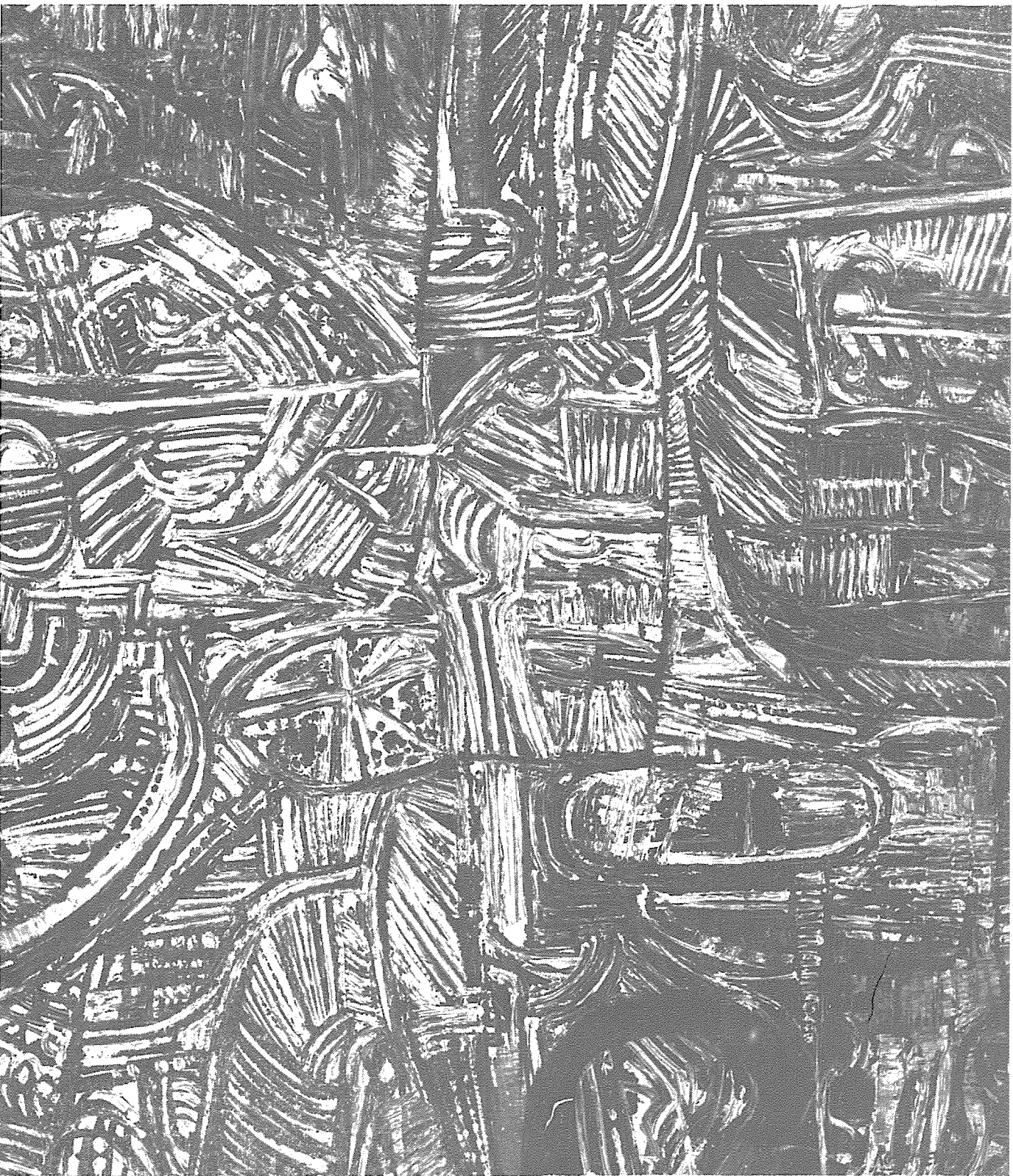
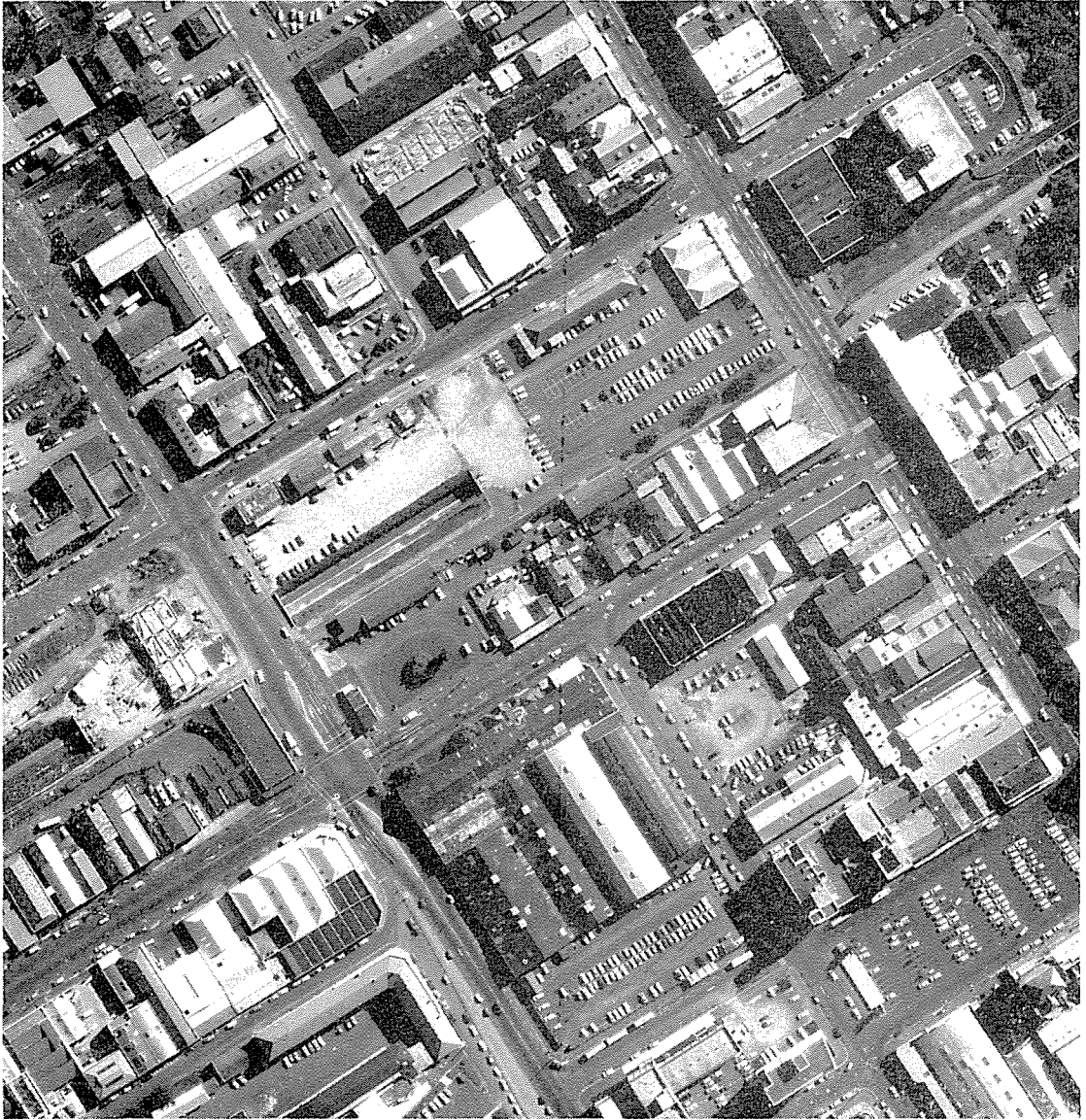


TOWN PLANNING QUARTERLY/5





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- Aerial photogrammetric mapping
- Large scale photo enlargements
- Mosaics
- Ground control surveys

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Number five, September 1966

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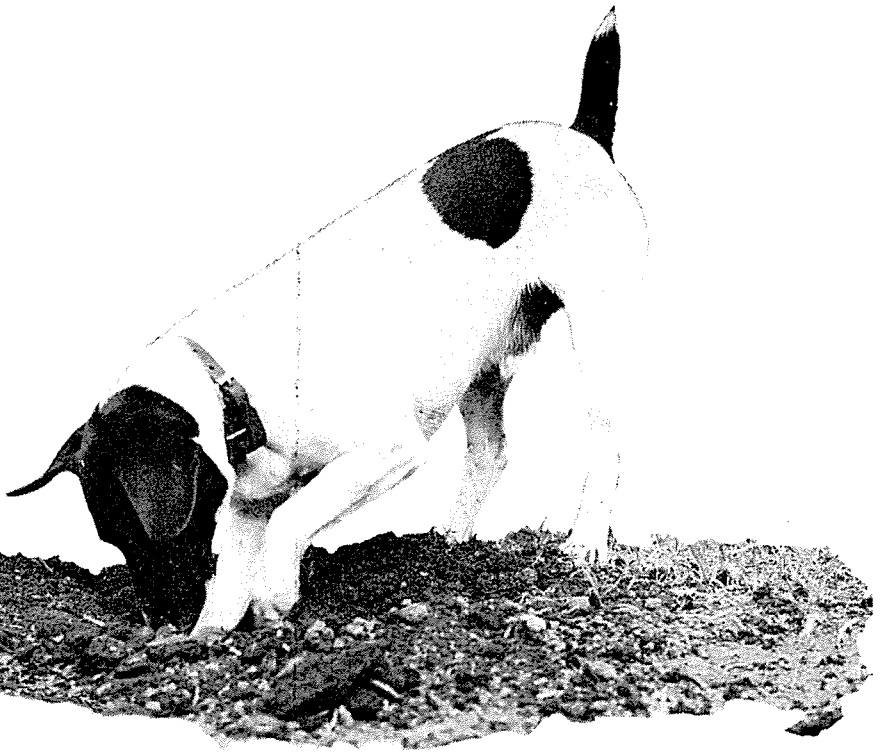
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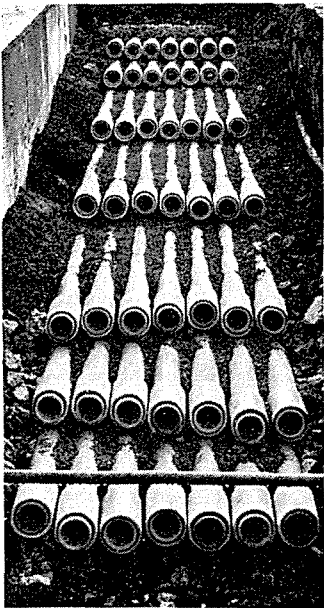
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FACT & OPINION

An editorial notebook

Eisenhower Exchange Fellowship

Lucifer, in this issue, has claimed for New Zealanders an habitual inclination to call upon overseas experts when confronted by other than routine local planning problems. That worthy gentleman could have added that an alternative and, to us, better solution since of more lasting value, would be to send our own people overseas for study purposes.

It is, therefore, a particular occasion for congratulations to Peter Bagnall, senior planner to the Northland Regional Planning Authority and vice-president of the New Zealand Town Planning Institute, on the occasion of his receipt of the Eisenhower Exchange Fellowship for 1967.

The Fellowship, established by a group of Americans to further the cause of world peace through international understanding, is a most generous one and will enable Mr. Bagnall to travel extensively throughout the U.S.A. for some eight months. Primarily, of course, the award is a recognition of Mr. Bagnall's own ability and potential, but it can also be seen as a mark of recognition for the increasingly important role of planning in local government. We will look forward to participating in his new-found knowledge upon his return.

