established and are in operation and are backed up by organised citizen planning groups. This is the reason why the organisation of planning agencies receives such thorough treatment. In the U.S. there is money for planning because planning pays dividends.

Perhaps as a gentle reminder to some cities that the winds of change have been blowing for a long time, the book ends with a short section on Planning and the Public, suggesting that planning relies for its effectiveness largely on public acceptance and support, and spelling out that planning is now an inescapable function of government. The planner is also reminded of his responsibilities to make himself understood, not only to his council, but also to the members of his community, and pointers are given on the organisation of citizen groups at several levels of sophistication, so as to influence the planning process at district or neighbourhood level more effectively.

The book is amply footnoted with references to standard works and practical examples of many kinds. Many quantitative data tables are given. The bibliography is a thoroughly professional job and was up to date when the book went to press early in 1967. The book, though large, is well bound and excellently set out. I recommend it as an essential reference work for every council and every urban planner, whether professional or subprofessional.

—P. W. T. Bagnall

# Index for four years 1965-1968



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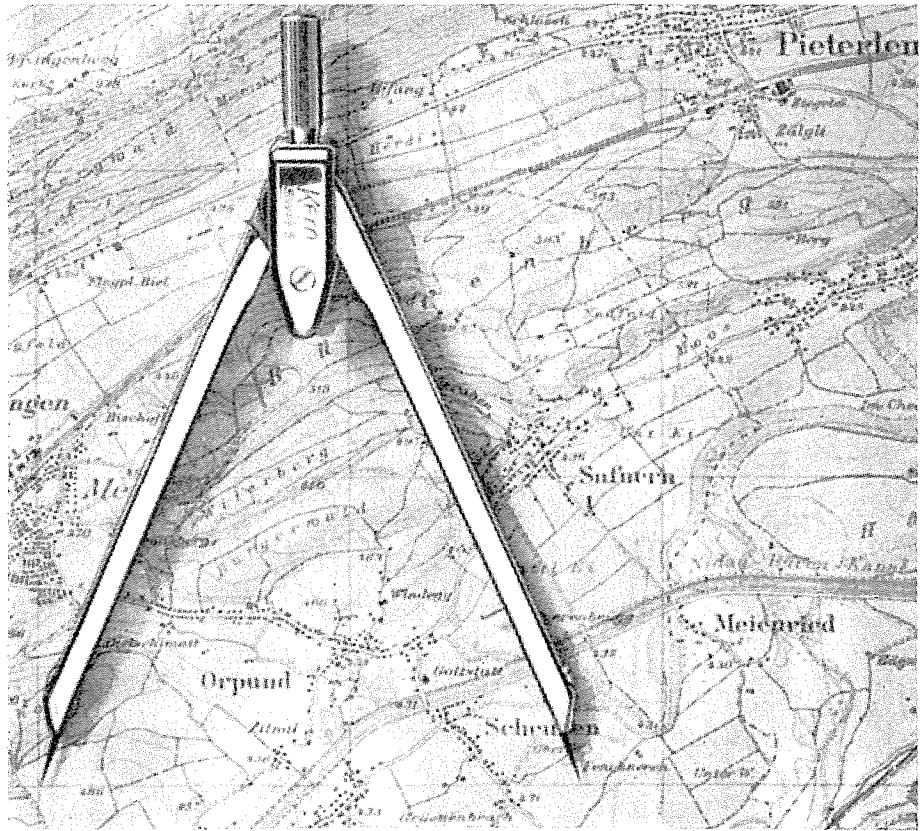
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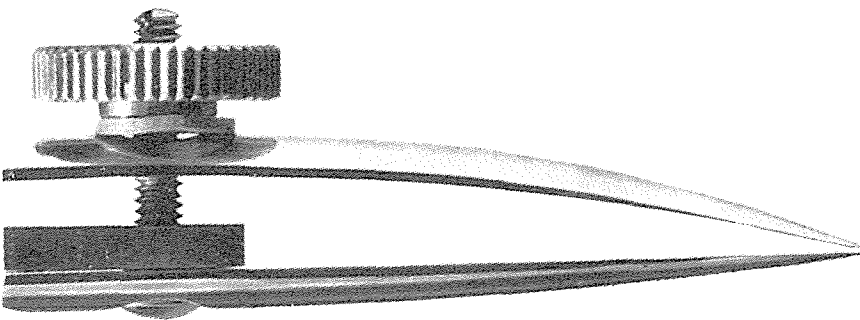
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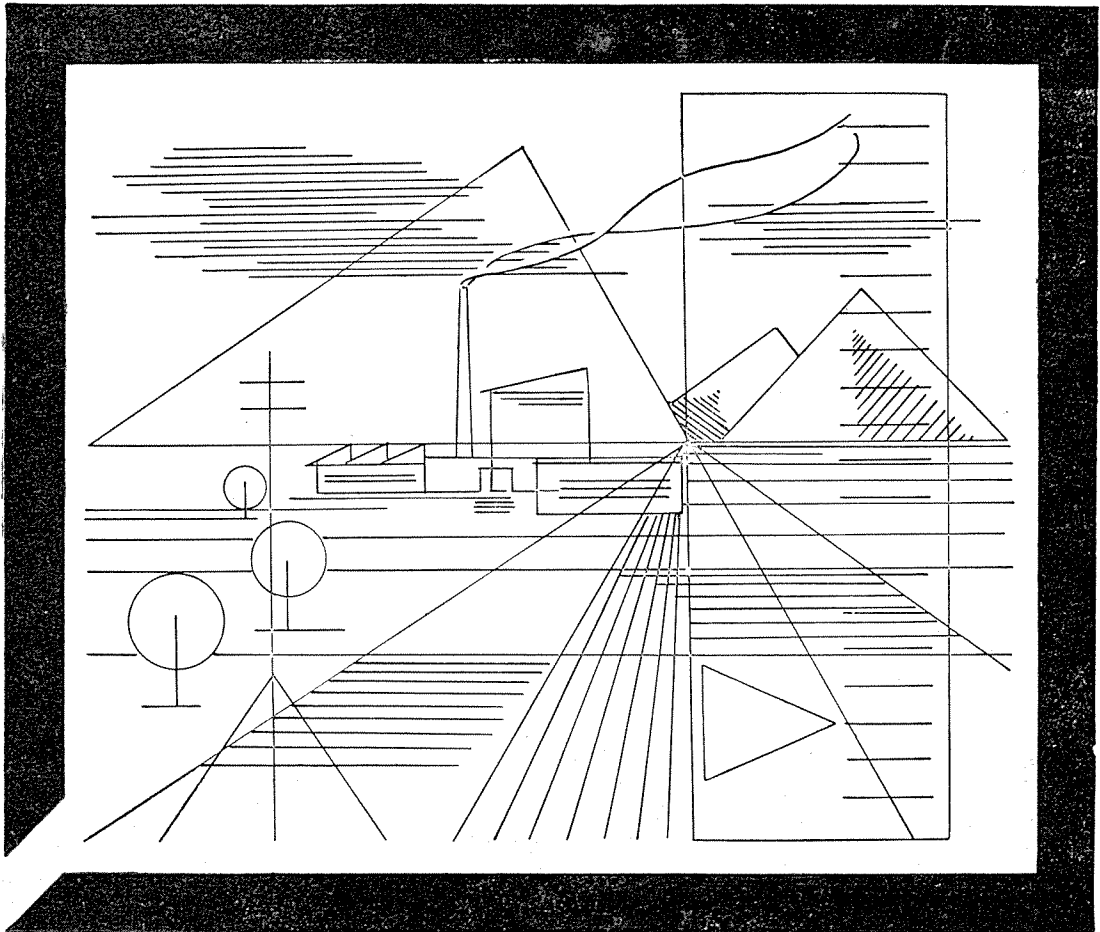
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