District Planning Maps

We are indebted to Peter Mack for his timely article on methods of district planning map reproduction. The need for such information is clearly necessary.

Many provincial local authorities, and especially the counties, give the impression that their

resources are stretched in an effort to produce base maps and plans of a marginally tolerable standard to meet their varying multiple range of needs. In the process, examples of the use of skill and ingenuity are rare enough, but when it comes to district planning maps, ignorance of the increasingly excellent range of modern draughting aids is rife indeed.

Not only are the advantages of base plan presentation at more than one scale not appreciated, but the whole world of mechanical colour reproduction might never have existed. Even more surprisingly, the excellent adhesive plastic materials, covering as they do the whole range of black and white notations, appear to be unknown outside the draughting rooms of all but the four main urban centres.

The most disconcerting feature of all is that many planning consultants are not pointing to the labour-saving, and therefore cost-saving, merits of these methods by setting the example in the districts for which they are responsible. The Town and Country Planning Branch of the Ministry of Works would be doing an excellent service if it were to use Mr. Mack's article as the basis of a bulletin complementary to its earlier "Maps for District Planning Purposes."

Historical Documents

There was an excellent book published some years ago (W. Ashworth, *The Genesis of Modern British Town Planning*, London, Routledge and Kegan Paul, 1954), which documented in a most readable and instructive manner the progress of legislation leading up to the 1947 Act of British repute.

In New Zealand we have yet to show an awareness of our own evolutionary progress in this

**PROCEEDINGS OF AUSTRALIAN PLANNING CONGRESS
TO BE PUBLISHED**

The Australian Planning Institute has announced that a special 150-page issue of its Journal will be published to report the proceedings of the Ninth Australian Planning Congress.

The Congress was held in Sydney recently and was an unprecedented success. It had the distinction of being the first Australian symposium on planning for developing nations.

The Congress issue of the "AUSTRALIAN PLANNING INSTITUTE JOURNAL" will contain more than 40 papers of interest and value to planners, architects, engineers, local government authorities and all concerned with planning. It will be in four sections:

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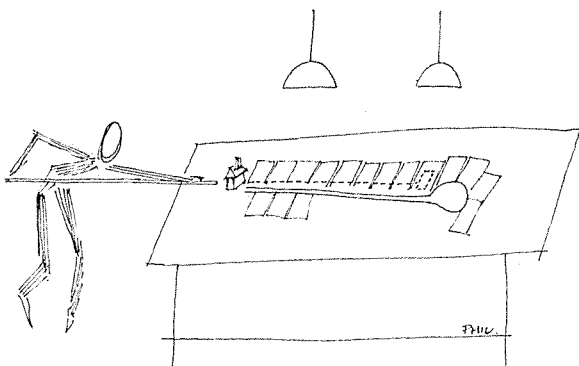
field and, in the meantime, useful publications linking us in varying steps with the Plans of Towns Regulation of 1875 and the first Municipal Corporations and Counties Act of 1876 are being destroyed or are mouldering in basements for the want of adequate storage.

The Town Planning Department of the University of Auckland would be most grateful to receive any material that may add to our present scant knowledge in this respect, either to be lodged permanently in its library or to be copied and returned.

Student Opinion

Square 1, a lively magazine produced by students of the Department of Town Planning, University of Auckland, is the source of the sketch below.

The magazine was produced "in an effort to point at (we know its rude)" some problems of planning in New Zealand. It is available from the Department at 2/- per copy posted.



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Positive and negative planning

It is characteristic of our major national weakness, a corporate lack of confidence, that we rarely resist the temptation to call in the "overseas expert" when confronted by an apparent impasse of conflicting local opinion.

This attitude is no more marked than in the field of town and country planning where our mayors and councillors eagerly extend an invitation to anyone who shows any sign of being lured into comment on some burning problem of local topical significance.

The current controversy may be to do with the siting of the new town hall — resolved, at last, after a century of acrimonious debate; the happier task of how to cope with an embarrassing abundance of open space in the centre of the town; or, most popularly, the searching after a second or third opinion on the findings of the local transportation study.

The professional opinions expressed, carrying with them as they do all the authority of a hit-and-run inspection that has been known to last for as long as two weeks, must be highly valued, not least for the hole they leave in the annual budget at their conclusions.

It is most doubtful that any startling or even original contribution has been made by these people and we are naive indeed if we expect it of them. Their merit, and there must be one if all that valuable currency is not to be entirely lost, is to act as a purge to clear away the waste products of irrelevant issues and improve the vision sufficiently to distinguish the wood as well as the trees.

Their conduct as paid guests does become inexcusable, however, when they make confusion

worse confounded even in this Paradise Lost by introducing their own irrelevancies.

Sooner or later during their sightseeing tours they feel impelled to speak of "positive" planning and "negative" planning and tell us that we must cultivate the former and banish the latter. It is not always easy to find out what they mean by these emotive adjectives, but we believe the following definitions cover the position.

Positive planning is equated with squares and arcades; with trees and fountains; with coloured umbrellas and footpath cafes; with a view of heaven free of the mesh of utility wires.

Negative planning is equated with zoning; with codes of ordinance; with controls and restrictions.

But it is as much positive planning to prevent the proverbial glue factory or car-wrecking yard from establishing itself in a residential area; to prevent the service station being erected at a busy street intersection; to prevent hoardings from framing the view of Mt. Ruapehu; as it is to construct a tree-lined boulevard.

The former are examples of "negative" planning only in the sense that they are not apparent to anyone not aware of "what might have been." There is no glamour in pointing out what is absent because of effective planning control; there is a great deal in putting up a couple of striped umbrellas over tables on the footpath.

What our visitors are, in fact, saying, as they will recognise if only they would take the trouble to reorient themselves, is that in New Zealand at the present time we attempt the most planning for the least expenditure of public moneys. For zoning is merely the control and rationalisation of land use to achieve as orderly and as efficient a pattern as possible up to, but not beyond, the point where compensation must be paid to the owners of the properties affected.

It is the difference between a "zone" and a "designation," so that the local authority that zones land for higher density housing must anticipate the inevitable epidemic of builders' "specs" that attach themselves to the most unlikely sites. The local authority that is seeking for well-designed blocks of flats pleasantly grouped, must purchase the land and plunge into the not-so-cold waters of the building market itself. And it must employ competent architectural advice in the process, not leave it to the Jack-of-

(Continued page 11)

J. F. Northey

A legal case-note

The recent decision of T. A. Gresson, J., in **Kennedy v. Auckland City Council and Lennie** is unlikely to be included in the New Zealand Law Reports because no significant legal issue was determined. It had been argued, *inter alia*, that Ordinance 13 which purported to confer a dispensing power on the city council was invalid, but the judge expressly declined to decide this point. Had he done so the decision probably would have been reported, at least on this aspect of the case. Although the decision not to report the case virtually denies lawyers access to it, it is much too important for those concerned with town planning, as consultants or administrators, to be relegated to limbo.

The judgment leaves a number of questions unanswered. One is the status of the applicant for planning permission. The original application was made by Anclaire Developments, a company which did not otherwise feature in the case. The council advised it of the granting of approval in October, 1964. Because it appears that the company never had an interest, legal or otherwise, in the land, one is led to the conclusion that the planning authorities grant planning permission without investigation of the applicant's interest in the property. When Mr. Lennie applied for a building permit on 26 May, 1965, it was granted on the same day. No one was apparently disposed to question the connection, if any, between Mr. Lennie who planned to build and Anclaire Developments which had sought planning approval.

Professor Kennedy became aware that building operations were imminent at about the date that the building permit was issued. He challenged the dispensation as to density and because he remained dissatisfied he applied for an interim injunction at the end of July. The relation between those proceedings which came before the court in August and the later legal argument in November and December, 1965, is not clear. At the first hearing certain assurances were given as to the construction of the apartment block, but little if anything was done to see that the assurances were honoured. There is obviously a serious gap in the planning legislation if nothing can be done to prevent the construction of a building which not only fails to comply with assurances solemnly given, but also does not conform to the planning requirements.

J. F. NORTHEY, BA, LL.M. (NZ), D. Jur. Toronto, is Professor of Public Law and Dean of the Faculty of Law at the University of Auckland. He is the author of "Company Law" and "Commercial Law in New Zealand" and has many published articles in a wide range of international journals to his credit. We hope that we may entice him more frequently into the field of planning law and that we will again be privileged to publish his findings.

It is clear that T. A. Gresson, J., had some difficulty with the case. Judgment was reserved on 17 December, 1965, and was not delivered until 20 May, 1966, by which date the building in question had presumably been completed and an injunction would have been pointless. Professor Kennedy is the owner of a property on higher ground than that of Mr. Lennie, the second defendant. Prior to Mr. Lennie constructing a block of six apartments, Professor Kennedy enjoyed a better view and more light and he could, it seems, expect a higher price on sale of his property. The judge declared that "there has been no such violation of public or private right as to warrant the issue of a writ of injunction or, alternatively, a writ of mandamus, and in the exercise of my discretion I decline to make the further orders sought."

Though it was recognised in the judgment that there had been some infringements of the relevant legislation, Professor Kennedy was left without redress. It would have been possible, consistently with principle, to have concluded that a breach of a statutory duty (if one could have been spelled out from the legislation) did not confer a cause of action on those injured by a breach of the duty. But this was not the reasoning adopted by the court. A number of departures from the council's own requirements had occurred. These and other occurrences included:

(i) The necessary building permits were issued, in the language of the learned judge, "with somewhat surprising alacrity, all on the same day" (26 May, 1965), whereas at about that date the drawings were not available at the Town Planning Office for inspection by the plaintiff. The permits were issued on the day that application was made for them and the first concrete was poured into the footings on the day following their inspection on 26 May by the council's inspector.

(ii) The approval of a "density" in excess of that permissible under the scheme. In relation to this criticism it was observed that the defendant had after the issue of the planning and building permits but subsequent to the threat of proceedings offered to alter his plans to reduce the density. But it is not without significance that the plan submitted for planning approval could not be produced and that it was believed to differ from the plan submitted to the building inspector and this in turn differed from the plan of the building actually constructed. It was Mr. Lennie's

builder and not Mr. Lennie himself who agreed to the reduction in density from twelve to ten persons, but now that the building is up there is no means of ensuring that only ten persons live in the building.

(iii) It had been argued that Ordinance 13 which purported to confer a dispensing power on the council was ultra vires. No ruling was made on this point, but it was recognised that a municipal corporation is, in the context of compliance with a scheme, placed in the same position as one of its burgesses. It was nevertheless asserted by counsel for the city that "simple, swift and inexpensive dispensing power for minor departures" was necessary. T. A. Gresson, J., expressed the view that dispensations were not authorised and might require legislative sanction. A dispensation had been granted in this instance to Mr. Lennie in keeping with the council's prior practice. The judge stated that:

"In retrospect I am of opinion that in this instance the council might to advantage have applied for the consents of adjoining property owners, and, if such consents were not forthcoming, it could then have invoked the conditional use procedure, which would have given those affected the right to object to the proposed dispensation."

The judge's observation that the dispensation should not have been granted in the manner it was is somewhat difficult to reconcile with the conclusion that it had "no practical or legal significance."

(iv) Despite assurances given at the hearing of the application for an interim injunction, the building exceeded the permitted height by between six and nine inches; this was described as having "no practical consequences" and as having been "clearly unintentional." It might be observed at this point that in general the law is not concerned with intentions, good or bad, but they might be relevant to the grant of discretionary relief.

(v) The manner of measuring guttering and spoutings was in dispute. The projection of the five inch gutterings was said "not [to] constitute any real obstruction" and had in practice been disregarded. The learned judge said however that this realistic approach could with advantage "be embodied . . . when this Ordinance is next revised."

(vi) The external appearance of the building is one of the matters covered by the scheme. The

judge's comments in respect of this matter were that the "only persons adversely affected" were the occupants of the Kennedy's house. Though the plaintiff is obviously adversely affected the lower owner might also be said to suffer in some degree.

(vii) Inadequate provision, as required by the scheme, was made for parking, but this infringement was described as having "slight practical consequence" and in any event was "capable of correction" in respect of one [of two] of the additional parking spaces required. Now that the decision has been given, no one appears to be interested in having the parking arrangements improved.

(viii) Another infringement of a by-law as to the area of bedrooms was said to be "trivial" and "eligible for dispensation."

(ix) It was argued that the space between Mr. Lennie's building and the plaintiff's northern boundary was a "side court" and should be eight feet in width. On this technical aspect of planning, T. A. Gresson, J., said that the space "can, in my view, also be treated legitimately as a 'service court' . . . because it has a minimum width of four feet. . . ."

The judge's conclusion that Professor Kennedy had not demonstrated that he had suffered any loss or damage over and above what he would have sustained had the Auckland City Council insisted on literal compliance with its ordinances and by-laws must of course be accepted. But Professor Kennedy might be tempted to reply that he was asking the court for a decision in relation to events as they had occurred and not on the basis of what might have occurred. The writer is left with the uneasy feeling that a number of departures from the city's planning scheme and by-laws can and have been permitted and in respect of them an adjoining owner has no redress. The purpose of planning legislation is defeated if some can secure relaxations of its requirements. In this case the departures from the plan were numerous and cumulatively important to the plaintiff at least. Admittedly, the granting of an injunction in a situation such as this might have been inappropriate, but the case establishes the need for amendment of the law to enable persons injured in situations such as this to claim compensation.

The basis of planning legislation is presumably

that all subject to a planning scheme should benefit and bear the burdens equally. Where the burdens are distributed unequally, when dispensations are granted, those who suffer should receive compensation from the person who is enjoying the benefit of the dispensation or from the planning authority itself.

It is a grave defect in our law, a defect partially recognised by the award of £105 costs to the plaintiff, if no means are available to prevent the erection of a building which does not conform to the district scheme in respect of bulk, height, density, parking or exterior finish.

LUCIFER continued

all-trades borough engineer and his partner, the building inspector.

Zoning is the process of defining areas of like uses; designation is the giving of advance notice of a specific development. The former gives to us all a degree of security that did not previously exist; the latter requires that extra penny on the rates that few of us are prepared as yet to tolerate.

Certainly let us never rest content with whatever environment we may, for the time being, be stuck with. Let us always be ready to prise apart the most hair-like crack in the election year determination to "hold the rate." But let us also point out to our overseas experts that to propose a pedestrian platform over Queen Street, Auckland; to push all those Wellington car drivers into buses and trams; to call a halt to any further bach building anywhere along our thousands of miles of coastline; is to ask for a social and political revolution, not a change of emphasis in our present approach to town and country planning.

Edward J. Babe

The effect of planning on land values

(Concluded)

The three main problems facing planners today stem from the interaction of a rise in population numbers, growth of the use of the automobile and concentration of the population increase in urban areas. These can rarely be tackled as a district problem; they are almost wholly regional. One answer has tended to be to continue the historical answers and to enlarge metropolitan areas by extensive development rather than by a combination incorporating intensive redevelopment. The outcry against the outward creep of the urban areas has now built up to a point that it has the ear of the politician, but it can never be halted, only rationalised.

Why do people go to the perimeter as they have been doing since the beginning of urban development in New Zealand? Largely, I suspect, because it is a matter of personal economy, if the subsidiary reasons of desirable local features, seclusion, or contrariness are excluded. There can be purchased a dwelling with the least amount of capital outlay. As the psychology behind hire purchase well illustrates, more can afford a weekly sum than can accumulate a capital amount. In general, mortgage policies, both state and private, have been aimed at new construction rather than the existing dwelling, so again the encouragement is to buy at the perimeter. There are direct costs to the buyer in transport fares and time involved, but these are sacrifices he is capable of making — time is his to expend, but capital sums for purchase of substantial equities in close-in houses are not at his command.

There are of course real and substantial social costs in these population shifts as social capital becomes underused at the old core of development, and underprovided or provided at high cost at the perimeter. These facts have been well discussed elsewhere (15) and there is no need to detail them here.

Mortgage influence

One way then to ease this pressure on fringe land would be to reorientate mortgage policies. Place a limit on the individual amount, or the total amount that may be allocated to new single unit dwellings and allow a greater share to be allocated to the purchase of existing dwellings or the redevelopment of old central areas. I know this is being done now, but is it being done to anywhere near the same degree that set in motion the wholesale development from 1958 on at the perimeter? "Easy does it" perhaps, but mortgage

MR. E. J. BABE, B Com, DPA, Dip Urb Val, FNZIV, ARANZ, is Director of Administration and Research, Valuation Department, Wellington. This paper, the first half of which appeared in our last issue, reflects his experiences, but, of course, does not express the official views of the Valuation Department.

money and government subsidies are very powerful levers in manipulating the economy and implementing policy.

If development at the perimeter is discouraged then encouragement must be given to redevelopment back nearer to the centre of the region if the community is to be adequately housed and one of the great drawbacks to this is the lack of availability of sites and the excessive fragmentation necessitating site assembly. And another, of course, is the lack of finance available to local authorities or to the state to acquire and clear suitable sites. Costs for site assembly and site clearance in the old parts of the central core can be very high, resulting in inability to adequately capitalise on the site value unless a considerable portion of it is recouped by state subsidy. In a recent survey in Petone it was found that to obtain an acre of cleared land for residential redevelopment would cost £40,000 and all that could be recouped on resale was £20,000. There is nothing unusual in this, as it is almost world wide experience that cost of urban renewal projects involving site clearance cannot be wholly recouped by the sale of the cleared land.

It has always been a puzzle to me why in such schemes we must think in terms of a "scorched earth" policy before starting to redevelop. This may be necessary in some cases, but surely a blending of the new and the old is not an impossibility. It has been documented on the American scene (16) that a judicious mixture of new construction with renovation work on some of the better class older properties can lower the costs and reduce the risks of rehabilitating old urban areas. As a valuer it is my experience that a renovated house can be made an economic proposition when the work is carried out with proper thought to its effect on value enhancement. Perhaps the state could encourage such work by the granting of finance for suitable projects — "an urban fix-up job" as the Americans call it.

Densities

Another reason for the uneconomic costs of site clearance in urban redevelopment is the allowable densities in these areas. In general the population density of the area chosen for redevelopment was probably near the highest in the metropolitan area and the new development may actually cause a lowering of existing densities. Moreover, by pushing the transient population, immi-

grants, boarders, apartment dwellers, etc., further out it only sets in motion over a widening area those forces that cause an area to require redevelopment. If allowable densities are sufficiently high it encourages private enterprise to participate in urban renewal. Wellington has in recent years enjoyed a spate of flat building in its central residential areas, but this has now slowed. This has been caused in part by the meeting of demand; in part by parking requirements and site coverage regulations; but also in part by the conscious lowering of densities by the council.

Example

I have refrained from too much detail in this paper, but let me give you one example of the effect of a deliberate change in permitted densities:

In 1963 a site of 2 roods 25 perches lay in a proposed zone on an undisclosed scheme that permitted the erection thereon of 55 flat units. Its valuation was: 55 Flat Units at £450 per unit = £24,750.

In 1964 permitted densities were lowered and this site, still unbuilt on, was allowed to be developed to the extent of 26 units only. In this smaller block the unit land value would rise for several reasons, but at best it would at that date be as follows: 26 Flat Units at £600 per unit = £15,600.

There would be little difficulty if we were dealing with vacant land for then presumably the price would fall to the new level, but we are not. For urban renewal we are dependent on a high land value to absorb the capital lost in the demolition of buildings to obtain cleared land. In the situation where the capital value of the property maintains a constant level the less the value of the site the more is the value of the buildings and other improvements on the site and the less advantageous becomes the economics of supersession.

However, I must not get too deep in this topic. Urban renewal is the subject of an intensive study at the present time and when that report reaches the light of day we will all be the wiser for it.

The movement to the perimeter is not confined solely to the residential areas of our cities, it is present in both the commercial and industrial sectors. Pre-war decentralisation of these areas occurred, but largely to complement the central business district and its fringe industrial growth rather than be competitive with it. Since the war,

and more especially since 1950, the outward movement of manufacturers and retailers has gained momentum. Trends in factory design and scale of manufacturing have called for large areas of flat land and this has only been available at the perimeter, or beyond it, and here too are the congregations of population to provide labour.

Parallel with the accelerated industrial development in the suburbs, there has been a major transfer of retailing functions from the centre city. The impetus for this has been the difficulties of attracting customers from the far flung suburbs whose desires to visit "town" are dulled by the problems associated with both private and public transport. The growth of suburban shopping centres and regional shopping centres has been phenomenal in the Auckland metropolitan area and has been followed, but on a minor key, in the other centres.

There is no doubt that the numbers of these centres catering for the motorised customer have seriously affected the business done in the central business district. In Wellington, where the "flight to the suburbs" is not as pronounced as in Auckland, the aggregate pedestrian counts in the principal retail streets taken by the New Zealand Institute of Valuers (17) show a declining tendency over the last five years. This has not been followed by a decline in land value for a number of reasons and indeed each of the four main centres demonstrates a continuing rise in retail land values. This is to talk of the generality however. Particular areas have declined and in Wellington, with which I am more familiar, the retail heart has shrunk considerably in the last decade. Courtenay Place and Upper Cuba Street have declined substantially as retail areas; a strong pocket has formed around the Manners Street, Cuba Street, Dixon Street intersections; Willis Street has remained stable, but Lambton Quay has developed considerably. This latter is the result of the economics of joint office and retail use. In my opinion the central business district of Wellington will change its emphasis from retail to office and already the prices paid for select office sites rival and exceed those paid for retail frontages. Wellington is being revitalised as an administrative centre and the retail sector will share in and benefit from this growth.

It is this hard core of administrative functions that will assist the retail areas of all business districts to retain their status. These tend by cus-

tom to seek positions in or near to the principal retail streets and each complement the other. The reasons why these areas were established in the first place are still basically there — the presence of a port, the need for warehousing, the placing of central and local government administration offices, and so on. Development by new buildings and modernisation of others is taking place, demonstrating commercial confidence while the planning and construction of urban motorways and parking buildings show that the problem of transport is at least being tackled. I do not think that we need fear for our central business districts while the current pace of economic development continues.

At the risk of over simplification perhaps the answer to many planning problems may be wrapped up in the old residential areas around the business heart. If these were revitalised development may turn inward and in time slow the growth at the perimeter — it will never extinguish it — and provide more reason for the central heart to remain alive after 6 p.m. A satisfactory answer would require both initiative and finance. I think our communities could provide leadership if finance were available, but where may it be obtained in sufficient quantities? Here we may look overseas and see if older countries have any experience to offer.

Overseas solutions

Now you all are aware that changes in planning use from rural to urban, from residential to industrial, from residential to commercial, may be accompanied by large increase in land value. This increase in value arises from community demand for a higher and better use and may in no way be due to the efforts of its owner as an individual. Should he be left to enjoy this windfall which the community has created?

As you have already discerned this is the old argument of capital levy and betterment and many of you will shake your heads and say it can't be done. I am well aware of Uthwatt and his Committee (18) and the problems besetting the United Kingdom Town and Country Planning Act of 1947, but fresh thought has been given to this problem and now the Labour government of Great Britain is considering legislation to set up a land commission with the dual objectives:

1. To secure that the right land is available at the right time for the implementation of national, regional and local plans.

2. To secure that a substantial part of the development value created by the community returns to the community and that the burden of the cost of land for essential purposes is reduced. (19)

The philosophy is expounded in the following extract: "A growing population, increasingly making their homes in great cities, has not only made effective public control over land indispensable; it has also made indefensible a system which allows landowners or land speculators wholly to appropriate the increases, often very large, in the value of urban land resulting either from government action, whether central or local, or from the growth of social wealth and population." (20)

Only the British government's solution as to that part of the proposals related to securing the development value concerns me here. This value is to be collected as a levy at a uniform rate on the development value (that is, the increase in value resulting from a planning permission for a higher and better use), when it is realised by a transaction in land or, where there is no transaction, when it is realised by an actual development of land. The levy is to be 40% initially, rising to 50%. It works in this way:

Say, a block of 50 acres of land is zoned for rural use and in that use would be worth £200 per acre. Its owner applies for rezoning to residential use, obtains it, and sells the land to a development company. As land ripe for urban development it is worth £500 per acre. (In practice this may well be proved by the actual purchase price.) The development value is thus £300 per acre and the commission will impose the levy on the vendor of 40% of the £300, or £120 per acre — in this case a capital sum of £6000. This levy goes into a fund to pay for the acquisition of property for the implementation of planning proposals.

There is nothing new in a land value increment levy or tax. Many German municipalities had such a tax around the turn of the century and Great Britain introduced a comprehensive measure in 1910 (21), though it disappeared with the problems of wartime finance in World War I. Denmark is a modern state that has had in recent years a national tax on increments of land value. (22)

The application of a similar tax or levy to New Zealand would have its attractions if it were specifically earmarked for planning implementa-

tion. A levy could produce capital sums to assist in the servicing of new areas and in the redevelopment of old areas. It would discourage the premature cutting up of perimeter land because of the weight of the levy and it could lower the actual costs of land for public works related to housing development, because the state could deduct the amount of the levy from the compensation it would pay the land owner.

The levy could be extended to all forms of planning permission. In an example recently in front of me a residential site worth £650 was granted conditional usage as a site for a service station, and sold for this purpose for £2000. A levy of 40% would collect £540 from this transaction. Another site had its zoning changed from residential use to industrial use and its value went from £1200 to £4000. A similar levy would produce £1120 for the fund. It is difficult, if not impossible, to estimate the increase in property values brought about by planning permissions each year, but I would hazard a guess that it would not be less than 20 million pounds. A levy even of 25% of that would be a handsome contribution toward the implementation of planning in New Zealand.

Value enhancement due to planning permissions is only one form of community created increment in land values. The general economic growth of communities may enhance land values whether planning permissions are involved or not and there may well be an equal case for the levying of all land that reflects an enhancement in value, as is done in Denmark.

It would not be reasonable to take all the enhancement however, as the property owner would also be contributing substantially through his rates for his capital increment, particularly where the unimproved or capital value rating systems are in use.

I can foresee problems in its political acceptance and in its collection, and even greater problems in its distribution, but this would only make more urgent the setting up of a national co-ordinating body and regional authorities. A National Roads Board has achieved success; perhaps the future may see a National Town and Country Planning Board equally well provided with its own supply of funds and equally successful.

Now, in conclusion, I realise that there are many other aspects that I could have touched on,

and that I have raised many issues without adequately discussing them, but I have interpreted my role as one to stimulate discussion and I take my leave of you with these comments: The planner has still not convinced the public that he has something dynamic and positive to offer. Too many still think that planning in general is aimed at destroying the freedom of the individual and that town and country planning in particular is just another infringement of the sacred rights of property. They will continue to think this way until the planner gives a tangible demonstration of his real ability to broaden the defective "freedom" of the property owner by leading the community to provide that fullness of amenity the individual is powerless to provide for himself.

After giving due recognition to the need for planning within the national framework the emphasis should be on "community effort," but this should not be interpreted too narrowly. Development has left the historical and relatively fixed boundaries of territorial local authorities so far behind that they no longer represent individually the concentration of population. The metropolitan region has taken the place of the local authority. Here, Auckland, as in many things, is showing the way, for tomorrow it is regional control that will matter and it will be to the region that property owners will look to provide the conditions of stability in land use that will maximise the "amenities of the neighbourhood" and find its reflection in the value of their realty.

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- 15 e.g., "The Costs of Providing Urban Housing," by H. C. Holden, Department of Industries and Commerce, December, 1959.
- 16 "Urban Fix-up: A Neglected Market Beckons the Builder" from *House and Home*, August, 1965.
- 17 *Urban Valuers' Hand Book of Statistical and General Information*, Second Edition, the New Zealand Institute of Valuers, Wellington.
- 18 Expert Committee on Compensation and Betterment. Final Report. HMSO, London, 1942 (Cmd. 6386).
- 19 The Land Commission, HMSO, London, 1965 (Cmd. 2771).
- 20 *Ibid*, page 4.
- 21 The Finance (1909-10) Act, 1910.
- 22 Page 53 et seq. "Land Value Taxation Around the World," Schalkenbach Foundation, New York, 1955.

T. A. Kenny

Aerial photogrammetric surveys

Few local authority and governmental development projects today do not involve, at some stage, the use of aerial photographs. Increasingly planners, engineers, surveyors and administrators too, have discovered the manifold uses of both large and small scale vertical photographs and the advantages of photogrammetrically prepared contour plans.

In this paper it is proposed to deal briefly with photogrammetric mapping.

Photography for this purpose consists of runs of photographs, each photo overlapping in the direction of flight by 60 per cent and in cases of parallel runs, overlapping laterally by 20 to 30 per cent. These photographs are secured by use of a precision aerial mapping camera mounted over a hatch in the aircraft floor.

From the fact of the 60 per cent forward overlap it will be apparent that the leading half of the first photograph shows the same area as the rear half of the second one; but owing to the change of position of the aircraft between exposures the two views will differ slightly. This is the basis of stereoscopic viewing and of photogrammetry.

The stereoscope, either in the pocket form or the mirror type such as the Wild, permits viewing the two consecutive photographs, one to each eye. The brain interprets the small differences in the relative positions of images on one photograph as compared with the other, as a three-dimensional view of the terrain.

The photogrammetric mapping is accomplished by applying this principle of three-dimensional vision, to a precision instrument, commonly called

MR. T. A. KENNY, MNZIS, commenced private survey practice in 1950 and since 1959 has been engaged in aerial mapping with his firm Aerosurveys (Tauranga).

a stereoplotter. This enables the stereoscopic model to be brought to scale and levelled, relative to ground points visible on the photographs and of known positions and heights. The various physical details encompassed by the stereoscopic model and the desired contours are, by use of the stereoplotter, drawn upon dimensionally stable material. These plots are then compiled by tracing on to the final translucent sheets, from which are obtained prints for use.

The procedure

Now let us consider in more detail the various steps. Firstly, a flight plan is prepared showing intended photo centres. This is followed in many cases by premarking on the ground of suitably positioned control points. Of these, for each stereo model there are four for position and four for level, located near the corners of each proposed photograph overlap. With premarked points, the same ones serve for both level and position, but in other cases the level and height points, while close, might not be the same, as a good position point is often not a good level point.

The positions and heights of the control points are determined by ground survey (at least for most large scale mapping) and subsequently recorded on the backs of the photographs.

From the photography several sets of contact prints are produced (one for ground control purposes) and a set of photographs printed on to glass and known as diapositives. These diapositives fit the plate carriers of the stereoplotting instrument and must be accurately centred therein by coincidence of the camera fiducial marks (appearing along the sides or at the corners of the photographs), and the similar fiducial marks of the plate carrier.

The ground control points for each stereo overlap are plotted on sheets of dimensionally stable material (the base plot) and to these will be added, as plotting proceeds, the desired physical features and contours.

The operation of a stereoplotter consists basically of three operations once the diapositives have been mounted:

(1) Relative orientation, which consists of so tilting and rotating the two diapositives according to a set routine as to cause them to assume relative to one another the same angular relationships as the camera negatives had at the instants of exposure. The operator is then presented in the instrument with a three-dimensional model of the

terrain in proportion, but as yet of unknown scale, and not yet levelled in terms of the plotter height counter.

(2) Absolute orientation consists of instrumentally (a) increasing or decreasing the size of the relatively oriented model until the visible control points fit the positions marked on the base plot; (b) causing the model so to tilt as to give instrument height counter readings corresponding to the known heights of the control points when the instrument is set to give a height reading there — that is when the “floating mark” is apparently resting upon the control point.

This floating mark visible to the plotter operator appears in the field of view either as a small black dot or as a speck of light, depending on the type of plotter. It can, by manipulation of the instrument controls, be moved in the field of view both horizontally and vertically. Its horizontal movements are connected to the stereoplotter tracing pencil and its vertical movements are connected to the stereoplotter height counter.

(3) Executing the delineation of the physical detail and the required contours.

Procedures (1) and (2) are known as setting up the model.

The subsequent plotting involves moving the floating mark around the outlines of the physical features, and for contours moving the floating mark in apparent continuous contact with the model surface with the instrument height counter set at the contour level required.

Photogrammetric maps can be prepared at any suitable combination of scale and contour interval.

The combinations which are, in the experience of the writer, most frequently used by local authorities, are 66 feet or 100 feet to an inch with contours at 2 feet intervals. These map sheets are ideal for detailed planning of sewerage and water reticulation, as well as new streets and sub-divisional development proposals.

Plans at 200 feet to the inch with contours at 5 feet intervals are useful for major highway route location and design and general planning.

Smaller scale plans, say 500 feet to an inch with 20 feet contours, are suitable for reservoir computations or route investigations in bush or other difficult country.

The final choice of scale and contour interval must depend on the consideration of factors both technical and economic.

The presentation of planning maps for district schemes

In any discussion of scheme plan production it is necessary to have an appreciation of the kind of scheme that is to be illustrated. Thus, a small rural community will present a different set of problems to that offered by a city of 100,000 people and, in each case, a varying degree of emphasis will be placed on different parts of the scheme.

Therefore, in order to bring the map itself into perspective, let us look very briefly at the constituent parts of the scheme. The District Scheme is made up of:

- the Scheme Statement;
- the Code of Ordinances;
- the District Planning Map No. 1.

Their functions may be summed up as follows:

- the Scheme Statement defines intent (Motive);
- the Planning Map defines incident and extent (Distribution and Quantity);
- the Code of Ordinances defines standards, machinery and responsibility (Quality).

I have not referred to the Planning Data Map because its purpose, content and presentation and its use and misuse are such as to require a quite separate discussion.

The Scheme Statement and the Code of Ordinances, being primarily text, are relatively easy to produce in quantity and the main difficulty there lies in the production of initial documents that are both informative, coherent and valid.

The District Planning Map

Section 22 (3) of the Town and Country Planning Act states: "The Council shall make available on request copies of the scheme, other than the plans, for use by objectors or their counsel and other interested parties at a reasonable charge sufficient to cover the Council's expenses in the matter."

The great majority of people coming to inspect the district scheme will ask for the planning map in the first instance. This may be followed by a request for the code of ordinances, but the planning data and scheme statement tend to be of academic or legal interest only and are certainly rarely pursued in the initial stages of public inquiry.

The planning map will appear in one of two basic forms of presentation, either black and white or coloured. The plan content can, and should

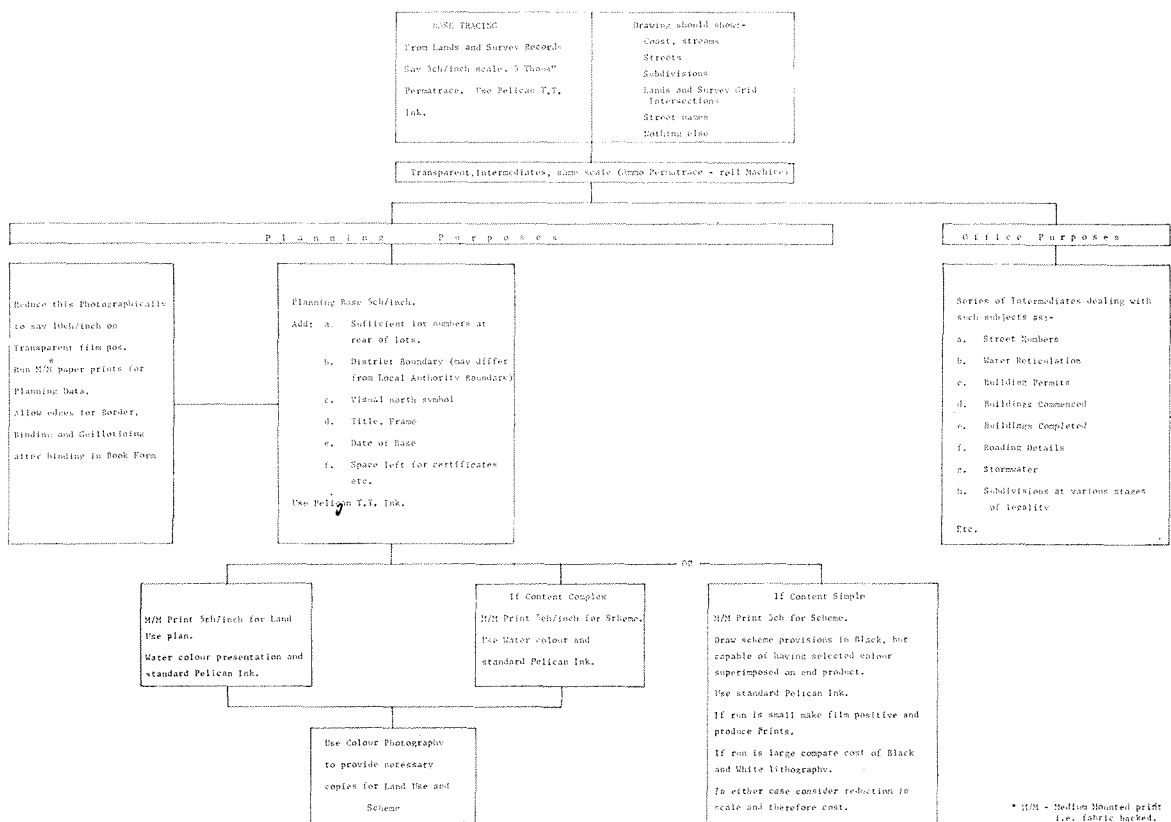
MR. PETER MACK, MNZID, was Chief Draughtsman to the Auckland Regional Planning Authority, and its predecessor, the Auckland Metropolitan Planning Organisation, for some 18 years. For the past two years he has held a similar position with the Planning Division of the Auckland Regional Authority. The quality of the work produced under his supervision has a deservedly high reputation and his experience in district scheme plan production is unlikely to be exceeded in this country.

be, clear and explicit, but, in practice, is often so obscure that the local authorities responsible give the impression either of wishing to mask intent, or are incapable of expressing intent, or, having no intent, are seeking merely to fulfil minimum legal obligations.

Presentation of content tends to be conditioned by the activating motive and will be further conditioned by the available resources in terms of imagination, staff, time, knowledge and, as a synthesis of these factors, money. A truly surprising number of local authorities produce an intelligible result. But John Citizen, having puzzled over all the documents and, having learned intent, acknowledged extent and applied both to his piece of property, recognises that he must now make a

decision as to whether or not he will take any action.

This decision should be made cleanly and coldly — not in any state of mental confusion. I believe that in order to give the maximum assistance to the public, and certainly during the pre-operative stages of the scheme, colour presentation of plans should be employed because of its inherent advantages in demonstrating, graphically, the land-use provisions of the scheme. The post-operative stages, on the other hand, bring their own crop of problems and the multiple production of plans for distribution may point to the use of the more simple and cheaper black and white techniques.



The production of a planning map for a local authority of say 1500 acres could well follow the pattern illustrated diagrammatically above. The full exploitation of uses suggested on the right limb alone should return the cost of the preparation of a new base.

BLACK AND WHITE PRESENTATION

1. Black and white prints via a "roll machine" of the dyeline, oxalid sun variety, are the products of "through" printing from a transparent original having black lines and areas, symbols and text, drawn on a transparent base material. This base may be tracing paper, linen, plastic, foil or film, or it may be a transparent intermediate derived from an earlier drawing. The product will be to the same scale as the original and will be subject to bleaching from exposure to normal daylight.

Further, the product may be paper, or it may be paper glued to a linen or cotton backing, or it may be on "pure" linen. Generally, a straight paper print will give greater contrast and will, therefore, be clearer to read. Fabric-backed or "medium-mounted" prints, on the other hand, will, like the linen sheets, withstand a four-fold subsequent usage.

Almost any commercial plan printing concern, even in the small centres, has the equipment to make this kind of presentation and the costs will be directly related to the physical size of the print and the material selected.

2. Reflex presentation by flat bed, commonly known as copycat or rutherstat, involves equipment consisting simply of a light box of, say, 40 inches by 50 inches, plus developing gear. While there is no technical reason why a larger box cannot be used, it should be noted that sensitised papers have a maximum manufactured width of 40 inches.

The original to be copied may, in this method, be either a transparent or an opaque material such as, for example, cartridge paper. A mirror negative at the same scale is made and from this positive copies are produced. "Medium" weight papers are always used for the negative, but the positives may be on either medium or heavy weight.

The terms "medium document," "heavy document," qualified by "smooth," "rough" or "matt," denote the thickness and texture of the product. The results are not subject to fading and the costs are directly related again to the physical size of the print and the material selected.

3. Photographic presentation may be from a transparent or opaque original and this may even be coloured, but in that case considerable technical skill is required to produce a legible black and white copy. The negative is made on a film base (glass rarely being used nowadays) and the

film is within the range, 4½ inches by 5½ inches to 22 inches by 11 inches, with the larger sizes being known as "sheet negative" films.

Positive prints are produced on a wide range of sensitised material, for example, light, medium or heavy papers with a glossy, smooth, semi-matt, matt or rough texture. Transparencies can be made and can be roll-printed very cheaply.

An additional advantage of this method is that the scale of the original drawing can be changed at no extra cost. There is a basic charge for the film negative and all other costs depend entirely on the size and material of the finished prints. The products via the camera are permanent and those from the roll printer impermanent.

4. Black and white lithography is a cheap process where a large number of copies, say, at double foolscap size, are wanted, but is an economic method when limited prints at a larger format of, say, 20 inches by 30 inches or more, are required. The original may be opaque or transparent; the scale may be changed; the results are permanent. Black and white photography should not be confused with multi-coloured lithography.

General Comments

A prime advantage of systems involving a photographic negative stage lies in the opportunity to vary the scale. Provided that, in the original drawing, the line work, text, notations and scale symbols are carefully designed, a reduction in scale will result in a clear final presentation at an economic physical size for the end product, while preserving for the draughtsman the advantages of executing his work more conveniently and more quickly at the larger format.

It is easy to overlook the fact that halving the scale means quartering the original area, but clean, dense work will retain its definition to the point where a magnifying glass must be used to identify the characters. But, in order to guard against unexpected results, it is a wise and worthwhile precaution to prepare a test sample incorporating all the symbols, patterns and lettering likely to appear in the original — even adding complex, spurious detail — and processing this through the identical steps as those proposed for the completed plan.

It is rewarding to take this test reduction by systematic steps to the stage where definite failure occurs and permanently recording the end result for future guidance in all similar work.

A further advantage of using photographic methods is that unwanted detail may be removed

at the negative stage by covering it with an appropriate black ink or some other photographically-opaque solution. Additions are more difficult and involve delicate scribing through the film emulsion or the use of chemical bleaches and neutralisers.

My own experience in this work suggests that the following should be avoided:

- original drawings larger than 40 inches by 60 inches;
- reductions greater than 4 : 1;
- enlargements greater than 1½ : 1;
- originals lacking in contrast;
- lack of line weight;
- lack of line density.

COLOUR PRESENTATION

1. **Multi-colour lithography.** This system relies upon, indeed demands, separate plans for separate colours. Physical or optical screens may be introduced and one printed colour may be blended with another, e.g., blue plus yellow equals green. Apart from these normal economic techniques, multi-colour lithography depends upon:

- precision draughting technique and material;
- precision camera operation;
- precision lithographic press operation by a skilled crew;
- precision intelligent colour selection/blending dictated by the crew.

The "separations" are provided by draughtsmen in black and white drawings, i.e., each separate colour is dependent upon a drawing, although in certain circumstances separation may be done by photographic means. The greater the number of separations involved, the smaller is the number of final copies, the more intricate the technique employed, the larger the plan size and the greater the cost. I suggest, therefore, that where more than three or four colours are concerned, and those colours are on sheets of greater than, say, 20 inches by 30 inches, colour lithography should be avoided unless the "run" amounts to 200 or more. In terms of present day facilities, techniques and skill, it is, where large numbers of copies are involved, the ultimate tool for plan reproduction.

2. **Limited colour by hand.** The decision to use this system will depend upon:

- the number of copies;
- the amount of detail involved;
- the scale of presentation.

A plan capable of being interpreted in its basic black and white form is prepared and multiple copies are produced by one of the preceding black and white systems. By applying colour manually emphasis can be given to those areas personifying urban intensity, e.g., industrial and commercial zones, main traffic system, street widenings, and the like.

The great bulk of the plan surface relies on the background black and white notation. The system is quite an advance on pure black and white.

3. **Colour photography.** Neglecting colour slide reversals for projection purposes, two systems are available:

(i) Colour positives. These are coloured photographic prints made from colour negative film. (From such negative film, black and white prints and colour transparencies can also be produced.) The colour positives are fairly permanent if shielded from continuous light and the results are visually pleasing. Upon comparing the product with the original, however, colour deterioration will be apparent and, since both the negative and positive materials are multi-layer in composition, masking, etc., in the hope of retaining or restoring colour balance is of limited benefit. Complications are added by the fact that different makes of material have differing characteristics. This tendency is a serious shortcoming in plan work where notations, which may involve several tones or shades of the same basic colour, must be clearly distinguishable in the final product.

A very wide range of makes is available. The cost of the first copy includes the "taking fee" and therefore is high, and the cost of subsequent copies, unfortunately, cannot be substantially reduced because the same expensive multi-layer material must be used. Plan size in New Zealand is limited.

(ii) Three colour dye transfer. A lucid description is given in the British Journal Photographic Annual, 1963, p. 355. The dye transfer process has several advantages over former imbibition processes, chiefly in that the colour prints have improved quality notably because of improved colour saturation. In addition, the technique provides great ease of control, because colour balance can be adjusted and contrasts can be increased or reduced. This is significant. Very briefly, three negatives are made from the plan. They record the red, blue and yellow content of all colours, including black, on the plan. A matrix

film is made of each and the matrices are dyed with their respective colours. The three images, in register and in succession, are applied to a sheet of receptive paper and, red, blue, yellow being primary colours, their blending in combinations of strengths produces a full colour spectrum on the positive. The system enables the use of masking techniques, variable dye strengths, multiple application of an individual matrix, etc. The finished print is absolutely permanent. Corrections can be made to a print by bleaching and re-dyeing manually. Size in New Zealand is limited economically to 16 inches by 20 inches. Cost of first print includes "taking fee," production of colour separation negatives, matrices, masking, colour balance, etc., and is very high. Subsequent copies do reduce substantially in rate.

The British Journal Photographic Annual, 1963, p. 357, notes that: "Normally, of course, prints from colour negatives are made directly on to a suitable colour printing paper. When long runs are wanted, however, it may be cheaper, and will probably be more satisfactory, to use a print process such as dye transfer and to introduce a masking stage in the preparation of the separation negatives." In New Zealand only one firm utilises continuously the three colour dye transfer system.

General Comments

Assuming a plan is going to be produced in colour, either of the colour photographic systems has one great advantage over multi-colour lithography. One single "master" plan is prepared in colour and checked exhaustively. No subsequent work is involved and draughting staff can be moved on to the next productive job. The presentation standard of the "master" plan of the scheme will control the quality of the reproductions. Experience indicates that the plan should:

- have sound black line work;
- be produced on as white a background as possible;
- utilise a notation which provides clear colour differentiations, particularly when tones or shades of the same colour are used;
- have colour washes evenly applied. (Very few colours can be applied uniformly in one coat and every area carrying the same colour should be given the same number of coats. Water colour in draughtsmen's

sticks gives consistent results.)

The final photographs will better survive the inevitable frequent handling if they are mounted on to "Whakatane" board, ivory board or hard-board.

Draughting Aids

Where extensive or frequent symbols are used to denote reservations, designations, zones, etc., consistent reproduction can be assured by the use of contact adhesive film, machine printed, bearing appropriate symbols in black and white.

Zippatone, Craft tint, Letra set are trade names — symbols, patterns, letters, figures are available. Initial adhesion is good on most surfaces. One's own typeset or hand drawn originals can be produced on very thin film photographically and applied using clear acetate type glues.

An excellent system utilising full words and text on adhesive film is used by the Lands and Survey Department in producing much of their work, but the service, unfortunately, is not easily and readily available to offices with substantially smaller resources.

Repetitive use of a plan using the above materials via roll type printing machines will tend to cause creep, shrinkage and sometimes separation of the applied material relative to the base material.

Lack of thought can produce highly disconcerting results.

It is logical, therefore, that when certain materials and processes are to be used, that the first step, subsequent to applying such adhesive material, should be to produce an intermediate bearing the combined record of both base information plus added detail.

When adhesive materials are used in conjunction with a "roll printer" they survive best when applied to the back of the base.

Storing Plans

Perhaps some comment on plan sheet size, handling and storage is not out of place.

Having in mind reproduction systems, machines, sensitised material, sizes, lens aberration, copy-boards, processing tanks, drying cabinets and shrinkage, there is a good case for limiting any sheet to something less than 40in x 60in; 40in x 30in would be condemned by most who actually make, reproduce, record and store plans. (The writer acknowledges applications, in some fields, of micro-negative storage and record systems.)

Consistent use of huge sheets can result from specialised usage, but commonly indicates a selfish utilisation designed to impress by physical size, rather than by depth of visually portrayed comprehension.

Really large plans should be the prerogative of committees.

Plan Amendments

In most instances the production of multiple copies of the scheme plan dealing with "underlying zoning" or diagrams portraying "changes" or "departures" which are virtually inevitable, can be dealt with economically and fairly in black and white.

The former, "underlying zoning," should be at the same scale as the district planning map, and will provide perhaps the most elementary exercise in black and white technique.

The latter, "changes and departures," almost always can take the form of simple black and white diagrams on white foolscap paper. In either instance a symbol is placed on a defined area or a pattern is used to denote the area and words such as "From Residential A Zone to Commer-

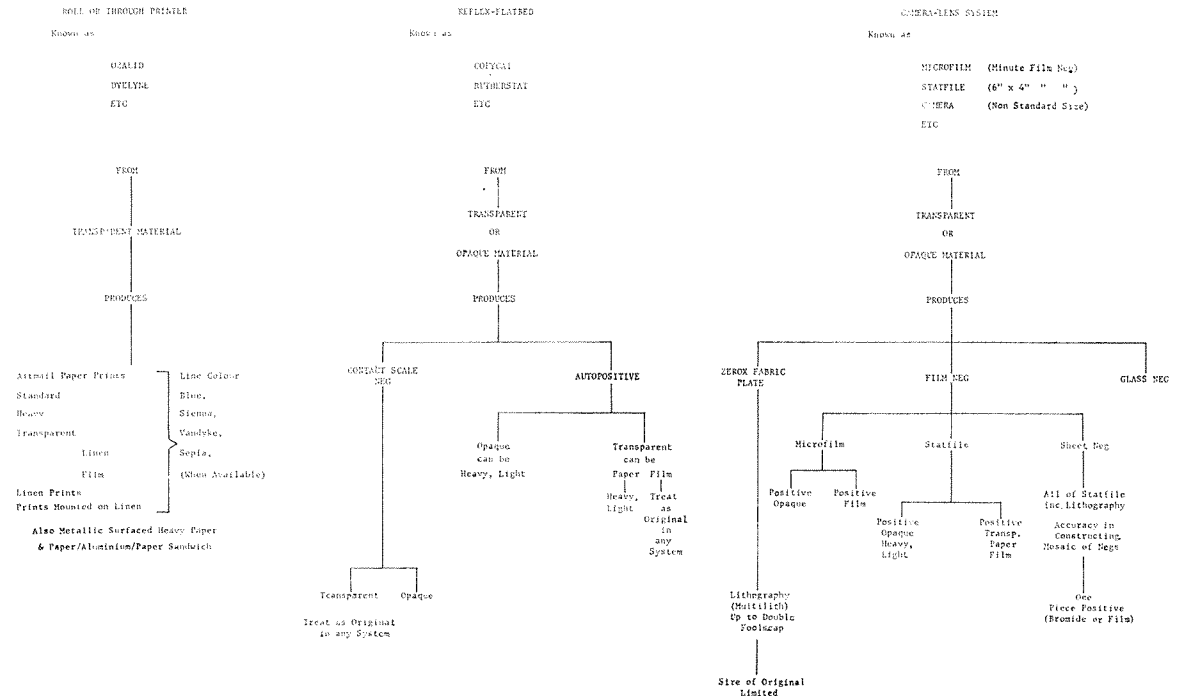
cial B Zone" are typed on the sheet and arrowed in. Xerox (Multilith) copies are produced or an electro-stencil is made and cyclostyled copies run off.

Quite often these changes and departures are so small in extent that they can be depicted helpfully at a scale much greater than that of the original planning map.

Conclusion

Only fairly straightforward systems, whereby acceptable results virtually can be guaranteed, have been described, and many materials, techniques and their flexibilities have not been mentioned.

First class firms handling reproduction exist and a surprising amount of work passes through the post. As in many fields, a preliminary discussion with the responsible technician identifies you and your problem. Provided you state what you have got, what you need to get and how you intend to do it **at the outset**, his criticism will be constructive and competent. If you cannot draw a diagram of your proposed system to his satisfaction, do not start on it.



G. T. Bloomfield

Urban local government

PART 2 — REFORMS & FUTURE TRENDS

"no effective single government [exists] for the clear-cut functional entity — the urban unit of metropolitan Auckland. We have no one voice to speak for it, only a babel of disputing tongues. We have no executive authority that can plan for it and at the same time carry those plans into operation, only a comic opera of overlapping and ineffectual agencies we miscall 'authorities'."

K. B. Cumberland, "Planning for Urban Growth" in R. J. Polaschek (ed), *Local Government in New Zealand* (1956), p. 83.

In the previous article it was noted that the question of larger-scale operation in organisation and finance was a major element in the provision of adequate services in the larger cities of the world. Any proposals to increase the scale of operation involves the fundamental issue of the size of administrative areas. Large scale organisation requires a correspondingly large scale area. Administrative areas which were suitable for the pedestrian city are hopelessly inadequate for the motor age city which has so few restrictions on its sprawling area.

There are several ways in which administrative areas within cities can be readjusted. One way is by a boundary extension of the central city to incorporate all the surrounding urbanised areas. This method has many advantages in that it concentrates administration in the one body. The rural town or city, e.g., Hamilton, may have relatively little difficulty in extending its area into the surrounding countryside, but the central city of a metropolitan area usually faces overwhelming opposition to any boundary readjustments. Local parochialism and pride, the reluctance of the

wealthy suburbs to share their rating resources with poorer areas, together with the indifference of local councillors to projects which would involve themselves in loss of office, are among the many local forces which are usually too powerful to block boundary extensions without State compulsion. Consequently few central cities have had significant boundary changes over the last half century. Brisbane is a rare example of a large city (population 600,000 in 1961) which contains most of the urban area. This was achieved by strong legislation in 1925 when 19 suburban local authorities and ad hoc bodies were incorporated in the city. While boundary extensions have many advantages and certainly result in a tidy administrative structure, there are limitations to their effectiveness. One major limitation is, of course, the lack of permanence of the legal boundary when the urban area is constantly shifting outwards. Constant boundary reviews are necessary with all the attendant problems of legal and legislative action. Another limitation is the danger of extending the boundary too far beyond the urban area and incorporating extensive areas of rural land which have few connections with the city.

Easy compromise

A second way of adjusting the administration to the reality of the urban area is by the establishment of ad hoc authorities which merely administer specialised technical services, e.g., transport, water, sewerage, etc. This method of overcoming the difficulty of providing services for a large number of local authorities within a metropolis has been popular in many new world cities and notably in the United States and Australia. It is often an easy compromise solution, but is not very effective when ad hoc bodies proliferate and nor is it very democratic.

The third approach to changes in city areas is federation — to retain most of the existing territorial local authorities and to superimpose an upper tier authority to provide the city-wide services. Although it is usually very difficult to establish a federal city government it is perhaps one of the best solutions to the dilemma of urban administration. Services for the whole city can be provided effectively and efficiently, while at the same time it is possible to retain some of the community feeling at the local level. The City of Greater New York (1898) and the Municipality of Metropolitan Toronto (1953) are interesting examples of federal city government.

DR. BLOOMFIELD is a lecturer in the Geography Department, University of Auckland. He concludes an article, part one of which appeared in the previous issue.

London is often quoted as a classical example of federal organisation, with the London County Council (1888) providing major services and the metropolitan boroughs administering local services. Some form of federal organisation was necessary in London where the historic central city had never extended its boundaries beyond the 12th century walls. In common with so many world cities the boundaries of the federal city remained unchanged while the electric railway and motor age suburbs spread outwards from London. By the 1930s the inadequacy of the L.C.C. area was realised, but nearly thirty years elapsed before changes took place. A Royal Commission deliberated between 1957 and 1960 and the London Government Act, 1963, finally implemented the modified proposals of the commission. A new authority, the Greater London Council with 32 constituent London boroughs first met in 1965. The number of local authorities within the new area was reduced from 78 and the population administered by the new authority increased from 3.7 million to 8.0 million. The size of the constituent boroughs is now large in scale, even the smallest would be about the equivalent of Auckland City in size of population (about 150,000). Within the new area the City of London remains unchanged, the medieval pageantry and historical and financial connections being apparently too resistant to change. Although the new system is very much larger than its predecessor, it is still probably too small in area for the rapidly growing suburbs of the last decade are hardly included within its boundaries.

Auckland attempt

Auckland is another recent and local attempt at federal government for an urban area. For many decades Auckland has suffered from an excessive number of administrative bodies. In 1963 the metropolitan area contained 32 territorial local authorities and at least 14 major ad hoc bodies. It had been apparent for many years that extensive amalgamation or federal government was necessary when such major public works as the harbour bridge, Manukau drainage scheme and airport were being established. The Auckland Metropolitan Planning Organisation of 1945 and its successor, the Auckland Regional Planning Authority of 1954, were successful examples of co-operation in local affairs and provided some of the basis for the Auckland Regional Authority which was finally established in 1964. In the two

years that the Regional Authority has been in operation, the number of ad hoc authorities has been reduced from 14 to 8, the administration of several major services has been effectively centralised and the scale of organisation has been increased to finance such major city-wide services as the completion of a transportation survey and the purchase of recreation reserves. The Regional Authority is however still experiencing some difficulties. One is a result of its boundaries being drawn too widely, whereby almost wholly rural counties are included within its jurisdiction. The other difficulty stems from its origins as a primarily co-operative venture by the constituent local authorities. These are naturally reluctant to yield significant power to their new creation. Consequently until this question is resolved, the major decision making for the city will tend to be confused by the old parochial thinking of the established authorities. In addition to the clarification of the administrative hierarchy over the whole city, the number of existing local authorities must be reduced. The range of size is incredible: in population from 149,660 (Auckland City 1966) to 1332 (Newmarket Borough 1966); and in area from 153,000 acres (Manukau City) to 182 acres (Newmarket Borough). The North Shore section of the urban area could be as effectively administered by one council as by the present five boroughs and part of a county. And so the number of local authorities could be similarly reduced throughout the city area.

Political background

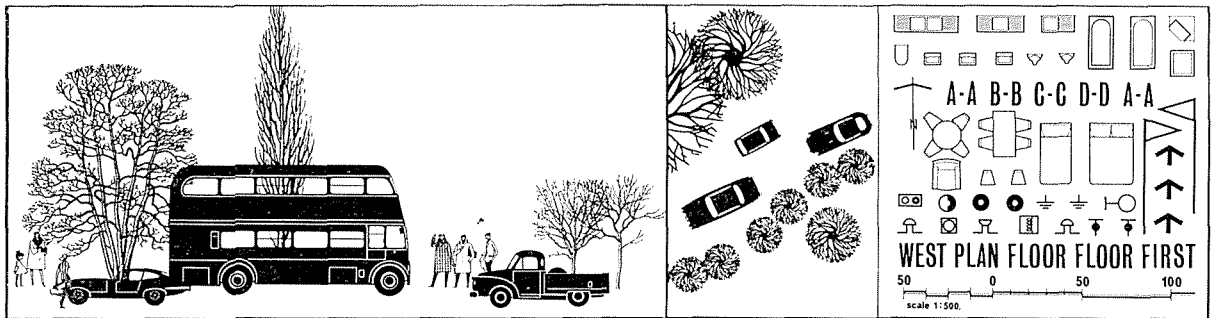
The many problems of local government organisation and areas are partially administrative and technical questions, but are also very strongly linked with the political organisation and background of the local areas and more particularly of the state. Many of the problems could be solved more speedily if the state governments were prepared to act in a radical manner. In most states, however, the central or state government seems reluctant to effect major reforms in city government. This may be partially due to the old fear of the revolutionary and radical political character of cities and when many legislatures tend to be well represented by the farmers and relatively conservative rural communities this attitude would appear to be almost inevitable. The new world legislatures often seem to be reluctant to admit that they are really representing an urban electorate (e.g., New Zealand 64.4% urban, 1961;

United States 69.0% urban, 1960; Canada 69.6% urban, 1961; Australia 79.5% urban, 1961) and even though perhaps much of the historical and cultural heritage of these countries may appear to lie in their rural areas, in the mid-20th century the basis of life and thought is now in the cities. New Zealand's 919 local authorities in 1964 reflect a structure of local government developed in the late 19th century which had a concern for decentralised rural administration. Although the Municipal Corporations Act and the Counties Act have been modified since 1876, the basic philosophy of much of the legislation still follows the traditional pattern laid down nearly a century ago.

The legislative framework for metropolitan government hardly exists anywhere in the world, nor, in many cases, does a framework for reforming the existing local government structure which is failing to meet contemporary requirements. In New Zealand the weakness of legislation for changing local administration is a disgrace. For restored.

twenty years successive Local Government Commissions have made recommendations, only to be rejected by a minority vote of local ratepayers. Despite numerous appeals from committees and Royal Commissions for action, little has been changed by governments.

Throughout the world new forms of local administration and areas must be established. The old medieval systems of government are no longer adequate either for the cities or the rural areas. Perhaps some form of federal local government is the solution, so that the city region can be realistically administered in a manner which takes account of contemporary economic and social life and modern technology. But any realisation of major reforms in local government, and particularly the government of metropolitan areas, will depend ultimately upon the state legislatures so that the balance between the individual rights of the "property-owning democracy" and the community obligations of all city dwellers can be



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Reviews

The Law of Town and Country Planning, by K. Robinson, Wellington. Butterworths, 1966, pp. 241, 55/-.

It is a pity that Mr. Robinson has rushed into a difficult field before gaining sufficient experience. This book is not simply an annotation of the Act and regulations, it is, as Mr. Robinson claims in his preface, a text book — and writing that is a job that involves judgment.

As Gifford has commented in *The Victorian Town Planning Handbook*: "In town planning work, questions of town planning law involve a consideration of town planning practice . . . for practical purposes it is impossible to separate the two in many cases."

Mr. Robinson, however, uses a substitute for an understanding of planning. He has produced a sort of instant pudding composed of scraps from Appeal Board decisions torn from their context and expanded to a completely different scale.

Let us have a look at three examples. In chapter 3, under the heading of Principles of Town and Country Planning, we find the following:

1. "Some housing for workers should be provided in the vicinity of industrial zones." (p. 21) Reviewer's comment: This occurs almost invariably even without planning.

2. "Wherever possible they [service lanes] should be sited so as

to give a straight run throughout their length. 'Dogs' legs' and angle turns should be avoided." (p. 25). Reviewer's comment: 'A straight run' service lane almost invariably never occurs even with planning.

3. "Accordingly, the Board has set its face firmly against the creation of 'spot' zones . . . and will not be diverted from its purpose by the actions of local authorities which permit 'spot' zoning." (p. 27). Reviewer's comment: This is about equivalent to saying that the Crimes Act is against sin.

Now let us have a look at the situations which involve these so called principles.

1. In any large metropolitan area the location and delimitation of industrial zones is usually a most complex problem in which the planning authority is involved in a considerable number of conflicting determinates — topography, availability of services, existing uses, relation to other zones and many more. The journey to work (which itself is a complex matter) is usually only one element in any particular problem of industrial zoning. Usually only a minority of workers living in the vicinity of an industrial zone work in that industrial zone.

2. The design of a service lane is usually a sticky problem complicated by existing shops, by multiple ownership and by lack of finance. A "straight run throughout" would normally be an impractical solution. Anybody can draw two parallel lines on a map, but in design, all the relevant factors must be taken into account, and even when the planner is dealing with an uncompromised site there are always multiple relevant factors. Mr. Robinson's reference to the

Board's decision does not express a planning principle and, divorced from its context, does not correctly express any of the objectives of a practicable design.

3. In its most accurate technical use "spot zone" is a contradiction in terms. (Compare a "void contract" in Salmond and Williams, *The Law of Contracts*: "As a contract is a legally effective act in the law, to speak of a void contract involves a contradiction in terms. The convenience of the phrase may, however, excuse the logical defect.") "Spot zone" has a number of meanings. Mr. Robinson has omitted to tell us which meaning he has intended, but judging from the context it may be that he is using the term in the sense described in Rathkopf (*The Law of Zoning and Planning*) as: "The term is not a word of art; it is a word of opprobrium used by the courts to describe or justify the result which they have reached in a particular situation rather than as a definition of a particular concept of law."

Another meaning is that quoted by Rathkopf: "Action . . . which gives to a single lot or a small area privileges which are not extended to other land in the vicinity. . . ."

Most specified departures under S.35 are spot zones of this kind, and it is certainly not correct to say that the Town and Country Planning Appeal Board has set its face against specified departures.

Because of his failure to understand the scope and nature of planning, Mr. Robinson has not been able to address himself to the many questions of interpretation which a text book of this kind should at least raise,

even though, in the present state of pioneering, no firm answers can be given. For example, no attempt has been made to define the relationship between a regional scheme and a district scheme; to bring together in some coherent fashion variously expressed purposes of planning; to give some useful guide as to the meaning of the sections dealing with compensation; or to indicate the real difficulties in which applications under Sections 38A and 35 are involved.

But every cloud has its silver lining — and even Mr. Robinson's book has some use. It serves as a grim warning to planners to stop the silly habit of elevating to the status of principles, what are, in fact, planning objectives, determinants, or techniques or even only factors or elements of objectives, determinants, or techniques. One cannot blame the Appeal Board for adopting this practice if we follow it. The Board is not a board of town planners — its strength and influence lies in the fact that it is not. But it cannot make silk purses out of unsuitable material and the real value of Mr. Robinson's work lies in the way he has unwittingly reduced some current planning practice to an absurdity. Let us hope that we will profit by it.

—A. D. Hollis

The Delimitation of Urban Boundaries, by G. J. Linge, Canberra. Australian National University, 1965; pp. 147, maps, 1.50 dollars (Aust.).

Planners and other researchers actively engaged in analysing urban problems will be only too familiar with the difficulties inherent in the variations in census

boundaries and definitions. Analysis of the same city over a period of time proves difficult, but when one moves to the national or the international scene the problem of comparability and consistency becomes almost insurmountable. Add to this the complexities of a federal system of government and the variations which exist from state to state within that system and the situation can become chaotic.

Dr. Linge was commissioned by the Commonwealth Statistician of Australia to report on "The delimitation of metropolitan and other boundaries, together with concrete suggestions as to nomenclature, mapping and any other aspects considered pertinent." This review examines the report he presented at the conclusion of his work.

The first third of the report summarises major overseas practices in defining urban areas for census purposes. This is a useful section in that it once more emphasises the complete lack of any standardised technique which can be employed to define an urban area. The only element common to most of the methods is the highly subjective nature of the values utilised.

The remainder of the report deals with the recommendations Linge presents to the Australian government. Briefly, the proposals are to establish a regional boundary for the major urban areas which can remain stable and unchanged for a period of about 25 years — the region being that area which is in intimate contact with the urban mass and which is likely to become largely absorbed in the "bricks and mortar town" during the time the boundary remains significant. There is an obvious parallel between this boundary

and that for the 18 urban areas defined in New Zealand. The second major proposal is to establish a boundary for the existing urban mass, a boundary which can be moved at each census to accommodate any new growth which has taken place on the fringe. In the case of the latter boundary, a comprehensive set of rules and conditions are presented for establishing where the actual boundary should be drawn. Thus, around each major urban area two boundaries will be provided. The first will remain constant over several decades, while the second will be adjusted to include any changes which take place during intercensal periods.

The particular method can be assessed from two points of view — the theoretical and the practical. Linge recommends the figure of 500 persons per square mile as the minimum requirement for an area to be included within the urban mass. In addition, there are numerous qualifications accompanying this figure to allow for different types of land uses and residential densities on the fringe. On these grounds the method can be criticised on the same basis as those used elsewhere. No precise urban boundary has been established. The choice of the variables used are largely subjective and there are no real grounds for justifying a density of 500 as against one of 600 or, say, 1000 persons per square mile.

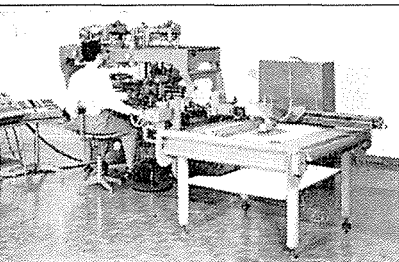
On the other hand, from a practical point of view the report has made a major contribution to the future value of census material in Australia. The acceptance of a standardised method of delimiting the urban mass will make possible direct comparability from state to state at

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any particular census. The regional boundary will remain unchanged over several decades and will provide a useful base for projections and estimates. Within the limits of the time set, the obvious difficulties of disclosure, the need to retain some element of comparability with previous censuses, the practicalities of census taking and the problems of administration, the report is a valuable aid to planning and research in the Commonwealth.

—J. S. Whitelaw

Industrial and Commercial

Development. Papers and discussions from the 77th Annual Conference of the N.Z. Institute of Surveyors, 1965, 142 pp, paper backed, £1.

In 1961 the Surveyors' Institute took the unusual step of organising a symposium on 'Urban Land Development' and publishing the papers. Perhaps the success of this venture encouraged it to reprint the papers and discussions of the conference held last October on 'Industrial and Commercial Development,' a theme with an equally wide appeal.

Speakers examined industrial and commercial development at a number of levels, but when brought together in book form the papers do have the character of a collection of essays rather than of a textbook. This is not a criticism of the conference committee or the speakers, but it makes it difficult to do justice to the papers in a short review. My compromise is to list all the papers and pick out a few of the most interesting points.

Dr. W. B. Sutch, in an excellent paper on 'Directions in In-

dustrial Growth,' examined the influences determining the pattern of our industrial growth from pioneer days onwards, and suggested ways in which the pattern might develop in future under the more potent of these influences — alone, or in association with others introduced through 'policy interference.'

'Policy interference' (in the form of import controls) has stimulated industrial growth in New Zealand, but this growth has never been deliberately directed toward or away from any particular area. (Nevertheless, Dr. Sutch did point out that Government agricultural policy promotes intensive grassland farming which in turn promotes local urban growth. As agricultural targets for the Auckland area are higher than elsewhere part of the future growth of Auckland's population and industry will be attributable to deliberate 'interference.')

Speaking of Christchurch, he thought that if the town could grow really rapidly the whole of the South Island would develop through what economists call the 'spread' effect. He did not comment further on whether the economic well-being of New Zealand would be improved by spreading industrial development more evenly across the country; but he did suggest that the glaringly obvious inequalities of social opportunity in New Zealand could be reduced if, instead of the major part of the population increase of the next thirty years being concentrated in Auckland, it was spread to give a range of towns of 50,000 to 60,000 and others of 200,000 to 500,000.

Mr. J. R. Dart dealt with

'Industrial Location' and Mr. E. W. Cooper with 'Industrial Demand.' Mr. Dart drew attention to three prevalent and misguided local authority practices: the industrial zoning of land unsuitable for anything else for no better reason than just that; the industrial zoning of decaying residential areas around town centres with no supporting action to remodel unsuitable road and subdivisional patterns, and the over-zoning of land for industry in the most unlikely locations (e.g., minor agricultural service towns) which merely depressed the value of the land and inhibited its use for more likely purposes.

Mr. Cooper contrasted the preferences of different types of industrialist. The big overseas firm was interested, in descending order of importance, in zoning, utilities, physical characteristics of the land, transport, labour, other local industries, land cost, land tenure, local authority by-laws, rates, land value trends and availability of executive type housing. The large New Zealand firm apparently often promotes availability of labour and land cost to third and fourth places in the list.

The papers by Mr. S. J. Londish of Sydney ('Regional Commercial Development') and Mr. L. A. O'Donnell ('Commercial Development in Auckland') left no doubt that the style of shopping facility, characterised by suburban location and extensive ancillary parking lots, is what New Zealanders — with their low residential densities and high car ownership ratio — will demand and probably get. Mr. Londish was prepared to be quite categorical about many

aspects of location, design and tenancy of shopping centres — and in an interesting aside on shopping centre management he mentioned the technique of placing a weak trader on a short lease next to a strong trader, to provide room for the strong trader's later expansion.

Mr. R. A. J. Smith's paper on the Auckland Harbour Board's 'Central Area Properties Redevelopment Scheme' took a look at the future form of commercial development in the city centres. Factors new to the New Zealand real estate scene, and experienced in the Harbour Board's scheme, were increased plot sizes; shared access ways, possibly incorporating escalators; foundation, basement, podium and sky rights; public open space maintenance; strata titles, and control of uses to preserve the balance of the development.

'Aspects of Transportation Planning Related to Land Development' by R. Smyth and P. W. T. Bagnall, and a panel discussion on 'Small Commercial Areas' completed the conference agenda.

If as an individual you think £1 is too much for a collection of specialised essays, you should at least try to persuade your planning reference library to get the book — and index it well. All the papers are authoritative and, even better, relate wherever possible to New Zealand conditions. I think the surveyors are to be congratulated on their wide-ranging treatment of an important subject and on their initiative in reprinting the papers as a book. May it sell well.

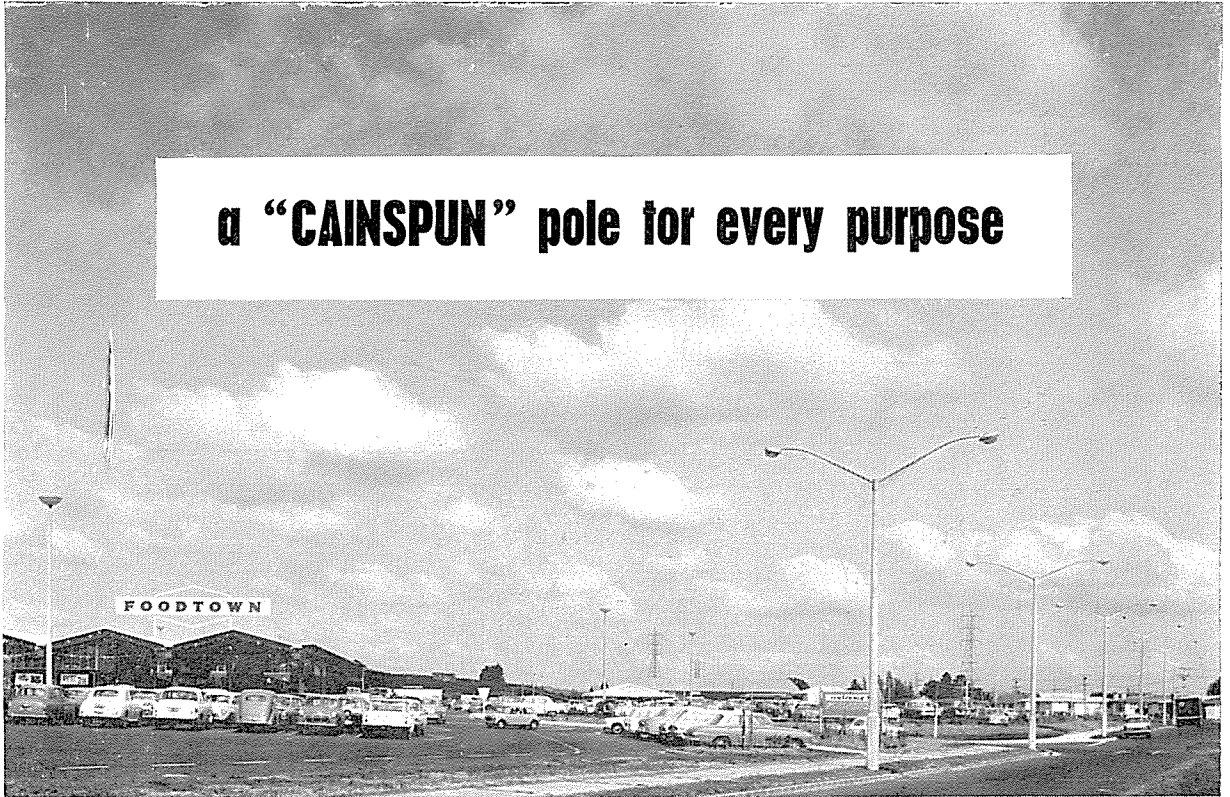
—C. M. T. Brown

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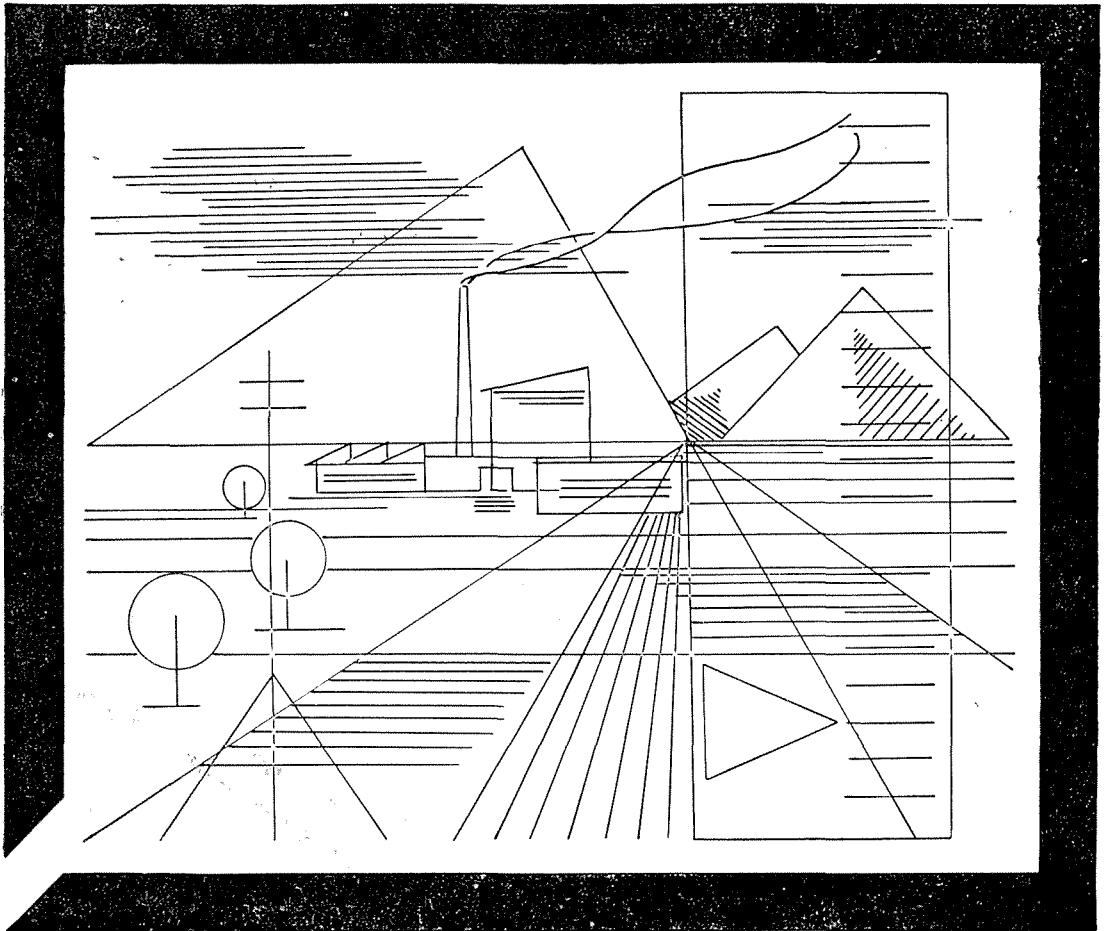
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